



ISSN 1913-9004 (Print)
ISSN 1913-9012 (Online)

International Business Research

Vol. 7, No. 1 January 2014

Canadian Center of Science and Education®

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A Competitive Intelligence Model Where Strategic Planning is Not Usual: Surety Sector in Mexico

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Received: October 23, 2013

Accepted: November 8, 2013

Online Published: December 23, 2013

doi:10.5539/ibr.v7n1p1

URL: <http://dx.doi.org/10.5539/ibr.v7n1p1>

Abstract

Nowadays, the importance of the strategy for an enterprise becomes evident by verifying the changes that characterize its environment. Changes in legislation and regulation models and a greater market fragmentation are clear examples of the threats that lead the change. At the same time, the opportunities that the environment offers through the reduction of entrance barriers and a strong possibility of investment extension have increased. In order to be able to survive in an increasingly competitive environment, organizations must adapt their products to the market. For this to happen, it is necessary that the organization develops a retrieval, analysis and information interpretation process with strategic value about the industry and the competitors in it, which is transmitted to those in charge of the organization at the right time. The objective of this study was to develop a competitive intelligence model in an environment where strategic planning is not common and structural conditions are adverse. The research took place in the surety bond industry in Mexico, and the model obtained allows the surety companies with little strategic planning to know and identify their specific information requirements in order to lead competitiveness in a better way and the quality of their products and services at the same time. The outcome of this study demonstrates that competitive intelligence must suit the enterprise's activity thus overcoming the barriers offered to this practice by the environment.

Keywords: competitive intelligence, surety bond industry, strategy, surety provider

1. Introduction

Currently, in any type of enterprise, one of its most important activities is decision making. In the face of the current competitiveness conditions, information has become an important resource for enterprises, in such a way that uncertainty and risk at the moment of interpreting and making decisions about the competitive environment can be reduced (Broll & Eckwert, 2008). According to Cyert and March (1992), the information about an organization's competitive environment is not accessible if resources are not enough to obtain it and analyze it. In other words, the organization must be prepared to identify the environment's events in such a way that it can convert them into data and organize them adequately in information which, once interpreted and analyzed in the right context, becomes knowledge (Wang & Wang, 2008).

Senior management must have a mechanism that allows it to locate relevant information and analyze it in a constant, timely, and organized way before making a decision. In this context, Biere (2011) mentions that Competitive Intelligence (CI) allows for information's structuring in order to facilitate and improve the quality of decision making, in such a way that the enterprise can upgrade its competitive position. CI is an activity that depends on the context's conditions, since it can facilitate or present unfavorable structural conditions that guarantee a good performance of the activities related to this practice (Álvarez, 2005). A singular context is the one experienced in emergent economies, where the lack of information providers, public and private, does not allow an appropriate CI operation.

A unique context is the one experienced by the surety bond industry in Mexico, as it presents an opportunity to incorporate CI practices in strategic processes of the enterprises that are a part of it. Not because of the fact of

having information and that it just needs to be analyzed, but because the operation processes of surety providers call for significant amounts of information to evaluate, not only their products and the market they are intended for, but they also need information to value each and every one of the businesses held with third parties.

An important factor to consider in this industry is the high concentration of information, which limits the information sources to consult. However, employees and managers usually rely on a large experience in the industry and a wider vision of problems in the organizations. Another problem in the surety bond industry has to do with the association inside the guild which does not cluster the total number of enterprises in the industry; besides, its main purpose is to disseminate regulatory information and not to inform about the industry or the economic environment of the sectors to which they render their services. In this context, starting from the importance of incorporating CI in enterprises' practices in an environment where collecting information has the greatest risk of falling into deception or ethical deficiencies (Swaka, 2001), the goal of this research is to develop a heuristic CI model that takes into account the context and an enterprise's needs for information in an environment where strategic planning is not common.

In order to achieve the objective established for this research, the document is presented in the following manner: after the introduction, a theoretical framework is developed in which the main concepts and models that lead the research are presented. In a following paragraph, the methodology used is shown, describing the different stages that took place during the research. Later, the main results of the research are presented in such a way that results and main conclusions are discussed in the last paragraph.

2. Theoretical Framework

2.1 Business Intelligence

According to Tarraf and Molz (2006), CI is a relatively new and incipient field in literature about management. Miller (2002) mentions that, since it is a new field of knowledge, a solid theory does not exist, and therefore, nor the existence of various concepts. In this sense, Turban (2011) proposes considering CI from the economic and strategic perspectives, since both highlight the importance of information and knowledge in the market as resources and sources of competitive advantage. A simpler approach is the one by Cates, Gill and Zeituni (2007), who consider that CI must analyze the information to the extent that a decision can be made.

On the other hand, Burwell (2000) says that CI uses the public information that is available about the market and competitors, in order to help an enterprise to make strategic decisions, reaching advantages in the business line in which it competes. He avers that CI about competitors includes, among others, collecting information about financial activity, productivity and market positioning of a group of active enterprises in the same field. In this sense, collecting information is not an isolated event that generates intelligence and knowledge by itself, but it is a continuous process of transformation towards a product of intelligence (Williams & Williams, 2007). Besides, this process must be systematized according to the organization's own objectives and needs (Turban, 2011).

2.2 The Purpose of CI in the Organization

The use of CI in an organization may have different purposes, not only to improve its competitive status within the business sector. In a first approximation, strategic planning implies making decisions about the organization's long term goals and strategies and, in that sense, CI becomes an intrinsic part of the planning process (Turban, 2011). Decision making is an inherent activity in strategic planning; that is why Simon and Kenneth (1990) establish in their practical rationality that management is a synonym of decision making and that this will be relevant as long as it can be effective and deliver results.

In the decision making process, an adequate position for a situation in which there is a series of uncertain events must be found. Once the situation faced is determined, it is necessary to elaborate alternative actions and to evaluate possible outcomes considering the uncertainty of each one of them. In this way, decision making becomes a key element to accomplish organizational objectives given the management's need to know relevant elements for the enterprise. There lies another purpose of CI in the organization (Viitanen & Pirttimaki, 2006). The benefits of CI do not only focus on the competitor, but also on other activities from the organization, such as better control, safety, information flow, among others (Liebowitz, 2006).

2.3 CI's Practices in Mexico

According to Álvarez (2005) and Rodríguez (2005), CI in Mexico is an emergent practice that, although it is taking place in the public sector as well as in the private one, there is still a long way to go as far as government policies that enhance its development, as well as the infrastructure and creation of entities to support this activity. Some Mexican companies have incorporated CI practices in their business management methodologies reaching significant outcomes such as: anticipation to future changes in their participation sectors, innovations of high

impact in the market, strategic partners' identification, entrance to new market niches and development of more efficient supply chains (Rodríguez, 2005).

On the other hand, Álvarez (2005) pleads that one of the most significant problems for the CI practice in Latin America is that the majority of enterprises do not list in the stock market, therefore, public information is scarce; the accounting principles generally accepted in countries within the region usually do not require a break down of information per business unit, so that secondary information cannot be obtained in a quick and easy manner. Finally, the wide conglomerate of small and medium size organizations is reluctant to publish its data, hence the absence of independent publications, reliable and perennial, as well as the lack of databases about enterprises and market.

An important fact that has become relevant and that influences CI's adoption, is information technology (Venkatesh, Morris, Davis, & Davis, 2003). In Mexico there are government programs that aim to support the incorporation in information technology enterprises. On top of that, different state organizations that strategically support enterprises in developing Human Resources on CI, as well as in monitoring and analyzing the competitive environment have been developed. On the other hand, there are sectors that are much closed to information, due to the nature of their operations, which makes the practice of CI even scarcer, such is the case of the surety bonds in Mexico.

3. Methodology

3.1 Diagnosis

During the first phase of the research, a diagnosis with the Mexican surety bond industry took place. Given the conditions of access to information, the unit of analysis considered were the specialists in surety bonds, who know the decision making processes inherent to the subscription and keeping of a bail. The sample of surety bonds specialists was formed from the information available to the public from the National Insurances and Surety Bonds Commission. To ensure the simple representativeness two selection methods were used. For the first one, experts working directly in a bonding company were selected, and for the second method, a systematic random sampling was done to select surety bonds agents.

Information collection was done with a measurement instrument which was exclusively designed for this research. For the design of the instrument, a qualitative exploratory study was considered through semi-structured interviews with experts in the surety bond industry. The Delphi method was used in order to find coincidences. By the end of this process a questionnaire of 22 items with closed questions was obtained, using a 5-point Likert scale. Once the instrument was finished, it underwent tests to evaluate if it had the properties that ensured its measurement capacity. It was submitted to a pilot test with 9 experts, selected from a convenience sample to determine the instrument's initial reliability and validity through a stability measurement (test-retest reliability). For this procedure, the measurement instrument was used twice on the same group of experts.

Once the initial reliability and validity of the instrument was determined, electronic surveys were applied to the identified sample. The methodology used for the application of the survey was a combination of survey self-administration techniques. First, group self-administration by groups was posed, and later self-administration through email, attaching the website where the questionnaire was hosted. Sample precision methods were implemented as well as sensibility analysis to control the no response slant. Once the data was collected and the questionnaires were completed, the inverted items were codified and identified to transform the scoring obtained from them, in such a way that they had the same meaning and the same direction of the obtained scoring in the rest of the items.

3.2 Statistical Analysis

Using the database properly constructed, an instrument reliability analysis was performed through the computation of Cronbach's alpha coefficient. Besides, a second reliability test was performed using the split-half reliability method, in which the total items set is divided in two equivalent parts and their scores are compared to determine how large the correlation in both halves is. The final validity was determined through the validity construct, for which a factorial analysis was performed. With this statistical technique the internal measurement unit was examined to determine if the indicators had something in common.

With the structured data and the final validations tested, a quantitative data study was performed through the correlational analysis of the items and an analysis based on the internal consistency criteria. Additionally, descriptive statistics were used to sort and classify data obtained from the questionnaires, which allowed for the simplification of the complexity of the data intervening in the distribution. Likewise, some statistical parameters were estimated, which characterize the frequency distributions. This frequency distributions were in some cases

absolute frequencies, which delivered the number of individuals that present a determined value of the variable, or of the relative frequencies, which delivered the percentage of the population that presents a determined character. At times, accumulated frequency was also useful, in which the accumulated value of the pertaining data smaller than it was observed.

3.3 Generation and Validation of the Proposed Model

The proposed model was designed taking the results of the diagnosis administered to enterprises of the Mexican surety bond industry through the empirical method and was complemented taking as reference strategic planning model (Dimitri & Rodriguez, 2005), competitive intelligence model (Jaworski, Macinnis, & Kohli, 2002), and strategic aligning model (Henderson & Venkatraman, 1999).

To determine the proposed model's viability and effectiveness, a concept test was performed following the established parameters and steps to trace, obtain and provide useful information, capable of becoming CI to evaluate decision alternatives. The concept test was performed in a controlled environment using ten solvency files from trustees provided by the surety provider, as well as the selected software tools for this activity. The process followed is mentioned immediately: 1) Defining intelligence questions for each file along with the surety bond expert; 2) Defining the search patterns; 3) Recovering the documents identified in an unstructured text database; 4) Importing the unstructured base documents to a native XML database; 5) Executing text mining on the documents stored in the XML database; 6) Presenting the information to the expert for feedback; and 7) CI report's elaboration.

The goal of the test was to obtain as much information related to the trustee as possible for each solvency file using test architecture. The issues evaluated were the amount of identified and collected information, the information's validity as well as the relevancy and pertinency of the information gathered. The search and recovery of information was performed using software tools which have the capacity of using different sources of information with several search engines simultaneously. The information cluster was done with the aid of text software techniques and tools to identify the adequate information context and, finally, the information was analyzed to determine whether or not it was relevant.

4. Results

Based on the structured analysis of the information obtained from the semi-structured interviews with experts, 6 dimensions or relevancy areas for the respondents were previously identified, which can be observed in Figure 1. To corroborate that the dimensions identified by the experts agreed with the respondents' latent behavior issues, a factorial analysis was performed.

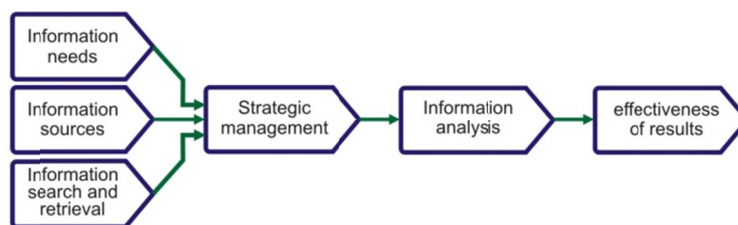


Figure 1. Dimensions previously identified by experts

4.1 Statistical Analysis

Once validated that the measurement variables had the adequate intercorrelation degree (significance) to apply the factorial analysis, the analysis was performed and the following results were obtained: the first element obtained, is the components matrix. The matrix helps to interpret the factorial weights. For these to be clearer, a factor rotation was performed using the Varimax with Kaiser rotation by normalization method (Kline, 1994) and the extraction method was performed through an analysis of the key factors in order to extract the factors according to their relevance in such a way that the first factor explains most of the variance and the next factors progressively explain a lower percentage of the variance (Thompson & Daniel, 1996). In order to understand the dimensions of each one of the extracted factors the description was assigned to the factor according to the variables that integrate it with the same characteristics, which can be observed in Table 1.

Table 1. Dimensions definition according to factors extracted

Factor	Items	Component			
		1	2	3	4
Information collection	P11	0.890			
	P21	0.870			
	P20	0.869			
	P18	0.858			
	P15	0.851			
	P27	0.846			
	P10	0.742			
Information needs	P7		0.924		
	P6		0.921		
	P9		0.888		
	P12		0.847		
Information sources	P26			0.946	
	P25			0.254	
	P16			0.243	
Information analysis	P8				0.426

From the rotated factors matrix the coefficients matrix for the factorial scores was calculated, which determines the weighing that each variable gets. Due to the fact that the extraction of main components method was used for the study, the obtained dimensions are called components instead of factors. By combining each variable with its correspondent coefficients the following four linear equations were built, in which the computation of factorial scores is based:

$$Y1 = .19*(p6) - .24*(p7) + .125*(p8) - .164*(p9) + .088*(p10) + .185*(p11) - .118*(p12) + 0.192*(p15) + .170*(p16) + .189*(p18) + .204*(p20) + .227*(p21) + .055*(p25) - .297*(p26) + .162*(p27) \quad (1)$$

$$Y2 = 0 + .354*(p6) + .389*(p7) - .067*(p8) + .321*(p9) + .054*(p10) - .113*(p11) + .262*(p12) - .066*(p15) - .067*(p16) - .079*(p18) - .094*(p20) - .124*(p21) + .054*(p25) + .075*(p26) - .079*(p27) \quad (2)$$

$$Y3 = +.028*(p6) + .102*(p7) + .001*(p8) + .045*(p9) - .094*(p10) - .031*(p11) + .095*(p12) - .166*(p15) - .035*(p16) - .082*(p18) - .105*(p20) - .114*(p21) + .060*(p25) + 1.116*(p26) + .030*(p27) \quad (3)$$

$$Y4 = +.244*(p6) + .559*(p7) + 1.126*(p8) + .136*(p9) - .015*(p10) + .446*(p11) - .589*(p12) + .122*(p15) - .402*(p16) - .277*(p18) - .201*(p20) - .305*(p21) - .331*(p25) + .347*(p26) - .412*(p27) \quad (4)$$

The factorial scores of each item were obtained by substituting each variable by its corresponding values. Table 2 shows, as an example, the factorial scores list only for the first 10 cases. As one may observe, the scores are in a differential format, so that a “zero” score corresponds to a factorial scoring same as the median, the positive scores are greater than the median and the negative ones are scores smaller to the median.

Table 2. Factorial scores list for the first 10 cases

N	Information collection	Information needs	Information sources	Information analysis
1	- 1.46526	- 0.27597	1.60600	0.39933
2	- 1.46526	- 0.27597	1.60600	0.39933
3	- 1.46526	- 0.27597	1.60600	0.39933

4	- 1.46526	- 0.27597	1.60600	0.39933
5	0.57424	- 0.67739	0.93118	- 2.55062
6	- 0.96705	- 0.40138	- 0.26710	- 0.18356
7	- 1.46526	- 0.27597	1.60600	0.39933
8	0.04531	0.92679	1.13890	1.90136
9	- 1.46526	- 0.27597	1.60600	0.39933
10	0.27545	1.21683	1.22021	0.51619

The model was tested statistically through the adjusted goodness of fit technique, so that the correlations among variables can be deducted or reproduced from the estimated correlations among the variables and factors (Gorsuch, 1983). To be able to observe the adjusted goodness of fit, the reproduced correlation matrix and the residual matrix are offered. If the analysis is appropriate, the majority of the residuals are small. The ideal is that the percentage of residuals greater to 0.05 in absolute value is not greater than 1.86% of the total of the residuals obtained. In this case, just as it can be appreciated in Table 3, a 0.0% existed; therefore, the adjustment was appropriate.

As a complement of the factorial analysis for the diagnosis elaboration, a frequency distribution analysis was performed to identify important characteristics of each group of data. The obtained results indicate that there is a small tendency towards strategic planning among the surety bond industry, since, as observed in the inferential analysis, 71.4% of the interviewed executives displayed a negative attitude towards analyzing the environment or market studies to be able to define the organization's strategy, thus they don't need an organization strategy to define their subscription policies.

Another base to support the lack of planning in the industry corresponds to the organization's external analysis, which allows it to define useful strategies to achieve the organization's goals; in this sense, 74% of the interviewees with a managerial level did not consider the industry's and the environment's systematic follow-up as relevant, which allows them to determine the opportunities and threats found in the environment.

As to the needs for information to make decisions regarding an administrative bail's viability, 100% of the respondents agreed that the information they need to make this decision is generally found outside their organization. Regarding information management, surety providers presented problems for they only use conventional and outdated sources of information, so that 100% of the interviewees agreed that the trustee should not be the only source of information to value the administrative bail's viability.

On bail subscription, the enterprises in the industry have processes to ensure quality in the subscription, considering the client's ability to comply as a base, the backup warranties and the file's assembly. Nevertheless, there are few enterprises that have the sufficient or required technology to ensure and evaluate these considerations, since, in the best scenario, they limit their efforts solely to value the information provided by the client himself.

Table 3. Reproduced correlation matrix

	P6	P7	P8	P9	P10	P11	P12	P15	P16	P18	P20	P21	P25	P26	P27
P6		.972	.567	.956	.815	.581	.914	.698	.680	.682	.667	.618	.790	.079	.647
P7			.592	.952	.802	.583	.885	.688	.652	.659	.646	.594	.766	.085	.619
P8				.590	.808	.931	.519	.880	.802	.834	.849	.823	.767	.386	.805
P9					.836	.619	.924	.727	.723	.722	.707	.662	.823	.140	.695
P10						.856	.849	.904	.906	.913	.906	.876	.930	.319	.896
P11							.617	.915	.893	.912	.918	.900	.855	.463	.902
P12								.732	.799	.781	.757	.724	.891	.281	.784
P15									.911	.926	.927	.904	.898	.349	.908
P16										.958	.950	.935	.950	.489	.968

Residual b	P18											.955	.939	.944	.457	.963	
	P20												.935	.931	.443	.955	
	P21													.908	.456	.943	
	P25														.465	.952	
	P26															.550	
	P27																
	P6		-.001	.000	-.025	-.010	-.006	.000	.007	.004	.002	.004	.004	-.006	.002	.000	
	P7			-.006	-.014	-.011	.012	.001	-.011	-.005	.005	.004	.006	.003	-.002	.001	
	P8				.006	-.010	-.020	.004	-.021	.011	.002	.003	-.004	.002	-.005	.012	
	P9					-.003	-.009	-.008	-.002	.002	-.003	.001	.009	-.007	.001	-.001	
	P10						-.008	-.004	.017	-.008	-.008	-.011	-.012	-.001	.007	-.013	
	P11							.008	-.012	-.004	-.006	-.013	-.002	.010	-.005	.001	
	P12								-.006	-.003	-.004	-.001	-.002	.001	-.003	.005	
	P15									-.005	-.004	-.011	-.014	-.005	.011	-.016	
	P16										.003	-.013	-.026	.001	-.004	.005	
	P18											-.006	-.019	-.004	-.001	.003	
	P20													.009	-.010	.002	-.004
	P21														-.013	.004	-.010
	P25															-.005	.003
	P26																-.006
	P27																

Extraction method: principal component analysis.

^a Reproduced communities.

^b Residuals are computed between observed and reproduced correlations. There are 0 (0%) non redundant residuals with absolute values greater than 0.05.

4.2 Model

The model is assumed by a holistic approach, in which the most important elements are the relationships and the sets formed from them; it also recognizes that the providers in the surety bond industry perform isolated intelligence activities and that one of their main sources of information are the trustees, therefore, this model's implementation keeps these principles and promotes the use of additional techniques and methods that help in the information recovery that will eventually become intelligence.

This proposal underwent valuation of surety analysis and subscription experts, so that they would identify their key elements, the relationships established among them and the factors of various kinds that intervene in their performance. The model was refined using the Delphi method through experts' feedback, just as shown in Figure 2.

Figure 3 shows the model that fulfilled the expectations of 8 experts, which assumes the integration of the elaborated diagnosis by empiric methods as well as the theoretical framework related to the strategic planning, the strategic aligning and the CI model.

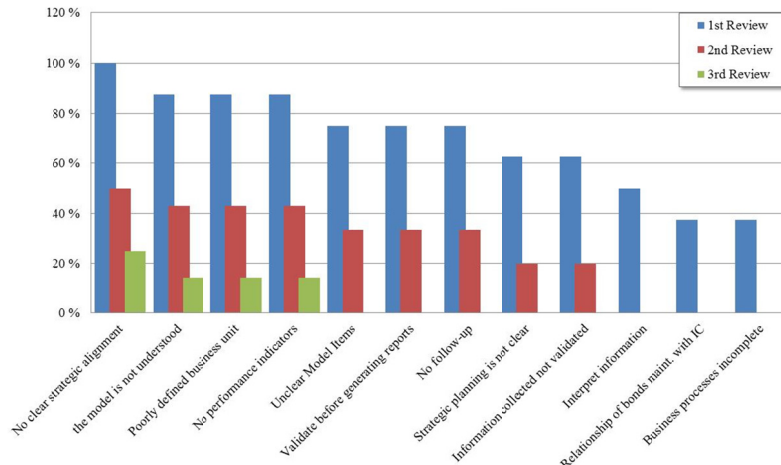


Figure 2. Feedback from experts in the CI model

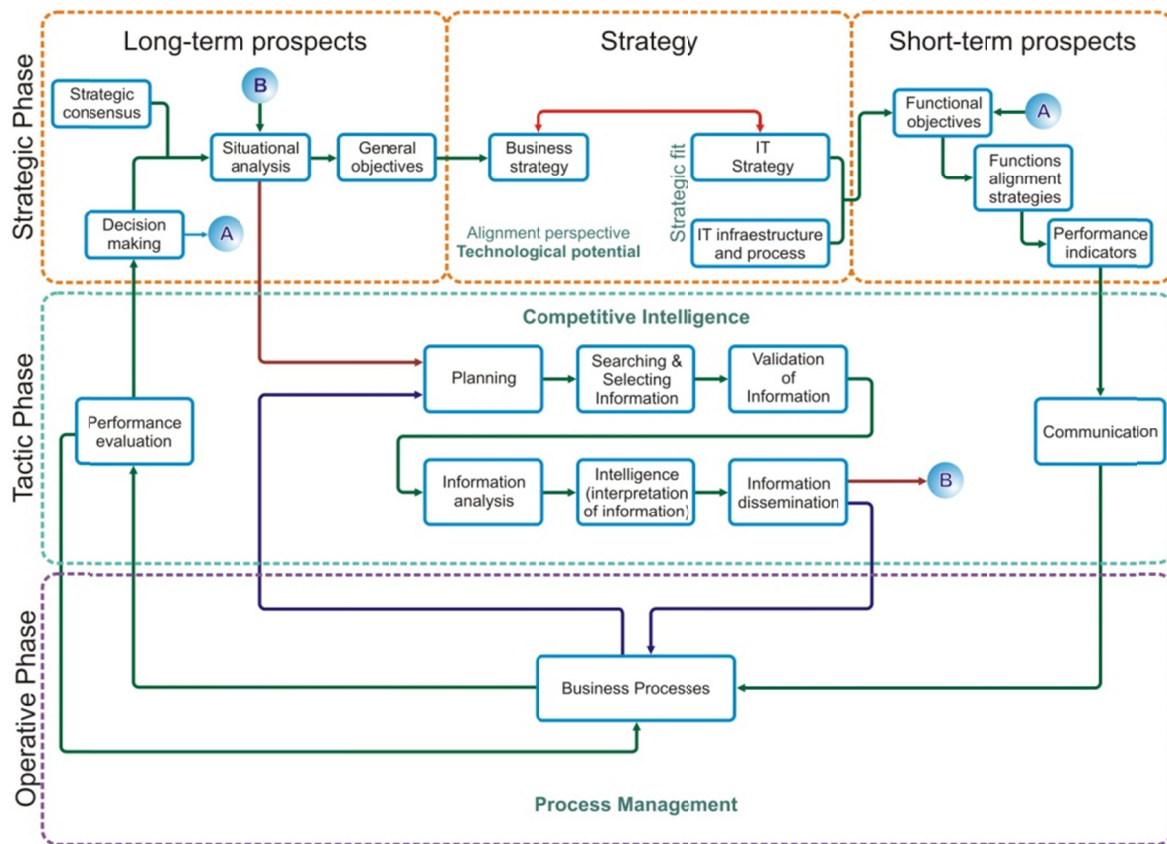


Figura 3. CI generation model

4.2.1 Model Description

The model presents the CI model as integrator between the strategic phase and the operative phase, it also assumes IT involvement from the business strategy formulation, since the later is considered as a bidirectional process in which ITs will support the business and allow for a new business strategy definition. The model allows to use the CI process as a key element in the business strategy, from its conception, using the process to elaborate the situational diagnosis up to the permanent use of the process during the subscription and keeping of the administrative bail, thus allowing to know the competitors' capacities and the customers' needs, substantially

improving the subscription and service quality.

As observed in Figure 3, the model consists of 3 phases. The first one of them, the strategic phase, clusters the analysis functions that define the organization's modes and the surety's operation modes. During this part of the model, the organization works on the defining objectives and its corresponding strategies which will allow it to select the key activities to improve the decision making process and the subscription service and administrative bails' maintenance. The tactic phase of the model considers the actions required for the strategies to be executed. The proposed tactic is the integration and use of a CI process and technological surveillance through an intelligence area that will provide the organization with all the information required for decision making, in a strategic level as well as in an operation level. The last phase, the operative phase, considers the subscribing process as well as the administrative bails' maintenance process.

4.3 Concept Test and Model Evaluation

In order to perform the concept test, the Specific Intelligence Questions (SIQ) were determined from significative events, in such a way that people could disclose more information than that found in the solvency files. The established SIQs for this goal were the following: (1) Have you made any collaboration agreement with any enterprise to launch a project? (2) Do you have formal files or certificates belonging to the trustee (3) Does the trustee or his/her legal representative have any ongoing legal processes? By using the SIQs as context, the search and retrieval for the selected trustees is established. All the documents containing information that can answer the SIQs are sought. The amount of documents retrieved by trustees were the ones shown in Table 4.

Table 4. List of documents retrieved by trustee

Documents	Frequency	Percentage	Valid percentage	Cumulative percentage
A	20	3.6	3.6	3.6
B	110	20.0	20.0	23.6
C	45	8.2	8.2	31.8
D	68	12.3	12.3	44.1
E	59	10.7	10.7	54.8
F	74	13.4	13.4	68.2
G	67	12.2	12.2	80.4
H	45	8.2	8.2	88.6
I	7	1.3	1.3	89.8
J	56	10.2	10.2	100.0
Total	551	100	100	

It was determined that, of all the retrieved documents, 53% of them helped answering the first SIQ defined for each trustee, 47.7% helped answering the third SIQ, and no document that allowed finding an answer for the second SIQ was retrieved. Even when the information search engine had the capacity of grouping documents by context, a manual review by the expert helped determine how many documents were actually relevant regarding the information needs of the defined SIQs. In this sense, it was discovered that only 142 documents, which represent 25.8% of the recovered total, were actually relevant and 74.2% were discarded, either because the context did not fully fulfilled the expert's criteria or because the source of information was not reliable. On Table 5 the document distribution by trustee and the corresponding percentage regarding the total can be observed.

Table 5. Distribution of relevant documents for credit

Credit	Relevant documents	Percentage	Cumulative percentage
A	8	5.6 %	5.6 %
B	30	21.1 %	26.8 %
C	11	7.7 %	34.5 %

D	14	9.9 %	44.4 %
E	23	16.2 %	60.6 %
F	17	12.0 %	72.5 %
G	12	8.5 %	81.0 %
H	9	6.3 %	87.3 %
I	3	2.1 %	89.4 %
J	15	10.6 %	100.0 %

The determining documents and the amount of documents related for the retrieval of documents were the ones used on Table 6.

Table 6. Context used for retrieval of relevant documents

Context	Frequency	Percentage	Valid percentage	Cumulative percentage
Material procurement	3	2.0	2.0	2.0
Obligations fulfillment	37	26.0	26.0	27.9
Award of work,	69	48.8	48.8	76.8
Execution of work	29	20.5	20.5	97.3
Breach of contract	2	1.6	1.6	98.9
Legal risks (criminal or civil)	2	1.1	1.1	100.0

Once the relevant documents to answer the SIQs were identified, they were attached to each trustee's solvency file and were delivered to the surety bond expert to value the viability of each bail considering the new documentation.

The retrieved information for trustees A, B, E, I, and G had no impact regarding the surety bond expert's opinion, that is, with or without this information, the decision of granting the bail will have been the same. Nevertheless, trustees J, H, F, C, and D did present interesting scenarios regarding what was decided with the original sureties at the moment. The surety bond expert's feedback and the context of 2 cases is presented below.

In the case of the bail associated to trustee D, it was originally granted and was claimed due to contract's breach, the surety provider enterprise paid a percentage of the claiming due to an extrajudicial settlement. Unfortunately, the surety provider could not recover 100% of the payment due to the fact that the guarantees could not be enforced completely because of different judiciary problems, according to the surety provider. With additional information to the one on the solvency file of trustee D, the surety bond expert performed the analysis observed on Table 7.

Table 7. Solvency analysis

	Credit D	Credit C
Solvency file context:	<ul style="list-style-type: none"> The surety only provided 65% of the documents specified as a requirement. 	<ul style="list-style-type: none"> The surety only provided 41% of the documents specified as a requirement.
Observations on credit file:	<ul style="list-style-type: none"> Bail was claimed for contract breach. Bail's claim was paid Guarantees were taken but did not cover the amount of the claim 	<ul style="list-style-type: none"> Bail cancelled for obligations fulfillment
Information source of retrieved documents:	<ul style="list-style-type: none"> Distrito Federal Superior court of justice 	<ul style="list-style-type: none"> Attorney General's Office Oaxaca's local newspaper. EL DESPERTAR.

Relevant context:	<ul style="list-style-type: none"> • Does not meet the technical, economic and financial requirements. • It does guarantee compliance with all respective obligations 	<ul style="list-style-type: none"> • Complaint made against the guarantor's legal representative • Allocation of work by the communal Commissariat. The municipal president does not support this work execution.
Feedback from a surety bond expert with the information collected:	<ul style="list-style-type: none"> • It would have made a more exhaustive analysis to determine guarantor's economic and financial capacity. • Would have been good request references from similar projects. • It would have placed before the subscription committee. The subscriber would not have the power to authorize directly. 	<ul style="list-style-type: none"> • It would have placed before the subscription committee. The subscriber would not have the power to authorize directly.

The following case is the one of trustee C. The bail linked to this trustee apparently presents a regular behavior, since it was granted and cancelled because he fulfilled the obligations linked to the contract. However, it is worth mentioning that this trustee was the one who presented the least amount of documents in his solvency file, barely reaching 41% of the specified as required and that in the retrieved documentation two important situations are faced. The first one indicates that the guarantor's legal representative is involved in a very serious legal problem. The second one presents the guarantor executing a work by direct allocation even when the municipal government did not agree with the work wanted to be performed. Without making any judgement regarding the situation, the surety provider may have reconsidered granting the bail if it had had that information when it was required. With the additional information to the one on the solvency file of guarantor C, the surety bond expert performed the analysis shown in the last column on Table 7.

5. Discussion and Conclusions

The research's relevancy lies in the fact that it will allow surety providers with strategic planning work to know and identify their specific needs of information in order to better lead competitiveness and, at the same time, the quality of its products or services. The work that can be performed to implement a CI process works as a base to establish a plan, the obtained planning-oriented working method. To this purpose, two basic axis are considered: on one hand, a situational diagnosis of the surety provider regarding its need for information and its isolated practices for decision making and, on the other hand, the systematization and automatization of the CI process.

Despite the fact that there is a structural problem to implement CI processes in Mexico because of the lack of adequate secondary information sources, the model obtained in this research helps reduce the inconsistencies or gaps in secondary information through a systematic research process and in accordance to the enterprises's nature, in such a way that it serves as a benchmark for those who make decision inside the organization.

In a global perspective, the empirical evidence shows that, in order to perform the surety provider's situational diagnosis regarding their information needs and the use of it, it is observed that a group of them shows a positive attitude towards CI's key factors, which could be because of the management group's executive profile, due to the fact that surety providers with CI values lower than the median, present a management team high in strategic planning strategic planning tasks, even when this practice is not formalized inside the surety providers. Likewise, the empiric evidence shows that surety provider operation processes have 3 out of the 5 proposed CI factors in the theory. In this case, the diagnosis results are consistent with the operative regulations in the industry where it is stated that in order to grant a bail it is necessary to retrieve all the available information so as to evaluate the guarantor's economic and moral solvency.

Moreover, the results show that the information's management in the surety providers is reason for controversy, being that a group of them use information with a strategic approach, while the others use it with a tactical approach in their decision making processes, so they manage information differently. While the first type of information is retrieved and used through electronic media, the second type is retrieved on paper and it is occasionally digitalized; nevertheless, the usual for this type of information is keeping the documents physically in a solvency file organized by guarantor for its later reference. Anyway, the optics of this group of surety providers is

the same, according to the evidence, the information is analyzed just once and with this, a credit line is defined which helps as to grant bails. The information and the credit line are updated until the later is exceeded with a bail, nevertheless, with time, the information is not updated in a systemic manner; therefore, the credit line's objectivity can be compromised even when it is not exceeded by the bail number it supports. Likewise, each information's update is still done in physical documents, whereby there is no data repository that can respond to the surety provider's future information needs.

Regarding the concept tests, evidence was presented regarding the amount of information that can be found for a guarantor using the adequate search context and patterns to answer the SIQs. Not all the retrieved information was useful, nevertheless, that considered relevant for the surety provider helped to change the surety bond experts' analysis perspective either in favor of the guarantor's interests or, in some cases, against them. Therefore, the intelligence information did not define a precise course for the analyst, but it provided him with a scene that was hidden for him and when it emerged it provided enough information for the decision making.

This research's input for the surety bond industry presents two aristas. On one hand, a CI model is proposed to describe the best way to seek, retrieve, and analyze information to turn it into intelligence about different organizational levels. At a strategic level, the variables of the surety bond industry's competitive environment are valued, and at a competitive level, the competitive environment of the guarantors who request a bail is evaluated. On the other hand, the three essential components are established for its implementation in the organization: the process structure, made up of all the necessary actors and resources for its execution; the functions, aligned with the organizational goals and the process, and, last, the strategy, oriented in two fundamental moments of the process, such as planning and design, and the implementation of the identified actions for the competitive improvement as a consequence of the business intelligence.

5.1 Limitations and Future Research Lines

The results of this research should be considered in the light of its limitations. The model arises due to the analysis performed to the financial service industry, due to the fact that the access to information is crucial for a work of this character and Mexico, as a country, has structural deficiencies that restrict the CI practice. Future research documents may consider the possibility of making the model a more including one, in such a way that it could verify the degree of modification the model may go through by including companies that were not surety providers, but that belonged to the financial industry.

This research highly leaned on opinions from surety bond experts, by providing their judgements and valorations, from which subjectivity cannot be completely eliminated. Even yet, as results show, bails were granted when the information analysis may indicate the convenience of not granting them. En essence, the surety bond industry, object of the analysis of this research, can strongly lean on the person's subjectivity, which can go in detriment of the CI objectives. Future models must overcome this characteristic, in such a way that the decision making will mainly be based on the information analysis and not on the individual perception.

Finally, the context imposed limitations to this research, since the lack of information of other means was practically null, nevertheless, that same fact highlights the importance of the result obtained in this research. A comparative study of countries with similar characteristics to the ones of Mexico, may help identify the external agents that impact the practice of CI and, as a consequence, identify patterns that help overcome limitations or hindrances for this practice.

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Measuring the Impacts of Online Word-of-Mouth on Tourists' Attitude and Intentions to Visit Jordan: An Empirical Study

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Received: October 5, 2013

Accepted: November 20, 2013

Online Published: December 23, 2013

doi: 10.5539/ibr.v7n1p14

URL: <http://dx.doi.org/10.5539/ibr.v7n1p14>

Abstract

Reduced consumer trust, both of organizations and advertising, has led to electronic word of mouth (e-WOM) becoming an increasingly popular way of obtaining competitive advantage. e-WOM is especially relevant with regard to tourism, specifically tourists' attitudes toward such destinations. This study explores the empirical and theoretical evidence regarding the causal e-WOM relationships between tourists' attitudes regarding specific destinations and actual intention to travel. In the context of visits to Jordan, we applied SEM technique to examine these relationships. A pre-validated questionnaire was distributed to a convenience sample with response rate of 97.3%. The result revealed that e-WOM communications positively impact tourists' travel intentions and their attitudes toward Jordan as a destination, while a positive effect is found for the attitudes toward Jordan visit on their intention to travel. Managers of travel agency can consider various aspects of e-WOM to encourage tourists to participate in online travel communities and to build such communities, as this will foster trust in terms of visiting Jordan.

Keywords: e-WOM, tourists' attitudes, travel intention, SEM, Jordan

1. Introduction

From marketer perspective now days, Word-of-mouth (WOM) is a substantial subject and key player in marketing. After using a product or service, many consumers share their experiences with that product or service with their friends and family. The influence, and therefore, the effect of this relationship are very substantial. Park et al. (2011) argued that the strength of Word-of-mouth is greater than that of conventional advertising in terms of its ability to create negative or positive attitudes of consumers. The rapid development of the Internet has enabled consumers to easily share their opinions of products or services with a potentially wide audience. Several studies have shown that e-WOM affects consumers' attitudes regarding a wide variety of products and services. Some researchers have noted that one characteristic of e-WOM is that it has occurred within between people could have no relationship between each other or know with whom they are communicate (Sen & Lerman, 2007). The popularity of virtual interactions among tourists has led some researchers to highlight the importance of online WOM in acquiring and retaining tourists in the era of e-commerce (Vermeulen & Seegers, 2009). A study done by Compete (2007) revealed that around one-third of consumers are communicating with message boards, online communities, or forums before making online travel purchases because they believe that online reviews help them make their purchase decisions.

According to Gretzel and Yoo (2008) estimate, over seventy percent of travelers are considered online view from experienced traveler as major information resources when they decide to go abroad for pleasure travel. This statement agrees also by Forrester Research's (2006) who stated that online WOM a key player for traveler. Each year, the total amount of online travel purchases influenced by online reviews is in excess of US\$10 billion (Compete, 2007). An example of a website on which consumers share their travel-related opinions is tripadvisor.com, which describes itself as one of the largest sites for travel reviews, where updated continuously (tripadvisor.com, 2005).

Despite the large amount of marketing research conducted on e-WOM, none of it has focused on e-WOM specifically in the tourism industry or its impact on consumers' choice of tourism destination. The present study shows an empirical examination for the relationships among e-WOM and tourists' attitudes and travel intentions

regarding Jordan. The way in which the Internet has facilitated this form of communication has increased the need to understand how e-WOM can impact consumers' decision-making processes (Park et al., 2011).

2. Literature Review

2.1 Tourism Industry in Jordan

Jordan is widely located as "Westernized" countries in the Arab World. It has become a popular destination for foreigners seeking to live, work, or study in that region (Westernized media in Jordan breaking old taboos, 2012). In 2011, 1.8 million tourists visited Amman (Jordan's capital city) and spent over \$1.3 billion there (Periodical Islamic Chamber Of Commerce & Industry Magazine, 2012), making it the eighth-most visited city in the Middle East and Africa, and the ninth-highest recipient of international visitor spending. The entire Kingdom of Jordan received 8 million visitors in 2010 and \$4.4 billion in visitor expenditure (Periodical Islamic Chamber Of Commerce & Industry Magazine, 2012). Traditionally one of the most politically stable countries in the region, Jordan has recently experienced a high level of economic growth, driven mainly by mining, tourism, and real estate. In 2012, tourism revenue represented 14 percent of Jordan's GDP and increased by approximately 17 percent each year between 2004 and 2010 (Ministry of Tourism & Antiquities, 2012).

Tourism is an important part of Jordan's economy and the national government has made several attempts to accelerate the development of this segment. The Jordanian Tourism Board's National Tourism Strategy 2004–2010 is a strategic plan to boost the country's tourism industry. By 2014, the Jordanian Tourism Board aimed to double its tourism receipts to approximately JOD 1.3 billion, and it also forecast that more than 51,000 new jobs should have been created within the tourist industry by 2012 (see Table 1). The national government has recently cut sales tax on hotels from 14 percent to 8 percent in an effort to protect the country's tourism industry from the impact of the global recession. The tourism ministry also announced that it would ease entry requirements for tourists from India and China.

Table 1. Monthly beds night/arrivals at classified hotels by country group, 2013

Month		January	February	March	Total
Tourists' region of origin					
African Countries	Nights	1266	1556	3767	6589
	Arrivals	571	978	2263	3812
American Countries	Nights	25,336	26,380	37,017	88,733
	Arrivals	15,418	15,442	21,711	52,571
Arab countries	Nights	113,998	102,365	116,720	333,083
	Arrivals	44,182	46,093	51,990	142,265
Asia & Pacific countries	Nights	22,027	24,285	31,710	78,022
	Arrivals	13,317	16,132	17,802	47,251
European countries	Nights	73,530	81,702	137,815	293,047
	Arrivals	32,769	37,712	68,747	139,228
Jordanian	Nights	37,149	59,299	81,730	208,178
	Arrivals	35,799	34,527	49,058	119,384
Total	Nights	303,306	295,587	408,759	1,007,652
	Arrivals	142,056	150,884	211,571	504,511

* Source: Ministry of Tourism & Antiquities (Data up to 31/3/2013).

2.2 Word of Mouth from a Marketing Perspective

A lot of scholar have mentioned in the literature WOM as a key player tool in marketing concept. Sernovitz et al. (2009) noted that people enjoy talking about products and services they have consumed, and they also discuss

the producers and providers services or could provide product. People sometimes often feel proud about consuming a particular product, while other people suggest that others do not consider buying a certain product. Therefore, word of mouth marketing is about earning the positive comments from consumers. Some researchers, such as Tucker (2011), consider WOM to be a key to an organization's success. Tucker (2011) added that consumers, as a whole, are often untrusting of the producer's own advertising, and much more trusting of other consumers.

Because WOM can be positive or negative, some researchers have linked the type of WOM to the satisfaction level. Steinkuehler and Williams (2006) proposed three main theories related to consumers engaging in WOM:

- 1) Satisfied customers share their opinions with others for several reasons, including the following:
 - To draw attention to themselves
 - To reduce cognitive conflict
 - To avoid being negative
 - To appear knowledgeable to others
 - They like to help others.
- 2) Dissatisfied consumers engage in WOM for the following reasons:
 - To warn others
 - To vent their dissatisfaction.
 - To reduce anxiety
- 3) Exceedingly satisfied with those are dissatisfied will be most extreme and therefore have the greatest impact.

WOM communication is an increasingly important topic in marketing these days, as consumers' behavior is becoming increasingly immune to traditional advertising and other marketing communications. Essentially, e-WOM is the same tradition relationship between two or more based on oral, person-to-person communication as a tool, but in e-WOM internet is the based tool for this communication. Obviously, e-WOM is different in that it involves communication over the internet rather than verbal or face-to-face communication.

2.3 Online Word of Mouth and Tourism Industry

The Internet has given consumers many more ways to acquire product information, particularly by considering the opinions of other consumers, and provided opportunities for consumers to share their own consumption-related opinions (Hennig et al., 2004). Recent tourism-related research has shown the influence have a major impact on tourism-related products and services in several countries (Litvin et al., 2008). Bone (1992) argued that e-WOM occurs during the consumption of a product, since individuals are simply sharing their thoughts. Anderson (1998), on the other hand, implied that e-WOM can be positive, neutral, or negative. Several researchers have argued that e-WOM is more powerful than more traditional forms advertising (Tucker, 2011).

Some reports have indicated that the number of visitors who used online to review the other opinion from other experienced consumers in travel for such destination each year runs into the hundreds of millions (Tripadvisor.com, 2006). Up to 84 percent of these visitors are influenced by online and effect their plan and decision for travel (Travelindustrywire.com, 2007). This agrees also by Goldenberg et al. (2001) emphasized that WOM from other consumers has a strong influence on consumer decision-making processes. In (2008) Gretzel and Yoo revealed that readers often perceive other travelers' reviews to be more enjoyable, and trustier than advertisement offered by traveler agencies.

The fact that online reviews from travelers are important information sources, both for travelers and tourism companies, has led researchers to use sophisticated technologies in attempts to analyze and understand online traveler reviews (Ye et al., 2011; Jalilvand et al., 2012). Zhou and Lai (2009) indicate that the amount of online users and blogs by tourists has a significant correlation with the actual number of tourists a destination receives, although there was no significant correlation between the number of actual tourists and the size of travel adviser. Opinions regarding the power of e-WOM vary widely, and most of the prior literature is based on surveys that asked respondents to report the extent to which online reviews impacted their travel-related decisions (Gretzel & Yoo, 2008; Vermeulen & Seegers, 2009). Recent tourism research, in several countries, has shown how much influence positive and negative e-WOM has on tourism products. For example, Morgan, Pritchard et al. (2003) research in a New Zealand context found passive, negative or unfavorable online WOM have a very strong negative impact on a destination's image.

In Dennis et al.'s (2009) conceptual model of e-consumers' behavior, a positive attitude towards an e-retailer will influence the intention to purchase a product or service from that e-retailer. This concurs with Vermeulen and

Seegers (2009) found that increasing in online intention to review other opinion consumer toward such service or product increased and improve the awareness for travelers' attitudes. Castaneda et al.'s (2009) study examined how tourists' attitudes towards certain websites and the Internet in general can help explain attitudes regarding brands and consumer behavior. With these findings, we anticipate that:

H1: e-WOM has a positive effect on tourists' attitudes toward destinations.

H2: e-WOM has a positive effect on travel intention.

2.4 Attitudes toward Destination

Attitude is important due to the power and the ability to predict specific behaviors (Kraus, 1995). Attitude toward a certain behavior has been defined as the level or the stand can represents person's feeling as appropriate or not (Ajzen, 1991), an individual with a more favorable attitude towards a behavior will have a stronger intention to act that behavior (Ajzen, 1991). In the context of the present study, the behavior in question is the intention to travel such destination and the attitude is the consumer's attitude toward the relevant destination. Based on the opinions of the above-mentioned researchers, we anticipate that:

H3: The attitudes of tourist toward Jordan visit positively effect on travel intention.

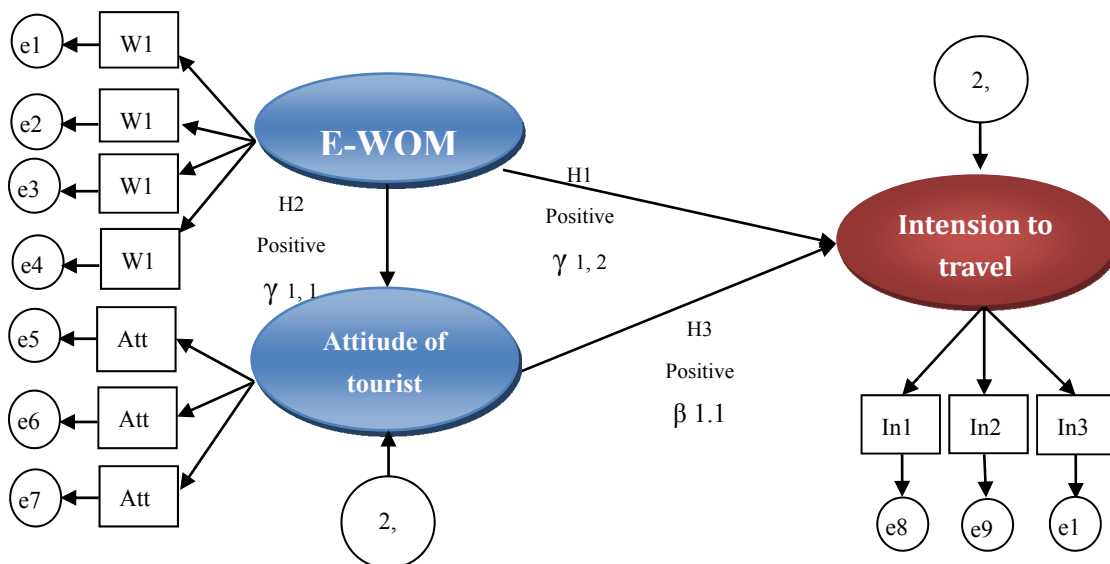


Figure 1. The proposed model (adopted by Jalilvand and Samiei, 2012)

3. Method

Our empirical study was conducted in Amman, which is a popular Jordanian tourism destination. The study's target population was international visitors. Accurate data was not available regarding the size and location of this population, which meant that it was not possible to use probabilistic sampling techniques. Using convenience method for data collection, this study was based. Piloted questionnaire was distributed to 302 participants with a response rate of 97.3%. We gathered our data between June and October, 2011 and administered the questionnaire to the respondents personally. Table 3 shows the sample profile.

3.1 Measurement Instrument

The study's main goal was to investigate the influence that e-WOM has on the attitudes of tourists towards destinations and intentions to travel. With this in mind, we modified certain existing scales. The questionnaire had four parts. The purpose of the first part was to identify the socio-demographic characteristics of the sample, which was done using such items as gender, level of education, age, purpose of travel, primary residence, and previous visits to Jordan. The second part involved questions about e-WOM. The third part dealt with tourists' attitudes regarding Jordan; and the fourth and final part captured travel intentions. We followed Bambauer-Sachse and Mangold's (2011) six-item measurement of e-WOM. We measured attitude using the modified scales that Gamble et al. (2009) developed, which included such items as very bad/very good, very unpleasant/very pleasant, very worthless/very valuable. Then, we measured travel intention by modifying and

using a three-item scale that Jalilvand and Samiei (2012) developed. Our final questionnaire included 12 items and used a 7-point numerical Likert-type scale from strongly disagree (1) to strongly agree (7).

3.2 Data Analysis

We tested the inter-relationships between the research variables using structural equation model (SEM) (version 14) and we also conducted a confirmatory factor analysis (CFA) on measurement and structural models. CFA specifies which indicators define each latent construct (Hair et al., 2006). We evaluated different GOF indices, such as the chi-square (w^2), the standardized root means square residual (SRMR), the normed chi-square statistic (w^2/df), the (RMSEA), the comparative fit index (CFI), and the goodness-of-fit index (GFI). The (w^2/df) is below 3.0 (Abbas et al., 2013), while the SRMR value in a well-fitting model should be lower than 0.05 (Byrne, 1998). An less than 0.08 value for represent good fit (Abbas et al., 2013), while a good fit is indicated by values below 0.06 (Hair et al., 2006). The GFI is an absolute index that measures the sample data's covariance (Byrne, 1998). A CFI 0.95 indicates a good-fitting model; this value takes the sample size into account (Hair et al., 2006; Abbas et al., 2013). In order to measure scale reliability and validity, we used internal consistency measures (Cronbach's alpha) and tested discriminant validity and convergent validity.

4. Results

The overall response rate was 97.3%. Table 2 shows our results after analyzing the demographic data according to the questionnaire.

Table 2. Results of the analysis of demographic data

Demographic Variables	Frequency	Valid Percent %
Gender	Male	68.3
	Female	31.7
Primary residence	Arabian Gulf	18.0
	France	16.3
	Britain	12.9
	Italy	16.0
	Germany	12.2
	USA & Canada	15.3
	Others	9.3
	Age	under 25
26–35		28.6
36–45		35.4
46 and above		22.0
Education	Primary	13.0
	Secondary	40.0
	University	47.0
Number of visits	First time	33.3
	2 times	31.0
	3–5 times	19.3
	Over 5 times	16.4
Purpose of visit	Holiday	62.2
	Medical	16.0
	Business	11.6
	Others	10.2

Table 3 shows the indicator loadings, Cronbach's alpha and AVE values of each construct. For all factors, the Cronbach's alpha coefficients (0.70 and above), and ranged from 0.830 (e-WOM) to 0.869 (travel intention), while the AVE values are all (0.05 and above), and range from 0.782 (attitude toward travel such destination) to 0.799 (e-WOM).

Table 3. Descriptive statistics for all items of the questionnaire

Latent variable	α	AVE
Electronic word of mouth (e-WOM)	0.830	0.782
Attitude:	0.841	0.787
Intention	0.869	0.799

Table 4 shows the correlation coefficients of the study's constructs; e-WOM, travel intention, tourists' attitudes, and the correlations were all significant at the $p \leq 0.01$ level. All of the squared correlations were less than the AVE value for each factor, representing good discriminant validity.

Table 4. Correlations of constructs

Latent variables	e-WOM	Attitude	Intention to travel
Electronic word of mouth	-	0.548*	0.601*
Attitude toward destination	0.548*	-	0.591*
Intention to travel	0.601*	0.591	-

* $p \leq 0.01$.

We then used AMOS 17.0 Graphics for the structural model where also to test the hypothesized relationship between the constructs. We used the results of the maximum likelihood (ML) method to compare structure coefficients between latent variables; as Table 5 shows, the estimation indicated that the model goodness-of-fit (GOF) was good.

Table 5. Hypothesized model (model fit statistics)

Measures		Fit Indices	Threshold Values
Absolute Fit Level	RMSEA	0.048	Less than 0.08
	GFI	0.991	0.90 and Above
	P- Value	0.059	P- Value ≥ 0.05
Incremental Fit Level	AGFI	0.903	0.90 and Above
	CFI	0.981	0.90 and Above
	NFI	0.964	0.90 and Above
	CFI	0.979	0.90 and Above
Parsimonious Fit Level	CMIN/df	1.454	Less than 2.0
	SMC (R^2)	0.698	Bigger better

Table 6 shows the parameter estimates for the relationships between each independent variable and the dependent variable for which the three hypotheses were tested. Our results provided support for the relationships that we hypothesized among attitude, e-WOM, and intention to travel. As a result, hypotheses H1, H2, and H3 were supported. If the C.R. of the estimated covariance among the latent variables was greater than ± 1.96 , we assessed the variables as being significant [the “+” denotes a positive effect and the “-” denotes a negative effect]. All links were both significant and positive.

Table 6. Regression weight for the results of research model (n = 189)

Exogenous variable	Endogenous variable	Es.	SE	CR	p-value
e-WOM	Attitude of traveler toward destination	0.638	0.046	13.960	**
e-WOM	Intention to travel	0.858	0.051	16.788	**
Attitude of traveler toward destination	Intention to travel	0.274	0.041	6.696	*

** p<0.001 level (two-tailed); * p<0.05 level (two-tailed).

5. Discussion

We sought to identify the destination choice processes of the respondents within the concept of internet communications. In our model, the main determinants of the tourists' travel intention were e-WOM and the tourists' attitudes toward the destination. We then hypothesized and validated the impacts of e-WOM using two separate cases: the influence of e-WOM on (a) travel intention and (b) attitude toward destination. Our two hypotheses related to the impact that e-WOM has on the attitudes and travel intentions of tourists. Our third hypothesis referred to the impact that tourists' attitudes had on their travel intentions. We then conducted an experimental survey using newly developed measures that used SEM to analyze 294 survey responses. Ultimately, all three hypotheses were supported, which is agreeing by several previous research mentioned in the literature review. Fakharyan et al. (2012) proposed that e-WOM have a positive influence on tourists' attitudes and travel intentions regarding certain destinations. Furthermore, there is a significant association between attitudes toward these destinations and intention to travel. This sentiment is similar to that of Jalilvand et al. (2012), who found that online WOM accurately reflects consumers' travel intentions towards a destination. Barbara and Vesna's (2006) model shows that satisfied tourist tend to use e-WOM to communicate with other persons their experiences nevertheless positively or negatively and tend to travel to such destinations again.

The results of the present study have several implications with practical importance. Tourists who articulate e-WOM provide an actual situation have faced by them in such destination where can transfer these experiences by telling other people through the online net and provide a base for people who are searching information for more understanding the destination's selected. Tourists who decide to travel to a certain destination may come to rely on e-WOM can have (Lewis & Chambers, 2000). Indeed, manager need realized which types of experience are likely to trigger positive e-WOM. When tourists have a positive experience of a service, product, or other resource provided by a destination, they may visit again and communicate positive e-WOM regarding the destination to other potential tourists. If a destination provides an enjoyable travel experience and excellent services, this is likely to encourage altruistic behavior from tourists toward the destination and to arouse a psychological desire among tourists to share their positive experience with others online.

Managers can also help build online tourism communities. The main forum for travelers to exchange information online is in the community of the tourism service's website; as travelers may communicate freely about their own travel feelings and factors such as the service provided by a restaurant or hotel. The e-WOM information in such communities differs from that on the tourist enterprise's own website in that they facilitate multi-directional information exchange and generally lack commercial motivation (Zhu & Lai, 2009). These are reasons why e-WOM has greater influence on the decisions of tourists than the tourism enterprise's own websites. Therefore, a tourism enterprise should establish discussion communities on their websites where tourists can conveniently exchange their opinions and promote the tourism enterprise through e-WOM. Managers should encourage travelers to participate in the online community because a high number of reviews of a destination will lead to more information about the destination being disseminated among potential tourists, which will increase the likelihood of them selecting that destination. Given that e-WOM as a key player as the source of data or information could for tourists' perceptual/cognitive evaluations, tourism services should identify ways to facilitate tourists' use of e-WOM. The shift in consumer's behavior—that is, the construction of a shield against traditional methods of marketing communications—has made it even more important for marketing communication to understand e-WOM communication. Marketers in tourism sector should recognize that their potential consumers are increasingly using online resources and are therefore should consider it seriously in their marketing strategy.

6. Conclusion

This study has examined the impact that e-WOM has on tourist attitudes and travel intentions. Our findings have shown that the impact of e-WOM on tourists' attitude towards such destinations like Jordan, and their

consequent travel intentions, is significant. We considered how e-WOM impacts attitudes regarding destinations and travel intentions, which enabled us to identify the decision-making process and, in so doing, offer a rationale for tourists' travel behavior with regard to online communications. The present study has certain limitations. Firstly, although we have attempted to reach some conclusions the convenience sampling method in the questionnaire meant that we could not consider the sample for all tourists. Secondly, our study was conducted only in Amman, so future studies should be conducted in other parts of Jordan. Another area for future study is to identify the factors that may affect e-WOM, as well as the new dynamics and behavioral implications on travel behavior that e-WOM has created.

Acknowledgements

Thanks to all persons who assist in distributing questionnaires and special thanks to Queen Alia Airport staff in Amman who support me to distribute and collect the questionnaires used in the studies.

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The Culture Shock and Cross-Cultural Adaptation of Chinese Expatriates in International Business Contexts

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Received: October 18, 2013

Accepted: November 13, 2013

Online Published: December 23, 2013

doi: 10.5539/ibr.v7n1p23

URL: <http://dx.doi.org/10.5539/ibr.v7n1p23>

Abstract

This thesis aims to investigate the influential causes of culture shocks experienced by Chinese business expatriates, and meanwhile to reveal their difficulties in the cross-cultural adaptation in international business contexts. The research was conducted on the base of a semi-structured interview and an on-line survey among 80 Chinese business expatriates who came from a wide range of corporations and organizations. Through a quantitative-and-qualitative analysis, eight major influential causes of culture shock were identified, namely, business communication, language, individualism, collectivism, power distance, time orientation, religion, and tradition. The study also found that all Chinese expatriates encountered some cultural shocks in international business context and were greatly affected by communication, language, religious and traditional issues. The study further revealed three major difficulties in the cross-cultural adaptation: poor adaptability of business communication, language barriers and heavy pressure from work duties. Finally, based on the findings, several effective measures for a better cross-cultural adaptation were proposed.

Keywords: culture shock, cross-cultural adaptation, business contexts, Chinese expatriates

1. Introduction

In the current age of economic globalization, more and more business expatriates have been sent for cross-national investment and overseas operation. However, the expatriates' adaption is not always successful in a culturally different environment, since they are supposed to adjust to both of the local working environment and the life environment, which are unusually very different and challenging. It is reported that the expatriation failure rate is estimated at 15–50%, and the average estimated monetary cost of an expatriation failure is placed from \$200,000 to \$1.2 million (Selmer, 1998; Black & Gregersen, 1999; Graf, 2004). Among the various reasons that could lead to expatriation failure, the cross-cultural factors may have contributed a large proportion. Generally, business expatriates are confronted with a new world of cultural pattern, and their main challenges compose of having to understand these different assumptions and values in the new cultural environments and to find ways to get reliable information and expertise (Black & Gregersen, 1991b; Janssens, 1995). Due to the high frequency of expatriation failure and the associated costs, most studies on culture shock and expatriates' cross-cultural adaptation (Ward & Kennedy, 1996; Aryee & Stone, 1996; Shaffer & Gilley, 1999; Selmer, 2002) are necessary, especially for the international business.

This research presents an empirical study on Chinese expatriates, and aims to answer the following questions:

- What are the influential causes of culture shocks experienced by Chinese expatriates in the international business contexts?
- What is the current condition of Chinese expatriates' cross-cultural adaptation in the international business contexts, and what are the major difficulties for them on the cross-cultural adaptation?

The paper begins with a focused literature review on the key concept "culture shock", presents the models of cross-cultural adaptation, and then explains the causes of culture shock in the cross-cultural adaptation process. Next, an empirical study based on a semi-structured interview on culture shocks and an on-line survey on Chinese expatriates' cross-cultural adaptation are conducted to find out key factors that will cause the culture shocks. Both quantitative and qualitative analyses are carried out on the data collected, followed by a tentative

discussion of research findings. Finally, suggestions of the effective approaches are made for a better cross-cultural adaptation.

2. Literature and Study Review

Cultural shocks have been studied in various intercultural communication researches by many scholars. A better understanding of what is culture shock, how to adapt to an alien culture and what cause difficulties in the process of cross-cultural adaptation will serve as the guided tool for the present research.

2.1 Culture Shock

The term culture shock, first introduced by the anthropologist Kalervo Oberg, is defined as “the anxiety that results from losing all the familiar signs and symbols of social intercourses which include words, gestures, facial expressions, customs, or norms acquired unconsciously in the course of growing up” (Oberg, 1960). From a theoretical perspective, culture shock is described as “the stress induced by all the behavioral expectation differences and the accompanying uncertainty with which the individual must cope” (Black & Gregersen, 1991). Furthermore, Solomon (1994) refers to culture shock as “an emotional and psychological reaction to the confusion, ambiguity, value conflicts, and hidden clashes that occur as a result of fundamentally different ways of perceiving the world and interacting socially between cultures”. Therefore, culture shock means depression, serious physical reactions, anger, aggression toward the new culture, and even total withdrawal, and all these reactions would obviously hamper intercultural communication (Samover, Parter, & Stefani, 2000).

On the whole, culture shock can be described as the anxiety or stress an expatriate feels immediately due to the unfamiliarity of social practice in the host country. A big challenge faced by expatriates is that those who are inadequately informed of the host country’s culture or unaware of cultural difference are most likely to fail in the international business. Culture shock may occur at various levels such as an explosion of anger, frustration, depression, and homesickness (Black & Gregersen, 1999; Harison, 1994).

2.2 Cross-Cultural Adaptation

Cross-cultural adaptation is a process of acclimatizing to the demand of a new cultural environment, which means both changing perspectives and reconciling beliefs to the host culture. It is more about sensitivity, understanding, reaction and anticipation. In general, there are four broad streams on the cross-cultural adaptation process. The most dominant over the last 30 years has been the U-curve theory of cultural adaptation (Lysgaard, 1955) that regards the starting point for an expatriate as being on a honeymoon high, followed by a bottoming out resulting from cultural maladjustment and finally a climb up and out to cultural acceptance and adaptation. In contrast to the U-curve model, cross-cultural adaptation is essentially conceptualized as a learning process with a classic arithmetical learning curve, which means that expatriates are initially very ignorant of the new behavioral and cultural norms and must acquire the socio-cultural skills both by learning new culture and participating (Taylor, 1994). The third approach describes the cross-cultural process as the culture adaptation of learning and recovery from ethnocentrism to ethno-relativism, which means that an expatriate experiences a step-by-step psychological journey from the periphery of a culture to the centre, from a state of ignorance and resentment to a position of understanding and empathy. The fourth approach considers the cross-cultural adaptation as a dynamic and cyclical process of tension reduction, which is also defined as a homeostatic mechanism model (Chapdelaine & Alexitch, 2004).

With the recognition of the complex process of cross-cultural adaptation, such important elements as individual adaptation strategies, cognitive factors and the facts that people thrive on stress are further studied. Redmond and Bunyi (1993) offer a communication model which focuses on intercultural communication competence. Gabel (2005) investigates the importance of Emotional Intelligence in shaping the expatriate’s cross-cultural adaptation competence. Davis (2001) suggests six stages of cross-cultural adaptation process, namely, excitement, confusion, frustration, effectiveness, appreciation, increased cross-cultural competence. Mitchell and Myles (2010) modify the stages of cross-cultural adaptation and point out that cross-cultural adaptation should be a time-bound process to the expatriates. Though cross-cultural adaptation may be a challenging and stressful process, it is undoubtedly critical for all expatriates to succeed in the international business contexts.

2.3 Causes of Culture Shock in the Cross-Cultural Adaptation Process

In review of empirical researches on culture shock, Miller (1986) concluded ten causes of culture shock: climate, dressing code, language, education, eating habit, infrastructure, religious belief, entertainment, family life and courtship. Windham International (1999) identified three influential causes for “assignment failure”, namely, partner dissatisfaction, family concerns, and the inability to adapt. The research also indicates that the major challenge for expatriates is to cross cultures successfully, in other words, the inability to adapt is one of the

biggest barriers for expatriates. Most symptoms concerning the culture shock have been examined that those threats to the sensitive areas of confidence, ego, and self-esteem can cause extreme reactions related with the cross-cultural adaptation (Sappinen, 1993; Kohls, 2001). Feichtinger and Fink Adler (2003) found that the cross-culture adaptation process would prolong for a long period of time if it could not properly be dealt with the causes of culture shock. Moreover, Xia (2009) claimed the necessity for understanding cultural diversity and cross-cultural communication as a global issue in a cross-cultural adaptation process. In the recent decades, the issue of culture shock has become dominant in cross-cultural adaptation studies and has been incorporated into many pre-departure training programs for expatriates (Murdon & Kaciak, 2011).

Besides all the studies on cross-cultural adaptation which take one or several specific factors as their subject, Ward and Kennedy (1992) made a more systematic study in which two key types of cross-cultural adaptation were presented: psychological adjustment and socio-cultural adjustment. In her study, she found that psychological adjustment was broadly affected by personality, life changes, and social support, while socio-cultural adaptation was broadly influenced by factors such as social interaction with host nationals, length of stay in a new culture, cultural identity and cultural distance (Ward & Kennedy, 1992). Later, Ward (2001) developed a self-contained system about cross-cultural adaptation. The questionnaire developed by her, Socio-cultural Adjustment Scale (SCAS), covering both macro and micro factors in cross-cultural adaptation, has very practical meaning for cross-cultural adaptation.

However, in most researches on culture shock, the body of literature review seems anecdotal or descriptive in nature. The concept of culture shock is often mentioned tangentially, as part of the broader topic of expatriates' cross-cultural adaptation (Munford, 1998). Furthermore, many studies on cross-cultural adaptation stress the importance of the communication ability in a culturally appropriate way. Taking the implications of culture shock and cross-cultural adaptation into consideration, it is somewhat surprising that there are few empirical studies on the expatriates' experience of culture shock or the difficulties expatriates encountered in the cross-cultural adaptation process.

3. Methodology

The main objective of this study is to identify influential causes of culture shocks experienced by Chinese business expatriates, and further to reveal their difficulties in cross-cultural adaptation in the international business contexts. Figure 1 shows the research structure which consists of two major parts, the semi-structured interview and the on-line questionnaire. As is presented, the research structure is designed with the theoretical

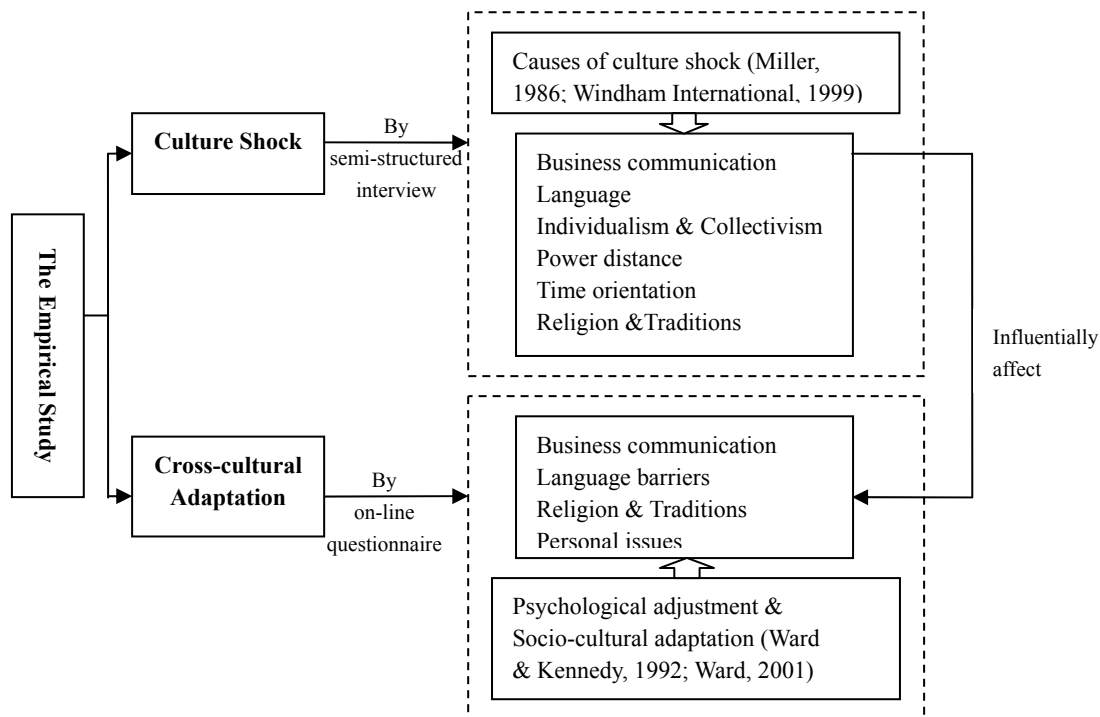


Figure 1. Research structure

basis of studies on causes of culture shock (Miller, 1986; Windham International, 1999) and Ward's study on psychological adjustment and socio-cultural adaptation (Ward & Kennedy, 1992; Ward, 2001). Because there are numerous causes which can exert influences on cross-cultural adaptation, this thesis focuses on several influential ones in the discussion. Accordingly, the semi-structured interview was conducted as a pilot investigation with the purpose of finding out major influential causes of culture shocks. Based on the interview, an on-line survey with the questionnaire was further carried out to investigate the current condition and difficulties met by Chinese expatriates' in their cross-cultural adaptation.

The respondents were chosen from a wide range of corporations and organizations to reflect the true international business contexts. All the respondents in the survey were Chinese business people who were once expatriates or who were experiencing a cross-cultural assignment at the time when the survey was conducted. Also, an attempt was made to have a broad distribution across the demographic categories of gender, age, and education. In the pilot interview section, 15 respondents participated in the research, and with their consent, they were asked whether they had met with culture shock in the international business, and were also allowed to reflect upon the incidents of culture shock in the host country. In the on-line questionnaire section, totally 80 respondents participated in the research, and finally 63 eligible questionnaires were obtained, which accounted for 78.75% response rate.

Considering that all respondents were Chinese, both of the interview and the online questionnaire were made in Chinese version to help them with a better understanding of each item in the survey. The questionnaire was focused on the cross-cultural adaptation process and designed on the base of the findings in the interview part and the studies on the psychological and socio-cultural adjustment (Ward & Kennedy, 1992; Ward, 2001). It included two major sections. The first section of personal data concerned about demographic information such as gender, job position, age, expatriation experience, length of stay and etc. And the second section of cross-cultural adaptation process covered several key internal and external cultural factors and personal factors, including: business communication, language barriers, religion & traditions, and personal issues. All questions were rated by the five-point Lickert-type scale with five standing for well adjustment (see Appendix II).

4. Findings and Discussion

4.1 Major Causes of Culture Shocks: Interview

Respondents in this research were all personally influenced by culture shocks in different host countries. Based on the interview, we built eight major causes of culture shocks listed as follows: business communication, language, individualism, collectivism, power distance, time orientation, religion and traditions. By comparison, we found four causes, communication, language, religious and traditional issues, affected the respondents greatly in expatriation, while causes such as power distance, individualism and collectivism didn't affect them much (See Figure 2, and Appendix I).

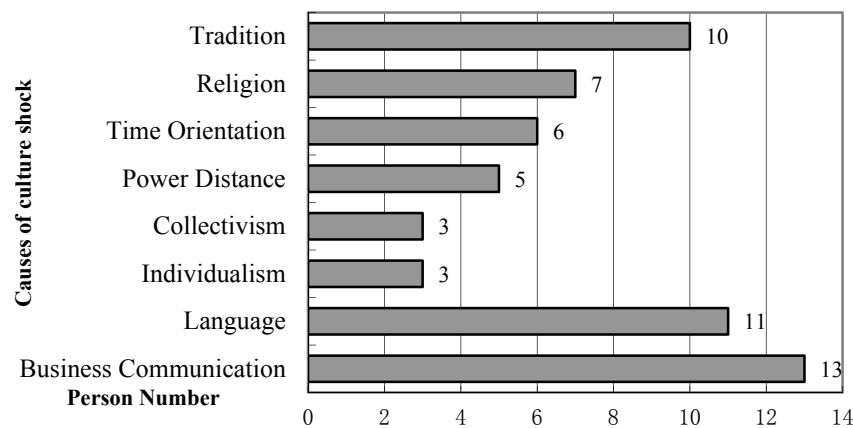


Figure 2. Culture shock

According to Figure 2, the study highlighted the problems on communication and language in cross culture. In the pilot interview, a majority of respondents talked about their culture shock experience in communication, language, tradition and religion, among which business communication ranked first (N=13), language ranked second (N=11), tradition ranked third (N=10), and religion ranked fourth (N=7). Specifically, the issues of

misunderstanding, words confusion, grammatical mistakes, thinking modes, personal spaces, eye contact, and straightforwardness in communication were frequently mentioned by the respondents. Moreover, it also confirmed that cross-cultural communication in the high context differed from that in the low context. For example, in those low-context countries such as Germany and U.S., verbal language and explanations appeared to dominate in the business communication, whereas in those high-context countries such as Japan and Singapore, body language and facial expression were paid more attention to in the business context.

It was also found from each cause that religion and traditions represented two key issues to affect the expatriates' cross-culture adaptation, as two causes were highly related. In the interview, many respondents mentioned about their overseas experience concerning with different religions, most of which were positive to their cross-cultural adaptation. It was perceived that behavioral gap from different religion and tradition might explain the current difficulties in cross-cultural adaptation. Though many culture shocks were resulted from the differences between Chinese Confucianism and the western culture, it was found from the interview that Chinese expatriates were interested in dealing with those culture shocks and regarded them as their amazing experiences.

Regarding time orientation (N=6), some respondents mentioned that they felt a bit frustrated with working efficiency in certain host countries, for instance, Russia, Brazil and Arab countries. In contrast, in those western-cultural countries as UK, Germany and U.S., emphasis on the efficient use of the time to accomplish tasks brought the working pressure to expatriates, but on the other hand, it positively encouraged a better cross-cultural adaptation for them in the business contexts.

4.2 Findings on Difficulties in Cross-Cultural Adaptation: Questionnaire

Based on the findings of both the culture shock interview and the studies on the psychological and socio-cultural adjustment (Ward & Kennedy, 1992; Ward, 2001), the on-line questionnaire (see Appendix 2) on the cross-cultural adaptation was finally made to cover four major aspects including 14 items, with the purpose to further investigate the current condition and difficulties of Chinese expatriates' cross-cultural adaptation. Both the collected data and results from the quantitative analysis are listed as follows (see Figure 3 and Table 1).

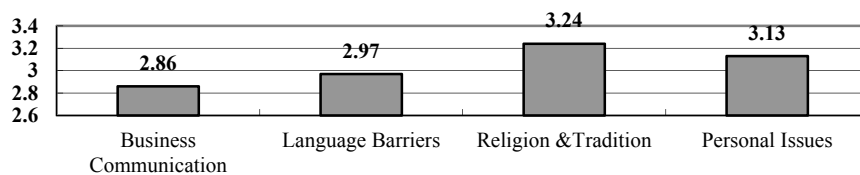


Figure 3. Cross-cultural adaptation

Table 1. Cross-cultural adaptation level of Chinese expatriates

Categories	Items	Mean	SD	Mean in Total
Business Communication	Business presentation/reports	3.71	0.847	2.86
	Difference in communication style	2.46	0.866	
	Difference in business management	2.29	0.885	
	Understanding of faculty staff	3.00	0.921	
Language Barriers	Understanding social language	3.45	0.952	2.97
	Speaking in business conference	2.20	0.899	
	Reading business documents	3.25	0.879	
	Writing business reports	3.00	0.902	
Religion & Tradition	Tradition	3.89	0.543	3.24
	Religious concerns	3.72	0.687	
	Racism	2.50	0.816	
	Time orientation	2.85	1.034	
Personal Issues	Loneliness/ isolation	3.50	0.895	3.13
	Pressure from work duties	2.75	1.237	

Both Table 1 and Figure 3 showed the cross-cultural adaptation level of Chinese expatriates in the international business context. According to the statistics, business communication and language barriers were two major difficulties in cross-cultural adaptation for Chinese expatriates, since the adaptation level of business communication was 2.86 ($M < 3$, this meant “relatively difficult” in rating scale) and the adaptation level of language barriers was 2.97 ($M < 3$). The findings were consistent with the results from the pilot interview on culture shocks.

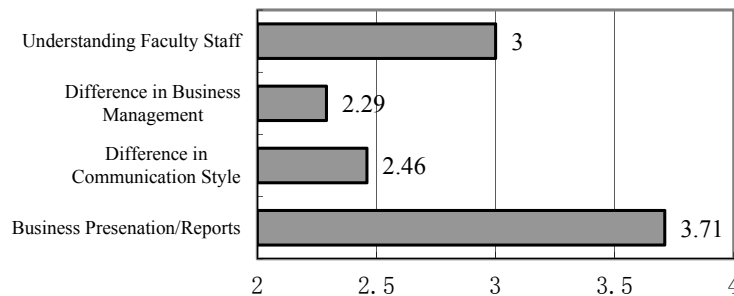


Figure 4. Business communication

Precisely, in the aspect of business communication, Figure 4 showed that most expatriates felt inadequate in dealing with different communication style ($M = 2.36 < 2.5$, this meant “very difficult” in rating scale) and also considered themselves to be weak in adapting to different business management ($M = 2.79 < 3$).

Furthermore, in the aspect of language barriers, Figure 5 showed that speaking in business conference was the most difficult ($M = 2.21 < 2.5$), while the means of the other three items, understanding social language, reading business documents and writing business reports were all above 3, indicating Chinese expatriates had the general language competence and they were likely to have taken certain language training courses before going abroad.

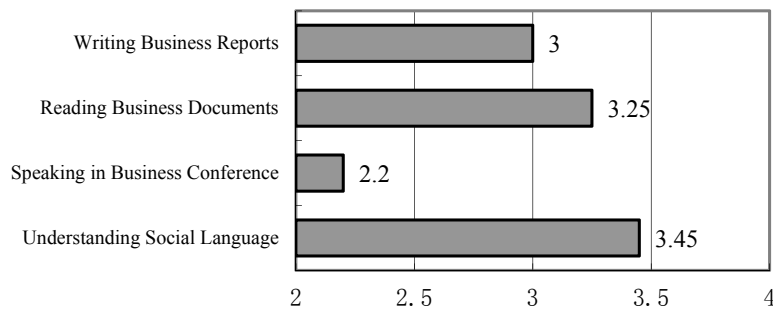


Figure 5. Language barriers

In the aspect of religion and tradition, Figure 6 clearly showed that most respondents had been influenced by racism and time orientation at work and had a sense of being deeply uncomfortable, as both means of the two items were below 3. As was discussed above in the pilot interview section, though culturally different, most expatriates had a fairly good adaptability to local religion and tradition. According to statistics, the mean of religious concerns was 3.72, and the mean of tradition was 3.89.

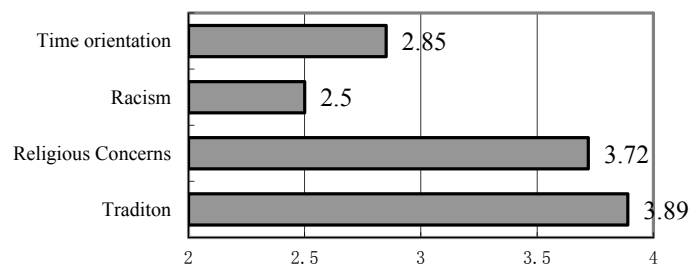


Figure 6. Religion & Tradition

Regarding to the personal issues, the study found that many expatriates suffered from a heavy pressure from their work duties ($M=2.75 < 3$), though the reasons were very complicated. In all, based on the statistic analysis, major factors accounted for the Chinese expatriates' difficulties in cross-cultural adaptation: poor adaptability of business communication, language barriers and heavy pressure from work duties.

4.3 Business and Managerial Implications

As the cross-cultural adaptability surely influences the expatriate's job performance, the international corporation should offer and the expatriates themselves should take an active participation in cross-cultural adaptation training which may highlight the target culture in the host country. The researching findings indicated that corporations are suggested to take some preventative steps to help expatriates overcome their difficulties in the cross-cultural adaptation, which will, in return, effectively avoid the possible business expatriation failure.

First of all, both of the pre-departure training and the post-departure training should be provided. Since poor adaptability of business communication is one of the major difficulties of cross-cultural adaptation, a range of culture courses in terms of business communication and management should be provided to help expatriates equip with cross-cultural communication skills. At a minimum the following aspects are highly recommended in the pre-departure training program (Bennett, Astom, & Colquhoun, 2000):

- 1) General and country-specific cultural awareness,
- 2) Frameworks for understanding and valuing cultural differences,
- 3) Planning for a successful international assignment,
- 4) Cross-cultural business skills for working effectively in the international business context,
- 5) Understanding cultural variations for those with regional responsibilities,
- 6) Business and social customs in the host country,
- 7) International transition and stress management,
- 8) Practical approaches to culture shock management and life-style adjustment.

The research findings told us that language barriers matter much in the process of cross culture adaptation. Thus, the language training should also be a priority. Such training must aim at enhancing the expatriates' language competence, both speaking and writing skills. Then, professional cross-cultural adaptation training should be continuously given even after the expatriate's arrival at the host country, because the pre-departure training can provide expatriates with the knowledge only to survive rather than to excel cross-culturally. Pause in training were the possible reasons why most expatriates still felt incompetent in dealing with the different time orientation and racism even though they accepted the pre-departure training on cross-culture. As matter of fact, during the international business contexts, expatriates encounter specific situation to which no clear answer is given in the pre-departure training (Mendenhal & Stahl, 2000). This is what makes the post-departure training essential and appropriate. Accordingly, the post-departure training should at least contain in-depth language training besides the basic knowledge learned in the pre-departure training phases, and should also focus on the improvement of the cross-cultural adaptability. It is the responsibility of the international corporation to offer the research programs on cultural adaptation and provide potential expatriates with helpful consultant services to ensure that they will not feel isolated in a foreign culture. To help with specific cross-cultural problems in the international business context, the real-time training is highly suggested as an effective approach to facilitate cross-cultural adjustment. The real-time training deals with high individualization, task-orientation, confidentiality, and the easy transfer of newly acquired skills to the new situation (Bennett, Astom, & Colquhoun, 2000).

Secondly, the results from the interview and on-line questionnaire indicate that corporations should give assessment on cross-cultural adaptability to test whether expatriates have the qualified competence. Such assessment will also provide feedback for further training sessions.

Thirdly, it is perceived from the present research, that the emotional intelligence is another significant factor which deeply influences the expatriate's adaptability to the host culture. As is reported, expatriates with high emotional intelligence usually have better relations with their foreign colleagues, and are more capable of taking the appropriate measures to better tackle the challenging situations.

As for the business expatriates, it is essential for them to raise their cross-cultural adaptability, which means they should learn from their experiences and use new experiences to improve the inter-personal relationships. Business expatriates need to be more open to various customs, values and social practice of the host culture, and

take the initiative to interact with host nationals. Only in that way, can they reduce conflicts and misunderstandings in the new cultural environment and finally adapt to it. In order to keep a harmonious working atmosphere, establishing a good relationship with foreign colleagues is more than necessary. Additionally, improving target language competence and learning some knowledge on social etiquettes also contribute a lot to a better job performance and cross-cultural adaptation.

5. Conclusion

This paper identified major influential causes of culture shocks experienced by Chinese business expatriates, and further revealed their difficulties in cross-cultural adaptation in international business contexts. The study emphasized the importance to understand cultural shocks and the necessity to improve the cross-cultural adaptability for the effective performance on the international business. In the host culture, Chinese expatriates should always be ready to face the challenges from communication gap, language barrier, different tradition and religious practices. As a result, the sufficient cross-cultural adaption training provided by international corporations becomes very essential.

The generalizations of the finding from this study were limited to sample groups. Although a great deal of effort was expended to insure the reliability of this research, there are a few limitations to this study.

First, since the on-line questionnaire is self-reported, the data collection was only limited to the expatriates themselves, whereas the evaluation either from their family members or colleagues was not included. Second, this study was unable to provide a longitudinal account of expatriates' cross-cultural adaptation due to the cross-sectional design, only measures of a certain point in time were used in this study. Yet, expatriate adjustment and the cross-cultural adaptation are considered to be a time-related process (Black & Mendenhall, 1991; Ward et al., 1998). A longitudinal design is important because the certain predictors may vary in time and some causes can be more important at the onset of the expatriation than later during the expatriation. Therefore, a longitudinal approach may produce a more rich data source where influential causes of culture shock and difficulties in cross-cultural adaptation could have been identified thoroughly. Finally, this study only focused on several influential factors in the cross-cultural adaptation process, while expatriate's adjustment and their cross-cultural adaption process could be influenced by many additional factors (Wards, 2001; Bhaskar-Shrinivas et al., 2005). Future research should be conducted to concern more influential factors.

Despite the limitations discussed above, the present study sheds some interesting light onto the complexity of culture shock and expatriates' cross-cultural adaptation, and underscores the need for more empirical researches in this area.

Acknowledgements

We would like to thank two anonymous reviewers for their valuable comments regarding earlier versions of this manuscript. Also we would sincerely appreciate the cooperation from all business expatriates who participated in the surveys.

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Appendix I. Interview on culture shock

Categories	Host country	Summary of main event experienced in the host country
Business communication	Russia, UK, U.S.	Language misunderstandings in business context
	Japan	The importance of wide personal space
	Oman	Direct eye contact when speaking and greeting
	U.S	Straightforwardness
Language	Germany	People rarely speaking English even if they know it
	USA, UK	Words confusion
	Russia	Grammatical mistake
Power distance	UK	Manager visits his employees to assign them a task and even waits to talk to them if they are busy on the phone
	Russia	Business appointment should be made in advance with secretary
Time orientation	Arab countries	Arriving half an hour late for a meeting but people beginning without her
	Japan, German	All things are arranged accurately on time.
Individualism /Collectivism	Canada	No one greeting a new comer
	Russia	Indifferent to new comer
Religions	Russia, Arab	Uncomfortable racism
	Russia, Germany, Arab	Believe “ Evil with evil”
Tradition	Oman	The weekend being Thursday and Friday
	Germany	Strict work style
	USA	Hugging to show the friendliness
	Russia	Slow pace of life

Appendix II: On-line Questionnaire

Questionnaire on Chinese Expatriates' Cross-cultural Adaptation in International Business Context

Demographic informationGender: Male FemaleAge: 20-30 31-40 41-50 above 50Countries of Expatriation: _____ Length of Stay: _____
_____Cross-cultural Adaptation in International Business Context

Please evaluate your cross-cultural adaptation level based on expatriation experience.

1-very difficult and not adjusted at all; 2-a bit difficult and not well adjust;

3-neutral; 4-a bit easy and adjusted; 5 –very easy and well adjusted

Categories	Items	Cross-cultural Level	Adaptation
Business Communication	Business presentation/reports		
	Difference in communication style		
	Difference in business management		
	Understanding of faculty staff		
Language Barriers	Understanding social language		
	Speaking in business conference		
	Reading business documents		
	Writing business reports		
Religion & Tradition	Tradition		
	Religious concerns		
	Racism		
	Time orientation		
Personal Issues	Loneliness/ isolation		
	Pressure from working duties		

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Cross-Sectional Variation in Stock Returns due to Leverage in Exchange Istanbul

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Received: October 18, 2013

Accepted: November 11, 2013

Online Published: December 23, 2013

doi: 10.5539/ibr.v7n1p34

URL: <http://dx.doi.org/10.5539/ibr.v7n1p34>

Abstract

The objective of this study is to test the existence of leverage premium in Exchange Istanbul during the period 2006 to 2013 by a four-factor asset pricing model. A sample of 470 firms is examined for this purpose. The results provide proof for negative effect of leverage on excess stock returns. However size mimicking portfolios have significant effect on the stock returns there is no evidence of value-effect in Exchange Istanbul. The significant negative relation between excess returns and leverage levels for firms with medium debt ratios after controlling for other risk factors implies a premium for the ability to raise funds for prospective investment projects.

Keywords: leverage, stock returns, exchange Istanbul

1. Introduction

Leverage ratio of a company gives the degree of funding of a firm's activity by owners' funds versus creditors' funds. It is considered as a source of financial risk yet asset pricing models largely ignore it as a risk factor. According to Modigliani and Miller (1958) firm value is independent from its choice of leverage level hence increasing leverage should cause higher risk and so higher required returns. On the other hand Lintner (1956) states that firms have optimal leverage ratios that equates the benefits and costs of debt. Various factors may affect corporate borrowing such as financial distress and bankruptcy costs, agency costs, and benefits from tax shield. Myers' (1977) debt overhang theory which explains the high leverage ratios would reduce the investment in positive NPV projects implies a negative relation between returns and leverage level.

This study includes leverage as a risk factor in an asset pricing model which is an expanded version of Fama-French (1992; 1993) three factor model as a four factor model to see the role of leverage in variation of excess returns in Exchange Istanbul between the years of 2006–2013. By this model it is aimed to test the existence of the leverage premium, the direction of relationship between excess returns and leverage factor in Exchange Istanbul. To the best of our knowledge this is the first study testing the leverage as a risk factor to explain the variations of stock returns in Exchange Istanbul. Findings will elucidate how the capital structure decisions affect the stock returns of firms.

In the following section the literature review after providing an overview of the well-known risk factors in the literature focuses on the role of leverage. The subsequent section describes the four-factor model and presents data. Section 4 and 5 presents empirical results and concluding remarks.

2. Literature Review

There is a vast literature on asset pricing models, which focuses on various risk factors, and also on the relationship between the capital structure and the firm value. However the literature on the link between the capital structure choice and the stock returns is rather limited, especially for emerging markets. Along with the other risk factors debt ratio of a firm can be an expository factor for the variations in stock returns.

The capital asset pricing model (CAPM) explains the variations in stock returns with market factor. CAPM developed by Sharpe—Lintner states that the expected return on a stock is determined by the risk free interest rate and a risk premium (Note 1). In an efficient market the market price is an unbiased estimate of the true value. Hence errors are unbiased; deviations from true value are random. According to CAPM in an efficient market risk adjusted returns of any asset should be equal (Note 2). The differences in returns of financial assets should

be due to the risk premiums.

Researches on asset pricing identify a number of variables that help to explain cross sectional variation in stock returns in addition to the market risk. Existence of explanatory variables other than market risk can be interpreted as a violation of market efficiency. Asset pricing anomaly, which causes abnormal returns, can be defined as the statistically significant difference between the realized return of a portfolio and the return which is predicted by CAPM (Brennan & Xia, 2001). However inclusion of appropriate risk factors may dissipate these abnormal returns. Best known anomalies in the literature are January effect, weekend effect, size effect, book-to-market effect and earnings-to-price ratio. (Basu, 1977; Branch, 1977; Ritter & Chopra, 1989; Lakonishok & Maberly, 1990; Fama & French, 1992; Kim & Burnie, 2002; Brusa, Liu, & Schulman, 2005; Rosenberg, Reid, & Lanstein, 1985; Best, Best, & Yoder, 2000; Griffen & Lemmon, 2002)

Asteriou and Kavetsos (2006) show the existence of January effect in four emerging countries, Hungary, Poland, Romania and Slovakia, out of eight. Ritter and Chopra (1989) reports significant January effect especially for small firms. Kohers and Kohli (1991) report January effect even for large firms in S&P 500 in the period 1930-1988. Lakonishok and Maberly (1990) following Ritter's hypothesis, January effect arises from the individual investors buy and sell decisions, investigate weekend effect and reports that in NYSE trade volume of individual investors increases on Mondays. Brusa et al. (2005) find reverse weekend effect for large firms and traditional weekend effect for small firms with CRSP data.

Fama-French (1992; 1993) showed that cross-sectional variation in stock returns due to characteristics of firms can be explained by a multifactor model. Fama-French three factor model introduces size and value as a risk factor along with the market risk. Criticizing Fama-French, Daniel and Titman (1997) claims that firm characteristics have explanatory power on stock return variation rather than factor loadings.

Loughran (1997) examine NYSE, Amex and Nasdaq securities for book-to-market effect controlling for size, seasonality, and exchange listing. Loughran concludes that for large companies there exists no book-to-market effect. Lev and Sougiannis (1999) focus on science based companies for which R&D capital is related to returns, and show that R&D effect comprises the book-to-market effect. Chui and Wei (1998) study the cross-sectional variation of stock returns in five Pacific-Basin emerging markets (Note 3), and find significant book-to-market effect for Hong Kong, Korea and Malaysia. They report insignificant size effect for Taiwan and significant size effect for the rest of all. Wang (2000) using Compustat and CRSP data, in period 1976-1995, examines survival bias for size effect. Wang states that inclusion of delisted small firms in the analysis mitigates the size effect.

Other than January, weekend, size and book-to-market effect, several departures from Efficient Market Hypothesis (EMH), which can be exploited in order to gain abnormal returns, are reported in the literature. One of the common explanations for departures from the EMH is over or under reaction of investors to new information. For example investors selling stocks that have experienced recent losses or buying stocks that have enjoyed recent gains are overreacting to the performance. Such reactions push prices beyond their fair value. Also overreaction implies contrarian investment strategies, buying "losers" and selling "winners". Stock returns are found to exhibit shorter-term cross-sectional momentum (Jegadeesh & Titman, 1993) which arises from overreaction and long-term cross-sectional reversals (DeBondt & Thaler, 1985) as a result of market corrections in time. DeBondt and Thaler reported that the winners and losers in one 36-month period tend to reverse their performance over the next 36-month period. Jegadeesh and Titman provide evidence for price momentum in stock prices over time periods of up to eight months and in the subsequent periods the reversals occur. Cooper, Gutierrez, and Hameed (2004) test the theory that overreaction is the source of these return patterns. They find that short-run momentum profits exclusively follow UP periods. Lo (1991) constructs a test for long-term memory that is robust to short-term correlations and states that departures from the random walk can be fully explained by short-term dependence. Chan (1988) states that there is no accounting for risk in the contrarian investment strategies profitability calculations so the profitability of contrarian investment strategies cannot be evidence against the EMH.

Carhart (1997) in his study on persistence in mutual fund performance includes momentum as a risk factor and employed 4-factor model. He constructs 4-factor model using Fama and French's 3-factor model plus an additional factor capturing Jegadeesh and Titman's one-year momentum anomaly. He proposed that the model can be interpreted as a performance attribution model. In the model the coefficients of factors indicate the proportion of mean return attributable to four strategies which are high versus low beta stocks, large versus small market capitalization stocks, value versus growth stocks, and one-year return momentum versus contrarian stocks. Carhart notes that relatively high variance of the factor mimicking portfolios and low correlations between each of the factor mimicking portfolios and the market proxies implies explanatory power of the

4-factor model. Also the high mean returns on three factors for size, value and momentum indicate that the model explains much of the cross-sectional variation in the mean return on stock portfolios.

Acharya and Pedersen (2005) take illiquidity as a risk factor and apply CAPM to returns net of illiquidity costs. Their model provides better fit than CAPM with same degrees of freedom. According to their findings increasing covariance between stock illiquidity and market illiquidity means increasing required return. Amihud (2002) use average of the daily ratio of absolute stock return to dollar volume as illiquidity measure and shows illiquidity effect for small firms is stronger. Avramov and Chordia (2006) inspect the predictive ability of size, book-to-market, turnover, and past returns at firm-level; and find liquidity and momentum as significant determinants of cross-section variation in stock returns.

Leverage level of a firm can be regarded as a risk factor in asset pricing along with the other factors mentioned above, the literature on relation between leverage and stock returns is limited yet growing. Studies on the relationship of leverage and stock returns report conflicting results. Bhandari (1988) states that alongside market beta, average stock returns in the U.S. are related to leverage. Bhandari shows that the expected returns on common stocks are positively related to the debt/equity ratio controlling for the beta and firm size, and tests the results both including and excluding January effect.

Contradictory results with Bhandari are reported by several authors. Penman, Richardson, and Tuna (2007) decompose book-to-price ratio (B/P) into two components reflecting operating risk and financing risk (leverage component). They show leverage component of B/P is negatively related with stock returns for firms that have both high and low B/P ratios, and this relation lasts after controlling for size, beta, return volatility, momentum, and default risk. Korteweg (2010) tests the relation between leverage and firm value and finds negative relation between value and leverage. Sivaprasad, Muradoglu, Gough, and Adami (2010) provide empirical evidence that abnormal returns and book leverage of firms are negatively related even after controlling for effective tax rates and industry concentration yet abnormal returns diminishes with the inclusion of these factors.

George and Hwang (2009) propose an explanation for negative relation between leverage and returns. Firms with high distress costs choose low leverage levels and return premium for low leverage firms can be seen as a compensation for default probability.

Muradoğlu and Sivaprasad (2010; 2012) focus on the role of leverage in forecasting stock returns and establishing trading strategies. They use leverage as a risk factor in a five factor model following Fama-French three factor model. They form portfolios to mimic the underlying risk factor related to leverage. They find that the returns of low leverage firms are negatively correlated with the leverage factor. For utilities sector Muradoglu and Sivaprasad find a positive relation between leverage and returns.

Cai and Zhang (2011) find evidence for Myers' (1977) debt overhang theory which explains that increasing leverage will increase the probability of future debt obligations and end up in sub-optimal investment. Cai and Zhang reported significant negative effect of change in leverage on returns is larger for higher leverage levels. Findings of Cai and Zhang for high leverage levels may indicate the fact that high leverage ratios imply the firms' inability to raise funds in the future.

Several studies employ Fama-French three factor model to explain the stock returns' variation in Exchange Istanbul (Note 4). Akdeniz, Altay-Salih and Aydoğan (2000) find that stock returns in Istanbul Stock Exchange (ISE) vary directly with book-to-market and inversely with firm size. Aydoğan and Gürsoy, (2000) employ P/E ratio and book-to-market ratio to explain cross section of expected returns in emerging markets. They find that these ratios are not explanatory factors in emerging markets. Aksu and Önder (2003) apply F-F three factor model to ISE and find significant size effect on returns. Gonenc and Karan (2003) test book-to-market and size effect on returns in ISE and find no evidence of value premium in ISE; also they report higher average return for large cap stocks. Bildik and Gulay (2007) investigate the momentum and contrarian effects in ISE and report that there are significant abnormal returns for contrarian strategy about 15% annually. Findings on size and value effect in Exchange Istanbul (formerly ISE) are contradictory. This study aims to provide new proofs for the effects of size and value factor along with the investigation of the effect of leverage factor on returns.

3. Methodology

In this study factor mimicking portfolios are used in the same manner of Fama-French three factor model by extending the three-factor model as four-factor model to see the effect of leverage on monthly excess returns of portfolios for different leverage levels.

Fama-French (1993) include size and value factor in addition to market risk factor in CAPM. The model considers the fact that value stocks which have high book value relative to market value (B/M ratio) and small

cap stocks outperform markets on a regular basis. Fama and French aren't particular about the reasons of these anomalies yet these patterns persist in multiple time frames as reported by many authors mentioned in section 2. The aim is to see whether there is a leverage premium in Exchange Istanbul and what is the direction of relationship between excess returns and leverage factor. Also it is tested that whether there is a change in the relation between returns and leverage factor through different leverage levels.

3.1 Data

All listed non-financial companies in Exchange Istanbul are included in the data set between years 2005–2013, including delisted stocks; financial firms are excluded due to high leverage ratios. The total sample consists of 470 firms. For each year sample size is between 277–325 firms.

Monthly returns from the closing price at the end of the each month are provided by FINET. Data span for return series is July, 2006–June, 2013. Factor mimicking portfolios and leverage portfolios are formed yearly from June of year t to June of year $t+1$. A firm should have a fiscal year end leverage ratio and B/M ratio, and stock price series for that year in order to enter the sample of that year. Stocks are ranked according to December of year $t-1$ B/M and leverage ratios and June of year t market capitalization.

Size mimicking portfolios are constructed according to market capitalization as small and big caps. Stocks are ranked on size and then median size is used to split the firms into two groups (S, B). Value mimicking portfolios are constructed by separating stocks as bottom 30%, middle 40% and top 30% B/M groups as low, medium and high (L, M, H). Leverage mimicking portfolios are constructed by grouping stocks according to leverage ratio (total debt/total assets) as bottom 30%, middle 40% and top 30% leverage group as low leverage, medium leverage and high leverage (LL, ML, HL).

Size factor, SMB, is calculated from the difference of returns of portfolios for small firms and large firms. Value factor, HML, is calculated from the difference of returns of portfolios for high B/M firms and low B/M firms.

The monthly returns of each factor mimicking portfolios are calculated as value weighted monthly returns of the common stocks following Fama-French. Returns of portfolios that are constructed according to leverage quintiles are equally weighted. Table 1 reports the average returns for each leverage quintiles.

Table 1. Average returns for each leverage quintiles (from lowest, L1, to highest, L5)

	L1	L2	L3	L4	L5	Whole sample
Average monthly returns	1.91	1.44	1.69	1.95	1.42	1.68

3.2 Model

To investigate the explanatory power of the leverage over the variation in stock returns, the average monthly excess returns of the five portfolios which are formed due to leverage quintiles are employed as the dependent variable in the regression. Monthly returns of portfolios in excess of risk free rate (Note 5) are regressed on market excess return and factor mimicking portfolios for size, book-to-market equity and leverage.

In the first part of the analysis CAPM, two-factor model (market and leverage factor) and Fama-French three factor model is formed then the 4-factor model is utilized to see the incremental effects of leverage.

Model 1: CAPM

$$ER_{i,t} = \alpha + \beta_1 ER_{M,t} + \varepsilon_t \quad (1)$$

Model 2: CAPM-Leverage

$$ER_{i,t} = \alpha + \beta_1 ER_{M,t} + \beta_4 HMLL_t + \varepsilon_t \quad (2)$$

Model 3: Three factor model

$$ER_{i,t} = \alpha + \beta_1 ER_{M,t} + \beta_2 SMB_t + \beta_3 HML_t + \varepsilon_t \quad (3)$$

Model 4: Four factor model

$$ER_{i,t} = \alpha + \beta_1 ER_{M,t} + \beta_2 SMB_t + \beta_3 HML_t + \beta_4 HMLL_t + \varepsilon_t \quad (4)$$

Where,

$ER_{i,t}$: the excess return on portfolio i over risk free rate of return for month t ($i=1,2,3,4,5$),

$ER_{M,t}$: the excess return on market over risk free rate of return for month t ,

SMB_t : the difference between the simple average of the returns on the small stock portfolios and the big stock portfolios for month t ,

HML_t : the difference between the simple average of the returns on the high B/M portfolios and low B/M portfolios for month t ,

$HLMLL_t$: the difference between the simple average of the returns on the high leverage portfolios and the low leverage portfolios for month t ,

ε_t : error term for month t ,

β_1 coefficients show the explanatory power of the market risk on returns. β_2 coefficients, β_3 coefficients and β_4 coefficients provide information about the effect of size, value and leverage mimicking factors on stock returns.

4. Empirical Results

The effect of firms' leverage on stock returns is investigated through a four-factor model. Leverage mimicking factors are included in the model along with market risk, size and value factors. There are conflicting findings in the literature about the effect of leverage on stock returns. A firm with high leverage ratio exhibits high risk, so the required return of the stock should be high. Hence β_4 coefficients should be high in highly levered portfolios. On the other hand low leverage ratios may be the indicator of the high distress costs as George and Hwang (2009) propose that explains negative relation between leverage and returns.

The results of the regression analysis of 4 models (CAPM, CAPM-Leverage, Three-factor, and Four-factor) for each portfolio of leverage quintiles are provided on Table 2. The coefficients of all models are jointly significant, and R-squares are sufficiently high. The inclusion of leverage mimicking factor increases the adjusted R-squares of the models also improves the Akaike information criterions. Incremental effects of leverage factor on the explanatory power of the model can be seen in the second model more precisely.

Table 2. Estimation results for each model across leverage quintiles (from lowest, L1, to highest, L5)

MODEL	CAPM	CAPM-LEVERAGE	3-FACTOR	4-FACTOR						
	β_1	β_1	β_4	β_1	β_2	β_3	β_1	β_2	β_3	β_4
L1	0.676973*	0.750772*	-0.427403*	0.659393*	0.794280*	0.023276	0.679241*	0.743656*	0.018744	-0.105357
	(0.0000)	(0.0000)	(0.0001)	(0.0000)	(0.0000)	(0.7653)	(0.0000)	(0.0000)	(0.8098)	(0.2416)
	{0.59305}	{0.65859}		{0.80244}			{0.80341}			
	{5.89710}	{5.73304}		{5.19736}			{5.203707}			
L2	0.722081*	0.817143*	-0.550543*	0.732628*	0.785590*	0.136050	0.787808*	0.644847*	-0.148649	-0.29291*
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.1678)	(0.0000)	(0.0000)	(0.1186)	(0.0084)
	{0.57169}	{0.66568}		{0.73496}			{0.754314}			
	{6.11319}	{5.87698}		{5.65614}			{5.591576}			
L3	0.773488*	0.847824*	-0.430509*	0.769814*	0.728263*	0.049522	0.799470*	0.652621*	-0.056294	-0.15742***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.5165)	(0.0000)	(0.0000)	(0.4552)	(0.0720)
	{0.68416}	{0.74335}		{0.83342}			{0.838127}			
	{5.77000}	{5.57400}		{5.15316}			{5.135738}			
L4	0.769820*	0.854247*	-0.488950*	0.759087*	0.813327*	-0.01755	0.792974*	0.726894*	-0.025291	-0.17988**
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.8189)	(0.0000)	(0.0000)	(0.7367)	(0.0403)
	{0.65403}	{0.72837}		{0.83732}			{0.843855}			
	{5.89582}	{5.66545}		{5.16420}			{5.134428}			
L5	0.891381*	0.972432*	-0.469400*	0.885665*	0.938367*	-0.05822	0.903304*	0.893376*	-0.062251	-0.093633
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.3477)	(0.0000)	(0.0000)	(0.3139)	(0.1891)
	{0.71535}	{0.77085}		{0.91380}			{0.914615}			
	{5.90589}	{5.70055}		{4.73415}			{4.735995}			

(p-value), [adjusted R square], {Akaike information criterion}

*1% significance level, **5% significance level, ***10% significance level.

The market beta is significant in all models and for all conventional significance levels. The coefficient of value mimicking factor is insignificant in all models and in every leverage quintiles. There is no evidence for value effect in Exchange Istanbul in the examined period. The coefficient of size mimicking factor, SMB, is significant in all models and in every leverage quintiles. Small firm effect seems significant in Exchange Istanbul between years 2006–2013. Size effect diminishes with the inclusion of leverage factor yet it stays sufficiently high and significant. Small firm premium seems highest for high leverage firms.

In the second model leverage factor has a significant negative effect on returns for every leverage quintiles. Yet the inclusion of other risk factors, size and value, in the fourth model diminishes the effect of leverage on returns. Also by inclusion of other risk factors effect of leverage on returns for extreme portfolios with highest and lowest leverage ratios turn out to be insignificant. For the portfolios with medium level leverage ratios the effect stays significantly negative.

The construction of the leverage factor, HLMLL, is as the difference between the returns on the high leverage portfolios and the low leverage portfolios. Negative coefficient of the leverage factor implies a premium for low leverage portfolios.

5. Conclusion

The paper investigates the effect of leverage ratio on the returns in Exchange Istanbul by constructing a four-factor model which includes leverage as a risk factor between years 2006–2013 by a sample of 470 firms. The results show that the leverage factor significantly affects the required returns. Leverage mimicking factor increases the explanatory power of the model and provides better explanation for cross-sectional variation of stock returns in Exchange Istanbul than CAPM or the three-factor model.

Size effect in Exchange Istanbul is high and it is persistent to the inclusion of other risk factors. Size effect is the highest for the high leverage firms. Similar with Aydoğan and Gürsoy (2000) and Gonenc and Karan (2003) findings do not support value effect in Exchange Istanbul.

After the inclusion of the other risk factors the negative effect of leverage factor on returns became insignificant for extreme portfolios (highest and lowest leverage portfolios) yet it is significant for portfolios of medium levels of leverage. High small firm premium for high leverage quintile indicates that high debt ratios for small firms go along with high returns. This phenomenon may be investigated deeply by an analysis which focuses on small firms financing characteristics.

The direction of the relation between the leverage and the returns is parallel with Cai and Zhang (2011). Negative relation of returns and leverage implies a premium for low leverage levels which provides a reserve of untapped borrowing power. For firms with medium level leverage existence of leverage premium may indicate that the possibility to raise funds for future investments is appealing for investors.

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Notes

Note 1. Beta (β) of an asset which measures the risk of an asset shows the amount of compensation investors need for taking on additional risk. $E(r_i) = r_f + \beta_i [E(r_m) - r_f]$, where E is the expectation operator, r_i is the return of stock i , r_f is the risk free rate, r_m is the market return.

Note 2. In every test for market efficiency a joint test is conducted. Market efficiency and the efficiency of the model used for expected returns have to be tested jointly. An evidence of excess returns may be caused by an inefficient market or misspecification of the model used to compute expected returns or both (Roll, 1977).

Note 3. Hong Kong, Korea, Malaysia, Taiwan, and Thailand.

Note 4. Before April, 2013 Exchange Istanbul was named as Istanbul Stock Exchange (ISE).

Note 5. One month average deposit rates announced by Central Bank of Turkey.

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What Determines the Debt Policy of Listed Manufacturing Firms in Ghana?

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Received: September 1, 2013

Accepted: November 27, 2013

Online Published: December 23, 2013

doi: 10.5539/ibr.v7n1p42

URL: <http://dx.doi.org/10.5539/ibr.v7n1p42>

Abstract

The purpose of this study is to examine the determinants of capital structure of listed manufacturing firms in Ghana. Data was collected from the annual reports of all the seven listed manufacturing firms in Ghana between 2000 and 2009. Panel regression methodology was used to analyse the data. The results revealed that listed manufacturing firms in Ghana use 17% equity capital and 83% debt capital to finance their operations. The debt structure is made up of 46% long term debt and 37% short term debt. However, it is observed that the firms tend to be more reliant on short-term sources of financing when specifically acquiring assets to expand and become profitable, which may be due to the under development of the Ghanaian capital market. The study also finds a positive and statistically significant relationship between total debt and asset structure but a positive and insignificant relationship between total debt and liquidity. Furthermore, it is revealed that size and profitability are also positive and statistically significant in their association with total debt. The study recommends that the Ghanaian government should take concrete steps to develop the country's capital market to enable businesses access long-term capital necessary for financial performance of the firm in the long run. It is further suggested that the Bank of Ghana (BoG) regulates the long-term lending rate of Ghanaian banks using moral suasion and other policy instruments.

Keywords: capital structure, manufacturing firms, panel regression, Ghana stock exchange

1. Introduction

Financing is an important aspect of managerial decision making. Debt and equity are the main sources of financing the long term activities of firms. According to Modigliani and Miller (1963), the profitability of firms largely depends on the extent to which firms use debt and equity in their operations. For the past few decades, the capital structure debate has gained considerable attention from both academic researchers and practitioners, however with much focus on developed economies. Equity capital is mainly ideal when the firm wishes to expand through the addition of new products and also when they desire to enter into new markets. The reason is that, depending on their dividend policy, firms can decide not to pay current dividends but rather channel these resources, which are relatively cheaper, to expand their operations (Modigliani & Miller, 1963). On the other hand, debt must be considered by young fast growing firms, as these characteristics enable them to repay as scheduled (Akoto & Gatsi, 2010).

The major theoretical underpinning of capital structure studies is rooted in the seminal work of Modigliani and Miller (1958). In their M & M theory, the authors argue that firms combine debt and equity to fund their long-term activities in a proportion that they think will maximise their value. According to Brigham and Ehrhardt (2002), most firms use several types of short-term debt to finance their working capital requirements. Some of these instruments are bank loans, trade credits, commercial paper and accruals. Demiguc-Kunt and Levine (2007) note that policy reforms that promote access to financial services should be at the core of the development agenda of nations. Better access to finance does not only increase economic growth, but also helps fight poverty. The World Bank Report (2007) observes that the failure of companies to have adequate access to finance acts as a brake on a nation's development (World Bank, 2007).

In Ghana, capital structure studies are scanty and mainly geared towards the banking industry while neglecting equally important sectors. This may be due to the dominance of certain industries in the Ghanaian economy relative to the others. For example, because Ghana is an import-based economy, little attention has been paid to scholarly works in the manufacturing sector. However, it is crucial for us to note that research findings and recommendations in the Ghanaian manufacturing industry can largely unearth several important issues that need to be considered by investors and the government in developing the country's manufacturing base. This current study is an attempt in this direction as it contributes to the literature by investigating the factors that determine the capital structure decision of Ghanaian listed manufacturing firms. In achieving this, the study attempts to answer the following five (5) questions: 1) What is the relationship between debt policy and the size of listed manufacturing firms in Ghana? 2) What is the relationship between debt policy and profitability of listed manufacturing firms in Ghana? 3) How does liquidity affect the debt policy of listed manufacturing firms in Ghana? 4) How does asset structure affect the debt policy of listed manufacturing firms in Ghana? 5) What is the relationship between debt policy and growth of listed manufacturing firms in Ghana? The rest of the paper is divided in four sections. Section 2 is the review of the extant literature. Section 3 considers the research methodology. Section 4 presents and discusses the results, while section 5 concludes the paper.

2. Empirical Literature

As indicated earlier, the seminal work of Modigliani and Miller (1958; 1963) on the relevance of debt policy for the modern firm has ignited an increase debate among academic researchers and practitioners. According to De Jong et al. (2008), the influence of firm-specific factors like: size, asset tangibility, profitability, firm risk and growth opportunities on debt policy vary from one country to another and also across industries due to country-specific and industry related factors. This implies that in making prudent capital structure decisions, country and industry specific studies are necessary to guide the managerial decision making process in this direction. This finding is further buttressed by Deesomsak et al. (2004) who also argue that the capital structure decision of firms is influenced by environmental and firm-specific factors. Furthermore, Antonius et al. (2002), using a panel data methodology, examine the debt policy of French, German and British firms. The authors observe that there is a positive and significant influence between a firm's size and leverage, implying that firms with large asset sizes use more debt. Perhaps, the low borrowing rates in these countries might have contributed to more debt usage by the firms as they expand. This study also confirms the findings of De Jong et al. (2008) and Deesomsak et al. (2004) that country and firm-specific factors influence capital structure decisions differently across country and industry.

In a related study, Frank and Vidhan (2005) found that firm size and asset tangibility relate positively with leverage while profitability presents an inverse association with it. This means that firms use more debt to acquire tangible assets than intangible assets, however, the profitability of the firm could be jeopardised as more and more debt is used. Furthermore, Hijazi and Tariq (2006), using OLS regression technique, maintain that firm size and profitability are negatively associated with leverage of Pakistani cement producing firms. This finding implies that profitable cement producing firms in Pakistan use more equity relative to debt in their operational activities. They further observe that asset tangibility and growth are also positively correlated with leverage. Additionally, Rao et al. (1995) conclude in their study that firm size and growth are inversely associated with debt. This means that smaller firms use more debt, and firms with better future prospects use more equity in their operations. In another study, Rajan and Zingales (1995) observed that in all G-7 countries, profitability is negatively related with leverage except in Germany. This finding reveals the ability of German firms to efficiently manage more debt relative to firms from other G-7 countries. On the other hand, the authors further discovered that firm size is positively associated with leverage in all the G-7 countries, but again, except in Germany. This further shows that smaller firms in Germany use more debt compared to their larger counterparts. However, they confirm that asset tangibility related positively with leverage in all the G-7 countries at the time of their study. Wolfgang and Fix (2003) conclude in their study that asset tangibility has a direct and significant influence on debt use and profitable firms use less leverage.

In Ghana, Akoto and Gatsi (2010) observed in their research that profitable banks in Ghana use about 87% of debt to fund their operations. This implies that in the Ghanaian context, banks must pursue aggressive deposit mobilisation policies to enable them to enhance their financial performance. This finding supports the finding of Amidu (2007) who earlier related that the capital structure of Ghanaian banks is mainly made up debt. In a related study, Abor (2005) argues that financially viable listed firms in Ghana use more short-term debt as their main source of financing. It is crucial for us to note that all the studies above have highlighted the significance of debt use in enhancing the financial performance of Ghanaian firms. The implication therefore is that government policies targeted at developing the debt market in Ghana are essential to further promote economic activity

which is critical for economic growth and development. From the extant literature, it is therefore clear that factors influencing the capital structure decision of firms are many and differ from country to country and from one industry to another. Furthermore, it is also apparent that the influence of these factors on debt policy of firms is largely inconclusive, and thus requires further examination.

3. Research Methodology

Panel data methodology has been employed to achieve the objectives of this study. This methodology involves the pooling of cross-sectional units over several time periods and provides economic estimates that are not easily noticeable in pure cross-sectional or pure time series estimation analyses (Baltagi, 2005). Besides this, the technique allows the researcher to gain access to several observational units which increase the degree of freedom, reduce multi-collinearity among the independent variables and thus, leads to more efficient estimates. Published financial statements of listed manufacturing firms in Ghana, accessible in the archives of Ghana Stock Exchange and the web portals of the firms, have been used covering the period from 2000 to 2009. Due to the difficulty in accessing data on private manufacturing firms, the researcher focused exclusively on all seven listed manufacturing firms in Ghana. The choice of manufacturing firms was made because of the central role the sector plays in job creation and economic growth of nations (World Bank Report, 2007). To find out the determinants of debt policy of Ghanaian listed manufacturing firms, the following general formula, used by Kuznertsor and Muravyey (2001), has been adopted and modified:

$$Y_{it} = \alpha + \beta_1 X_{it} + e_{it} \quad (1)$$

Where

- Y is a capital structure measure.
- α refers to time-invariant firm-specific effects.
- X is the independent variable.
- β_1 is the coefficient.
- Subscript i is firm-specific at time t , respectively.
- e is the error term.

From equation one (1), equation two (2) below has been distinctively specified to investigate the determinants of capital structure choices of Ghanaian listed manufacturing firms. In estimating the model, the fixed effect estimation technique has been assumed.

$$DR_{it} = \beta_0 + \beta_1 SIZE_{it} + \beta_2 PROF_{it} + \beta_3 LIQ_{it} + \beta_4 AS_{it} + \beta_5 GRO_{it} + e_{it} \quad (2)$$

Given that β_0 is a constant while subscripts i represent the cross-sectional element and t denoting the time-series factor as indicated earlier, **DR** (which is the dependent variable) is a measure of debt ratios used to proxy the capital structure choice or the debt policy decision. It is decomposed into three (3) namely, and computed as:

Total debt ratio, defined as the ratio of total debt to total assets and follows Abor and Biekpe (2005); long-term debt ratio, defined as the ratio of long-term debt to total assets; and finally, short-term debt ratio, defined as a ratio of short-term debt to total assets.

The independent variables include firm size (**SIZE**) defined as the natural logarithm of total assets. The relationship between leverage and firm size is mixed. Several authors including Marsh (1987) and Rajan and Zingales (1995) find a positive association between leverage and firm size while Hijazi and Tariq (2006) observe an inverse relationship.

Furthermore, profitability (**PROF**) is defined as the ratio of earnings before interest and tax (EBIT) to total assets. Like size, the relationship between leverage and profitability is also inconclusive due to different theoretical underpinnings that prevail. For example, the pecking order theory posits that profitable firms use more retained earnings relative to debt. Thus, this theoretical underpinning implicitly predicts an inverse relationship between leverage and profitability. Empirically, several studies have supported this assertion. For example: Friend and Lang (1988), Hovakimian (2004), Hijazi and Tariq (2006) and Amidu (2007) have all observed an inverse relationship between leverage and profitability. On the other hand, the static-trade off theory argues that profitable firms use more debt relative to equity in their operations since debt use has interest tax shield advantage. In support of this theoretical underpinning, Abor and Biekpe (2005) and Akoto and Gatsi (2010) find a positive association between leverage and profitability of Ghanaian firms.

In addition, liquidity (**LIQ**) is defined as the ratio of short-term assets to short-term debt. Firms with higher liquidity ratios may use more debt relative to equity since their excess assets over the liabilities can serve as an

incentive for them to use more debt. This suggests that there is a positive association between leverage and liquidity. Conversely, firms with high liquidity ratios may employ less debt in their operations since their excess assets can be used to finance positive net present value projects without resorting to debt (Ozkan, 2001). Thus, this suggests a negative relationship between leverage and liquidity.

Another independent variable is asset structure (AS), defined as the ratio of fixed assets plus stock to total assets. According to Harris and Raviv (1991), Bradley et al. (1984) and Titman and Wessels (1988), a firm with more tangible assets tends to have more debt in its capital structure and a higher liquidation value relative to its counterparts with lesser tangible assets. These findings suggest that there is a positive relationship between leverage and degree of tangibility. However, other authors including Kim and Sorensen (1986) find a significantly negative relationship between leverage and asset tangibility in their study.

Finally, growth opportunity (GRO) is defined as the ratio of intangible assets to total assets. From the pecking order theory of Myers and Majluf (1984), a firm with future growth prospects will prefer retained earnings relative to debt. Thus, this theory implies a negative relationship between leverage and growth opportunities. On the other hand, Michaelas et al. (1999) argue that leverage correlates positively with growth opportunities, especially short-term debt. The reason is due to the belief of management that, if future prospects are great, then their resultant cash flows can comfortably pay-off future debts of the firm, hence the incentive to use more debt. We indicate that the definition of all the above variables follow standard finance literature.

4. Results and Discussions

4.1 Descriptive Statistics

Table 1 shows the descriptive statistics of the variables used in the study, made up of the minimum, maximum, mean, standard deviation, and the variance. From the table, it can be seen that all the standard deviations are small relative to their means, with the exception of firm profitability. This illustrates that the data sets are close to their respective means.

Table 1. Descriptive statistics of variables used in the regression analysis

Variables	Minimum	Maximum	Mean	Std. Deviation	Variance
Total Debt Ratio (TDR)	0.00	0.99	0.83	0.26	0.07
Long-term Debt Ratio (LDR)	0.00	0.81	0.46	0.20	0.04
Short-term Debt Ratio (SDR)	0.00	0.74	0.37	0.16	0.03
Firm size (SIZE)	0.00	18.94	12.15	4.37	19.09
Profitability (PROF)	-0.23	0.32	0.04	0.11	0.01
Liquidity (LIQ)	0.00	2.35	1.22	0.60	0.35
Asset Structure (AS)	0.00	0.98	0.75	0.23	0.05
Growth opportunity (GRO)	0.00	0.00	0.01	0.02	0.00

Source: Authors' calculation.

The mean shows the averages of the variables used in the regression. From Table 1 above, the capital structure of Ghanaian listed manufacturing firms for the period 2000 to 2009 is made up of 83% debt and 17% equity. This is indicative of the fact that manufacturing firms in Ghana use more than four times debt than equity. It also implies that this level of capital structure poses a 26% risk to manufacturing firms as depicted by the standard deviation.

The firms' debt structure shows that, on average, 46% of long-term and 37% of short-term debt is used by Ghanaian listed manufacturing firms. Furthermore, it is worthy for us to note that the long-term debt component is entirely made up of long-term bank loans without any bonds. However, this is not surprising, given that the Ghanaian bond market is not developed. It is also clear from the table that the long term debt contributes more risk to the capital structure than short term debt since the standard deviation associated with long term and short term debts are 20% and 16% respectively. This supports the concept of cash flow valuation where distant cash flow is considered riskier than short-term ones. The average profitability over the period was 4% while growth was only 1%. The liquidity of manufacturing firms, which determines whether they are able to meet their short term obligations or not, is well within a reasonable limit.

4.2 Regression Results

The regression results in Table 2 shows the parameter estimates of the variables used in the study.

Table 2. Parameter estimates of factors influencing debt policy of listed manufacturing firms

Variables	Total Debt Ratio	Short-term Debt Ratio	Long-term Debt Ratio
	TDR	SDR	LDR
INTERCEPT	0.077 (1.259)	0.086 (1.610)	- 0.010 (- 0.157)
Firm Size (SIZE)	0.019*** (3.330)	0.014** (2.814)	0.004 (0.785)
Profitability (PROF)	0.505* (2.261)	0.561** (2.850)	- 0.079 (- 0.356)
Liquidity (LIQ)	0.021 (0.504)	- 0.127*** (- 3.452)	0.150*** (3.608)
Asset Structure (AS)	0.631*** (5.633)	0.339*** (3.431)	0.294** (2.634)
Growth Opportunity (GRO)	0.939 (0.786)	- 1.873* (- 1.778)	2.919** (2.450)
R ²	0.730	0.431	0.548
Adjusted R ²	0.709	0.386	0.512
F	34.629	9.683	15.505

Source: Authors' calculation.

Note: ***=Significant at 1% Level; **=Significant at 5% Level *=Significant at 10% Level.

As highlighted in Table 2, there is a positive and statistically significant relationship between total debt and size. In this light, size is positive and significantly associated with short-term debt; and positive, but insignificantly in relation to long-term debt. These findings suggest that large listed manufacturing firms in Ghana use more debt in their operations. Specifically, these firms are more reliant on short-term sources to expand relative to long-term sources of financing. We also find a positive and statistically significant association between total debt and profitability, and also short term debt and profitability. However, the relationship between long-term debt and profitability is negative and statistically insignificant. This stands to reason as more short-term debt usage is essential for listed manufacturing firms in Ghana to be profitable. Furthermore, the study reports a negative and statistically significant relationship between short-term debt and liquidity but positive and statistically significant association between long-term debt and liquidity. Thus, listed manufacturing firms in Ghana will be unable to meet their liquidity obligations efficiently, when they rely more on short-term debt to finance their operations relative to long term debt. The regression results further indicate positive and statistically significant relationships between total debt, short-term debt, long-term debt and the firms' asset structure. This means that Ghanaian listed manufacturing firms use more debt in their capital structure when they intend to increase their fixed assets and stocks. Finally, we find negative and statistically significant relationship between short-term debt and growth but positive and statistically significant relationship between long-term debt and growth. Thus, Ghanaian listed manufacturing firms employ more long-term debt to invest in intangible assets to enable them to grow. However, these firms cannot exploit short-term sources of financing to achieve the same.

5. Conclusions and Implications

Though listed manufacturing firms in Ghana generally use more long-term sources of financing than short-term sources, the firms tend to be more reliant on short-term financing when specifically acquiring assets to expand and become profitable (Akoto & Gatsi, 2010; Amidu, 2007; Abor, 2005). The reason may be due to the under development of the Ghanaian capital market (both bonds and equity) coupled with high lending rates charged by

Ghanaian banks on long-term loans. Since the over-reliance on short-term sources of financing the firm can pose short-term liquidity challenges, the Ghanaian government must intervene by putting policy frameworks in place aimed at developing the country's capital markets. Other policy tools, such as moral suasion and the like, can also be employed by the Bank of Ghana (BoG) to regulate the long-term lending rate of the banks. This is possible given the low and stable inflation rate Ghana has enjoyed (around 9%) since the year 2009. Furthermore, listed manufacturing firms in Ghana can enhance their financial and operating performance by accessing capital from other foreign capital markets.

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Complexity of Organizational Identification: Measuring Ambivalent Identification

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Received: November 4, 2013

Accepted: November 18, 2013

Online Published: December 23, 2013

doi: 10.5539/ibr.v7n1p49

URL: <http://dx.doi.org/10.5539/ibr.v7n1p49>

Abstract

Organizational identification is the root construct of organizational phenomena. Many researchers have examined this concept in terms of identification (positive) and disidentification (negative). However, recently some researchers began focusing on ambivalent identification, which refers to the simultaneous appearance of both identification and disidentification. This new concept is likely to shed light on organizational phenomena that cannot be demonstrated by identification or disidentification alone. This study focuses on ambivalent identification. We started by creating a concrete definition for this concept. Further, we tried to develop a valid measurement for it through pilot and main studies. Consequently, we defined this concept in terms of cognitive and affective aspects and observed the complexity associated with ambivalent identification.

Keywords: ambivalent identification, scale development

1. Introduction

Innovation in products, services, and the organization itself is required for achieving sustainable growth. The source of innovation is creativity (Amabile, 1997). In other words, innovation in the organization depends on how the organization manages and applies its members' creativity.

Organizational identification (OID) is the root construct in organizational phenomena (Albert, Ashforth, & Dutton, 2000). OID is related to the self-identity and decision-making of individuals (Tompkins & Cheney, 1985). Consequently, OID influences organizational phenomena because every organization is an aggregation of individuals. Assuming that innovation is an organizational phenomenon, it is likely that OID influences innovation when the organization actively promotes it. However, if one considers what is called "the dark side of OID" (c.f., Dukerich et al., 1998; Elsbach, 1999), the following contradictions appear. According to Pratt (2000), an organization that employs members who identify strongly with it would have increased homogeneity, which would consequently lead to groupthink. Thus, it becomes difficult for such an organization to change its strategy in order to adapt to environmental changes. Innovation is likely to occur with the existence of diverse viewpoints (Verganti, 2011). If creativity results from having a different viewpoint, then OID, which approximates members' personal-identity to organizational identity, may hinder creativity. However, because OID is thought to be a requirement for organizational phenomena, organizations should consider it seriously. That is, organizations may experience dilemma about whether to stimulate creativity or support OID. However, are these concepts necessarily incompatible?

Many researchers discuss the phenomenon of OID only in terms of positive and negative vectors (i.e., OID and organizational disidentification). However, recently some researchers have identified not only two vectors of identification but also ambivalent identification (AID), which is the simultaneous appearance of both OID and disidentification (Dukerich, Kramer, & Parks, 1998; Kreiner & Ashforth, 2004; Pratt, 2000; Sluss & Ashforth, 2007). According to Dukerich et al. (1998), a member who identifies ambivalently with the organization perceives conflicting feelings over it and engages in whistle-blowing and behavior change in order to resolve this conflict. While studying ambivalence, which is a super-concept of AID, Fong (2006) applied informational theories of emotion. He demonstrated that emotional ambivalence led to the interpretation that the person was in an unusual environment, and accordingly led to uncommon reactions to the environment. These uncommon reactions were based on creative thinking. As mentioned above, it is likely that research on AID could overcome the problem that previous OID studies had.

However, as a concept, AID is in the early stage of development. For example, although Pratt (2000) argued that AID is a partial failure of OID, Dukerich et al. (1998) argued that AID occurs when both OID and disidentification appear strongly. Their disagreement exemplifies the inconsistency in the conceptualization of AID. The reasons for this inconsistency may be (1) few studies have investigated this issue, (2) no definition has been established, (3) empirical research on this topic is difficult because scales to measure AID are underdeveloped (Note 1), and (4) inductive research is difficult because it is difficult to comprehend the phenomenon of AID through observation and interview (Note 2). The present study focuses on the resolution of points (2) and (3), and accordingly aims to contribute to (1).

Most studies on OID have treated identification as a cognitive concept. However, Tajfel (1978) defined social identity as “that part of an individual’s self-concept which derives from his knowledge of his membership of a social group (or groups) together with the value and emotional significance attached to that membership,” essentially stating that social identity consists of both cognitive and affective dimensions. Therefore, studies on OID in which social identity theory (Tajfel & Turner, 1979) is central, should consider both cognitive and affective dimensions (Harquail, 1998; Johnson, Morgeson, & Hekman, 2012; Van Dick, 2001). Accordingly, the present study considers AID as a cognitive and affective construct.

2. Definition of Ambivalent Identification

Bleuler (1911) defined ambivalence as “the simultaneous existence of strong feelings of love and hate toward the same object” (cf. Eidelberg, 1968; Luescher & Pillemer, 1998). Similarly, Alexander (1951), Argyris (1957), and Freud (1913), defined ambivalence as the co-existence of conflicting feelings directed toward the same object. However, Sincoff (1990), defined ambivalence as “overlapping approach-avoidance tendencies, manifested behaviorally, cognitively, or affectively, and directed toward a given person or experience.” Although the former four researchers treated ambivalence affectively, the latter treated it both cognitively and affectively.

Ambivalence has been measured through subjective and objective approaches (Constarelli & Colloca, 2004). Subjective approach refers to the direct measurement of ambivalence by using a scale. On the other hand, objective approach refers to the development of an algorithm that factors in positive and negative attitudes to calculate ambivalence toward a particular object. Studies that use this objective approach are based on the view of Scott (1966), who stated that the greater and more equal the opposite tendencies, the higher the degree of ambivalence (e.g., Costarelli & Colloca, 2004; Kaplan, 1972; Moore, 1972; 1973; Tompson, Zanna, & Griffin, 1995). These studies that use objective approaches defined ambivalence as an attitudinal concept. That is, they treated ambivalence as manifold concepts because attitude consists of behavior, affect, and cognition (Kelman, 1958).

In addition, Scott (1966) suggested considering the weight of each component. The present study synthesized these suggestions and defined ambivalence as “the simultaneous and equal existence of the opposite feeling or thinking toward the same object.” This definition of ambivalence should then operate on the definition of AID. Although some studies have examined AID (e.g., Dukerich et al., 1998; Pratt, 2000; Sluss & Ashforth, 2007) (Note 3), its definition has not been explicitly stated. According to Kreiner and Ashforth (2004), AID refers to the idea that “one can simultaneously identify and disidentify with one’s organization (or aspects of it).” Their definition is vague because OID and disidentification were not clearly defined. In fact, because they considered only the cognitive aspect of OID, it is more likely that this definition does not accurately reflect the concept of ambivalence.

We examined various definitions of OID, which confirmed that most researchers defined the cognitive or affective dimensions of OID. For instance, researchers who considered the cognitive aspect, defined OID as “a perceived oneness with an organization and the experience of the organization’s successes and failures as one’s own” (Mael & Ashforth, 1992); “the degree to which a member defines him- or herself by the same attributes that he or she believes define the organization” (Dutton, Dukerich, & Harquail, 1994); “a psychological state wherein individuals perceive themselves to be part of a larger organization” (Rousseau, 1998); and “an individual’s belief about his or her organization becomes self-referential or self-defining” (Pratt, 1998). On the other hand, the researchers who considered the affective aspect defined OID as “the degree to which an individual values having a specific organizational identity” (Harquail, 1998); “the feelings individuals experience about themselves in relation to the social referent and the value they place on that social identity” (Johnson & Morgeson, 2005); and “an individual’s positive feelings about being one with a group” (Johnson et al., 2012). Observing the difference between both dimensions plainly, OID seems to be the perception and feeling of individuals as organizational members (Harquail, 1998), the perception and feeling of oneness with the group (Johnson et al., 2012), and the emotional attachment one has to this group and the knowledge of a certain group membership (Van Dick, 2001). Assimilating these ideas, the present study thus defined cognitive OID as “the degree to which a member perceives himself or herself as part of an organization” and affective OID as “the degree to which a member holds positive

feelings toward the organizational identity.”

Based on these definitions of both cognitive and affective OID and ambivalence, AID is therefore defined cognitively as “the process in which a member simultaneously and equally perceives and does not perceive himself or herself as part of an organization,” and affectively as “the process in which member simultaneously holds both positive and negative feelings towards organizational identity in equal parts.”

3. Measuring Ambivalent Identification

We first searched the existing literature for published scales that measured OID and disidentification, by using “word identification,” and found 26 relevant articles (Note 4). The items in these scales were then classified into cognitive and affective OID based on the above definitions and the study of Johnson et al. (2012). Finally, 22 items were derived for the cognitive dimension and 13 items were derived for the affective dimension.

These items were then transformed into sentences that could be used to measure AID whilst referencing the above definitions of AID, items for AID by Kreiner and Ashforth (2004), and items for ambivalence (e.g., Aaker, Drolet, & Griffin, 2008; Priester & Petty, 1996; Riketta, 2000; Riketta & Ziegler, 2006).

3.1 Scale Development

After developing a scale to measure AID by using the above items, we attempted to establish its validity. In this case, this study followed Hinkin’s procedure (Hinkin, 1995; 1998; Hinkin & Tracey, 1999). The procedure is composed of the following three steps: (1) content validity assessment, (2) item reduction, and (3) confirmatory factor analysis.

The assessment of content validity followed the procedure of Hinkin and Tracey (1999). Respondents first rated each of the 35 AID items according to the extent to which they believed the items were consistent with each of two dimensions’ definitions of AID. Response choices ranged from 1 (not at all) to 5 (completely). The definition of one of the two dimensions was presented at the top of each page of the questionnaire. The results were then used for explanatory factor analysis.

Prior to conducting factor analysis, we examined the inter-item correlations of the variables and any variable that correlated at less than .40 with all other variables were excluded from the analysis. In this case, respondents rated the 35 AID items obediently. Thus, the items used here were different from the items used to assess content validity. Afterwards, explanatory factor analysis with varimax rotation was conducted. The criterion used to support the theoretical distinction was an eigenvalue greater than 1 (Kaiser criterion) and a scree test of the percentage of variance explained. Finally, to assess internal consistency reliability, Cronbach’s alpha was calculated for each component. A Cronbach’s alpha higher than .70 was considered to indicate good internal consistency reliability. Confirmation factor analysis was then conducted and construct validity was tested by goodness-of-fit indexes. This study used chi-square values (Note 5), CFI, RMSEA, GFI, and AGFI as goodness-of-fit indexes.

We conducted (1) a pilot study to eliminate extra items and modify the items, and (2) the main study to develop the scale for AID.

3.1.1 Pilot Study

Method

Questionnaires were distributed to six seminars in two Japanese universities. The purpose of this questionnaire was explained in the classroom, before distributing it. One hundred and thirteen undergraduates responded to the questionnaire. The number of valid responses was 60 (53.1%). Respondents consisted of 38 men (63.3%) and 22 women (36.6%); 31 students were in the third grade (51.7%), 26 in the fourth grade (43.3%), and three did not specify their grades (4.9%).

Results

(1) Content Validity Assessment

Explanatory factor analysis with varimax rotation was conducted to determine content validity. There were nine components with eigenvalues greater than 1. However, the examination of a scree test supported two components; the percentages of variance explained were 24.7% and 20.9% respectively. Finally, ten out of the 13 affective items were left. Eleven out of the 22 cognitive component items were left.

(2) Initial Item Reduction

The correlation analysis found eight items of the cognitive dimension and six items of the affective dimension to have a correlation of more than .4 with all other variables. Then, explanatory factor analysis with varimax rotation was conducted for these 14 items. This analysis identified two components that were labeled as affective and

cognitive respectively; the percentages of variance explained by the affective and cognitive components were 31.5% and 26.3% respectively. No items were eliminated by this explanatory factor analysis. The internal consistency (Cronbach's alpha) was .741 for the affective component and .554 for the cognitive component.

(3) Confirmatory Factor Analysis

This pilot study aimed at eliminating the extra items and modifying the sentences describing the items and therefore did not conduct confirmatory factor analysis. We asked respondents for their feedback regarding the questionnaire and suggestions for improving of the sentences. Consequently, we could make improvements according to the feedback by modifying items that were difficult to understand, before conducting the main study.

3.1.2 Main Study

Method

The revised questionnaire was distributed during a class in the university. The purpose of this questionnaire was explained in the classroom, before distributing it. One hundred and nineteen undergraduates responded to the questionnaire. The number of valid responses was 37 (31.1%). The respondents consisted of 24 men (64.9%) and 13 women (35.1%); 15 students were in the second grade (40.5%), 10 in the third grade (27.0%), 11 in the fourth grade (29.7%), and 1 in the fifth grade (2.7%).

Table 1. Factor loadings for content validity assessment

Item	Affective AID	Cognitive AID
Affective item 1	.752	
Affective item 2	.852	
Affective item 3	.710	
Affective item 4	.822	
Affective item 5	.701	
Affective item 6	.849	
Cognitive item 1		.677
Cognitive item 2		.810
Cognitive item 3		.796
Cognitive item 4		.805
Cognitive item 5		.789
Cognitive item 6		.804
Cognitive item 7		
Cognitive item 8		.913
Eigenvalue	5.498	4.054
Percentage of variance explained	43.5%	35.4%

Results and Discussion

(1) Content Validity Assessment

An explanatory factor analysis with varimax rotation was conducted and the Kaiser criterion identified two components. The percentages of variance explained were 43.5% and 35.4% respectively. All affective items showed high factor loadings. Seven of the eight cognitive items showed high factor loadings (see Table 1 for details). Therefore, it may be inferred that the questionnaire had content validity.

(2) Initial Item Reduction

The correlation analysis identified six items in the cognitive dimension and six items in the affective dimension that had correlation coefficients of more than .4 with all other variables (Table 2). Following this, explanatory factor analysis with varimax rotation was conducted for these 12 items. The results revealed two components that were labeled as affective and cognitive respectively; the percentages of variance explained in Table 1. Factor

loadings for content validity assessment of affective and cognitive components were 39.7% and 27.9% respectively (see Table 3 for details). No items were eliminated after this explanatory factor analysis. The internal consistency (Cronbach's alpha) was .883 for the affective component and .768 for the cognitive component.

Table 2. Intercorrelations for initial item reduction

	C1	C2	C3	C4	C5	C6	C8	A1	A2	A3	A4	A5	A6
Cognitive 1	1												
Cognitive 2	.092	1											
Cognitive 3	.544**	.281	1										
Cognitive 4	.732*	.039	.464**	1									
Cognitive 5	.387*	.147	.216	.266	1								
Cognitive 6	.204	.169	.384*	.241	.508**	1							
Cognitive 8	.254	.113	.437**	.021	.510**	.295	1						
Affective 1	.225	.433**	.415*	.243	.164	.168	.204	1					
Affective 2	.183	.339*	.391*	.232	.122	.109	.158	.532**	1				
Affective 3	.206	.216	.345*	.301	.364*	.425**	.279	.464**	.501**	1			
Affective 4	.266	.133	.199	.375*	.166	.347*	.158	.547**	.498**	.586**	1		
Affective 5	.184	.393*	.222	.225	.288	.202	.178	.571**	.733**	.670**	.601**	1	
Affective 6	.099	.305	.093	.179	.348*	.093	.103	.529**	.478**	.529**	.410**	.756**	1

** : $p < .01$, * : $p < .05$.

Table 3. Factor loadings for initial item reduction

Item	Affective AID	Cognitive AID
Affective item 1	.749	
Affective item 2	.810	
Affective item 3	.687	
Affective item 4	.658	
Affective item 5	.907	
Affective item 6	.790	
Cognitive item 1		.871
Cognitive item 2		
Cognitive item 3		.691
Cognitive item 4		.859
Cognitive item 5		.789
Cognitive item 6		.817
Cognitive item 8		.871
Eigenvalue	4.763	3.294
Percentage of variance explained	39.7%	27.9%

Table 4. The scale for ambivalent identification with an organization

No.	Items
Affective item 1	I feel pride and insulted in being part of this university
Affective item 2	I am glad and sorry to belong to this university
Affective item 3	I regret and am satisfied that I belong to this university
Affective item 4	I am proud of and also complain when I tell people who I study with
Affective item 5	I feel good and bad when I think about myself as a member of this university
Affective item 6	I feel happy and sad to be a student in this university
Cognitive item 1	I see and am indifferent of myself as belonging to this university
Cognitive item 3	I am very interested and uninterested in what others think about this university
Cognitive item 4	Belonging to this university is an important and unimportant part of my self-image
Cognitive item 5	It is important and insignificant to me that others do not criticize this university
Cognitive item 6	Being a member of this university has very little and very much to do with how I feel about myself
Cognitive item 8	If this university were criticized, it would influence and not influence how I think about myself

(3) Confirmatory Factor Analysis

The goodness-of-fit indexes of the confirmatory factor analysis indicated that this model fitted the data well ($\chi^2(46) = 47.678$; CFI = .991; GFI = .904; AGFI = .802; RMSEA = .032). Therefore, the questionnaire has construct validity. The analysis resulted in six affective items and six cognitive items (see Table 4 for details).

4. Discussion

The present study makes at least two contributions to existing knowledge. Firstly, AID was defined more strictly here than in previous studies, where vaguely defined concepts hindered the discussion of the phenomenon. As AID had not been clearly defined until now, defining it here may lead to and form the basis for future research. Secondly, this study developed a scale to measure AID. As mentioned before, previous researchers had not studied AID empirically because no such scale had been developed until now. Thus, creating this scale contributes greatly to the development of future empirical studies.

Discussing OID cognitively means discussing the cognitive distance between organizational identity and self-identity and the perceived vector. Previously, this discussion was conducted in terms of two axes: “near or far” and “approaching or leaving.” However, bringing the concept of ambivalence into this discussion leads to a new angle—“near and far” and “approaching and leaving.” This point was overviewed previously, suggesting the complexity of the concept of identification. The present study could very well provide a lead to understand and acknowledge this complexity.

Kreiner and Ashforth (2004) have attempted to measure AID. Although they defined OID cognitively, items in their tool that measured AID consisted of both cognitive and affective dimensions. Thus, there was a disagreement between the scale and the definition used in the study, which affected the scale’s content validity. Furthermore, because they did not show how their AID measurement was developed, the construct validity was not also manifested. In contrast, this study considered both dimensions, constructed the items deductively, and tested for content validity. Accordingly, this study is more likely to avoid similar problems of content validity.

As shown from both, the pilot and main studies, the sample size is not sufficient to establish validity (particularly construct validity). The percentage of valid responses suggested that items that looked like “double-barreled” questions might have caused confusion among respondents. However, this problem may be attributed to not the present study but the inherent ambiguity of AID. Considering the previous, subjective approach to AID, these items look like double-barreled questions. Although the objective approach mentioned above (Costarelli & Colloca, 2004) may be useful to solve this problem. Previous studies did not find high intercorrelations between subjective and objective approaches (e.g., Tompson et al., 1995). That is, the objective approach could not be substituted for the subjective approach. Therefore, it is important to acknowledge that we need to develop a valid subjective approach first in order to develop a valid objective approach.

We used undergraduate students as sample. Compared to employees in a company, a university does not work on the undergraduates’ socialization to a great extent. Thus, it is likely that they do not pay attention to the

university's identity. In addition, Kreiner and Ashforth (2004) argued that when an organization sends inconsistent or contradictory messages to its stakeholders regarding what it stands for, and why and when an organization demands incompatibly from within a give role, AID would occur. These antecedents are all organizational factors. More employees may identify ambivalently with their organization than students may with their university, because the environment requires different behavior from the employees. Therefore, if we use employees instead of undergraduates as the participants, above problems might be resolved. That is, it is likely that employees may have responded to items for AID and consequently we could have gathered a sufficient sample size to establish validity.

Finally, if more future studies focus on AID and its measurement, AID would become a measurable concept, the mechanism of OID might be demonstrated more effectively, and the relationship between creativity and OID would be manifested.

5. Conclusion

This study focused on defining AID and developing the scale to measure it. Firstly, we examined some concepts of ambivalence, cognitive OID, and affective OID, accordingly defined cognitive AID as “the process in which a member simultaneously and equally perceives and does not perceive himself or herself as part of an organization,” and affective AID as “the process in which member simultaneously holds both positive and negative feelings towards organizational identity in equal parts.” Secondly, on the basis of above definitions, the scale was developed through pilot and main study. As a result, affective and cognitive scale consists of twelve items (6 affective items and 6 cognitive items).

Many researchers have not empirically tested the hypothesis about AID. The reasons are for the problem of definition and scale as mentioned above. We proposed both, so future researches which tested AID empirically may increase. AID is important concept because it is likely to shed light on organizational phenomena that cannot be demonstrated by identification or disidentification alone. Although it may be difficult for the person to grasp the person's ambivalent state by him/her-self, if this problem will be resolved in the future, this new concept would demonstrate many organizational phenomena. Thus, this study contributes to the foundation for AID researches.

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Notes

This paper revised the material which is presented in European Academy of Management, Annual Conference 2013, Doctoral Colloquium at Galatasaray University, Turkey.

Note 1. We confirm that only Kreiner and Ashforth (2004) developed the scale for AID.

Note 2. Although ambivalence was examined inductively by a few studies, these studies have a common problem. For example, Fong and Tiedens (2002), Pratt and Doucet (2000), and Randall and Procter (2008) studies the ambivalence that organization members recognized and felt. However, compared with the definition

of ambivalence, their way to comprehend it was vague.

Note 3. Although Dukerich et al. (1998) and Sluss and Ashforth (2007) studied AID, they treated AID notionally and did not define it explicitly.

Note 4. Abrams and Hinkle (1998); Bartel (2001); Bergami and Bagozzi (2000); Bhattacharya and Elsbach, (2002); Boen, Vanbeselaere, and Cool (2006); Brown, Condor, Mathews, Wade, and Williams (1986); Christensen, Rothgerber, Wood, and Matz (2004); Foreman and Whetten (2002); Gautam, Van Dick and Wagner (2004); Hall and Schneider (1972); Hall, Schneider and Nygren (1970); Harris and Cameron (2005); Hogg, Martin, Epitropaki, Huo, Smith, Tyler, and Lind (1996); Johnson, Morgeson, and Hekman (2012); Johnson and Morgeson (2005); Kreiner and Ashforth (2004); Mael and Ashforth (1992); Martin and Epitropaki (2001); Riordan and Weatherly (1999); Roccas (2003); Smidts, Pruyn, and Van Riel (2001); Vandenberg, Self, and Seo (1994); Van Dick, Wagner, Stellmacher, and Christ (2004); Van Knippenberg, van Knippenberg, Monden and deLima (2002); Van Leeuwen, van Knippenberg, and Ellemers (2003)

Note 5. According to Hinkin (1998), the model is useful when the chi-square value is three times less than the degree of freedom.

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An Investigation of Export Practices and Performance across Global Mindset Orientations

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Received: April 23, 2013

Accepted: May 14, 2013

Online Published: December 23, 2013

doi: 10.5539/ibr.v7n1p60

URL: <http://dx.doi.org/10.5539/ibr.v7n1p60>

Abstract

Extant literatures suggest three different approaches to decision making for operating a firm internationally: ethnocentric, polycentric, and geocentric. This study investigated differences in firm characteristics, export marketing strategies and export performance outcomes across these three orientations on a sample of North American (Canadian and U.S.) firms. The findings revealed major differences in examined variables across these decision-making orientations. While global mindset seemed to influence export strategy and performance, it did not affect many aspects of firm characteristics. Implications for export managers and public policy are drawn from the results.

Keywords: export orientations, global mindset, export strategy, research and development strategy

1. Introduction

Past research efforts in exporting have focused on several areas, particularly on variations in export performance resulting from differences in export strategy and firm characteristics (e.g., Shoham, 2002; Solbert & Durrieu, 2008; Hultman, Robson, & Katsikeas, 2009). These research findings have significantly contributed to our understanding of the determinants of export performance (Leonidou, Katsikeas, & Coudounaris, 2010; Sousa, Martinez-Loes, & Coelho, 2008). Another important and growing research stream focuses on developing an understanding of the differences in managerial “global mindsets” and how these centrality orientations influence firms’ international strategies and performance (e.g., Arora, Jaju, Kefalas, & Perenich, 2004). Popularized by Perlmutter (1969), extant literature and research efforts suggest three major different approaches to decision making for operating a firm internationally: ethnocentric, polycentric, and geocentric. Perlmutter (1969) proposed that these “global mindset” orientations influence and shape different aspects of the company structure, strategy, and resource allocation. Furthermore, there seems to be an emerging consensus in this literature that global mindset orientations are critical to global competitiveness and influences a number of important organizational outcomes (e.g., Kedia & Mukherji, 1999; Gupta & Govindarajan, 2001). Gupta and Govindarajan (2001) suggest that success in global markets depends on manager’s ability to understand global markets and exploit international opportunities. As such, it’s not surprising that research interests in conceptualizing what a “global mindset” means and cultivating a global mindset is essential in this globalization era and has grown rapidly over the last three decades. However, despite the growing recognition of the importance of global mindset orientations our review indicates a limited number of empirical research studies in this field. Furthermore, few research efforts have tied the two streams of research findings together. For example, a study by Calof and Beamish (1994) examining this issue concluded that geocentric firms tend to perform better in export sales. They also stated that a firm’s centrality (attitude towards foreign cultures) can impact the choice of strategies and implementation, and international performance could be negatively impacted if the firm’s centrality is not in alignment with the actual foreign environment. However, Kobrin (1994) found that a firm’s geocentric mindset is associated with broad geographic scope (more markets), yet geocentricity does not appear to be a function of the length of international experience, strategy or organizational structure.

The purpose of this research effort is to bring together these two research streams by investigating the differences in export marketing practices and performance outcomes across different management mindsets. More specifically, we examine the extent to which firm characteristics, research & development strategies,

export marketing strategies, and export performance would differ by differences in management mind-sets (ethnocentric, polycentric, or geocentric). We expect differences in firms export strategy, firm characteristics, and firm export performance based on differing global mindsets. To investigate these relationships, a survey of 885 Canadian and US firms was conducted.

The paper is organized as follows: a review of the literature in the two research streams to provide the theoretical framework for the study, research methodology and sample characteristics, research findings, discussion, and implications. Directions for future research are also suggested.

2. Literature Review

For the purpose of this study, the review will be summarized in two categories: variables impacting the export behavior and performance of firms and the role of mind-set (ethnocentric, polycentric, and geocentric) in determining export marketing practices.

2.1 Export Behavior, Firm Characteristics, and Performance

Reviews on export behavior of firms have been provided by Leonidou et al. (2010), Sousa et al. (2008), Cavusgil and Nevin (1981), and Bilkey (1978). A key conclusion reached by some researchers is that empirical findings regarding the impact of export strategy and other variables on export performance have been inconsistent and fragmented (Lages & Sousa, 2010; Lu & Julian, 2008). Also, some research findings have shown that organizational characteristics and export marketing strategy have an important impact on export activity. For instance, Singh (2009) identified firm size, research and development expenditure, advertising expenditure, and business group affiliation to be important antecedents of level of exporting activities of firms. In an earlier work, Cunningham and Spiegel (1971) found that the most important factors contributing to the firm's success in exporting were the design and quality of the product; persistence (personal visits; before- and after-sales service); international outlook of top management coupled with long-term planning; special prices, market knowledge or sales organization; and the effective use of overseas agents. However, advertising, exhibitions, foreign language proficiency, and use of government export services did not appear as the most important factors in successful exporting. An early study, Kirpalani and MacIntosh (1980) found that pricing and promotion were significantly associated with the firm's export performance, but distribution (quality and compensations of dealers and adequacy of stocks and parts) was not related to export success. Then, McGuinness and Little (1981) concluded that new products tend to achieve better than average export sales. Most recently it was found that exporting activity is associated with the ex post increase in innovative productivity in 'leading versus lagging' firms (Salomon & Jin, 2010). Bilkey (1982) examined export prices, attention given to exporting, and dealer support and found they correlated positively with export performance, while relative export competition correlated negatively with export performance. However, the type of product, perceived product uniqueness, product patent or brand, lapse of time since the firm's last meeting with its distributor, and perceived distributor quality did not correlate with export performance. Parhizkar, Miller and Smith (2010) looked at an often overlooked industry-forest product to identify unique characteristics (e.g., relationship to distribution partners, logistical considerations, and export method selection) that influence export performance. Earlier, Cooper and Kleinschmidt (1985) showed that the selection of foreign markets, and segmentation and product strategies impact on export sales and growth. Also, Johanson and Nonaka (1983) concluded that successful Japanese firms search for foreign market information, export to wholly- or partly-owned subsidiaries or through the general trading companies, tailor promotion efforts to each country's needs, search for a niche in a foreign market, offer products abroad that have definite differential advantage over competitive alternatives, and adopt a policy of providing the customer with "good value" for his money. These research findings are consistent with the "marketing concept" in which firms tend to perform better when they are able to meet the customer's needs more effectively than competitors.

Using the framework of standardization and/or adaptation strategies, several studies (Hultman et al., 2009; Theodosiou & Katsikea, 2001; Acquah, Adjei, & Mensa-Bonsu, 2008; Shoham, 2002; Solbert & Durrieu, 2008) concluded that export marketing strategy differences are impacted by variations in market conditions and organization characteristics. The adaptation approach argues that export practices do vary in dimensions such as product usage, purchasing power, social and culture, law and regulations, and consumer needs and wants. In a study of 105 Zimbabwean exports, Sibanda, Erwee and Ng (2011) conclude that proactive firms that are more likely to adapt strategies are those with the following characteristics: (a) a management with high overseas experience, (b) sensitivity to cultural values existing in the export market, (c) sensitivity to legislative requirements in the target market, and (d) who adopt an export-oriented strategy. Also, Hultman et al. used Swedish exporters to show that balancing standardization and adaptation strategies affects the product strategy

fit and its performance outcomes.

In a study of small and medium-sized Canadian manufacturers, Beamish and Munro (1986) reported that export success (measured in terms of export sales intensity and profitability) is positively related to a firm's commitment to exporting and market diversity. Koh and Robicheaux (1988) concluded that industrial exporters reported superior export performance when they sold directly to final end-users through their own export department and charged a higher price for export sales than for sales in the home market. Koh (1991) found that exporters who have had formal education in international business and place a higher long-term priority in exporting compared with the U.S. business perceived higher export profitability.

The issue of the relationship between the size of a firm and export performance has been subject to considerable debates because of mixed findings. Several researchers (e.g., Reid, 1982) concluded that a firm's sales would increase with firm size. Others found no significant relationship (McDougall & Stening, 1975; Bilkey & Tesar, 1977). Cooper and Kleinschmidt (1985) found that firm size, when measured by annual sales, is negatively correlated with its export growth and not significantly related to export intensity. But Kneller and Pisu (2010) found an opposite finding. They used a database of UK firms to confirm the variety/breadth/diversity of measures used to determine export performance. Their measures correlated positively with export intensity. Calof (1994), using an extensive sample of Canadian manufacturers, concluded that "while firm size is positively related to export behavior, its importance is limited as the amount of variance explained is modest" (p. 367).

Like the size-performance relationships, researchers have found mixed results concerning the export experience-performance relationship. McDougall and Stening (1975) found a positive correlation between export performance and export experience. However, Bilkey (1982), and Cooper and Kleinschmidt (1985) observed that export performance is negatively related to export experience. On this issue, Kaynak and Kuan (1993) commented that "Younger firms export more than older firms because of the lack of cost competitive advantages and adequate resources to compete in the well-established domestic market" (p. 35). The Camison and Villar-Lopez (2010) study of Spanish firms revealed that superior performance is only achieved by SMEs that can turn the knowledge they gain into exploitable intangible assets. Cassiman, Golovko, and Martinez-Ros (2010) used a panel of Spanish manufacturing firms to provide strong evidence that product (not process) innovation influences productivity of exporting firms. It also induces small non-exporting firms to begin exporting. In studying 34 United States and Canadian firms, Kirpalani and MacIntosh (1980) found significant relationships between selected variables (management commitment, management control systems, product mix, promotion, and pricing) and export growth. Another study (Kaynak & Kothari, 1984) which also focused on United States and Canadian firms found that technology, quality control, communications ability, product mix, and pricing were positively related to export performance (as measured by the propensity to export). Using samples from Michigan, USA and Ontario, Canada, Axinn (1988) concluded that perceptions of risk aversion and profit likelihood were significantly related to export intensity. In investigating United Kingdom and West German firms, Schlegelmilch (1986) did not find any significant differences in export behavior.

Craig and Beamish (1989) compared the characteristics of Canadian and United Kingdom exporters and found several across-country differences: U.K. firms sold to more countries, had been selling longer, and had a wider product line than corresponding Canadian firms. In a follow-up paper, Beamish, Craig, and McLellan (1993) found that firms in both countries experienced superior export performance when they applied business fundamentals: exported to a wider and more diverse group of countries, exhibited a higher level of commitment to exporting, maintained on-going distribution arrangements in the export market, adopted an on-going process of setting marketing objectives, and expended resources on customer service. However, several country-specific findings were noted: successful U.K. export performance was related to the use of direct sales distribution, wide product offerings, long-term distributor relations, and a broad geographic focus, whereas Canadian firm's export performance was related to superior product characteristics and diversification of market focus.

Francis and Collins-Dodd (2000) caution that superior technological products are not sufficient to ensure export market success. In providing recommendations to practitioners in high-tech SMEs, they stress that firms must first evaluate their motivation for international expansion carefully. Foreign market-demand factors are likely to be associated with long-term export success, while non demand factors (like home market saturation and government incentives) are not good reasons for market expansion. Second, practitioners planning global market expansion must rely heavily on their own primary market research and experiential learning, including product testing and information from direct field contacts. They conclude that "armchair" exporting may be detrimental for high-tech firms, for they may be misled by inaccurate or out-dated information. Raymond, Kim, and Shao (2001) compared strategic marketing decisions and factors that influenced U.S. and Korean exports. They concluded that Korean exporters experienced more difficulties with strategic decisions such as pricing and brand

reputation while US exporters had trouble adapting to export market conditions.

2.2 Export Mindset

Popularized by Perlmutter (1969), extant literature and research efforts suggest three major different approaches to decision making for operating a firm internationally: ethnocentric, polycentric, and geocentric (e.g., Heenan & Perlmutter, 1979; Maznevski & Lane, 2004; Levy, Beechler, Taylor, & Boyacigiller, 2007). A later study by Heenan and Perlmutter (1979) identified a fourth dimension called “regiocentric” attitude, meaning “regionally oriented, which falls between polycentric and geocentric. This fourth dimension is not used in this study because of its ambiguity and possible collinearity with the geocentric orientation. In an ethnocentric orientation, all major decisions are either made in the home nation (e.g., U.S.), by U.S. personnel, or overseas by U.S. nationals who manage the subsidiary. U.S. standards, procedures and objectives are used for making the decisions. Overseas offices should then use the U.S. systems/procedures/products with little or no modification. The driving philosophy is “what works best in U.S. also works best elsewhere.” In a polycentric orientation, all major decisions are tailored to suit the local (host country) market. In general, decisions are made in the local (host country) office, by host country personnel using their own standards, procedures and objectives. Limited liaison is required between the host country office and the U.S. corporate office. The driving philosophy is “what works best for each host country, and all done in the interest of the host country.” Finally, in a geocentric orientation, all major decisions are made centrally, and managed to satisfy global needs as efficiently as possible on a global basis. Substantial coordination should exist between local (host country) offices, regional offices, and company headquarters. “The ultimate goal of geocentricism is a worldwide approach in both headquarters and subsidiaries” (Perlmutter, 1969). Though the focus is on global systems, procedures and objectives, there could, for example, be uniform pricing policies and products throughout the world, with decisions made through collaboration between all units. However, in the interest of corporate success, allowances are made for local and regional differences. The driving philosophy is “what works best for the corporation, and getting the best anywhere for corporate success.”

In an attempt to integrate the extant literature in this area of work, Levy et al. (2007) proposed three mind-set themes: the cultural, strategic, and multi-dimensional perspectives. The “cultural perspective conceptualizes global mindset in the context of increased cultural diversity associated with globalization” (p. 233), and this stream of research had been championed by Perlmutter (1969), Heenan and Perlmutter (1979), Chakravarty and Perlmutter (1985) and Maznevski and Lane (2004). As firms globalize, senior managers must manage a more difficult environment, and must move from an ethnocentric orientation to manage culturally diverse international management challenges. Kobrin (1994) found that “while a geocentric mind-set is definitely associated with broad geographic scope, it does not appear to be a function of length of international experience, strategy, or organizational structure” (p. 507). Hakam, Lau, and Kong (2005) found that export behavior of Singaporean firms do vary by the stages of internationalization in which they belong. This is to be expected since firms early in the internationalization stage would not be experienced or mature enough to engage in more involved or risky strategies.

The strategic perspective focuses on the tension between the global and the local (Kefalas, 1998; Arora et al., 2004). The strategic perspective conceptualizes mindset in terms of “the ability to integrate across domains” (Jeannet, 2000, p. 11) and such skills must be reflected in the cognitive abilities of managers in MNC’s (Murtha, Lenway, & Bagozzi, 1998; Jeannet, 2000). Such MNC managers must have the ability to balance between competing concerns and demands (Murtha et al., 1998), distinguish between and integrate across cultures and markets (Govindarajan & Gupta, 2001; Gupta & Govindarajan, 2002), and scan and pay attention to global issues (Bouquet, 2005). Key concepts frequently used in the conceptualization of mindsets in these studies focus on integration, responsiveness, coordination; globalization versus localization (glocal) issues, and “thinking globally” and “acting locally”. Arora et al. (2004) concluded that training in international management, manager’s age, foreign country living experience, family member from a foreign country, and job experience in a foreign country have statistically significant impacts on managers’ global mindset, and argue that global mindset is a trait that can be developed with training. Nummela, Saarenketo, and Puumalainen (2004) concluded that market characteristics-globalness of the market in which the firm operates and the turbulence of the market-are positively related to global mindset. Furthermore, the authors found a positive relationship between “global mindset” and financial indicators of the firm’s international performance. Bouquet (2005) argued that global attention structures (i.e., structural positions related to globalization, global meetings, economic incentives for global efforts, and leadership development for globalization) which firms put in place to regulate allocation of attention, will partially mediate the relationship between firms’ decision environment and top management team attention. Thus, the firm’s decision environment influences attention structures, which, in turn, affects top

management team attention to global issues. A study by Levy (2005) suggests that firms are more likely to be highly global when their top management pays attention to the global environment and considers a diverse set of elements in this environment; on the other hand, firms led by top management teams that pay attention to the internal environment are less likely to consider globalization as a viable strategic choice. In a more recent study conducted by Kraft, Dowling, and Helm (2012) on a sample of 259 internationally operating businesses based in Germany, findings indicate that business mindset orientations influence performance and such influence is enhanced by better coordination with marketing strategies.

The multidimensional perspective incorporates both the cultural and strategic perspectives, and is heavily influenced by the work of Rhinesmith (1992; 1996). In particular, the work of Kedia and Mukerji (1999) proposes three main characteristics of a global mindset: a unique time perspective, a unique space perspective, and a general predisposition. These characteristics enable a long-term view of international business activities, expanding personal space well beyond the immediate surroundings, and a predisposition more tolerant of other peoples and cultures, including valuing cultural diversity as an asset, thriving on ambiguity, balancing contradictory forces, and rethinking boundaries (Kedia & Mukerji, 1999).

The above literature review focusing on the influence of firm characteristics and export marketing strategies on export behavior and performance, and research streams in global mindsets provides the theoretical framework for this research study. If the mind-sets of management in firms differ, it would appear that a particular mind-set orientation would impact export marketing strategies (i.e., extent of product modification, importance of customer service, importance of visits to foreign distributors, frequency of visits to foreign distributors, importance of training of foreign distributors). For instance, a strategy based on a geocentric mindset will limit product modification while a polycentric mindset will maximize customer service. Similarly, global mindset influences the firm's characteristics (e.g., firm's employment, market coverage) and performance (e.g., export intensity, market share).

Based on the findings of previous studies, we hypothesize as below.

H1: Firms' export characteristics will vary based on their orientation/mindset such that: a) firms with geocentric orientation/mindset will rate higher on the investigated variables than firms with polycentric or ethnocentric orientation/mindset, and b) firms with polycentric orientation/mindset will rate higher on the investigated variables than firms with ethnocentric orientation/mindset.

H2: Export behavior of firms will vary based on their orientation/mindset such that: a) firms with geocentric orientation/mindset will rate higher on the investigated variables than firms with polycentric or ethnocentric orientation/mindset, and b) firms with polycentric orientation/mindset will rate higher on the investigated variables than firms with ethnocentric orientation/mindset.

H3: Export performance of firms will vary based on their orientation/mindset such that: a) firms with geocentric orientation/mindset will rate higher on the investigated variables than firms with polycentric or ethnocentric orientation/mindset, and b) firms with polycentric orientation/mindset will rate higher on the investigated variables than firms with ethnocentric orientation/mindset.

3. Methodology

3.1 Data Collection Procedures

Survey questionnaires were mailed to a random sample of 885 North American (Canadian and U.S.) firms across each nation. Although some studies (e.g., Raymond et al., 2001) have reported differences in export decisions and factors between developed and emerging market firms, we felt that the long history and experience of North American firms in exporting provided the best framework where all three mindsets (ethnocentric, polycentric, geocentric) would be present to a significant extent. Thirty questionnaires were returned because no forwarding address was available. Furthermore, to increase the generalizability of our results to firms operating in developed markets we include firms from both Canada and the U.S. in our analysis.

From the reduced sample size of 855 firms, 168 ($n_{\text{Canada}} = 93$; $n_{\text{U.S.}} = 75$) useable questionnaires were received (giving an adjusted response rate of 19.65 percent). In order to test for non-response bias, random telephone calls were made and responses from 30 non-responding firms on selected organizational and attitudinal variables were obtained. Chi-square and t-tests on these variables between the responding and non-responding firms showed no significant differences between the two groups.

3.2 Operationalization of Study Variables

First, following Calof and Beamish (1994), our sample subjects were provided a clear description of the three

export decision orientations (ethnocentric, polycentric, and geocentric) and then asked to identify which approach best describes how their firm currently operates. For the U.S. sample, the following definitions (adopted from Calof & Beamish, 1994) were provided (and for the Canadian sample, the term Canada/Canadian was used in place of U.S.):

- 1) Ethnocentric: All major decisions are either made in the U.S., by U.S. personnel, or overseas by U.S. nationals who manage the subsidiary. U.S. standards, procedures and objectives are used for making the decisions. Overseas offices should then use the U.S. systems/procedures/products with little or no modification.
- 2) Polycentric: All major decisions are tailored to suit the local (host country) market. In general, decisions are made in the local (host) country office, by host country personnel using their own standards, procedures, and objectives. Limited liaison is required between the host country office and the U.S. corporate office. It is possible to have different products/procedures/prices in each market.
- 3) Geocentric: All major decisions are made centrally, and managed to satisfy global needs as efficiently as possible on a global basis. Substantial coordination should exist between local (host country) offices, regional offices, and company headquarters. Either there are uniform pricing policies and products throughout the world, or all major decisions are made through collaboration between local, regional, and U.S. offices but the focus is on global systems, procedures, and objectives. Allowances are made for local and regional differences—e.g., local/regional offices could modify the global policies and procedures in light of local differences.

Second, several measures were utilized from previous studies (as discussed above in the literature review on “Export Behavior”) to capture firm characteristics, research & development strategies, export marketing strategies, and export performance (see Table 1 below). All study variables were measured using single-item measures except for technology importance, which was measured using a five-item measure as explained below. More specifically, four variables relating to “Firm Characteristics” were examined in our study using single-item measures representing the number of years the firm has been engaged in exporting, firm’s employment level, market coverage (i.e., number of foreign markets the firm exports to), and start-up to export (i.e., the number of years the firm begins exporting after start-up). Three variables relating to the firm’s “Research and Development” strategy were examined in this study. The first two are single-item measures representing the firm’s average (over the last 3 years) R&D expenditure to total sales and number of personnel involved in R&D. The third variable relating to the firm’s “Research and Development” strategy was captured using a five-items measure anchored by a five-point scale (ranging from “1=strongly disagree” to “5=strongly agree”) to assess the firm’s perception on the importance and utilization of technology in its business (e.g., technological innovation is very important for my firm’s export success, my firm devotes resources to learning about cutting edge developments in technology). Six variables relating to export marketing strategy were examined using single-item measures representing the extent of product modification in foreign market (from “1=not at all” to “5=extensive amount”), importance of customer service in the foreign market marketing effort (from “1=not important” to “5=imperative”), importance of visits to foreign distributor in selection of foreign representation (from “1=not important” to “5=imperative”), frequency of visits to foreign representative (from “1=never” to “8=once or more than once a week”), importance of training of foreign distributor (from “1=not important” to “5=imperative”), and number of personnel involved in exporting. Export performance was captured using three single-item measures representing: a) export intensity (defined as the percentage of export sales to the firm’s total sales), b) export profitability relative to domestic profitability (ranging from “1=much less” to “5=much more”, as defined by Bilkey [1982]), and market share performance relative to competitors’ in export market (from “1=very low” to “5=very high”). Finally, respondents were asked to provide information about their job title and the number of years they have been involved/responsible for their firm’s exports to capture their level of competence in assessing their firms export decisions and activities (Kumar, Stern, & Anderson, 1993).

4. Findings

Our analysis is organized as follows: a) we start with a description of the sample characteristics including study respondents, the firms represented in our sample and the distribution of export decision orientations across firms in our sample, and then b) we use analysis of variance to examine the differences in selected organizational characteristics, research and development (R&D) strategy, export marketing strategy, and export performance measures across the three export decision orientations. We ran separate analyses of variance for each sample (i.e., Canada and the U.S.). Our analysis indicates no differences in the pattern of results between the two samples. As such, we conduct our analyses combining the two samples.

Table 1. Correlations between study variables

Investigated Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Firm Characteristics																
1. Years in exporting																
2. Firm's employment	.376 ^a															
3. Market coverage	.097	.333 ^a														
4. Start-up to export (months)	.143	.113	-.049													
Research & Development																
5. Average R & D expenditure to total sales	-.160	-.062	.067	-.152												
6. Personnel in R & D	.173 ^b	.472 ^a	.262 ^a	-.111	.318 ^a											
7. Technology importance	-.075	.139	.197 ^b	-.314 ^a	.343 ^a	.323 ^a										
Export Marketing Strategy																
8. Extent of product modification	.118	.099	.315 ^a	-.045	.090	.176 ^b	.267 ^a									
9. Importance of customer service	-.032	.181 ^b	.150	-.107	.107	.218 ^a	.296 ^a	.203 ^a								
10. Importance of visit to foreign distributor	-.143	.229 ^b	.108	-.012	.168	.223 ^b	.316 ^a	.187 ^b	.324 ^a							
11. Frequency of visit to foreign distributor	-.111	.229 ^a	-.028	.038	.121	.205 ^a	.325 ^a	.008	.446 ^a	.423 ^a						
12. Importance of training of foreign distributor	-.077	.008	.110	-.075	.189	.124	.260 ^a	.248 ^a	.412 ^a	.548 ^a	.281 ^a					
13. Personnel involved in exporting	.204 ^b	.314 ^b	.124	-.115	-.023	.208 ^a	.194 ^b	.273 ^a	.133	.101	.070	.134				
Export Performance Measures																
14. Export intensity	-.088	.070	.341 ^a	-.326 ^a	.364 ^a	.243 ^a	.429 ^a	.268 ^a	.245 ^a	.324 ^a	.362 ^a	.249 ^a	.336 ^a			
15. Export profitability	-.182 ^b	-.232 ^a	-.003	-.100	.073	-.141	.114	.087	.002	.195 ^b	.099	.111	-.067	.292 ^a		
16. Market share performance in export market	.136	.310 ^b	.356 ^a	.004	.056	.173 ^b	.279 ^a	.250 ^a	.215 ^a	.057	.203 ^b	.061	.259 ^a	.344 ^a	.005	

^a Correlation is significant at the .01 level

^b Correlation is significant at the .05 level

4.1 Sample Characteristics

Respondents were asked to provide information about their job titles and export experience with their firms. Study respondents were senior level executives (e.g., presidents, general managers, and upper managerial level administrators) who have been directly involved or responsible for decisions and activities associated with their firms exporting. All together, study respondents had 1,493 years of exporting experience in their firms or almost around 10 years of experience per respondent. As such, study respondents were in a position that enables them to provide accurate perspective related to examined issues in our study. The sample was made up of 60.2% small firms (with total company sales of less than U.S. \$10 million) and 18.1% medium sized firms (company sales of between U.S. \$10 million and \$500 million). On average, they employed 72 workers, earned about 35.5% of corporate sales from exporting, and registered 15.8 years in exporting experience. The sample reported covering an average of 10 foreign markets (e.g., U.S./Canada, Latin America, Asia and Western Europe). About forty-five percent of the firms started their exporting through unsolicited orders. It took slightly less than ten years on the average for the firms to begin exporting from their start-up. A very small percentage (12.8%) indicated that the company has established a separate export department. Finally, the distribution of export decision orientations across the firms in our sample was as follows: Ethnocentric (n = 69), Polycentric (n = 19), and Geocentric (n = 48). Measurement quality for the multi-item measure in our study, technology importance, was examined for construct validity through exploratory factor analysis and for internal consistency reliability via item-to-total correlations and Cronbach's alpha following Nunnally and Bernstein (1994) recommendations. A one-factor solution was obtained for this construct with Eigen value of 2.84 and 57 percentage of the variance extracted. All five items loaded at high levels above the suggested 0.50 and the Cronbach's alpha was high at .81. As such, our results demonstrate valid and reliable measures.

4.2 Analysis of Variance

First, analyses of variance were conducted to test whether firm's characteristics, research and development (R&D) strategy, export marketing strategy, and export performance measures differs by the levels of export decision orientations (i.e., ethnocentric, polycentric, and geocentric). Next, given an overall significant main effect of the level of export decision orientation on a study variable, we proceeded to test multiple comparisons between each pair of export decision orientations. Scores for study variables across export decision orientations and the results of analysis of variance are summarized in Table 2 below.

Table 2. Analysis of variance to compare mean scores for study variables between export decision orientations

Investigated Variables	Export Decision Orientations ^a			<i>F</i>	<i>p</i>
	Ethnocentric	Polycentric	Geocentric		
Firm Characteristics					
1. Years in exporting	16.7	13.2	13.1	1.72	.184
2. Firm's employment	61.0	45.4	68.4	0.53	.592
3. Market coverage	8.9	6.6	13.7	3.06	.051
4. Start-up to export (months)	151.6	94.0	108.4	1.39	.253
Research & Development					
5. Average R & D expenditure to total sales	4.7	6.6	12.4	3.88	.023
6. Personnel in R & D	3.6	3.4	7.3	2.89	.059
7. Technology importance ^b	2.9	3.8	3.6	8.84	.000
Export Marketing Strategy					
8. Extent of product modification ^c	1.7	2.4	2.1	5.15	.007
9. Importance of customer service ^d	3.8	4.3	4.2	3.42	.036
10. Importance of visit to foreign distributor ^d	3.6	4.5	4.1	5.41	.006
11. Frequency of visit to foreign distributor	3.1	3.5	3.9	2.95	.057
12. Importance of training of foreign distributor ^d	3.3	4.3	3.9	5.96	.004
13. Personnel involved in exporting	1.6	1.4	5.2	2.51	.086
Export Performance Measures					
14. Export intensity (export sales to total firm sales)	24.3	40.8	44.3	6.90	.001
15. Export profitability ^e	3.2	3.5	3.7	4.68	.011
16. Market share performance in export market ^f	2.9	3.2	3.5	5.99	.003

^a Ethnocentric (n = 69), polycentric (n = 19), and Geocentric (n = 48).

^b Using five items measure anchored by five-point scales from (1 = strongly disagree) to (5 = strongly agree).

^c Respondents were asked, "To what extent is the product modified for the foreign market?" with a five-point scale from (1 = not at all) to (5 = extensive amount).

^d Using five items measure anchored by five-point scales from (1 = not important) to (5 = imperative).

^e Respondents were asked, "Compared to selling the product in the U.S./Canada, exporting is:" with a five-point scale from (1 = much less profitable) to (5 = much more profitable).

^f Respondents were asked, "Your product's market share relative to competitors' in your primary export market is:" with a five-point scale from (1 = very low) to (5 = very high).

4.2.1 Firm Characteristics

Results indicated no differences in the years of exporting ($F_{(2, 136)} = 1.72, p = .184$), level of employment ($F_{(2, 136)} = 0.53, p = .592$), and start-up to export (in months) ($F_{(2, 136)} = 1.39, p = .253$) between export decision orientations. However, the extent of market coverage across the three export decision orientations was significantly different ($F_{(2, 136)} = 3.06, p = .051$). Further analysis indicated that firms with geocentric export decision orientation covered more markets than firms with ethnocentric orientation ($13.7 > 8.9, t = 1.81, p = .074$) or polycentric orientation ($13.7 > 6.6, t = 2.46, p = .017$). There was no difference in market coverage between firms with polycentric and ethnocentric orientations ($8.9 > 6.6, t = .971, p = .337$).

4.2.2 Research and Development

Concerning research and development, results indicated significant differences in average R&D expenditure to total sales ($F_{(2, 136)} = 3.88, p = .023$), personnel in R&D ($F_{(2, 136)} = 2.89, p = .059$), and technology importance ($F_{(2, 136)} = 8.84, p < .001$) across export decision orientations. More specifically, firms with geocentric export orientation appear to spent more on R&D (as a percentage of sales) compared to firms with ethnocentric export

orientation ($12.4 > 4.7$, $t = 2.28$, $p = .027$). There were no differences in R&D expenditures between polycentric vs. geocentric oriented firms ($12.4 > 6.6$, $t = 1.53$, $p = .131$) and between polycentric vs. ethnocentric oriented firms ($6.6 > 4.7$, $t = 1.00$, $p = .328$). With regard to R&D personnel, results indicated that firms with geocentric orientation had more personnel in R and D compared to firms with polycentric orientation ($7.3 > 3.4$, $t = 2.06$, $p = .045$) or firms with ethnocentric orientation ($7.3 > 3.6$, $t = 1.91$, $p = .060$). There was no difference in R and D personnel between firms with polycentric orientation and firms with ethnocentric orientation ($3.4 < 3.6$, $t = .197$, $p = .844$). Finally, while there was no difference in the importance of technology for firm success between firms with geocentric orientation and firms with polycentric orientation ($3.6 < 3.8$, $t = 1.22$, $p = .227$), our results showed that firms with geocentric ($3.6 > 2.9$, $t = 3.35$, $p = .001$) or polycentric ($3.8 > 2.9$, $t = 5.14$, $p = .000$) export orientation assigned more importance to technology for success in comparison to ethnocentric oriented firms.

4.2.3 Export Marketing Strategy

With regard to firms' export marketing strategy, our results indicated significant differences among firms according to their export decision orientation on all six variables: extent of product modification ($F_{(2, 136)} = 5.15$, $p = .007$), importance of customer service ($F_{(2, 136)} = 3.42$, $p = .036$), importance of visits to foreign distributor ($F_{(2, 136)} = 5.41$, $p = .006$), frequency of visits to foreign representative ($F_{(2, 136)} = 2.95$, $p = .057$), importance of training of foreign distributor ($F_{(2, 136)} = 5.96$, $p = .004$), and number of personnel involved in exporting ($F_{(2, 136)} = 2.51$, $p = .086$). With regard to the extent of product modification, both geocentric ($2.1 > 1.7$, $t = 2.53$, $p = .013$) and polycentric oriented firms ($2.4 > 1.7$, $t = 2.17$, $p = .041$) had a higher degree of product modification compared to ethnocentric oriented firms. Along the same lines, both geocentric ($4.2 > 3.8$, $t = 2.01$, $p = .047$) and polycentric firms ($4.3 > 3.8$, $t = 2.28$, $p = .027$) assigned higher level of importance to customer service in comparison to ethnocentric oriented firms.

Our results indicate that geocentric oriented firms compared to ethnocentric oriented firms assigned more importance to visits to foreign distributors ($4.1 > 3.6$, $t = 2.27$, $p = .026$) and training of foreign distributors ($3.9 > 3.3$, $t = 2.36$, $p = .021$), and had more frequent visits to their foreign distributors ($3.9 > 3.1$, $t = 2.29$, $p = .028$). We also found that polycentric firms, in comparison to ethnocentric firms, assigned more importance to visits to foreign distributors ($4.5 > 3.6$, $t = 2.35$, $p = .003$) and more importance to training of foreign distributors ($4.3 > 3.3$, $t = 3.31$, $p = .004$), but both orientations did not differ in the frequency of visits to foreign distributors ($3.5 > 3.1$, $t = .525$, $p = .605$). There were no differences between geocentric and polycentric oriented firms with regard to the degree of product modification ($2.1 < 2.4$, $t = .674$, $p = .506$), the importance of customer service ($4.2 < 4.3$, $t = .375$, $p = .710$), importance of visits to foreign distributor ($4.1 < 4.5$, $t = 1.57$, $p = .131$), frequency of visits to foreign representative ($3.9 > 3.5$, $t = 1.03$, $p = .316$), and importance of training of foreign distributor ($3.9 < 4.3$, $t = 1.38$, $p = .179$). Geocentric firms appears to have more people involved in exporting compared to firms with polycentric orientation ($5.2 > 1.4$, $t = 1.77$, $p = .083$) or firms with ethnocentric orientation ($5.2 > 1.6$, $t = 1.93$, $p = .056$), while there was no differences in personnel involved in exporting between polycentric vs. ethnocentric firms ($1.4 < 1.6$, $t = .725$, $p = .472$).

4.2.4 Export Performance Measures

Finally, with regard to export performance, results indicated significant differences in export performance across the three export decision orientations ... export intensity ($F_{(2, 136)} = 6.90$, $p = .001$), export profitability relative to domestic profitability ($F_{(2, 136)} = 4.68$, $p = .011$), and market share performance ($F_{(2, 136)} = 5.99$, $p = .003$). There were no differences between geocentric and polycentric oriented firms with regard to export intensity ($44.3 > 40.8$, $t = .372$, $p = .712$), export profitability ($3.7 < 3.5$, $t = .632$, $p = .533$), and market share performance ($3.5 < 3.2$, $t = 1.26$, $p = .217$). In comparison to ethnocentric firms, geocentric firms had more export intensity ($44.3 > 24.3$, $t = 3.45$, $p = .001$), were profitable in exporting ($3.7 > 3.2$, $t = 3.03$, $p = .003$), and had better market share performance in their export markets ($3.5 > 2.9$, $t = 3.54$, $p = .001$). While polycentric firms demonstrated more export intensity ($40.8 > 24.3$, $t = 1.94$, $p = .064$) than ethnocentric firms, they did not differ from ethnocentric firms on both export profitability ($3.5 > 3.2$, $t = 1.23$, $p = .232$) and market share performance ($3.2 < 2.9$, $t = 1.27$, $p = .212$).

5. Discussion & Managerial Implications

This study has shown that differences exist in firm R&D, export marketing strategy, and export performance across firms with different export decision orientation levels as hypothesized. More specifically, our results indicated that the extent of market coverage was significantly different across the three export decision orientations as hypothesized. However, no differences in the years of exporting, level of employment, and start-up to export (in months) between export decision orientations were found. As such, H1 is partially

supported. That no differences in mindset were found between variables representing firm characteristics such as 'years in exporting,' and 'employment level' is unexpected since previous research has typically distinguished the mindsets based on these characteristics. However, it is apparent that for most of the remaining variables investigated, significant differences are found between an ethnocentric mindset and geocentric/polycentric mindsets and in the hypothesized direction. Thus, H2 and H3 were largely supported. MNC's with a geocentric or polycentric mindset are more likely to undertake more customer-oriented marketing strategies than firms with an ethnocentric mindset; such firms are more likely to out-perform ethnocentric firms. The study revealed that the following customer-oriented strategies are typically practiced by these firms:

- a) More market coverage
- b) Allocate more funding for R&D activities, including more in R&D personnel
- c) Put more emphasis on the use of technology in products for the export market
- d) Modify products to meet the market needs and wants
- e) Focus on customer service in the foreign markets
- f) Focus on training of foreign distributors, and attach more importance to visits and frequency of visits to foreign distributors
- g) Have sufficient and dedicated/committed export managers and staff

Firms engaging in these practices, even without accounting for management orientations or mindset, have been shown in other studies to result in superior performance (e.g., Raymond et al., 2001). Our study further revealed that even better results can be achieved as firms adopt a more geocentric or polycentric mindset. This suggests that ethnocentric firms, including exporting ones, quickly adopt a more geocentric or polycentric mindset to gain competitive advantage. Obviously, many of these practices require greater expenditure and commitment to international markets. Thus to achieve this mindset scale-up, more resources need to be at the disposal of the firm.

Herein lies the conundrum facing ethnocentric firms ... more resources are needed to gain geocentric status/stature, but more success (in terms of export profitability, and market share) is required to justify the additional expense. So, the trick is to utilize strategies that quickly enhance export profitability and market share. For one, ethnocentric firms need to be more aggressive in seeking new markets. Export markets can be expanded by venturing into un-served market niches. Also, it can be achieved through prudent product adaptation and customization where necessary, without incurring tremendous incremental costs. Another way to incrementally ratchet up export sales is to target countries with new trade deals with the home country. Hiring export brokers/representatives in the foreign market on a commission basis can serve to drum up sales with the sunk costs of fixed salaries. Greater contact and monitoring of foreign representatives can be achieved with newer technologies. More risk prone firms can provide more liberal financing and logistical terms.

Another group of ethnocentric firms may be hampered from becoming polycentric or geocentric due to management resistance. In this case, the case needs to be made to top management and the board of directors about the effect of orientations/mindset on export profitability and market share.

The above findings are consistent with those found by past researchers (Cunningham & Spiegel, 1971; Kirpalani & MacIntosh, 1980; McGuinness & Little, 1981; Bilkey, 1982; Beamish, & Munro, 1986; Koh & Robicheaux, 1988; Koh, 1991; Calof, 1994; Calof & Beamish, 1994; Francis & Collins-Dodd, 2000). The findings also show that except for export intensity (defined as the percentage of export sales to total firm sales), the export marketing strategies evaluated in this study do not vary between firms holding a geocentric mindset compared to those holding the polycentric mindset. While marketing strategies do differ across firms in different stages of internationalization (Hakam et al., 1993), the findings from this study provide further support that so long as firms adopt a worldview going beyond one's immediate surroundings, the practice of globalization-localization (or glocal) is likely to produce better performance in the market place. Past research studies that focus only on the variables that directly influence export behavior have produced conflicting and fragmented results. The inclusion of three kinds of mindsets (ethnocentric, polycentric, and geocentric) as moderator between antecedents and export performance provide a more robust explanation for variations in export performance. These results also support the conclusion by Nummela et al. (2004) that managerial experience and market characteristics are important drivers of the global mindset, which, in turn, is one of the key parameters of international performance. As opined by many CEOs, developing a company global mindset is a "prerequisite for global industry dominance." (Govindarajan & Gupta, 2001). Managerially, from the international human resource management point of view, the findings of this study point to selecting and hiring future managers, who

are proactive, committed, and exhibit an international/global vision.

6. Limitations & Further Research Direction

This study is cross-sectional in nature and provides only a snap-shot view of the firm's activities and characteristics in impacting market performance. However, Perlmutter's study (1969) suggested that most companies normally move from an ethnocentric view to polycentric and finally geocentric view, as the organization familiarizes itself with operating at a global level. As such, a more robust study should include longitudinal assessment of changes in the firm's internationalization stages and variations in activities over time, and more so if firms move up the Ethnocentric-Polycentric-Geocentric framework to become more global. Also, the sample can be broadened to include other developed and emerging nations. Further, a comparison of both categories of nations may reveal substantive findings. As noted earlier, all three mindsets may not have been fully developed and applied by firms from emerging countries. The variables used in this study (firm characteristics, export strategy, and export performance) can be expanded. The impact of other relevant variables such as managers' characteristics (e.g., Stoian & Rialp-Criado, 2010), and the internet can be introduced. Also, replication of this study using objective measures of performance could provide different results (Shoham, 2002). Finally, the weak relationship between firm characteristics and global mindset as mentioned earlier is surprising and needs to be studied further, perhaps by enlarging the sample size.

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Investigating the Factors Influencing the Usage of Smart Entry Service: Incheon International Airport Case Study

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Received: October 17, 2013

Accepted: October 23, 2013

Online Published: December 23, 2013

doi: 10.5539/ibr.v7n1p74

URL: <http://dx.doi.org/10.5539/ibr.v7n1p74>

Abstract

This study seeks to improve our understanding of airport users' intentions of using the smart entry service (SES) by testing a research model that considers functionality, security, perceived enjoyment, perceived ease-of-use, perceived usefulness, and intention to use simultaneously. The variables that affect the intention of using the SES were investigated, and the correlations among the variables were analyzed. Through the E-Technology Acceptance Model (TAM) that is based on the concept of self-service technology, a research model of the intention of using SES was developed in this study. Surveys were conducted targeting 276 passengers who were experienced with SES, and the correlations among the variables were analyzed using a structural equation modeling. It was found that there were significant relationships between the variables, except in four paths. The result showed that factors such as functionality, security, perceived enjoyment, perceived ease-of-use, and perceived usefulness were confirmed to have positively affected the intention of using SES. The outcomes of this study may be used as baseline data for establishing a strategy to promote the use of the SES.

Keywords: smart entry service, self service technology, technology acceptance model

1. Introduction

Nowadays the aviation industry confronts the necessity of providing passengers with fast and precise entry services. The simplification of the process of emigration and immigration is a worldwide trend as recommended by International Civil Aviation Organization (ICAO), International Air Transport Association (IATA), and Airports Council International (ACI). Accordingly, countries and airports of the world have tried to simplify the process of emigration and immigration, and to prepare related systems. In particular, the passport/visa screening time and the service quality are considered to directly affect the airport service evaluation. Therefore, reduction in the entry service time is considered important to airports. Incheon International Airport (IIA) has introduced SES in an attempt not only to improve the passenger processing system but to consistently increase the efficiency of the entry service. In this study, the relations among the variables that affect the intention of using Incheon International Airport SES were investigated through the study model that simultaneously considers the factors such as functionality, security, perceived enjoyment, perceived ease-of-use, and perceived usefulness.

2. Self Service Technology and Korea Immigration Smart Service

2.1 Korea Immigration Smart Service

SES is the most updated entry service system that is used at the designated gates after passport number and bio information such as fingerprints and face are registered. SES has been widely accepted in the airports of more than 40 countries of the world including Australia's Smart Gate, Hong Kong's e-Gate, Netherland's Privium, and America's Global Entry. IIA started to use SES from June 2008. Passengers of Incheon International Airport can complete entry service within 12 seconds by using SES instead of face-to face screening. Since SES has been introduced, one million passengers have used SES for the past four years, and as of January 2013, the number reached 14 million. IIA continues to promote the SES usage for enhancing the efficiency of the process of emigration and immigration, and tries to understand the major variables that affect the intention of using SES as well as their correlations.

2.2 Self Service Technology and Technology Acceptance Model

Self Service Technology (SST) is the customers' own use or procurement of services (Anselmsson, 2001). In SST, technological factors can be involved in or not. When companies try to convert their method of providing services from the conventional one to self-service, the options of self-service can be unattractive, so they may face difficulties in marketing (Bateson, 1985). Therefore, companies must explain customers about the procedures and advantages of the new services considering the roles of customers (Wang & Namen, 2004). SSTs are "technological interfaces that enable customers to produce a service independent of direct service employee involvement" (Meuter et al., 2000, p. 50). These days many companies in various fields provide customers with a wide variety of self-service options using new technologies. These technology-based services are expected to be a core factors in the long-term business success. Parasuraman (1996) stated the importance of self-service as a fundamental change in the service industry. Use of SST can result in improvements in efficiency, cost, time, and conveniences such as accessibility. In addition, customers can create services for themselves using SST, and can accept larger responsibilities on the results (Choi et al., 2011; Mills et al., 1983; Zeithamal, 1981).

The effects of SST have been under study. Oh et al. (2013) analyzed the effects of SST on the intention of use with the items of perceived ease-of-use, individuality, autonomy, and efficiency. Lin and Hsieh (2011) developed SSTQUAL containing functionality, security, convenience, perceived enjoyment, assurance, and design. Based on quality and TAM, Ha and Stoel (2009) confirmed the relations among perceived ease-of-use, perceived enjoyment, and perceived enjoyment. Jang and Noh (2011) analyzed the correlations among design, security, perceived ease-of-use, perceived enjoyment, and perceived enjoyment. In this study, the effects of the technological factors of SST features such as functionality and security on the intention of using SES were analyzed. Security is a decisive factor in SST evaluation, which is the level of privacy or data security perceived by SES users. The importance of security is growing with the increase in the use of technology-based services (Gunasekaran & Ngai, 2003; Buellingen & Woerter, 2004). Most recently, privacy-related damage is more and more common, and accordingly, the importance of information security is increasing (D'Souza & Nowak, 2001; Horne & Horne, 1997; Milne, 2000; Phelps, Sheehan, & Hoy, 2000). These issues must be considered in the aspect of companies that use SST (Buellingen & Woerter, 2004; Chae & Kim, 2003). Functionality is the process or movement that occurs according to customers' requests, and includes accessibility, responses, and the speed of service (Collier & Bienstock, 2006). Since one of purposes of using SST is to secure the efficiency through the increase in the processing speed, functionality should be seriously considered for fast and efficient services.

TAM is modified from Theory of Reasoned Action (TRA), and can explain and predict the IT acceptance behaviors of users. Since 1990, TAM has been discussed in many IT studies. In TAM, perceived enjoyment and perceived ease-of-use are most important parameters, and they are also practically important (Moon & Kim, 2001). Perceived usefulness is "the degree to which a person believes that using a particular system would enhance his or her job performance" (Davis et al., 1989). Perceived ease-of-use, defined as "the degree to which a person believes that using a particular system would be free of effort" (Davis, 1989). The positive correlations between perceived enjoyment and perceived ease-of-use have been proved in most studies. This means that users feel the technology they use is useful when it is perceived easy to use (Davis, 1989). Similarly, perceived ease-of-use is associated with perceived enjoyment. When users can use a system more easily, they have more perceived enjoyment (Igarria et al., 1996). According to previous studies on TAM, when users have a perceived enjoyment like amusement, they voluntarily use IT, and who have a high level of the same have perceived enjoyment of the technology they use (Davis et al., 1992; Venkatsh, 2000; Moon & Kim, 2001). Most recently a technology acceptance model that is added with perceived enjoyment as a belief variable is suggested. In the studies that are focused on perceived enjoyment these days, its parameter function as a belief variable is drawing attention (Moon & Kim, 2001; Koufaris, 2002; Heiden, 2000). Most of the IT users tend to use technologies for fun, and enjoyment results in the increase in the intention of use (Bruner & Kumar, 2005; Venkatsh, 1999). In this study, perceived enjoyment is defined as the level of fun obtained from the use of the SES system. The intention of use is the variable that is affected by various external variables and belief variables, and it decides users' activities. The intention of use in this study can be defined as the level of the will to use the SES system in the future. SST intention is operationalized as the likelihood of choosing to use SSTs instead of the service staff for a service transaction.

2.3 Research Model and Hypotheses

The research model is presented in Figure 1. The research model is based on a review of previous research that has looked at SST and TAM. Airport user's intention to use of SES are investigated by testing a research model that considers functionality, security, perceived usefulness, perceived ease-of-use, perceived enjoyment, and intention to use simultaneously. The research hypotheses are shown in Table 1 and all the paths are hypothesized

to be positive.

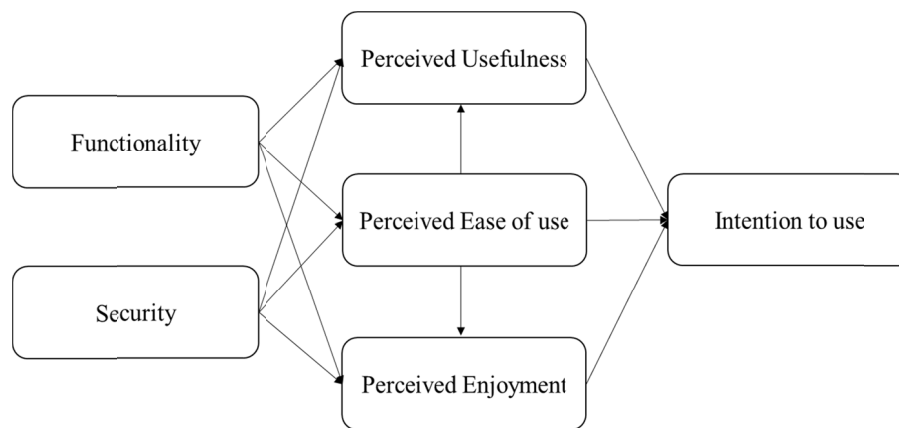


Figure 1. Conceptual model

Table 1. Research hypotheses

Hypotheses	
H ₁	Functionality has a positive effect on perceived enjoyment.
H ₂	Functionality has a positive effect on perceived ease-of-use.
H ₃	Functionality has a positive effect on perceived usefulness.
H ₄	Security has a positive effect perceived enjoyment.
H ₅	Security has a positive effect on perceived ease-of-use.
H ₆	Security has a positive effect on perceived usefulness.
H ₇	Perceived ease-of-use has a positive effect on perceived enjoyment.
H ₈	Perceived ease-of-use has a positive effect on perceived usefulness.
H ₉	Perceived enjoyment has a positive effect on intention to use.
H ₁₀	Perceived ease-of-use has a positive effect on intention to use.
H ₁₁	Perceived usefulness has a positive effect on intention to use.

3. Methodology

The questionnaire was prepared with the measuring tools that were recognized to have had validity and reliability through previous studies and pre-investigation. These items were measured on a seven-point Likert scale where 1=strongly disagree and 7=strongly agree). The measurement variables and measurement items that were used in this study are shown in Table 2. The survey was conducted at the departure hall of IIA in July 2013 for a month targeting the passengers who once used SES. Of the 400 distributed, 316 questionnaires were returned to the researchers. After cases with missing data had been eliminated, 276 questionnaires were collected and used for further analysis. The demographic characteristics of the 276 respondents are summarized in Table 3. By gender, male passengers accounted for 64.1%, and female, 35.9%. The male dominance was due to the majority of the passengers who were males on business trips. By age, 20–29 years old passengers accounted for 42.4% reflecting the active use in the younger population.

4. Empirical Results

To test the unidimensionality of the measurement items, confirmatory factor analysis was conducted in this study. The measurement model showed an acceptable fit ($\chi^2(153)$ of 596.538, $p = .000$; RMR = .078; GFI = .821; AGFI = .754; TLI = .901; CFI = .921). The loadings, their corresponding critical ratio, standardized loadings are presented in Table 4. When the standardized loading was higher than 0.5, a convergent validity was confirmed (Anderson & Gerbing, 1988). In this study, all items showed 0.5 or higher levels, so the convergent validity was secured (Table 4).

Table 2. Measurement items

Measures	Variables ^a
Functionality	SES system can complete entry service quickly.
	SES system can quickly complete the procedures of passport screening and fingerprinting identification.
	SES system is not complicated.
	SES system is well organized in overall.
Security	SES system hardly leak personal information.
	SES system is believed to safely protect my personal information.
	SES system does not share my personal information with other systems.
Perceived ease-of-use	SES system is easy to use.
	It is easy to understand how to use SES.
	The process of using SES is convenient.
Perceived enjoyment	SES system is amazing.
	SES system stimulates my curiosity.
	It is interesting to use SES system.
	The process of using SES is pleasant.
Perceived usefulness	SES system is useful.
	SES system can save my time.
	SES system will improve the entry service procedure.
Intention to use	I will continue to use SES.
	I will tell other people positively about SES.
	I will recommend other people to use SES.

* Note: a seven-point Likert scale.

Table 3. Demographic information of the participants

Item		Number	Percentage (%)
Gender	Male	177	64.1
	Female	99	35.9
Age category	< 20	1	0.4
	Between 20 and 29 years	117	42.4
	Between 30 and 39 years	74	26.8
	Between 40 and 49 years	75	27.2
	Between 50 and 59 years	8	2.9
	> 60	1	0.4
Education level	High school or less	2	0.7
	2 years college	9	3.3
	4 year college	171	62.0
	Post graduate	94	34.1
Occupation	Company staff (businessmen)	143	51.8
	Private business	7	2.5
	Government employee	14	5.1
	housewife	1	0.4

	Student	84	30.4
	Others	27	9.8
Income (in won)	< 1,000,000	87	31.5
	Between 1,000,000–2,000,000	24	8.7
	Between 2,010,000–3,000,000	58	21.0
	Between 3,010,000–4,000,000	42	15.2
	> 4,000,000	65	23.6

Note: 1080 Korea won is equivalent to \$1 USD (in September, 2013).

Table 4. Confirmatory factor loadings and fit statistics

Factor	Variables ^a	Loadings	Standardized loadings
Factor 1 Functionality	SES system can complete entry service quickly.	.864(16.939)	.815
	SES system can quickly complete the procedures of passport screening and fingerprinting identification.	.849(17.518)	.831
	SES system is not complicated.	.934(17.476)	.828
	SES system is well organized in overall.	1.000	.865
Factor 2 Security	SES system hardly leak personal information.	1.000	.883
	SES system is believed to safely protect my personal information.	.961(16.770)	.897
	SES system does not share my personal information with other systems.	.736(12.201)	.667
Factor 3 Perceived ease-of-use	SES system is easy to use.	1.185(21.781)	.932
	It is easy to understand how to use SES.	1.050(21.048)	.914
	The process of using SES is convenient.	1.000	.854
Factor 4 Perceived enjoyment	SES system is amazing.	1.022(15.710)	.915
	SES system stimulates my curiosity.	.983(17.540)	.961
	It is interesting to use SES system.	1.042(17.487)	.859
	The process of using SES is pleasant.	1.000	.842
Factor 5 Perceived usefulness	SES system is useful.	1.000	.861
	SES system can save my time.	.862(16.686)	.807
	SES system will improve the entry service procedure.	.959(16.669)	.806
Factor 6 Intention to use	I will continue to use SES.	1.000	.925
	I will tell other people positively about SES.	.970(32.428)	.966
	I will recommend other people to use SES.	1.018(30.019)	.945

*Note: Values in parentheses are critical ratios and all the values are significant ($p < 0.001$).

The model fits in this study were: $\chi^2(156)$ of 619.711, $p = .000$; RMR = .085; GFI = .814; AGFI = .750; TLI = .899; CFI = .917; RMSEA = .104. RMSEA was slightly out of the fit boundary, but others were close to the optimal fit index, so the model that was used in this study was satisfactory. Except for four causal paths, all the other hypothesized relationships were statistically significant. The three statistically insignificant paths were the effect of functionality on perceived enjoyment, the effect of security on perceived ease-of-use, the effect of security on perceived usefulness and the effect of perceived ease-of-use to intention to use (Table 5). As hypothesized, functionality was found to have a positive effect on perceived ease of use and perceived usefulness. Security had a positive effect on perceived enjoyment and perceived ease-of-use had a positive effect on perceived enjoyment and perceived usefulness. Perceived enjoyment and perceived usefulness were found to

have a positive effect on intention to use.

Table 5. Test results

Hypothesis	Path	Estimates	Standard error	t-value	Test results
H ₁	Functionality → Perceived enjoyment	.222	.151	1.468	Not Supported
H ₂	Functionality → Perceived ease-of-use	.839	.059	14.261***	Supported
H ₃	Functionality → Perceived usefulness	.532	.126	4.233***	Supported
H ₄	Security → Perceived enjoyment	.089	.048	1.872*	Supported
H ₅	Security → Perceived ease-of-use	-.036	.035	-1.019	Not Supported
H ₆	Security → Perceived usefulness	.016	.038	.434	Not Supported
H ₇	Perceived ease-of-use → Perceived enjoyment	.495	.155	3.198***	Supported
H ₈	Perceived ease-of-use → Perceived usefulness	.365	.126	2.892***	Supported
H ₉	Perceived enjoyment → Intention to use	.246	.057	4.334***	Supported
H ₁₀	Perceived ease-of-use → Intention to use	-.053	.118	-.451	Not Supported
H ₁₁	Perceived usefulness → Intention to use	.939	.115	8.182***	Supported

*p < .10 / ***p < .01.

5. Conclusions

This paper has examined the effects of functionality, security, perceived ease-of-use, perceived enjoyment, and perceived ease of use on airport users' intentions of SES. As a result of analyzing the study model, following implications were confirmed. First, among the SST features, functionality was confirmed the most influential on perceived ease-of-use. This means when the connection speed is higher and the overall structure is better, users think the system is more convenient and useful. Accordingly, effort should be made to improve the functional aspects of the SES system. Second, security was confirmed to influence on perceived enjoyment. This was due to the consumers' lack of confidence on the personal information protection in SES. It is necessary to inform passengers about their personal information protection, and to convince them to feel interesting while they are using SES. Third, perceived ease-of-use was confirmed to positively influence on both perceived enjoyment and perceived usefulness. The reason why perceived ease-of-use did not influence on the intention of use was due to this diverse world which is in the mix of analog and digital. Despite of the inconvenience of not using SES, some passengers may still want entry permit stamps on their passports. Nevertheless, airports may need to develop technologies that can satisfy both functionality and security to facilitate the use of the SES system. By doing so, the services that are added with not only perceived ease-of-use and perceived usefulness but also perceived enjoyment can be provided to passengers.

Acknowledgements

The co-operation of IIA for the survey of this study is highly appreciated. The authors also extend our thanks to the airport users who answer the questionnaires of this study.

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Size Effect, Seasonality, Attitude to Risk and Performance of Egyptian Banks

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Received: October 17, 2013

Accepted: October 23, 2013

Online Published: December 23, 2013

doi: 10.5539/ibr.v7n1p82

URL: <http://dx.doi.org/10.5539/ibr.v7n1p82>

Abstract

This paper aims at analyzing the effects of “size”, “seasonality” and “attitude to risk” on the performance Egyptian banks. This has been conducted using a sample of 10 banks, and covering the period from the first quarter 2003 to the fourth quarter 2011.

Results indicate that, hypotheses regarding the significance of differences between performance indicators, according to “size”, “seasonality” and “attitude to risk” on the performance Egyptian banks could be accepted.

Also, robustness check assures the significance of these effects, where indicators of both capital adequacy and earnings are affected by both of size and attitude to risk, while asset quality is affected by size and seasonality.

Keywords: attitude to risk, CAMEL, Egyptian banks, size effect, seasonality

1. Introduction

Egyptian banks have expanded their activities that the growing assets, deposits, and loans reflect, during the period from 2005 to 2011. This period witnessed growing in banking activities that table (1) illustrates (in LE mn).

Table 1. Development of Egyptian banking activities from 2005 to 2011

<i>At end of June</i>	<i>Assets</i>	<i>Deposits</i>	<i>Loans</i>	<i>Equity</i>
2005	705146	519649	308195	35368
2006	761562	568841	324041	40530
2007	937923	649953	353746	45589
2008	1083311	747199	401425	53436
2009	1091993	809694	429957	62921
2010	1220655	892492	465990	75084
2011	1269690	957037	474139	81105

Source: Central Bank of Egypt (2011) **Annual Report**.

Changes in performance indicators encourage illustrating their determinants and the orientation of this paper is based on using “bank size”, “seasonality” and “attitude to risk” as determinants of “banking performance” and on using CAMEL as an approach of “performance evaluation”. Table 2 illustrates the development of Egyptian banks’ performance from 2008 till 2011, as follows:

Table 2. Development of Egyptian banking performance from 2008 to 2011

<i>Item</i>	<i>Indicator</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>
Capital Adequacy	Capital Base to Risk weighted assets	0.147	0.151	0.163	0.156
	Tier 1 Capital to Risk-Weighted Assets	0.115	0.120	0.127	0.130
	Net Worth to Assets	0.062	0.064	0.067	0.062
Asset Quality	Nonperforming Loans to Total Loans	0.148	0.134	0.136	0.109
	Loan Provisions to Nonperforming Loans	0.921	1.004	0.925	0.946
	Loans to Private Sector to Loans to Customers	0.839	0.810	0.805	0.811
Earnings	Return on Average Assets	0.008	0.008	0.010	0.010
	Return on Average Equity	0.141	0.130	0.143	0.143
	Net Interest Margin	0.017	0.022	0.023	0.023
Liquidity	Liquidity Ratio: Local Currency	0.345	0.434	0.447	0.554
	Liquidity Ratio: Foreign Currencies	0.468	0.410	0.406	0.511
	Securities to Assets	0.122	0.138	0.180	0.182
	Deposits to Assets	0.784	0.824	0.810	0.754
	Loans to Deposits	0.577	0.577	0.518	0.500

Source: Central Bank of Egypt (2011) **Economic Review**.

Early attempts to measure banks' performance using CAMEL components and financial ratios abound in the literature from Beaver (1966) and Altman (1968) to Maishanu (2004), Wirnkar and Tanko (2008), Tatom and Houston (2011).

Beaver (1966) is the first attempt using financial ratios for predicting bankruptcy, while Altman (1968) uses a multiple discriminate analysis (MDA) and combines the information from several financial ratios in a single prediction model (Altman's Z-score model). In addition, Maishanu (2004) identifies 8 financial ratios that could serve in informing the financial state of a bank and predicting failure in commercial banks.

Wirnkar and Tanko (2008) brings forth a new acronym for CAMEL known as CLEAM in order to reflect the magnitude and ability of each component to capture the performance of a bank in descending order. Tatom and Houston (2011) proposes some regulatory standards embodied CAMEL rating system, as well as several economic variables (like real price of energy, currency ratio and the interest rate spread) to produce a robust model that forecasts bank failure for the entire commercial bank industry in the United States.

CAMEL(S) theory may be viewed as a progressive update of the theory of bank liquidity market failure that includes the major risks in the entire bank balance sheet (King et al., 2006). The CAMEL framework essentially provides bank regulators with off-site surveillance basis for bank rating (Gilbert et al., 2002). Njoku (2012) shows how bank auditors can apply to combination of CAMEL and non-CAMEL factors model to strengthen the audit risk model.

Cole and Gunther (1995, p. 4) show that based on the results of these on-site evaluations, regulators then rate the performance of individual banks along five key dimensions: capital adequacy, asset quality, management, earnings, and liquidity. Each of the five areas of performance are rated on a scale of 1 to 5 as follows: 1 strong performance, 2 satisfactory performance, 3 performance that is flawed to some degree, 4 marginal performance that is significantly below average, and 5 unsatisfactory performance that is critically deficient and in need of immediate remedial action. Once each of the five areas of performance has been assigned a rating, a composite, or overall, rating is derived, again on a scale from 1 to 5.

The US formulation adds the variable (S) in 1997 to represent sensitivity to market risk (Gunter & Moore, 2003). The introduction of Troubled Asset Relief Program (TARP) in 2008 constitutes significant regulatory regime changes, and provides the necessary framework to explore whether regime-dependent risk-shifting or risk-taking is present.

In brief, this study tries to answer these three main questions:

- Does “bank size” affect its performance, as measured by CAMEL approach? By other words: Are there any significant differences in “banking performance”, due to the bank size?
- Does “seasonality” affect “banking performance”? By other words: Are there any significant differences in “banking performance”, due to the quarter of evaluation?
- Does “attitude towards risk” affect “banking performance”? By other words: Are there any significant differences in “banking performance”, due to their degree of “conservatism” or “aggressiveness”?

This paper addresses a main question about determinants of “banking performance”, as measured by CAMEL. Determinants of performance, to be examined, are variables related to “bank size”, “seasonality” and “attitude towards risk”.

The paper is arranged as follows: after this introduction, section 2 reviews research literature that has concerned with “banking performance”, as measured by CAMEL indicators and “banking characteristics” that include size, seasonality and attitude to risk. Section 3 explains how to measure research variables and illustrates how to test the hypotheses. Section 4 is for empirical work, presenting results, discussing how these results answer research questions using ANOVA and providing a robustness check using step-wise regression technique. Section 5 summarizes the paper and provides remarks about conclusions.

2. Literature Review

This section tries to present some of previous work, which has been conducted in the field of “banking performance”, as measured by CAMEL indicators and banking characteristics that include size, seasonality and attitude to risk.

Regarding “banking performance”, many studies evaluate it according to CAMEL approach. Concerning with capital adequacy (C), Berger et al. (2008) demonstrates the reasons for this “excess” capital using annual panel data from 1992 through 2006. Results indicate that U.S. banks hold significantly more equity capital than required by their regulators. Besides, findings show that BHCs actively manage their capital ratios (as opposed to passively allowing capital to build up via retained earnings), set target capital levels substantially above well-capitalized regulatory minima, and (especially poorly capitalized BHCs) make rapid adjustments toward their targets.

Barth et al. (2008) presents survey information on bank regulations in 142 countries. Following Basel guidelines many countries strengthened capital regulations and official supervisory agencies, but results show that these reforms don’t enhance stability or efficiency. While some countries have empowered private monitoring of banks, consistent with the third pillar of Basel II, there are many exceptions and reversals along this dimension.

Guidara et al. (2010) documents the countercyclical behavior of Canadian banks’ capital buffer from 1982 to 2010 for the six largest Canadian chartered banks. Results show that the adoption of Canadian banking regulations is effective in rendering Canadian banks’ capital countercyclical to business cycles. Findings indicate that Canadian banks hold more capital buffer in recession than in expansion.

Demirgüç-Kunt and Detragiache (2011) studies the effect of compliance with the Basel core principles for effective banking supervision on bank soundness. Using data for more than 3000 banks in 86 countries, the authors find that neither the overall index of compliance with the Basel core principles nor the individual components of the index are robustly associated with bank risk measured by Z-scores. This may cast doubt on the usefulness of the Basel core principles in ensuring bank soundness.

Al-Farisi and Hendrawan (2012) examines the impact of capital structure on performance of conventional and Islamic banks, by using profit efficiency approach. They measure profit efficiency score for each bank in Indonesia during the period from 2002 to 2008 by using distribution free approach (DFA). Result indicate that banks’ capital ratio have a negative effect on their profit efficiency.

Osborne et al. (2012) assesses the relation between bank capital ratios and lending rates for the 8 largest UK banks over the period from 1998 to 2011. Results show a strong negative association during the stressed conditions of the period from 2007 to 2011 when well-capitalized banks may have benefited from lower funding costs.

Concerning with Asset Quality (A), Hassan and Sanchez (2007) examines banking performance concerning with asset quality (beside capital adequacy and earnings), using Data Envelopment Analysis (DEA). The authors estimate and compare the efficiency and productivity of seven Latin American countries (Argentina, Brazil, Chile, Colombia, Ecuador, Mexico and Venezuela) during the period from 1996 to 2003. The study finds that most of the sources of inefficiencies are regulatory rather than technical. This means that bank managers do not

choose the correct (optimal) input and output mix, because they are not forced to do so by the environmental conditions (either government regulations or market conditions).

Another important study of Acharya et al. (2009) shows that market freezes depend on how information about asset quality is revealed. They illustrate that when there is a constant probability that “bad news” is revealed each period and, in the absence of bad news, the value of the assets is high. By contrast, for the “good news”, the value of the assets is low.

Concerning with Earnings (E), Curry et al. (2006) quantifies the impact of bank supervision (measured using CAMEL composite and component ratings) on loan growth. The authors perform dynamic loan growth equations using regressions for two distinct sub-periods: (1) 1985 to 1993 (covers the credit crunch period), and (2) 1994 to 2004 (covers the sustained recovery period). For the first period, they find that business lending is the most sensitive to changes in CAMEL ratings, while for the second period; they find little evidence that changes in CAMEL ratings had any systematic effect on loan growth.

Paul and Kaestner (2007) analyzes the banking industry’s profitability, using a sample of around 3000 European banks. Results show that the institutional characteristic ownership of savings banks is the most powerful input factor. Banks located in countries with a minimum initial privatization success indicate a significantly higher profitability than banks resident in countries with publicly dominated savings banks sectors.

Gayed et al. (2009) addresses the effects of marketing mix on performance indicators, using a sample of 14 banks (out of 33 banks in Egypt) at the end of June 2008. Results indicate the effects of “number of services” and “number of tellers” on bank profitability.

Ben Naceur and Omran (2011) examines the impact of bank regulation, concentration, and development on bank profitability across a broad selection of Middle East and North Africa (MENA) countries, during the period from 1989 to 2005. The empirical results suggest that bank-specific characteristics, in particular bank capitalization and credit risk, have a positive and significant impact on banks’ net interest margin and cost efficiency.

Petrella and Resti (2012) investigates the information role of the stress tests. They examine the 2011 European stress test exercise to assess whether and how it affected bank stock prices (and consequently bank profitability). Using event study analysis of 3400 data points for 90 banks, results show that informational content is considered relevant by investors.

Concerning with Liquidity (L), Banking liquidity risks are due to two reasons: the first is represented by liabilities side, where depositors withdraw of their deposits, and this requires sufficient liquidity to meet these requirements. The second is due to assets side, where the bank should have sufficient liquidity to give required facilities to their borrowers (Saunders, 1994, p. 293).

Motivated by the current financial crisis, several papers seek to explain market freezes. Diamond and Rajan (2009) indicates that when banks have a significant quantity of assets with a limited set of potential buyers, shocks in future liquidity demands may trigger sales at fire sale prices.

Vazquez and Federico (2012) analyzes the performance of about 11000 banks in the U.S. and Europe during the period from 2001 to 2009. The results show that banks with weaker structural liquidity and higher leverage in the pre-crisis period were more likely to fail afterward. The likelihood of bank failure also increases with bank risk-taking.

Concerning with Size Effect (S), Carvallo and Kasman (2005) investigates the cost efficiency of a sample of 481 Latin American and Caribbean banks in 105 countries over the years from 1995 to 1999 using a stochastic frontier model (SFA). They use three inputs: loans, deposits, and other earning assets and three prices of factors of production: the price of labor, the price of purchased funds, and the price of physical capital. Results indicate that on average, very small and very large banks are significantly more inefficient than large banks.

Schaeck and Čihák (2007) uses data for more than 2600 European banks in 10 countries to test the effect of competition on capital ratios. Using panel data techniques, and distinguishing between the competitive conduct of small and large banks, they show that banks tend to hold higher capital ratios when operating in a more competitive environment.

Sahut and Mili (2009) studies bank distress in MENA countries and addresses the question of whether mergers are commonly considered as a solution for resolving individual bank distress. They challenge the view that specific bank indicators such as CAMEL category and bank size are significant determinants of bank distress. They investigate the distress and subsequent merger decisions for 330 banks from the MENA region during the period 2000–2007. Empirical evidence indicates that monetary policy indicators do not really affect bank distress

and shows that distressed state-owned banks and large-sized banks are less likely to be a target in a merger transaction.

Berger and Bouwman (2011) discusses the effect of capital on bank performance. They have two main results. First, capital helps small banks to increase their probability of survival and market share at all times (during banking crises, market crises, and normal times). Second, capital enhances the performance of medium and large banks primarily during banking crises.

Anis and Sami (2012) investigates the cost efficiency of 17 Tunisian banks over the period 1997–2006 using a parametric approach stochastic (SFA). Findings suggest that private banks are more efficient than ownership banks; foreign banks are more efficient than domestic banks and small and medium-sized banks are more efficient than large ones.

Vazquez and Federico (2012) indicates that the smaller domestically-oriented banks were relatively more vulnerable to liquidity risk, while the large cross-border banks were more susceptible to solvency risk due to excessive leverage.

Concerning with Attitude to Risk (A), Berger et al. (2012) tests the effects of regulatory interventions and capital support on bank risk taking and liquidity creation over the period from 1999 to 2009. Results indicate that there are no significant changes in risk taking and liquidity creation in the years preceding regulatory interventions and capital support. Evidence suggests that both types of actions may have important intended consequences (risk reduction) and potentially unintended consequences (diminished liquidity creation), with implications for policymakers.

Black and Hazelwood (2012) considers the effect of the TARP capital injections on bank risk taking by analyzing the risk ratings of banks' commercial loan originations during the crisis. The results indicate that, the risk of loan originations increased at large TARP banks but decreased at small TARP banks. For large banks, the increase in risk-taking without an increase in lending is suggestive of moral hazard due to government ownership.

Kanas (2013) addresses the relationship between bank dividends and bank risk over the period from 1984 to 2011. Results show strong evidence of risk-shifting and risk-taking over the post-PCA regime spanning the period from 1992 to 2008. The finding of risk-taking suggests that risk-taking may be a factor contributing to this crisis

Regarding the current study, comparing with previous work, it's important to pinpoint some differences that may justify its importance, as follows:

- 1) The most of previous work focuses on only one of CAMEL dimensions, while the current study elaborates all of them.
- 2) Some papers concern with size effect and few of them investigate bank attitude to risk, while the current paper combines size effect, bank attitude to risk and seasonality, shedding a light on their effects on CAMEL indicators.

3. Data Description and Hypotheses Developing

Required data regarding bank size, seasonality, attitude to risk and CAMEL indicators could be shown as follows:

Table 3. Variables representing CAMEL indicators, size, seasonality and attitude to risk

<i>Variable</i>	<i>Calculation</i>	<i>Sign</i>
Net Worth to Risky Assets	Net Worth / Risky Assets	C1
Net Worth to Deposits	Net Worth / Deposits	C2
Loan Provisions to Loans	Loan Provisions / Loans	A1
Provisions to Assets	Provisions / Assets	A2
Risky Assets to Assets	Risky Assets / Assets	M
Return on Equity	Net Profit / Equity	E1
Return on Assets	Net Profit / Assets	E2

Legal Reserve Ratio	Cash / Deposits	L1
Legal Liquidity Ratio	Liquid Assets / Deposits	L2
Bank Size ⁽¹⁾	=1 for small banks and =1 for big banks	SIZ
Seasonality (Q1)	=1 for the 1 st quarter and otherwise = 0	SEA1
Seasonality (Q2)	=1 for the 2 nd quarter and otherwise = 0	SEA2
Seasonality (Q3)	=1 for the 3 rd quarter and otherwise = 0	SEA3
Seasonality (Q4)	=1 for the 4 th quarter and otherwise = 0	SEA4
Bank Attitude to Risk ⁽²⁾ (conservative)	=1 for conservative banks and otherwise = 0	ATR1
Bank Attitude to Risk (m. conservative)	=1 for moderately conservative banks and otherwise = 0	ATR2
Bank Attitude to Risk (aggressive)	=1 for moderate banks and otherwise = 0	ATR3
Bank Attitude to Risk (m. aggressive)	=1 for moderately aggressive banks and otherwise = 0	ATR4
Bank Attitude to Risk (aggressive)	=1 for aggressive banks and otherwise = 0	ATR5

This paper aims at testing the following three hypotheses:

- 1) There is no significant effect of “bank size” on its performance as measured by CAMEL approach.
- 2) There is no significant effect of “seasonality” on bank performance as measured by CAMEL approach.
- 3) There is no significant effect of “bank attitude to risk” on its performance as measured by CAMEL approach.

Regarding the first hypothesis, the null hypothesis H_0 states that, for each CAMEL indicator:

$$\mu_{CAMEL-SMALL} = \mu_{CAMEL-BIG} \quad (1)$$

The alternative hypothesis H_a could be shown as:

$$\mu_{CAMEL-SMALL} \neq \mu_{CAMEL-BIG} \quad (2)$$

Regarding the second hypothesis, the null hypothesis H_0 states that, for each CAMEL indicator:

$$\mu_{CAMEL-Q4} = \mu_{CAMEL-Q2} = \mu_{CAMEL-Q3} = \mu_{CAMEL-Q1} \quad (3)$$

The alternative hypothesis H_a could be shown as:

$$\mu_{CAMEL-Q4} \neq \mu_{CAMEL-Q2} \neq \mu_{CAMEL-Q3} \neq \mu_{CAMEL-Q1} \quad (4)$$

Regarding the third hypothesis, the null hypothesis H_0 states that, for each CAMEL indicator:

$$\mu_{CAMEL-Q4} = \mu_{CAMEL-Q2} = \mu_{CAMEL-Q3} = \mu_{CAMEL-Q1} = \mu_{CAMEL-Q5} \quad (5)$$

The alternative hypothesis H_a could be shown as:

$$\mu_{CAMEL-Q4} \neq \mu_{CAMEL-Q2} \neq \mu_{CAMEL-Q3} \neq \mu_{CAMEL-Q1} \neq \mu_{CAMEL-Q5} \quad (6)$$

Robustness checks test the significance of differences between CAMEL indicators according banks size, seasonality and attitude to risk could be shown, for each CAMEL indicator (I_{CAMEL}) as follows:

Regarding each indicator of CAMEL, the null hypothesis H_0 could be shown as:

$$\beta_n = 0 \text{ (where } n = 1, 2, 3 \text{ to } 10) \quad (7)$$

The alternative hypothesis H_a could be shown as:

$$I_{CAMEL} = \alpha + \beta_1 SIZ + \beta_2 SEA1 + \beta_3 SEA2 + \beta_4 SEA3 + \beta_5 SEA4 + \beta_6 ATR1 + \beta_7 ATR2 + \beta_8 ATR3 + \beta_9 ATR4 + \beta_{10} ATR5 \quad (8)$$

$$\beta_n \neq 0 \text{ (where } n = 1, 2, 3 \text{ to } 10) \quad (9)$$

4. Results of Empirical Study

Required data include bank size, seasonality, attitude to risk and CAMEL indicators, for a sample of 10 banks, and cover the period from the first quarter 2003 to the fourth quarter 2011. The following table illustrates descriptive statistics of these data:

Table 4. Descriptive statistics of CAMEL indicators

<i>Variables</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Std. Deviation</i>
C1	0.01516	0.49428	0.07777	0.05396
C2	0.00520	0.44253	0.09366	0.06145
A1	0.00950	1.89773	0.52715	0.10002
A2	0.00012	0.17076	0.00766	0.01282
M	0.06717	0.98871	0.88300	0.07281
E1	-0.08179	0.03560	0.00641	0.01266
E2	-1.40398	0.42044	0.03605	0.21825
L1	0.00209	0.22338	0.07049	0.03188
L2	0.01344	1.83033	0.13961	0.12881

Source: collected and processed by the researcher.

Table 4 shows variable characteristics as a whole that don't indicate these characteristics according to "bank size", "seasonality" or "attitude to risk". The following table illustrates the means of CAMEL indicators, for small-sized banks (SIZ1), big-sized banks (SIZ2), first quarter (SEA1), second quarter (SEA2), third quarter (SEA3) and fourth quarter (SEA4). In addition, it shows CAMEL indicators, for conservative banks (ATR1), moderately conservative banks (ATR2), moderate banks (ATR3), moderately aggressive banks (ATR4) and aggressive banks (ATR5), as follows:

Table 5. Means of CAMEL indicators according to size, seasonality and attitude to risk

<i>Variable</i>	<i>SIZ1</i>	<i>SIZ2</i>	<i>SEA1</i>	<i>SEA2</i>	<i>SEA3</i>	<i>SEA4</i>	<i>ATR1</i>	<i>ATR2</i>	<i>ATR3</i>	<i>ATR4</i>	<i>ATR5</i>
C1	0.0707	0.0846	0.0768	0.0790	0.0993	0.0660	0.0208	0.0492	0.0726	0.0965	0.1483
C2	0.0867	0.0986	0.0954	0.0939	0.1096	0.0624	0.0310	0.0532	0.0868	0.1177	0.1885
A1	0.2109	0.3605	0.3213	0.3355	0.0635	0.0940	0.9551	0.1427	0.2165	0.2868	0.2396
A2	0.0040	0.0065	0.0076	0.0127	0.0086	0.0033	0.0018	0.0069	0.0078	0.0088	0.0102
M	0.8820	0.8837	0.8869	0.8795	0.0049	0.0138	0.8750	0.8858	0.8834	0.8917	0.8766
E1	0.0040	0.0065	0.0078	0.0073	0.0138	0.1452	0.0031	0.0067	0.0105	0.0063	0.0005
E2	0.0302	0.0477	0.0403	0.0261	0.0825	0.0546	0.0290	0.0644	0.0928	0.0369	-0.1022
L1	0.0700	0.0728	0.0735	0.0657	0.1372	0.1512	0.0568	0.0761	0.0696	0.0554	0.0705
L2	0.1554	0.1346	0.1303	0.1382	0.0635	0.0940	0.1397	0.1292	0.1430	0.1317	0.1562

Source: collected and processed by the researcher.

Table 5 shows different means of CAMEL indicators for different categories of size, seasonality and attitude to risk. However, these differences don't indicate significance. This paper aims at testing the significance of these differences.

To test the research hypotheses, ANOVA is conducted to check the significance of differences between CAMEL indicators, according to size, seasonality and attitude to risk. The following table illustrates the results of this test as follows:

Table 6. Testing Hypotheses using ANOVA

Indicator	Size	Seasonality	Attitude towards risk
C1	13.99 (0.000)***	1.013 (0.387)	95.995 (0.000)***
C2	15.44 (0.000)***	0.605 (0.612)	217.683 (0.000)***
A1	0.204 (0.652)	1.000 (0.393)	0.424 (0.791)
A2	8.769 (0.003)***	7.739 (0.000)***	1.921 (0.106)
M	1.007 (0.316)	0.163 (0.912)	0.329 (0.858)
E1	26.84 (0.000)***	1.580 (0.194)	7.760 (0.000)***
E2	19.296 (0.000)***	0.180 (0.910)	10.709 (0.000)***
L1	3.716 (0.055)*	1.116 (0.343)	3.390 (0.010)*
L2	0.596 (0.441)	0.655 (0.580)	0.554 (0.696)

Each cell contains the F value, with the significance level between brackets, where * denotes p-value of 10%, ** denotes 5% and *** denotes 1%.

Testing Hypotheses using ANOVA show, at p-value of 0.05, that there's a significant differences between CAMEL indicators, according to bank size, as follows:

For capital adequacy (C): Tests indicate that capital adequacy indicators of small banks are significantly different from those of big ones. Also, they are significantly different according to banks' attitude to risk, while seasonality effect is not significant. This has been conducted using Net Worth to Risky Assets (C1) and Net Worth to Deposits (C2).

For asset quality (A): Tests show that Provisions to Assets (A2) of small banks are significantly different from those of big ones. Also, it's significantly different according to seasonality, while banks' attitude to risk effect is not significant. Tests don't indicate any effects on Loan Provisions to Loans (A1).

For management (M): Tests don't indicate any significant differences in Risky Assets to Assets (M) according to size, seasonality, or attitude to risk.

For earnings (E): Tests show that earnings indicators of small banks are significantly different from those of big ones. Also, they are significantly different according to banks' attitude to risk, while seasonality effect is not significant. This has been conducted using Return on Equity (E1) and Return on Assets (E2).

For liquidity (L): Tests don't indicate any significant differences in each of Legal Reserve Ratio (L1) and Legal Liquidity Ratio (L2) according to size, seasonality, or attitude to risk at p-value of 0.05. Also, they show significant differences in L2 due to size and attitude to risk at p-value of 0.10.

Based on the previous analysis, the null hypothesis is rejected. This means that the alternative one could be accepted showing significant difference in Egyptian banks' performance, due to:

Size: where tests indicate significant differences in capital adequacy (C), asset quality (A) and earnings (E), while management (M) and liquidity (L) indicators do not address such differences. So, regarding size effect, alternative hypothesis could be accepted.

Seasonality: where empirical evidence indicates significant differences in asset quality (A), while capital adequacy (C), earnings (E), management (M) and liquidity (L) indicators do not address such differences. So, regarding seasonality effect, alternative hypothesis could be accepted.

Attitude to risk: where tests address significant differences in capital adequacy (C) and earnings (E), while asset quality (A), management (M) and liquidity (L) indicators do not indicate such differences. So, regarding attitude to risk effect, alternative hypothesis could be accepted.

To check the previous results, robustness check has been conducted using step-wise regression analysis and provides the following results:

Table 7. Determinants of CAMEL indicators

<i>Indicator</i>	<i>Constant</i>	<i>Size</i>	<i>SEA1</i>	<i>SEA2</i>	<i>SEA3</i>	<i>SEA4</i>	<i>ATR</i>	<i>R²</i>
C1	-0.013 (-2.407)**	-0.012 (-2.188)**	-	-	-	-	0.031 (18.705)***	0.611
C2	-0.028 (-5.635)***	-0.012 (-2.429)**	-	-	-	-	0.042 (27.515)***	0.793
A1	-	-	-	-	-	-	-	-
A2	0.007 (8.545)***	-0.005 (-3.096)***	-	0.003 (2.247)**	-	-0.007 (4.465)***	-	0.592
M	-	-	-	-	-	-	-	-
E1	0.009 (4.961)***	0.008 (4.819)***	-	-	-	-	-0.001 (-2.079)**	0.485
E2	0.134 (4.3490)***	0.111 (3.758)***	-	-	-	-	-0.039 (-4.239)***	0.370
L1	-	-	-	-	-	-	-	-
L2	-	-	-	-	-	-	-	-

Each cell contains the estimated parameters, with std error between brackets, where * denotes p-value of 10%, ** denotes 5% and *** denotes 1%.

5. Summary and Concluded Remarks

This paper aims at analyzing the effects of size, seasonality and attitude to risk, on the performance Egyptian banks, using a sample of 10 banks during the period from 2003 to 2011. Results indicate the significance of differences between CAMEL indicators, according to size, seasonality and attitude to risk. Robustness check assures the significance of these effects, where indicators of capital adequacy and earnings are affected by both of size and attitude to risk, while asset quality is affected by size and seasonality.

Table (6) indicates testing hypotheses (regarding significance of differences) without showing the type of these differences while table (5) illustrates what CAMEL indicators may tell. Table (8) shows testing hypotheses and type of significant differences, as follows:

Table 8. Testing hypotheses and type of significant differences

<i>Item</i>	<i>Category</i>	<i>C</i>	<i>A</i>	<i>M</i>	<i>E</i>	<i>L</i>
Size	Small	Worse	Worse		Worse	
	Big	Best	Best		Best	
Seasonality	1st Quarter		Moderate			
	2nd. Quarter		Best			

	3rd. Quarter	Moderate	
	4th. Quarter	Worse	
Attitude toward risk	Conservative	Worse	Worse
	Moderately conservative	Bad	Moderate
	Moderate	Moderate	Best
	Moderately aggressive	Good	Moderate
	Aggressive	Best	Worse

Results reveal that CAMEL indicators have different sensitivities to size, seasonality and attitude to risk. These may be explained, as follows:

Big banks have better performance (according to capital adequacy, asset quality and earning) than small. This may shed a light on the necessity of enhancing performance through developing facilities that provide a strong competitive situation. Small banks can't provide such facilities that depend on banks' image, system and human capital.

Seasonality affects asset quality by a surprising way, as it tends to be good at the end of the second quarter, becomes moderate at the end of the third one, continues to be bad at the fourth quarter and turn to be moderate (another time) at the end of the first one. This indicates that asset quality is *dressed* at the end of fiscal year for providing an informational content that doesn't express the real situation.

Attitude to risk affects capital adequacy in accordance with Basel agreement, as it tends to be at its lowest level in the conservative case, becomes a little bit high in moderately conservative case, continues to be higher in moderately aggressive and aggressive cases. Also, it reaches its highest level in the very aggressive case.

Attitude to risk affects earnings regardless the traditional risk-return relationship, as it tends to be at its lowest level in the conservative and aggressive cases, and becomes at its highest level in the moderate case. This may need a special effort to be elaborated as applied on longer periods and different markets.

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Notes

Note 1. Small banks are those banks that have less than average size in terms of deposits, while big banks have average or more than average size in terms of deposits.

Note 2. According to ING North America Insurance Corporation (2010), attitude to risk may be checked by the selected class of portfolios, where they are categorized into five classes: aggressive, moderately aggressive, moderate, moderately conservative and conservative.

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The Mediating Effect of Quality and Prestige on the Relationship between Brand Globalness and Purchase Likelihood of HTC Mobile Phone

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Received: November 5, 2013

Accepted: December 1, 2013

Online Published: December 23, 2013

doi: 10.5539/ibr.v7n1p94

URL: <http://dx.doi.org/10.5539/ibr.v7n1p94>

Abstract

Perceived brand quality (PBQ) and perceived brand prestige (BBP) have been considered very important mechanisms to predict the direct as well as indirect relationship between perceived brand globalness (PBG) and consumer purchase likelihood (CPL) in many studies. However, almost all studies focused on direct influence of PBQ and BBP on CPL, neglecting the mediating role of them. This study, therefore, aims at filling this research gap by investigating the mediating effects of PBQ and BBP on the relationship between the PBG and CPL in the mobile industry applied to the HTC Company. In doing so, this study used the structural equation modeling (SEM) approach to analyze a total sample of 439 college student consumers in central Taiwan. Results indicated that PBG and BBP have positive effects on CPL while BBP did not. These findings are different from the literature that both PBQ and BBP showed significant influences on CPL. In other words, when it comes to HTC mobile phone, only PBQ could be considered as a mediating variable through which PBG indirectly affects CPL. Generally, this study opens the doors to new empirical studies in the mobile phone industry whereby readers and practitioners would understand the importance of mediator role in consumer purchase intention.

Keywords: perceived brand globalness, perceived brand quality, perceived brand prestige, consumer purchasing likelihood, Structural Equation Modeling (SEM), smart phone industry, HTC

1. Introduction

Global marketing has had a huge impact on both local and global brands. Given the fact that strong local brands have an advantage of developing close contact with domestic customers, it can be challenging for foreign brands to convince consumers to use their products and brands. At the same time, local brands are constantly confronted and threatened by competition from global brands in their home market (Ger, 1999). Therefore, both foreign and local retailers need a strategic and proactive approach to be globally competitive. Currently, consumers have greater disposable wages and spend their money more and more on products beyond basic necessities. Specially, consumers in emerging markets continue to show a strong preference for non-local brands from developed countries due to their perceived high quality and symbolic image (Batra et al., 2000). However, the performance of these brands has been mixed. In general, the relative market position of foreign brands is declining, and the advance of foreign brands in safe markets has halted, if not inverted. Consumers have different perceptions toward foreign and local brands, even within the same product category (Lee, Kumar, & Kim, 2010). Local firms often use the appeal of globalness to market their products (Zhou & Hui, 2007) and HTC is an example of such attempt. In addition to this, the world is shrinking into a global market place, so it is quite necessary to learn about consumer's perception toward global brands and factors influencing consumer purchase behavior.

When studying consumer references toward global brands, many researchers have emphasized the importance of perceived brand quality and perceived brand prestige factors through which perceived brand globalness indirectly affect consumer references (Shocker, Srivastava, & Ruekert, 1994; Batra et al., 2000; Kinra, 2006; Zhou & Hui, 2007). However, very few have been successfully done to test the mediation effects of these two important variables. To the best of our knowledge, there is no such a study that deals with this issued in the mobile phone industry. For this reason, this study's purpose is to investigate the effects of mediating variables on

the relationship between the predictor and the outcome variables.

In so doing, this study aims at constructing an overall framework of relevant variables obtained from the given literature. Specifically, the research used perceived brand quality and perceived brand prestige as two mediator variables to examine the effects of perceived brand globalness on consumer purchase likelihood. This study conducted a survey on college students consisting of four universities in the central part of Taiwan to understand their perceptions of global brand versus local brand. The theory of Baron and Kenny (1986) together with structural equation modeling (SEM) approach was used as the methodology in this study to complete the discussed tasks.

2. Literature Review

The purpose of this section is to review critical factors that affect consumer preferences for global brands. Then, the fundamental concepts of those critical factors are discussed. Based on that, we propose six hypotheses for dealing with the research problem. Eventually, the conceptual framework of this study is proposed.

2.1 Critical Factors that Influence Consumer Purchase Likelihood (CPL) for Global Brands

Consumer purchase intention or consumer purchase likelihood is considered as a subjective inclination toward a product and can be an important index to guess consumer behavior (Fishbein & Ajzen, 1980; Chi, Yeh, & Yang, 2009). To determine factors that have a strong influence on consumer's perception toward global brands, a great number of studies have been done before, to name a few, Shocker et al. (1994), Batra et al. (2000), Kinra (2006), Zhou & Hui (2007), and Steenkamp, Batra, and Alden (2003). Among them, Shocker et al. (1994) proposed that perceived brand globalness was one of the most important factors affecting consumer perception of brand superiority. In addition, perceived brand globalness has been highly connected with brand prestige and brand quality (Batra et al., 2000). Later, Steenkamp et al. (2003) identified that perceived brand prestige is the second factor driving global brand preference. Accordingly, they conducted a study on consumer preferences of global and local brand. In this study, the authors construct a research framework with three main pathways, thereby perceived brand globalness (PBG) affect consumer's purchase likelihood. The framed pathways were perceived brand quality (PBQ), perceived brand prestige (PBP), and the psychological benefits of PBG. As a result, PBG has a positive influence on both brand quality and brand prestige. Finally, through these pathways, PBG can indirectly affect consumer's purchase likelihood (Steenkamp et al., 2003).

2.2 Perceived Brand Globalness (PBG)

Basically, a local brand is sold and marketed (distributed and promoted) in a relatively small and limited geographical area. A local brand is a brand that can be found in only one country or zone. It may be called a zonal brand if the area encompasses more than one metropolitan market. It may also be a brand that is developed for a specific local marketplace; however, an interesting thing about local brands is that the local branding is more often done by consumers than by the producers. So, local brands are distinct as brands that exist in one country or in a limited environmental region (Wolfe, 1991; Schuiling & Kapferer, 2004; Eckhardt, 2005).

According to Yu and Dong (2010), the term "global brand" is one which is perceived to reflect the same set of values around the world. Global brands transcend their origins and create strong substantial relationships with consumers across countries and cultures (Johansson & Ronkainen, 2004). Where a customer buys one new global product is not important, because the customer feels the same thing about the product. Global branded products having this image in and around the world offer similar quality products. Examples of global brands include Facebook, Apple, Pepsi, McDonald's, Sony, Nike and so forth. These brands are used to sell the same product across multiple markets and can be considered successful to the extent that the associated products are easily recognizable by the diverse sets of consumers.

2.3 Perceived Brand Quality (PBQ)

Perceived Brand Quality is found to be the most important predictor for the pathway between perceived brand globalness and the consumer purchase likelihood in comparison with perceived brand prestige (Steenkamp et al., 2003). Therefore, it is suggested that brand quality should be primarily focal strategy key for global brand managers.

Aaker (1991) defined perceived quality as the customer's perception of the overall quality or superiority of a product or service in term of its intended purpose, relative to alternatives. Strizhakova, Coulter, and Price (2011) developed two models with two specific mediating variables namely brand and self-identity brand signal to identify the global brand preferences of consumers. They found that consumers in both developed and developing countries prefer global brands due to higher quality.

Therefore, quality is a main factor affecting customer perception and underlying the long-term success of products and firms (Mitra & Golder, 2006). It thus differs from actual or objective quality. Perceived quality should not be mistaken with the nature and quantity of ingredients, features, or service of a product. At the same time, perceived quality should be distinguished from manufacturing quality and the zero defect goal (Aaker, 1991). Thus, perceived brand quality can be defined as the customer's perception of the overall quality or superiority of a product or service with respect to its intended purpose, relative to alternatives.

2.4 Perceived Brand Prestige (PBP)

Early, perceived brand prestige was found to be the second driving force between perceived brand globalness and consumer purchase likelihood (Steenkamp et al., 2003). The concept of prestige may mean different things to different consumers. The general conjecture is that prestigious brands are infrequently purchased. Therefore, they require a higher level of interest that strongly relates to an individual's self-concept. A consumer's perceived prestige image of a brand is produced from a multitude of interactions between the consumer and different factors within the environment; therefore, it is expected that different consumers would have different perceptions of prestige levels for the same brand.

Consumers improve their perceptions of a product's prestige based on interactions with the product, object properties (e.g., appearance), pleasurable values and emotional attraction (Vigneron & Johnson, 1999). Perceived brand value related with the product provides satisfaction. If consumers feel the product gives more satisfaction, which will affect consumers' perceived brand value.

2.5 Consumer Purchase Likelihood (CPL)

Regarding this topic, Gielens and Steenkamp (2007) carried out a study on the effect of a new product on consumers. They found that a new product acceptance is related to company's brand reputation factors. In other words, consumers demonstrated higher preferences for a new product if a company introduces a product by a brand with more market power and reputable brand name across the all these countries. Consumers make many buying decisions every day, and the buying decision is the focal point of the marketer's effort (Armstrong & Kotler, 2011). Furthermore, these two authors proposed five stages of the buyer decision process which consisted of need for recognition, information search, evaluation of alternatives, purchase decision, and post purchase behavior. Steenkamp et al., (2003) suggested two pathways, namely, the perceived brand quality and brand prestige, through which PBQ affects CPL. The first pathway, indicates a positive relationship between PBQ and CPL, which upwardly affects brand purchase likelihood. Global brand perception has an effect on consumer purchase likelihood. The second pathway indicates a positive relationship between PBQ and PBP which upwardly affects brand purchase likelihood. Their research found the influence of perceived brand quality to be stronger on consumer purchase likelihood. However, studies from developing countries have found different effects. This means research results are related to participants' social life and products. Therefore with the same research questions, in different countries, we can find different results. Specifically, consumers from developing countries tend to use the ownership and/or consumption of global brands to increase their social status and strengthen self-identity of being a worldly consumer (Batra et al., 2000). Those theoretical models were focused on global brand perception and positioning which might play an important role in purchasing behavior (Steenkamp et al., 2003; Strizhakova, 2011).

In short, higher quality and higher prestige of a global brand are the pathways through which perceived brand quality can indirectly affect consumer purchase likelihood. For these reasons, this study used perceived brand quality and perceived brand prestige as mediation factors to identify the above mentioned relationship. Existing research indicated that PBQ not only can directly influence CPL, but also indirectly affect CPL through PBQ and PBP (Han, 1990; Steenkamp et al., 2003). Based on those findings, this paper built the research hypotheses. The next two sections will look at "direct" and "indirect" effects of PBQ.

2.6 Hypotheses and Research Framework

2.6.1 Effect of PBQ on PBQ

In the past, in both developed and developing countries, consumers had seen a global brand as a symbol of high quality due to its premium price and global acceptance (Batra et al., 2000; Bhardwaj et al., 2010; Keller, 1997; Kapferer, 1997). Recently, the conception about high perceived quality of global brand has continued to be supported in some typical studies like Milberg and Sinn (2008) or Steenkamp et al. (2003). Then, in this paper we also support this notion of a global brand to build the hypothesis 1 is proposed as follows:

H1: Perceived brand globalness positively affects consumers perceived brand quality.

2.6.2 Effect of PBG on PBP

A global brand often has higher prestige than a local brand due to its scarcity and premium price (Bearden & Etzel, 1982; Batra et al., 2000). These high scarcity and high price are just the two reasons that make a greater Batra aspirational and prestige appeal (Bearden & Etzel, 1982). Overtime, many scholars state that PBG leads to a higher brand prestige, but to the best of our knowledge, there is no paper empirically test this relation with respect to the smart phone industry. This study therefore uses the following hypothesis to fill the research gap.

H2: Perceived brand globalness positively affects consumers perceived brand prestige.

2.6.3 Effect of PBG on CPL

According to Steenkamp et al. (2003), a global brand has its ability to impact on the consumers' propensity toward purchase likelihood. In addition, an added value can be created in consumers' mind when a brand is perceived as global. Therefore, higher perception of brand globalness may result in higher consumers purchase likelihood.

H3: Perceived brand globalness positively affects consumers purchase likelihood.

2.6.4 Effect of PBQ and PBP on CPL

Existing studies indicate that PBQ and PBP for a global brand could influence CPL due to the fact that, in addition to quality, a global brand represents high prestige or social status (Shocker et al., 1994; Batra et al., 2000). Furthermore, in the empirical study done by Steenkamp et al. (2003), quality and prestige are two factors driving consumers' purchase intention of a global brand. Thus, it can be concluded that PBQ and PBP of a global brand will strongly affect CPL as stated in the following hypotheses.

H4: Perceived brand quality positively affects consumers purchase likelihood.

H5: Perceived brand prestige positively affects consumers purchase likelihood.

2.6.5 Effect of PBG on CPL via the PBQ and PBP mediators

As mentioned earlier, two indirect pathways have been introduced by Steenkamp et al. (2003) to examine the mediating roles of PBQ and PBP. Empirical studies in developed countries showed that PBQ has a stronger effect on CPL than PBP. However, this might be different in developing countries, like Taiwan, and specially related to the smart phone industry. Furthermore, owning global brands to prove self-social status have been a trend for consumers in developing world. Therefore, we proposed the following hypothesis with the aim to explore the influence of PBG on CPL through pathways of PBQ and PBP.

H6: Perceived brand quality and perceived brand prestige mediate the influence of perceived brand globalness on consumer purchase likelihood.

As discussed earlier, the theoretical framework was built mainly based on the research proposal and the review of literature in the given field. The whole model is illustrated in Figure 1 including six hypotheses which were later used to test the research model.

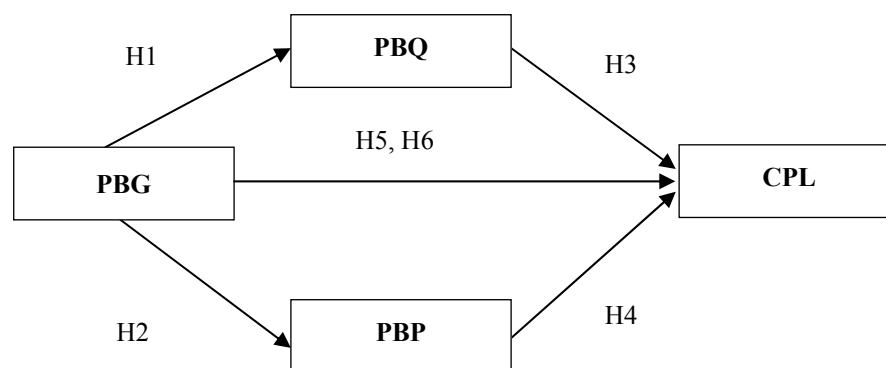


Figure 1. The theoretical framework

3. Methodology

3.1 Data Collection

This research uses the primary data collected by the structured questionnaire. All scales concerning the PBG, PBQ, PBP, and CPL are based on a seven-point Likert scale (from strongly disagree to strongly agree). The population of this study includes Taiwanese consumers in Central Taiwan and the target sample was focused on colleague students. College students were selected because studies indicated that consumers in this group are more willing to purchase global brand products (Lukose, 2005; Dou, Wang, & Zhou, 2006). A total of 475 questionnaires were distributed to predetermined participants, and 452 (95.1%) questionnaires were collected. Among those, 13 participants did not respond to all questions, so a total of 439 (92.4%) questionnaires were used in the final sample.

3.2 Testing for the Mediation

Generally, a mediator is described as the mechanism through which one variable (a predictor) influences another variable (an outcome variable) although there is a various ways to define a mediator variable. Adapted from Baron and Kenny (1986) and Tavakoli et al. (2009), the objective of this section is to review briefly four steps of mediation testing applied to the theoretical model.

The theoretical model was constructed based on the study’s purpose and the review of relevant literature. As a result, there were one predictor variable, one outcome variable, and two mediating variables in the research model. Particularly, in the theoretical model, perceived brand globalness (PBG) plays the role of an independent variable and customer purchase likelihood (CPL) is a dependent variable. Accordingly, perceived brand quality (PBQ) and perceived brand prestige (PBP) are the mediating variables through which PBQ indirectly influences on CPL. In order to investigate the mediation effects in this study, the research model were broke in in two causal chains as indicated in figure 2 and figure 3.

The first chain shows that PBG affects PBQ, PBQ in turn affects CPL. Similarly, the second chain describes PBG affects CPL though PBP. The intervening variables, PBQ and PBP, are the mediators. They “mediate” the relationship between a predictor (PBG) and an outcome (CPL). These relationships are summarized in table 1.

In the above diagrams, paths a (a’) and path b (b’) represent direct effects. The meditational effect, in which PBG leads to CPL through PBQ (PBL), is called the indirect effect. To test indirect and direct effect, Regression is considered as one of the most famous techniques to complete these tasks. This study therefore used four-step method which was proposed by Baron and Kenny (1986) to identify whether mediator effects exist in the conceptual model or not. This four-step approach is summarized in Table 1.

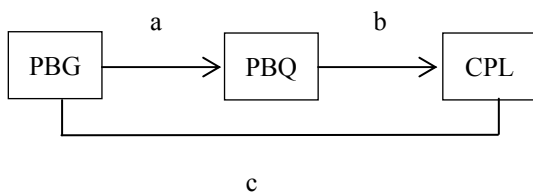


Figure 2. The first causal chain

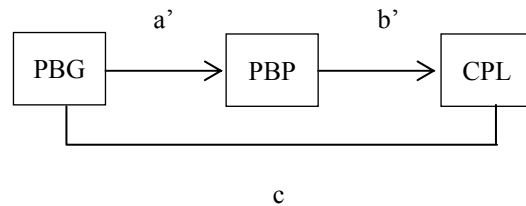


Figure 3. The second causal chain

Table 1. Four step of mediation testing for the research model

Step	Explanation	Geographical display
Step 1	Conduct a simple regression analysis with PBG predicting CPL to test for path <i>c</i> alone: $CPL = B_0 + B_1PBG + \text{error}$	$PBG \xrightarrow{c} CPL$
Step 2	Conduct a simple regression analysis with PBG predicting PBQ (PBP) to test for path <i>a</i> (a') alone: $PBQ (PBL) = B_0 + B_1CPL + \text{error}$	$PBG \xrightarrow{a(a')} PBQ (PBP)$

Step 3 Conduct a simple regression analysis with PBQ (PBP)

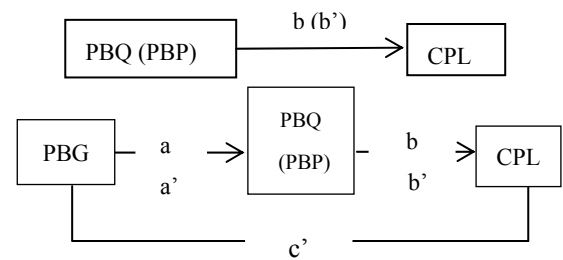
predicting CPL to test for path b (b') alone:

$$CPL = B_0 + B_1PBQ (PBP) + \text{error}$$

Step 4 Conduct a multiple regression analysis with PBG and PBQ

(PBP) predicting CPL to test for the whole path:

$$CPL = B_0 + B_1PBG + B_2PBQ (B_2PBP) + \text{error}$$



Step 1 to step 3 allow us to set up the zero-order relationships among existing variables. If any of the tests in steps 1 to 3 result non-significant, we can conclude that mediation does not exist (MacKinnon, Fairchild, & Fritz, 2007) and there is no need for further investigation. If significant relationships exist from step 1 to step 3, then we can move to step 4. If in step 4 the mediation effect (path c') still remains significant, but considerably lower, after controlling for the predictor, we can conclude that partial mediation exist. Full mediation is supported if the predictor variable is no longer significant when mediator is included in the model. In short, after reaching step 4 (Table 1), if $c \approx c'$, then there is no mediation; if $c > c'$, there is partial mediation; and if c' is not significant, then there is full mediation (Fairchild & McQuillin, 2010).

4. Results

4.1 Sample Characteristics

A total of 439 (92.4%) usable questionnaires collected from Taiwanese university students were included in the final sample. The demographic data collected including gender, age, education, and income is shown in Table 2. The age of the respondents ranged from 18 to 25 years old, which meets the study's purpose for young target sample. With regard to participants' gender, it was skewed with 65.1% of the respondents being female and 34.9% being male. In terms of education, the sample was skewed with up to 98.6% being undergraduate level and only 1.4% being graduated students, which also meet the study's aim. The participants' monthly incomes were mostly less than 6,000 NT\$ (US\$200) (70.4%) or between 6,000–15,000NT\$ (US\$200–\$500) (25.1%). It is a common phenomenon as college students' financial sources are mostly conditional up on their family. However this is not a big issue for them to spend money on new global and local brands. In eastern culture it is not uncommon for parents to support their children during their undergraduate university studies.

Table 2. Gender and age of the participants

Category		Percent	Category		Percent
Gender	Male	34.9 %	Income	Less than 6,000 NT \$	70.4 %
	Female	65.1%		6,000–15,000 NT\$	25.1 %
	Age	18-21		67 %	15,001–35,000 NT\$
21-23		27 %		Over 35,000 NT\$	0.9 %
23-25		6 %	Education	Undergraduate student	98.6 %
		Graduated student		1.4 %	

4.2 Validity and Reliability Test

Preparation of the data analysis using SEM requires that the measures used in the study be refined in order to contain only those items that are the most relevant, valid and reliable. Careful measure refinement insures a theoretically sound and well-fitting model. All of the measures in the study were examined by checking their unidimensionality and reliabilities and by performing the Exploratory Factor Analysis (EFA), the Reliability Analysis, and the Confirmatory Factor Analysis (CFA). Once the measurement model (final CFA) was accepted, the SEM was tested by using the AMOS software.

4.2.1 Validity Test-EFA

Factor analysis refers to a variety of statistical techniques whose common objective is to represent a set of

variables in terms of a smaller number of hypothetical variables (Jae-On & Mueller, 1978). The extraction method is Principal Component Analysis; it means that only those factors with eigenvalues greater than 1 will be extracted. Meanwhile, we conducted varimax rotation to achieve simple structure by focusing on the columns of the factor loading matrix. The Statistical Package for Social Science (SPSS 20) was utilized to carry out the factor analysis. As shown in Table 3, the KMO test for all variables is 0.822 (much higher than .50) which is great at the confident interval level of P value < .05 (Kaiser, 1974). Furthermore, the factor loading of four factors are all greater than .50. Four factors extracted account for 67.13% (>50%) of the variability (Field, 2005). The results of factor analysis indicate that the data is valid and meets the requirements to be used for further analyses.

4.2.2 Reliability Test

After Factor analysis, the Reliability test for each construct was carried out. Reliability, as defined by Kerlinger and Lee (2000), is the lack of distortion or precision of a measuring instrument. Cronbach's alpha reliability coefficient was conducted to measure reliability of the data. According to Sekaran (2000), if the value of coefficient alpha is between .6 and .8 the instrument is considered reliable and higher than .8 is considered highly reliable. The results presented in Table 3 show that the variables of PBQ, PBP, PBG, and CPL measures were deemed acceptable because the associated reliability coefficients were greater than .50. In other words, the reliability of the measures is acceptable.

Table 3. Expletory factor analysis and reliability results

Variables	Item	Factor loading	Cronbach's Alpha
Perceived Brand Quality	PBQ1	.77	.83
	PBQ2	.76	
	PBQ4	.78	
Perceived Brand Prestige	PBP3	.92	.94
	PBP4	.95	
	PBP5	.67	
Perceived Brand Globalness	PBG2	.73	.71
	PBG3	.62	
	CPL1	.69	
Perceived Brand Likelihood	CPL2	.70	.82
	CPL3	.80	
	CPL4	.75	
Cronbach's Alpha		.83	
KMO		.82 > .5	
P-Value		.000 < .05	
Cumulative %		67.13 % > 50%	

4.3 Data Analysis

4.3.1 Confirmatory Factor Analysis (CFA)

In the confirmatory factor analysis process, the researcher works to improve the overall fit of the model (DeCoster, 1998). This procedure involves ensuring unnecessary items and correlating similar items. In a confirmatory factor analysis, all of the variables in the model are co-varied, although there is no expected relationship between variables. Therefore, the confirmatory factor analysis included all of the variables in the proposed model.

CFA was performed to examine the relationship between the items and their respective latent variables using AMOS 20. Relationships between the constructs and their latent variables were specified in the measurement model (Table 4). The CFA results indicated that Chi-square / Degrees of freedom (X²/df) ratio was 4.27 which complied with the criteria of X²/df < 5 (Chin & Todd, 1995). A chi square test functions as a statistical method

for evaluating models. The fit index is more descriptive than statistical. Fit indexes describe and evaluate the residuals that result from fitting a model to the data. A chi square probability value greater than .05 indicates acceptable model fit (Table 8).

The GFI (goodness of fit index) = .94 and the AGFI (adjusted goodness of fit index) = .90, these result meet the criteria of being bigger than .80 suggested by Baumgartner and Homburg (1996). According to Brown (2006), the comparative fit index (CFI) should be equal to or greater than .90 to indicate well fit. In this study, the CFI was .96 which was considered great. In addition, there is adequate fit if the root mean square error of approximation (RMSEA) is less than or equal to .08 (Hair et al., 1998). In this paper, the RMSEA was .078 (<.08). In short, the result of the CFA shows a great model as indicated in table 7.

Table 4. Model fit analysis

Model	X ²	df	X ² /df	GFI	AGFI	CFI	RMSEA
	204.727	48	4.265	.94	.90	.96	.078
	Suggested Value		< 5	> .90	> .90	> .90	< .08

4.3.2 Convergent Validity

To deal with convergent validity, Aderson and Gerbling (1988) suggested using three common indices to evaluate the measurement model. Those are the individual item reliability, the composite reliability (CR) and the average variance extracted (AVE). Firstly, in this study, the factor loadings of the measurement items for each latent variable were significant for convergent validity with the lowest being 0.53 > 0.5 (CPL4), so these results show a high degree of reliability (Hair, Anderson, Tatham, & Black, 1998) (Table 5).

Table 5. Factor loadings of the measurement items

Item	PBQ1	PBQ2	PBQ4	PBP3	PBP4	PBP5	PBG2	PBG3	CPL1	CPL2	CPL3	CPL4
Factor Loading	.87	.88	.63	.89	.97	.79	.72	.80	.81	.92	.64	.53

Secondly, the composite reliability (CR) is applied to test the internal consistency of each latent variable. The results of CR were calculated (Table 6). The CR value of each latent variable is between .71 and .93. The CR with the value greater than 0.6 is considered being indicative of strong internal consistency (Fornell & Larker, 1981; Hair et al., 1998; Malek, 2012). Finally, we used the average variance extracted (hereinafter referred to AVE) to measure the degree of explained variance attributable to the measurement items of these variables. The AVE values were ranged from .55 to .84. These AVE estimates all exceeded the suggested criteria of .50 (Fornell & Larker, 1981). Therefore, the results of the above analysis allow us to conclude that the latent variables of PBQ, PBP, PBG, and CPL have a strong reliability and convergent validity (Table 6).

Table 6. Test of composite reliability and convergent validity

Variable	Abbreviation	CR	AVE
Perceived Brand Quality	PBQ	.85	.66
Perceived Brand Prestige	PBP	.93	.84
Perceived Brand Globalness	PBG	.71	.56
Consumer Purchase Likelihood	CPL	.83	.55
	Accepted Value	> .70	> .50

4.3.3 Discriminant Validity

In this part, the discriminant validity was tested to identify whether a construct is truly distinct from other constructs. Fornell and Larcker (1981) suggested comparing the AVE's square root with the correlation coefficients of latent variables. The findings showed that the square root of AVE are all higher than 1 (Table 7) which means the indicators have more in common with the construct they are associated with than they do with other constructs. In other words, four constructs of CFA model indicate strong discriminant validity.

Table 7. Test of discriminant validity

Variable	PBQ	PBP	PBG	CPL
Perceived Brand Quality (PBQ)	1	.19	.34	.72
Perceived Brand Prestige (PBP)	.19	1	.44	.20
Perceived Brand Globalness (PBG)	.34	.44	1	.39
Perceived Brand Likelihood (CPL)	.72	.20	.39	1
Max correlation	.72	.44	.44	.72
$\sqrt{\text{AVE}}$.81	.92	.75	.74
$\sqrt{\text{AVE}} / \text{Max. Correlation}$	1.13	2.09	1.70	1.03

4.4 Structural Model

The results of the CFA analysis indicated that each construct of the research model has a strong reliability, convergent validity, and discriminant validity. Therefore, it is suitable for the study to use a structural model. As discussed earlier, SEM is used to test the overall good-of-fit and determine the relationships among variables.

Table 8. Results of SEM analysis

Model	X ²	df	X ² /df	GFI	AGFI	CFI	RMSEA	NFI
	190.58	49	3.89	.94	.91	.96	.07	.94
	Accepted value		< 5	> .90	> .90	> .90	<.08	> .90

As shown in Table 8, the value of X²/df = 3.89, which complied with the suggested criteria of < 5. In addition, the values of GFI = .99 and AGFI = .91 are greater than suggested criterion (Hair et al., 1998; Baumgartner & Homburg, 1996). RMSEA = 0.074 is less than suggested criterion (Hair et al., 1998). CFI = 0.958 and NFI = 0.94 (Bentler, 1992). These results indicate a very good fit between the conceptual model and the empirical model in this study.

Table 9. Results of the hypotheses

Hypothesis	Path	β	S.E	P	Result
H1	PBG→PBQ	.36***	.06	.00	Supported
H2	PBG→PBP	.46***	.07	.00	Supported
H3	PBP→CPL	.07	.04	.87	Rejected
H4	PBQ→CPL	.65***	.05	.00	Supported
H5	PBG→ CPL	.24*** (w/mediation)	.06	.00	Supported
H6	PBG→ CPL	.43*** (w/o mediation)	.06	.00	Supported

***P <.001.

Table 9 indicates that H3 was rejected while the other five hypotheses were supported. There is a positively and statistically significant relationship between PBG and PBQ (.36). PBQ in turn positively influence CPL (.65). The relationship between PBG and CPL with the mediating variables is (.24) and without mediation is (.43). The direct relationship between PBG and PBP is statistically significant (.46), however the relationship between PBP and CPL did not reach the confidence interval level of $P < .05$ and is very small (.07, $P = .87$) (Figure 4).

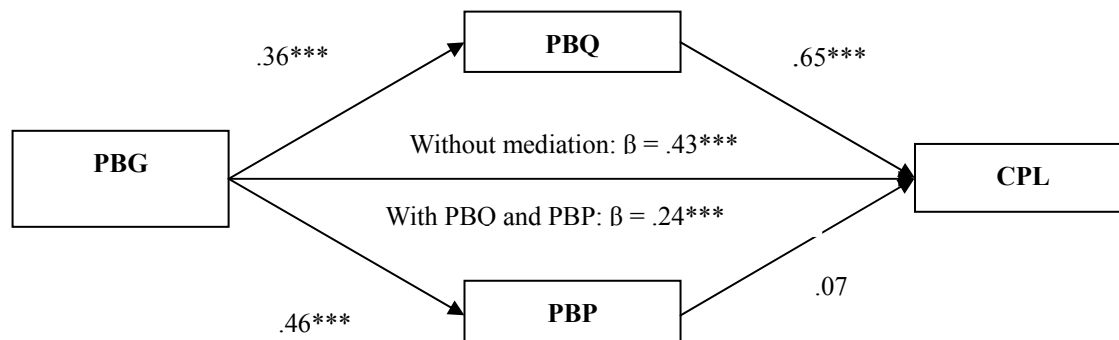


Figure 4. Testing the whole model with PBP and PBQ

Note: $***P < .001$.

4.5 Testing for Mediation Effect Using Post Hoc Analysis

In this part we adopt Post Hoc analysis approach together with the SEM to test the mediating effects of Perceived Brand Quality and Perceived Brand Prestige in the study’s model based on four steps that have been discussed in the methodology section.

As we can see in the conceptual model (Figure 3), mediations in this study were hypothesized in two causal chains in which PBG played the role of an independent variable (predictor), PBQ and PBP were the mediating variables, and CPL is a dependent variable (the outcome). Therefore, the model consisted of two pathways. The first pathway includes PBQ through which PBG affects CPL and the second pathways consists of PBP whereby PBG affects CPL. The following sections will discuss further post hoc analysis of the mediation.

4.5.1 Test for Mediating Effect of Perceived Brand Quality

Based on four steps which were outlined before, the study first established that PBG (the predictor) was related to CPL (the outcome) by regressing CPL on PBG variable (step 1) as shown in Table 9. As a result, the relationship between PBG and CPL was significant at the confidence interval level $P \text{ value} < .001$ ($\beta = .43$, $P < .00$). In other words, path c was significant and the requirement for mediation effect was supported in step1. We moved to step 2 (path a) with the second equation. In this step, the mediating variable (PBQ) was regressed on the predictor variable (PBG). The findings shows the significant relationship between the mediator and predictor at the confident interval level $P \text{ value} < .001$ ($\beta = .38$). Therefore, the requirement for step 2 was met. Accordingly, Step 3 were carried out to test the significant relationship between the mediator variable PBQ and the outcome variable CPL. The results indicated that PBQ has a highly significant relationship with CPL ($\beta = .65$, $P < .00$), thus path b was significant or the conditions for step 3 was satisfied (Table 10).

Table 10. Test for mediating effect of PBQ and PBP

Testing step	Path	Predictor	Mediator	Outcome	Std β	Geographical display
Step 1	c	PBG	No	CPL	$.43^{***}$	$.43$ PBG \longrightarrow CPL
Step 2	a	PBG	No	PBQ	$.36^{***}$	$.36$ PBG \longrightarrow PBQ

		PBG	No	PBP	.46***	PBG → PBP	.46
		PBQ	No	CPL	.72**	PBO → CPL	.72
Step 3	b	PBP	No	CPL	.23***	PBP → CPL	.23
		PBG	PBQ	CPL	.36***		.65
				.65***	.21		
Step 4	c'				.21***		
		PBG	PBP	CPL	.47***		.07
				.07	.42		

***P < .001; Std β = standardize beta coefficient.

The successes in step 1, 2, 3 allow us to continue our work on step 4 with all three variables involving in the model. Specifically, this step involved regressing the outcome variable (CPL) on the predictor variable (PBG) and mediator variable (PBQ). Results of step 4 are showed in Figure 5 where the relationship between the predictor and the outcome still remained the positively significant ($\beta = .21, P < .00$) with the standardized beta coefficient reduced from .43 to .21 which compiled with the requirement that the influence of predictors on outcome variables must be weaker than that of step 1 (path c < path c'). In addition, there is a significant relationship between mediator variable PBQ and outcome variable CPL ($\beta = .65, P = .00$) or the significant effect become stronger with mediation controlled. Therefore, it could be concluded that there was a partial mediation effect of PBQ in the research model through which PBG influenced CPL (Figure 5).

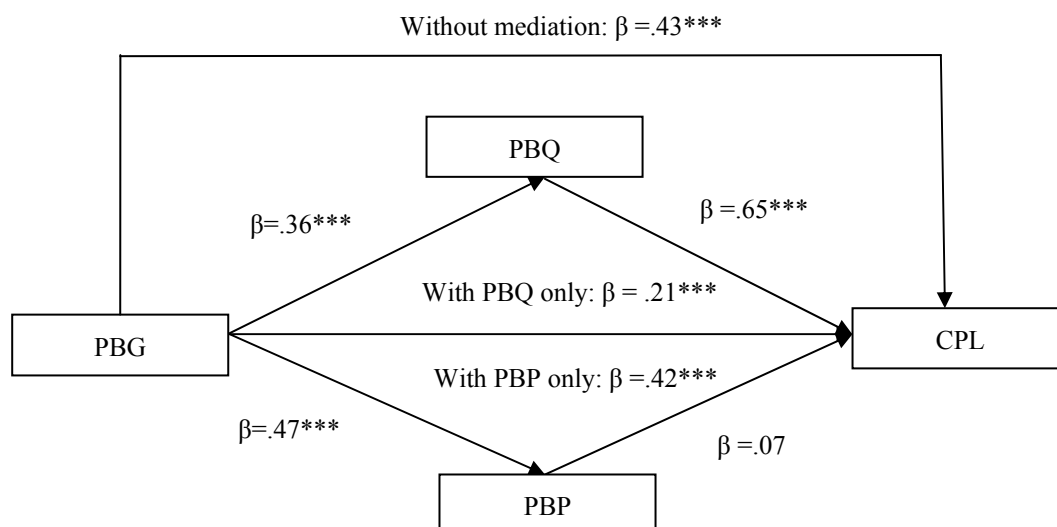


Figure 5. Results of mediation test for PBQ and PBP separately

Note: ***P < .001

4.5.2 Test for Mediating Effect of Perceived Brand Prestige

Analogous to the last section, we also used four-step approach to test the mediation effect of Perceived Brand Prestige in this phase. The results were indicated in table 9 which showed that the requirements for step 1, step 2, and step 3 were met because there were the positively significant influences of the predictors on the outcome at the confident interval level $P < .001$. In other words, path a, b, and c were supported, so step 4 was carried out to test if the mediator PBP works or not.

The results are summarized in Figure 5 where the standardized beta coefficient is slightly decreased from .43 (without mediation controlled) to .42 (with mediation controlled). This met the condition that the influence of predictors on outcome variables must be weaker than that of step 1 (path c < path c'). However, there was no significant relationship between the mediator and the outcome variable ($\beta = .07, P = .85$). Obviously, PBP did not play the role of a mediator in the study model. In short, the results of the post hoc analysis indicate that perceived brand quality has a mediating effect on the relationship between perceived globalness and consumer purchase likelihood while perceived brand prestige does not mediate the relationship between the PBG and CPL.

5. Conclusions, Limitations and Future Research

Perceived brand globalness has been considered a key vehicle that directly or indirectly draws consumer's purchase likelihood in the past decade. While there have been a number of studies dealing with the direct relationship between perceived brand globalness and consumer's purchase likelihood, indirect relationships are still scarce. To the best of our knowledge, this paper is the first to examine the indirect relationship between perceived brand globalness and consumer's purchase likelihood applied to mobile phone industry. In doing so, perceived brand quality and perceived brand prestige, the two most typical dimensions that lead to a consumer's purchase likelihood, were used as mediating channels in this study. As a result, consumer's purchase intention in mobile phone industry could basically be explained through the path way in which perceived brand quality plays the role of a mediator variable through which the element of perceived brand globalness will influence consumer purchase likelihood. It can be understood that, perhaps, Taiwanese college student consumers still have not perceived the HTC Company as a full global company. Their main concern about the HTC's product is the quality. In short, Taiwanese college consumers are more interested in keeping up with the world of fashion. They are willing to purchase high quality foreign famous brands at high prices. According to the above analyses, Taiwanese customers consider quality is more important than prestige when they purchase mobile products of the HTC Company.

5.1 Theoretical Implications

The theoretical implications of this study are to address the research gap in the given field by providing the new findings. As existing studies indicate that there was a significant relationship between perceived brand globalness and consumer purchasing likelihood. In addition, the strong theoretical and empirical support for a relationship between perceived brand quality and perceived brand prestige was also found in the literature. Therefore, this study attempted to test previously developed theory in the context of perceived brand quality and prestige on how to influence consumer purchasing likelihood in the mobile market in Taiwan. However, the findings of this study present that not all above literature were supported in this study. In contrast, this study found that there was not a significantly direct relationship between perceived brand globalness and consumer purchasing likelihood. Furthermore, perceived brand prestige did not work well as a mediating variable. Therefore, the findings of this study help to construct the process of organizing a framework for completely understanding consumer purchase intention toward global brands. Eventually, this study also contributes to an established body of literature about important and timely variables within the mobile phone industry.

5.2 Limitation and Suggestions for Future Research

Although the authors strongly believe that the study provides insightful empirical findings, there are some limitations in this study that should be noted. This study was not able to draw the whole picture in the given industry. Future research should focus more on previous works to identify other factors that may efficiently explain consumer purchase likelihood. In addition, the roles of satisfaction, loyalty and benefits should also be explored in the next study.

Secondly, the sample of this study was focused on college student consumers who are more willing to spend on new and fashionable technology. However, they do not have a strong purchasing power, because their financial sources almost exclusively come from their families. Therefore, data used in this paper could not represent consumers' perception as a whole and it may cause some unexpected biases. Furthermore, asking Taiwanese consumers' perception about Taiwanese company (HTC Company) in term of global brand issues made them

confused because basically to Taiwanese, the HTC might seem as a local brand. Thus, future research should expand beyond Taiwan to collect information outside the country and should also concentrate on consumers who have independently finance situation.

Finally, there are many tycoons in the mobile phone industry such as iPhone, HTC, Samsung, Sonny, etc. So, it is essential to look at differences among these huge industries in term of consumers' perception in future research.

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Awakening Giant: International Business in China Growth, Opportunities and Challenges

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Received: July 19, 2013

Accepted: September 12, 2013

Online Published: December 23, 2013

doi: 10.5539/ibr.v7n1p109

URL: <http://dx.doi.org/10.5539/ibr.v7n1p109>

Abstract

This paper analyses China's growth through a developmental state framework, taking into account the positive role of the state in deliberately fostering a strategic industrial policy, with the aim of creating a process of rapid industrialisation and overcoming structural and technological constraints. It is argued that China growth has been achieved through a strong industrial policy implemented by state intervention in a way similar to other late-industrialised East Asian countries such as Japan, South Korea, Taiwan and Hong Kong. In particular, there are three main features in Chinese development typical of a developmental state policy: the constant control by the state of economic prices and allocation of resources, the focus on export-oriented firms and the openness towards foreign direct investment in order to overcome technology backwardness. China's growth has been analysed from an historical perspective in order to identify the key government reforms which have sustained and enhanced economic growth within the country. It is demonstrated that the industrial policy played a significant role in creating rapid industrialisation.

Keywords: international business, FDI, China, developmental state, economic growth, industrial policy

1. Introduction

This paper analyses China's development, from the start of its openness policy to the present day. It is argued that China's growth occurred due to the specific developmental policies pursued by the Chinese state in order to bring about rapid industrialisation. In pursuing this strategy, the openness towards FDI in order to acquire capital and technology represents a key feature implemented by Chinese policy makers. Moreover this paper argues that China's development can be studied through a developmental state framework, a theoretical framework used to analyse the growth processes of other Asian economies that have experienced rapid industrialisation. Furthermore, the aim of this paper is to relate previous analysis on specific Chinese economic reforms to this particular theoretical framework, in order to highlight the developmental strategy pursued by Chinese policy makers from 1978 onwards. In the first part of the paper the developmental state literature will be briefly analysed. In the second part, China's developmental policies will be discussed, as well as their impact on China's growth and economic environment.

The developmental state theory represents a useful framework to explain the rapid industrialisation experienced by Asian economies. This theory takes into account the positive role of the state in deliberately fostering a strategic industrial policy with the aim of creating a process of rapid industrialisation and overcoming structural and technological constraints. Johnson (1982) developed this theory in his seminal book "Miti and the Japanese miracle" in order to explain rapid Japanese development in the second half of the last century. Likewise, Amsden (1989) utilised a similar developmental state framework to analyse South Korea's rapid industrialisation. The developmental state framework can be summarised into four main features. Firstly, the state has great autonomy from the civil society along with a strong decision power, and enhances the transfer of foreign technology into the country (Haggard, 1990). Secondly, local companies create indigenous technological capabilities through the assimilation of imported technologies (Enos, 1991). Thirdly, the economic policy pursued by the government aims to maintain low inflation rates, low interest rates, and low exchange rate (Corbo & Suh, 1992). Lastly, the state focuses on an industrial policy which creates competitive advantage by fostering the right mix of industries without completely and indefinitely sheltering local firms from international competition (Okimoto, 1989). As a result, the growth process is not based on static price-allocation criteria driven by market forces, instead

development is achieved by the state's deliberate distortion of relative prices and by resources allocation. This strategy is exploited by using subsidies such as financial incentives, or state patronage of specific industries (Amsden, 1989). The allocation of subsidies puts the state in the role of entrepreneur, since their use implies a decision on what, when and how much to produce (Amsden, 1989). As Wade (1990) pointed out, this strategy enables the government to invest in industries considered strategic, as well as to expose these infant industries to international competition. Furthermore, the scope of the government is to create an oligopolistic industry structure in those sectors considered strategic. The purpose of creating a high level of economic concentration is to provide local firms with the necessary market power to survive the hardship of late entry, and to support a high level of investment and the exploitation of large economies of scale (Amsden, 1989). Nonetheless, these oligopolistic industries' rent-seeking behaviors are hindered by a strict state control on credit access as well as by a strong intra-industry competition (D'Costa, 1994). Along with strong physical capital accumulation, the state also provides human capital accumulation, fostering an educated workforce with a strong technological background. However, the state excludes the labor force from any major decision making, in order to have total control over its developmental strategy (Hart-Landsberg, 1993). Furthermore, as Sachs and Williamson (1985) argued, the state enhances its industrial policy through a trade policy that maintains competitive exchange rates to stimulate exports, along with certain forms of import restrictions to protect local firms. Finally, the crucial role of domestic firms should be considered, in developing indigenous capabilities from the foreign technology acquired through the inflow of FDI within the country.

2. Method

In this paper, China's path towards industrialisation has been analysed, from a historical perspective, from the start of its openness policy in 1978 to the present day. This period of time has been divided in three hypothetical phases to identify the major steps that China undertook on the road to industrialisation. The major economic reforms have been analysed as well as their impact on the major economic variables such as TFP, human and physical capital accumulation and FDI flows. Furthermore, the literature on the subject has been utilised to explain China's growth through a developmental state framework.

3. Results

The first phase could be dated as starting in 1978, with the economic reforms introduced by Deng Xiaoping. These seminal reforms sought to overcome the disastrous legacy of Mao's "Great leap forward" program, a disastrous state program implemented to control agriculture and achieve rapid industrialisation. This policy not only resulted in thousands of deaths due to famine, but also isolated China from the progress of modern times (Coase & Wang, 2012). This first initial round of reforms had a critical impact on China's development, in particular these reforms created a process of mutually reinforcing positive feedback efforts and put the country on a path of development (Nolan, 2004). The main result of these reforms was the start of a process of primitive accumulation within the country, where primitive accumulation is defined as the process through which capitalist production can start. However, since at the beginning of the economic reforms China was still a planned economy and all the assets were state owned, the capital formation had to be achieved by converting state-owned land and productive facilities into capital (Webber, 2012). The first reform introduced by Chinese policymakers was the rural reform. This reform had an outstanding importance as its success represented a positive feedback to implement more changes into the planned economy. The purpose of the rural reform was to deal with the major failure of the planned economy, which had been focusing on ambitious and expensive industrial projects while neglecting consumers' simple demands for basic goods and services. As Naughton (2006) argued, this reform was made on two simple policy decisions. Firstly, procurement targets for grain were reduced, procurement prices were raised and prices for agricultural products above the procurement targets were raised (Naughton, 2006). Secondly, collective farmers were allowed to choose their own system of organising and selling the agricultural output. The dramatic price incentives for farmers to produce and sell their products once they had met the required procurement, along with the freedom to organise the collective farms, led to a dramatic change in the structure of collectives. This policy recreated the traditional farm household economy and reduced the collective to a role of landlord, where farm households managed the entire agricultural production cycle on a specific plot of land subjected to a contractual agreement (Naughton, 2006). Due to the implementation of the rural reform, agricultural output started rising, farm households were encouraged to utilise modern inputs such as chemical fertilisers and agricultural machines, and agriculture productivity rose. According to Lyn (1992) the average annual growth rate of the Chinese agricultural sector moved from 2.2% in the years 1952–1978 to 7.7% in the years 1978–1984.

The rural reform also represented a blueprint for the subsequent commercial and industrial reforms that were pursued from 1978 to the mid 1990s. Following the rural reform framework, the Chinese government

implemented a new policy known as “the dual-track system”. This system was characterised by the existence of both planned, and market, coordination systems for the allocation of goods within the state industrial sector (Guthrie, 2006). The key elements of the command economy were maintained, while at the same time state owned industries were given opportunities and incentives to experiment market oriented strategies. However, this system represented only a double coordination mechanism for the allocation of goods and did not imply any form of privatisation since all factories were technically state-owned (Naughton, 2006). The main feature of this system was the opportunity for firms to sell all the goods produced above the production targets at market prices. Therefore, although state owned enterprises were subjected to a compulsory plan of production that covered the majority of their production capacity, they faced market prices on the margin for production above plan (Byrd, 1991). The existence of profitable opportunities beyond the state production plan represented a great incentive for companies to expand their business. Moreover, the Chinese government decided to keep the overall size of the production plan fixed in absolute terms (Naughton, 2006). As a consequence the economy grew outside the plan and the latter became proportionally less and less important, and in the end irrelevant. During this phase, town village enterprises (TVEs) played a key role in transforming the Chinese economy from a planned to a market economy. Between 1978 and the mid 1990s, TVEs led the growth of China and truly represented the most dynamic part of its economy (Naughton, 2006). According to Naughton research (2006), TVE employment increased from 28 million in 1978 to 135 million in 1996, moreover TVE added value in GDP terms, which increased from 6% in 1978 to 26% in 1996. The positive performance of the TVEs was favoured by the support of local government. In particular, TVEs enjoyed very low tax rates, and extremely low tax rates on profits, as well as access to capital and credit support (Naughton, 2006).

Furthermore, international opening reforms were implemented along with the domestic economy reforms. Chinese policy makers adopted a dualistic trade regime that enabled the country to encourage exports while protecting domestic markets. As Naughton (2006) showed, the first step in opening was to allow Hong-Kong firms to sign export contracts with Chinese firms, and set Special Export Zones (SEZs) in Guangdong and Fujian provinces in 1978. In 1986, the Chinese government decided to implement a more aggressive export-strategy and started the “Coastal Development Strategy” in order to attract foreign investors. This policy enabled all types of firms in the coastal provinces to engage in processing and assembling contracts with foreign firms and boosted China’s export expansion. As Nolan (2004) argued, the economic environment in the Delta region of China during this first round of export reforms can be linked to a “Lewis model” type (Lewis, 1954). In other words, for Hong Kong capitalists the Delta region represented an economic region with an unlimited supply of unskilled labor at a constant or sometimes declining real wage rate where it was easy to accumulate great amounts of capital (Nolan, 2004). As Fung (1998) showed, by 1993 about four-fifth of Hong Kong manufacturers had moved their production facilities to the Delta region employing three to four million Chinese workers in almost 25,000 factories. However, during this initial phase the impact of FDI on China’s economy and total export was relatively low. Zhang and Song (2001) showed that in 1985, five years after the creation of SPEs, the export generated by foreign-invested enterprises counted for only 1% of China’s total export.

The second phase could be dated as starting in 1992 and represented the turning point for China. During the years from 1992 to 2001, the Chinese economy faced a deep restructuring which removed the last remaining institutions of the old planned economy. Although several reforms had been implemented since 1978, in the mid 1990s the economy was still dominated by state-owned enterprises (SOEs). As Naughton (2006) pointed out, in 1996 the Chinese economy had a tripod structure in which state, collective and private firms each counted for one third of the total output. Nonetheless the SOEs, and in particular the lack of true private ownerships rights, represented a hinderance on economic development. Furthermore, SOEs were afflicted by endemic problems such as contractors’ opportunistic behaviour, under-utilised employees and high asset-liability ratios which made most of these enterprises unprofitable and dependent on state-subsidies (Chen, Jefferson, & Zhang, 2011). As a result, Chinese policymakers implemented a series of reforms that both created an institutional framework in which private companies could operate, and restructured most of the old SOEs. A true milestone was represented by the “company law” that guaranteed legal and autonomous entities for private, collective and state enterprises, and separated enterprises, legally and operationally, from the command economy (Guthrie, 2006). This law was particularly important for two reasons. Firstly, it created a legal framework in which the different form of ownerships, state, collective and private, could operate under common rules and secondly it provided a legal way to convert traditional SOEs into private enterprises (Naughton, 2006). This policy was followed by the “grasping the large, and letting the small go” strategy adopted at the 15th Communist Party Congress. Through this policy, Chinese policy makers focused their efforts on key industries which were considered strategic, while giving local governments authority to restructure, privatise or close their firms. As a result, local governments sought to privatise firms considered competitive, as well as to close unproductive and loss making enterprises. As

Naughton (2006) argued, budget constraints for enterprises were tightened, banks had less access to state funds and started applying higher lending standards and repayment provisions. These reforms led to a huge restructuring of the industrial composition within China, most of the loss-making state-owned firms were closed and the smaller and weaker local firms that could not deal the increased market competition faced bankruptcy. Naughton (2006) demonstrated that “the total number of industrial SOEs dropped from 120,000 in the mid 1990s to only 31,750 in 2004, including all state-controlled corporations” (p. 313). These reforms clearly contributed to boosting growth and productivity within the economy. Chen et al. (2011) calculated that during the reform period the aggregate growth rate of industrial value added was 12.5% while the growth rate of productivity was 6.7%. Furthermore, Dekle and Vandenbroucke (2012) calculated that the total factor productivity growth per annum for the period 1978–2003 was 3.7% in the agricultural sector, 3.2% in the non-agricultural sector, and in particular the TFP growth for the private sector alone was 8.8%.

The second main element of this period was the huge flow of FDI into the country. As Zhang and Song (2001) showed, in 1985, five years since the setting of SPEs zones, the total FDI in China amounted to 1661 million dollars. However, after 1992 FDI flows showed an increasing trend throughout the decade, in 1992 FDI flows amounted to 11,007 million dollars and reached 40,390 million at the end of 1999. In addition, the exports generated by foreign-invested enterprises followed a similar positive trend: FIEs share of total exports went from 12.5% in 1990 to 45.50% in 1999 (Zhang & Song, 2001). This flow of FDI can be divided in two macro categories: horizontal FDI involving the transfer of production from abroad, to service the Chinese market, and vertical FDI that sought to take advantage of low-cost production and low wages for the exportation of manufactured goods abroad (Xin & Whalley, 2010). As Guthrie (2006) argued, the government openness policy attracted massive amounts of FDI into the country which represented a large supply of capital and an efficient means of importing technology and managerial practices. In other words, there was a correlation between FDI openness and TFP growth. As Xu, Lai, and Peng (2008) showed from their study of TFP in 29 of China’s provinces during the period from 1994 to 2006, the more open the region was to FDI the faster the companies acquired foreign technology, improved efficiency through learning by doing, and enhanced the level of average human capital accumulation. Moreover, Xu et al. (2008) showed that in the most technological developed regions of China, TFP was increased by three factors: human capital, trade openness and FDI. The impact of the different reform phases on human capital accumulation has been reflected by the human capital growth rates, Li, Liang, Fraumeni, Liu and Wang (2013) calculated that the annual average growth rate of real human capital was 5.74% between 1985 and 1994 and increased to 7.67% between 1995 and 2008. In addition, FDI inflows were stimulated by the exchange rate policy pursued by the Chinese government. As Xing showed (2006), the Yuan has faced a devaluation trend since 1994. The devaluation stimulated the export-oriented industry, since the devaluation reduced the cost of labour and other productive inputs relative to foreign markets, attracting FDI (Xing, 2006).

The third phase could be dated to 2001, the year in which China entered the World Trade Organization (WTO). This phase was characterised by a radical change in the Chinese export structure. As Tong and Wong (2012) demonstrated, China’s exports shifted from labor-intensive manufacturing in the early 1990s to capital and high technology manufacturing in the late 2000s. The change in the focus of the manufacturing process was a consequence of the development path undertaken by China. China’s economy moved from a developing stage where its comparative advantages (cheap labor and an unlimited supply of workers), attracted multinational investors outsourcing their production, to a mature stage where industries were more technology and knowledge based and productions were capital-intensive. As a result, China’s factors endowment has become more similar to those in the developed economies. As Yang and Zang (2011) showed, China has reached the ‘Lewis turning point’. In other words, China does not possess an unlimited supply of labor anymore, wages are about to increase rapidly in the coming years, leading to higher domestic consumption rates. Finally, in the last few years China has been implementing new reforms. According to the OECD (2010), central authorities have introduced pro-competition measures and competition policy frameworks, restructured the relationship between the government and State Owned Enterprises (SOEs), introduced new labour laws and restructured its financial system. With the implementation of these new rounds of reforms and the continuous positive growth trend, China’s economy is now predicted by the OECD (2010) to become as large as the U.S.A.’s by 2016.

4. Discussion

The transition of China from a command economy to a market system has been constantly driven and supported by the state. As Naughton (2006) demonstrated, Chinese policy makers gradually opened the economic system to new capitalist elements and favored entrepreneurial behaviours because they considered that these things contributed to developmental objectives.

According to Guthrie (2006) “the state has consistently and methodically guided the reform process, maintaining control over the majority of the industrial economy and tightening fiscal constraints for the inefficient state sector at only a gradual rate” (p. 13), furthermore “the state has experimented with, and gradually introduced, the policies and laws through which new markets that increasingly govern economic processes in China have been constructed” (p. 13). In other words, Chinese policy makers have been able to create an endogenous process of growth stimulating a rapid accumulation of capital and technology advancement that boosted productivity gains. In pursuing this strategy, the export-oriented economy, created with the coastal development strategy and the openness towards FDI, played a major role in overcoming the main constraints on China’s development: a scarce supply of capital and technology backwardness. As Guthrie (2006) showed, China’s growth was based on three pillars: firstly, the gradual retirement of the state control over the economy without rapid privatisations, secondly, the constant growth of FDI, and thirdly, the gradual construction of a legal and institutional environment that could support economic changes. Furthermore, China’s development shows some key features of a developmental state framework. Firstly, the state has always had a strong and independent decision making power, even after 1978. Fairbank and Goldman (2006) argued that the communist party is no more than the inheritor of the one of the world’s longest tradition of autocracy. In other words, as Robins argued (2010), China has never experienced a plurastic institutional system where the civil society was allowed to participate in and control government’s decisions. As a result, although the party-state has implemented wide economic reforms towards a market-oriented economy, it never allowed civil society to take part in the decision making process. As a result, economic policies have been imposed by Chinese policy makers through bottom-down logic in order to achieve their specific developmental objectives. This independent decision power has been expressed through a strict control on labour force, capital flows, control on FDI flows and by controlling strategic industries. Secondly, FDI played a major role in China’s development and represented a mean to acquire foreign technology, managerial skills, know-how and capital (Guthrie, 2006). In order to attract FDI, Chinese policy makers created a favourable export oriented environment by creating special export zones, keeping the Yuan undervalued, ensuring a stable macroeconomic environment and creating the legal and institutional framework for a market economy. These policies strengthened China’s comparative advantage, a relatively cheap cost of labour, and made the country even more attractive for foreign investors. All together, these policies boosted a growth process within the country and set China on a path of development.

However, China’s move towards development has created both opportunities and challenges for the country. One of the key issues that will require solving is the striking inequality among the Chinese population. The rapid industrialisation process in China has undoubtedly created growth and wealth but it has been achieved by deliberately favouring business interests. As Amsden (1989) demonstrated, within a developmental state framework the state supports businesses in order to create a sustained growth process while at the same time it strictly disciplines it in order to impede business interests from overlapping with those of the society at large. Nonetheless, this support implies an unequal redistribution of the wealth to a specific segment of the society, the owners of capital, which in turn creates inequalities. According to the OECD (2013), inequality reached a peak in 2008 and is now declining. Nevertheless, Chinese policy makers will have to deal with inequality and provide a better redistribution of wealth, especially in the rural areas where the average income is far lower than the income in the urban areas. Another key issue is the reform process and its future directions. Although China has set its reformation path in the right direction, many changes are still required. The central government has not completely liberalised the economy, and competition in sectors considered strategic by the party has not been permitted, SOEs continue to operate along with private enterprises. The inflow of capital in China’s capital market is restricted to specific quotas and the financial sector is still heavily controlled. These issues mean that new market reforms need to be implemented in the next decade in order to fully develop a stable market environment. Lastly, China’s growth opens a discussion on the democratisation process within the country. With income and living standard rising, the demand for democracy within the country is increasing and some authors such as Guthrie (2006) argue that democracy in China is inevitable due to the process of development that is changing the country. However, China is still a non democratic country and the Chinese political system is heavily controlled by the communist party. This issue could represent one of the hardest challenges for the China in the near future. How will Chinese policy makers cope with the demand for democracy and how will they introduce democratic rules in a country which has been controlled for more than 50 years by a dictatorial government?

5. Conclusion

Strong evidence has been presented that China’s growth was created and sustained by a specific developmental strategy pursued by the Chinese government. Rather than rely on market forces, Chinese policy makers

deliberately distorted prices and resources to transform a command economy into a market economy. This process was achieved through a gradual but constant erosion of the planned system along with the construction of a capitalist environment. In implementing this strategy, Chinese policy makers built an export-focused economy and promoted openness towards FDI in order to achieve foreign technologies and capitals. This development strategy shows strong similarities with the developmental policies implemented by other Asian economies such as Japan, Taiwan, South Korea, Singapore and Honk Kong, in order to achieve rapid industrialisation. As a result, China's growth can be analysed through the lens of a developmental state framework. However, the aim of this paper is to encourage future analysis of China's growth through a developmental framework, since the lack of a thorough quantitative analysis of the different policies, in terms of the principal economic variables, poses serious limits to the depth of the study in this article.

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Private and Public Investment Growth: Macroeconomic Expectations and Fiscal Policy Uncertainty

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Received: November 7, 2013

Accepted: November 19, 2013

Online Published: December 23, 2013

doi: 10.5539/ibr.v7n1p116

URL: <http://dx.doi.org/10.5539/ibr.v7n1p116>

Abstract

This study examines potential disparities in how specific adverse macroeconomic conditions impact variability in US private and public investment growth. Using quarterly time series data spanning the period 1960–2012 and array of econometric procedures such as ARDL-Bound Test technique etc.; effects of specific macroeconomic conditions such as recession and inflation expectations on private and public investment growth are estimated. Our results show that in the short run, only macroeconomic uncertainty and fiscal policy volatility among variables tested, drives significant fluctuations in private investment growth. This study also finds that recession expectations rather augments public investment growth in both the short and the long run; but constrains private investment growth in the long run. Additionally, comparative analysis further show that private investment growth tend to be more susceptible to adverse macroeconomic conditions tested in this study than public investment growth.

Keywords: recession expectations, inflation expectations, fiscal policy volatility, ARDL-bound test approach

1. Introduction

This study investigates potential disparities in how private and public investment growth conditions respond to, or are impacted by specific macroeconomic conditions. The approach adopted in this empirical study, critically examines trend dynamics associated with each investment growth strand; and how modeled macroeconomic conditions impact such trend. Among other things, the outcome of this empirical inquiry is projected to provide crucial data driven evidence which could augment our understanding of conditions responsible for periodic fluctuations in US private and public investment growth. Empirically verifiable conclusions emanating from this study could also help in reshaping existing policy strategies for tailored macroeconomic policies targeting investment growth stability and economic growth. This study's examination of the behavior of private and public investment growth, in an environment characterized by specific adverse macroeconomic conditions is conducted using proven system of econometric models capable of uncovering such dynamic relationships. A review of the literature focusing on mechanics of investment growth such as Bloom, Bond and Reenen (2007), Le Quan V. (2004) etc. show that investment growth, like most macroeconomic indicators, does not occur in a vacuum; in that, decisions fueling such investments are often shaped or defined by specific prevailing or projected macroeconomic conditions. Thus, the customary view that significant portion of the variability in investment growth, is driven to large extent by prevailing and forecasted macroeconomic conditions is consistent with existing literature. This linkage between macroeconomic conditions and investment growth has been verified by legion of empirical studies focusing on the evolving relationship. Some of the studies verifying this relationship have for instance, concluded that macroeconomic conditions to a greater extent, defines and dictates direction of most investments; and consequently, it's growth trajectory. Specifically, substantial number of such studies (Note 1) have concluded that adverse macroeconomic conditions such as economic uncertainty, fiscal policy volatility, interest rate volatility etc. negatively impact investment growth; whereas favorable macroeconomic conditions characterized by stable and appreciable growth augmenting conditions, elicits significant investment growth.

Studies such as Aizenman and Marion (1999), Moguillansky (2002), which focused primarily on the relationship in question among developing economies, for instance, found a negative relationship between

private investment growth and several macroeconomic and uncertainty measures. In a related study, Federer (1993) also concluded that macroeconomic uncertainty has significant negative impact on US equipment investment growth. These conclusions, which to some extent captures conditions in both developed and developing economies (as well as others to be discussed in later sections), suggest that apart from known traditional determinants of investment growth such as loan supply, interest rate etc., investment growth dynamics are also inherently defined by prevailing macroeconomic conditions. This conclusion is supported to some extent by recent US economic performance data. For instance, reviewed quarterly historical US investment growth data show that investment growth, tend to contract significantly during periods of economic decline or heightened macroeconomic uncertainty, and rebound during periods characterized by reverse conditions. Again, macroeconomic performance data from the Federal Reserve Economic Database (FRED), also show that US net domestic investment growth, recorded its most significant percentage decline since the 1960s, in 2008 in responds to the recession of 2008. These facts, to some extent supports prevailing view that investment growth, all things being equal, trend with prevailing macroeconomic conditions.

Like most developed and developing economies around the world, the US economy experienced significant decline in structural growth during the recent global economic decline brought about by the 2008 recession. Since this economic episode which negatively impacted key component of GDP growth (consumption, investments etc.), there have deliberate ongoing efforts and measures geared towards accelerating growth among various sectors of the economy. Current macroeconomic data however, suggests these efforts by the federal and state governments have not been entirely successful in putting the economy back on desired economic growth trajectory. Although recent (2013) trends in the real estate sector, the stock market, consumption expenditures, etc. are significantly better compared to trends in periods immediately after the recession of 2008, the same economic data also shows the US economy in general still lag behind macroeconomic conditions that existed prior to the 2008 recession. Domestic investment growth for instance, has not fully recovered from the 2008 economic shock; a condition which this study believes could be attributed to lingering macroeconomic uncertainty and less reliable or informative economic signals. This view that macroeconomic uncertainty could be responsible for constrained US investment growth in recent years is consistent to some degree with projections of rational expectations theory; which predicts rational behavior on the part of the average investor. Existing empirical findings (based on this theory) suggest that in periods of significant macroeconomic perturbations, viability or profitability signals associated with most investment projects become distorted; making it extremely difficult for investors to accurately assess potential viability of projects of interest. In such condition, rational expectation theory project that rational investors whose ultimate goal is to maximize profit utilizing all available information, will often defer on proposed investment projects until they can predict how prevailing conditions will impact such investments. Thus, prevailing and projected macroeconomic conditions to a greater degree defines the extent of investment growth by impacting investor behavior.

1.1 Theories of Investment Growth: A Succinct Account

This section provides succinct account of evolving theories formulated to explain investment growth dynamics. The section examines three of the leading theories on dynamics of investment growth. A quick review of these theories show that each theory tend to attribute variability in investment growth to varied factors or conditions in its assessments of factors responsible for investment behavior. Most of the factors or conditions identified by the theories are mainly industry, firm operational specific or demand driven considerations. This study however, as already noted, takes a different approach by focusing on potential effects of specific macroeconomic conditions (expectations and uncertainty) on private and public investment growth. This section analyzes key conclusions of the following investment theories: the Accelerator Principle, the Jorgenson neoclassical theory, and the Tobin-q investment concept which continue to shape our understanding of mechanics of investment performance. Critical assessment of each of these theories with the exception of the Tobin-q investment framework, suggest that each tend to deliberate on specific procedure in explaining investment growth behavior without specifically capturing effects of expectations or external macroeconomic conditions critical to investment performance. For instance, the accelerator principle, posits that investment growth has a linear relationship with changes in output driven consumer confidence and demand; although one could inherently argue for implied effects of uncertain macroeconomic conditions, the framework does not specifically address the condition (i.e., external macroeconomic effects).

The Jorgenson's dynamic model of investment growth which describes optimal investment behavior based on capital stock adjustment flexibility; also seem to suggest that macroeconomic conditions being considered in this

study might not be that detrimental to investment growth. Although this investment performance formulation has been shown to be attractive because of its capture of user cost of capital, critics still suggests the framework relies too heavily on ad hoc adjustment mechanism imposed to determine the rate of investment growth (Chirinko, 1993). The Jorgenson framework, for instance somehow seem to imply that there should be no “worries” about the future (that is, dire macroeconomic expectations for instance might not impact significantly on investment growth) since firms can adjust capital stock to any change in the environment. The Tobin-Q investment formulation, an investment concept propounded by Tobin J. (1969) on the other hand, argues that the rate of investment (growth) is a function of Q, (Tobin’s Q) that is, the ratio of market value of new additional investment to its replacement cost. This investment framework suggests that if Q is greater than one ($Q > 1$), then an additional investment by a firm would make economic sense because projected profits generated would exceed the cost of firm’s assets. However, if Q is less than one ($Q < 1$) then, the potential for losses will serve as disincentive to embark on any investment or engage a firm’s assets. Thus, according to this framework, the level of Q facing firms constitutes the dominant condition determining investment growth dynamics all things being equal.

However, unlike these investment frameworks which continue to spearhead our understanding of investment growth dynamics, this study rather focuses on how public and private components of general US investment growth, respond to specific macroeconomic conditions or external macroeconomic stimuli. This approach does not seek to merely verify whether specific macroeconomic conditions constrain investment growth or otherwise; in that, there is sufficient empirical evidence to that effect already in the present literature. The approach adopted in this study rather verifies potential differences in the magnitude of how modeled macroeconomic variables impact public and private strands of US investment growth in a comparative analysis. Methodology employed in this inquest is modeled on the assumption that public and private investment growth might not respond in a similar manner to specific external macroeconomic condition or stimulus. For instance, this study anticipates significant disparity in how private and public investment growth responds to unique macroeconomic condition such as inflation expectations. If disparity in how these investment components responds to macroeconomic condition is detected, the phenomenon will provide strong evidence to the effect that one-sided investment policy drive, might not be enough to promote significant growth in overall investment; since the two investment components might require different policy approaches. This study further projects that conditions such as macroeconomic uncertainty, inflation expectations etc. may not impact private and public (federal government and states) investment growth proportionally. Again, if it is found for instance, that private investment growth respond more to macroeconomic uncertainty than public investment growth; then, the condition could be an indication that in periods of significant macroeconomic uncertainty federal and state governments tend to be more active in their investment drive; often in an attempt to shore-up the economy; whereas private investors rationally restrict investment growth.

2. Structure of US Private and Public Investment Growth

Historical trend analysis of US private and public net domestic investment growth show that, over the past five decades (1960 to 2013), quarterly growth conditions associated with the two investment strands have varied significantly. Graphical plot of the historical data associated with the two investment strands for instance, indicate that public investment growth dynamics over the period under review have been significantly more volatile compared to net domestic investment growth in the private sector. Figures 1 and 2, illustrates quarterly investment growth dynamics associated with US public and private sector investment growth. Figure 1 charts historical private investment growth trend between 1960 and 2012. From this trend depiction, it is evident that historically, private investment growth trend has been fairly stable with the exception of periods during and after the 2008 recession. Conditions during and after the 2008 economic decline is showed to have perturbed a relatively sturdy historical quarterly trend; reaction to this economic shock is captured by significant volatility around the period in question in Figure 1. The same trend conditions however, cannot be said about quarterly growth behavior characterizing public investment growth captured in figure 2.

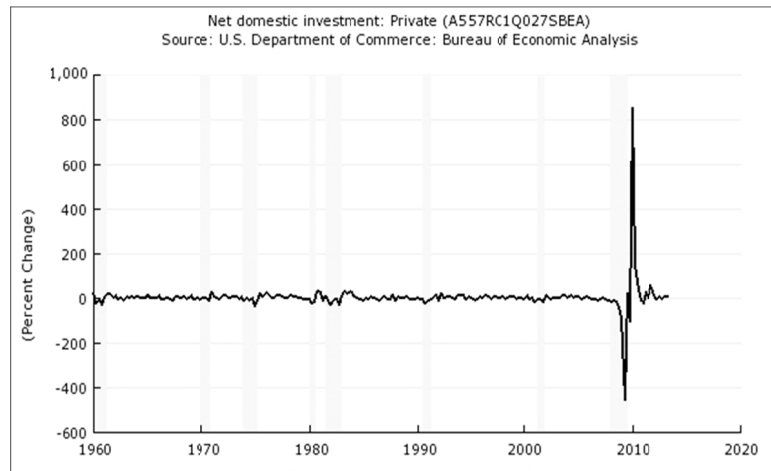


Figure 1. US quarterly private investment growth (percentage change: 1960–2012)

Investment growth trend captured in Figure 2 suggest that public investment growth conditions over the period under consideration, exhibits two major volatile episodes. The first episode occurred in the early part of the 1970s; and the second episode which persisted for significant period of time, lasted from the early part of the 1990s to the early part of the year 2000. These trend features are significantly different from trend conditions captured in figure 1 which suggests US private investment growth conditions tend to be fairly stable compared to public investment growth. Figure 2 further suggest that compared to private investment growth, public investment growth does not experience much volatility during periods of significant economic perturbation. Comparative analysis of growth trends associated with the two investment strands during the recent recessionary period further show that private investment growth trend experienced significant fluctuations during the recessionary period (2008–2011) than public investment growth which showed a fairly stable trend condition.

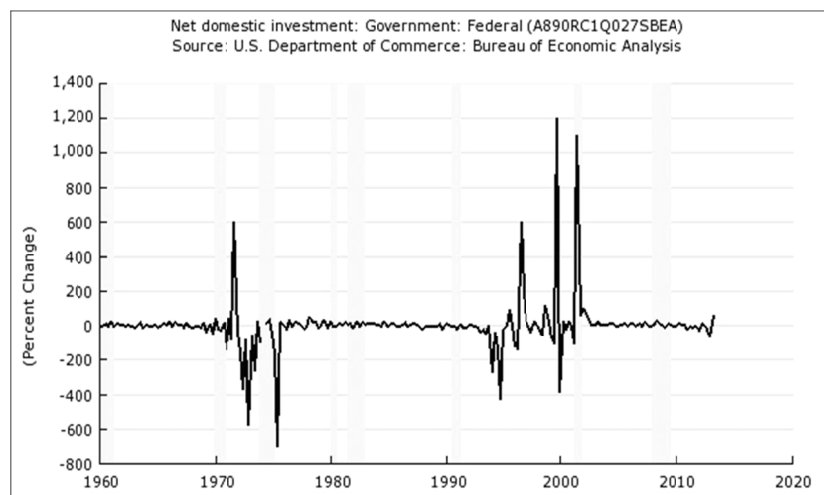


Figure 2. US quarterly public investment growth (percentage change: 1960–2012)

3. Macroeconomic Conditions and US Private Investment Growth

3.1 Macroeconomic Uncertainty and Private Investment Growth

In this study, the extent to which vague macroeconomic conditions influence private investment growth is assumed to depend on the behavior of private investors operating in such business environment. We hypothesize that effects of macroeconomic uncertainty on private investment growth will tend to be more pronounced in business environment dominated by rational investors, than one dominated by investors

whose decisions are less informed by prevailing and projected market conditions. Following this line of reasoning, we posit that all things being equal, private investment growth could be constrained significantly in macroeconomic environment characterized by persistent uncertainty and dominated rational investors. This position stems from the view that in such macroeconomic environment, profitability signals on investments tend to be distorted or are less informative leading to conservative behavior on the part of the average rational investor. Existing literature for instance suggest that, in periods of macroeconomic uncertainty, rational investors often seek to trade off returns from early commitment to invest, with the benefits of increased information which could be gained by delaying proposed investment projects. This behavior is based on the believed that additional information gained during such waiting period could be crucial in making optimal investment decisions. Bernanke B. (1983) for instance, showed that uncertainty generate investment cycles which increases the incentive to hold-off on projects with the hope of gaining additional information before any investment commitment.

Apart from rational behavior analysis which explains how macroeconomic uncertainty influence private investment growth, a review of existing literature further provide evidence in support of the view that macroeconomic uncertainty could be inimical to private investment growth. For instance, in a study focusing on how macroeconomic uncertainty influence private investment growth among developed economies, Federer (1993) showed that macroeconomic uncertainty has negative impact on US equipment investment growth. Again, a submission by Serven (1998) further found existence of systematic and robust negative relationship between uncertainty and private investment growth. Additionally, in an empirical analysis based on an error correction framework, Ahmad, Imtiaz and Qayyum, Abdul, (2008) and (2009) respectively, also showed that Macroeconomic uncertainty has negative impact on private investments. These studies in part, show that significant empirical evidence exist in support of the view that macroeconomic uncertainty correlates negatively with private investment growth. However, as alluded to in an earlier submission, this study is geared towards verifying whether such macroeconomic condition has similar constraining impact on public investment growth in a comparative analysis. Macroeconomic uncertainty variable in this study is modeled as a generalized arch function; GARCH (1, 1) based on US GDP growth; and is meant to capture volatility associated with US economic performance. The following GARCH function is used in estimating macroeconomic uncertainty variable tested in this study.

$$h_t = \omega + \alpha_1 \varepsilon_{t-1}^2 + \beta_1 h_{t-1} \quad (1)$$

where, α_1 and β_1 , are all nonnegative; and $\omega > 0$.

3.2 Inflation Expectations and Private Investment Growth

The notion that decisions made by private firms and individual investors are influenced by relevant market information, including reasonable expectations, is consistent with predictions of rational expectation theory and bounded rationality concept propounded by John Muth, (1961) and Sargent, Thomas J. (1993). Although the debate on how such expectations are formed and how they ultimately impact market decisions is still ongoing, the view that such expectations impacts decisions made by economic actors (such as investors) to some degree, is supported in existing related macroeconomic literature. Most macroeconomic models for instance, are built with implied assumption that economic agents (investors, consumers etc.) maximize utility based on well-defined scale of preference which reflects available information and reasonable expectations. Economic agents such as investors are for instance, deemed to utilize all relevant information including inflation expectations in making crucial business decisions with significant impact on success or failure. These agents will for instance incorporate into their decision making process the potential for inflation; since realization of such condition could impact purchasing power; assets value; and expected gains. Inflation expectations in this instance have been shown to have self-fulfilling property in macroeconomic models; in that, such expectations are often immediately compensated for in ongoing business decisions in the real economy. This self-fulfilling condition, thus, suggests significant correlation between expected inflation, realized inflation and investment growth dynamics.

Bernanke B. (2004) for instance, argued that an essential prerequisite for controlling inflation is controlling inflation expectations; because realized inflation tends to mimic prior inflation expectation trajectory. Giving these background, we project that inflation expectations could stifle private investment growth all things being equal. This projection stems from the belief that inflation expectations might discourage savings; a key driver of investment growth. Additionally, such inflation expectation could also constrains investment growth because businesses in such environment might find it difficult to predict demand

conditions due to expectations of significant increase in general price levels. Inflation expectations variable employed in this study is adopted from the Federal Reserve Economic Data (FRED) published by the St. Louis Federal Reserve.

3.3 Fiscal Policy Volatility and Private Investment Growth

According to Chibber and Dailami (1990), and Ndikumana (2005), there are varied channels through which fiscal policy can impact private investment growth. Conclusions from these studies suggest that fiscal policy can influence investment growth through three key channels: (1) impact on volume of savings available for investments via taxes; (2) through investor confidence based on the nature of expected policies; and (3) through tighter fiscal policies which reduces expenditure on investments among corporations. In-depth analysis further indicates fiscal policy volatility defines how these named channels ultimately influence private investment growth. Apart from these conclusions, significant empirical work also exist suggesting significant relationship between variability in prevailing macroeconomic policies (fiscal policy) and investment growth. For instance, in a study focusing on how policy volatility impact private investment decisions among emerging economies, Chen and Funke (2003) submitted that rational investors tend to withhold investments until they are convinced about the effects of existing or expected policies. This conclusion suggests that if investors expect fiscal policies to be favorable to investments, such expectations will have positive impact on current and future investment decisions and vice versa. Additionally, Le Quan (2004) also concludes that policy volatility has significant impact on private investment. Le's study further provided evidence to the effect that variability in government political capacity to enforce policies deemed necessary by investors, could hinder private investment growth. This study consequently, project that all things being equal, fiscal policy volatility, through its effect on the rate of savings, consumer and investor confidence could have dampening effect on investment growth. Fiscal policy volatility variable in this study is estimated using GARCH process similar to one used in modeling macroeconomic uncertainty variable. Garch (1, 1) process in this case captures trend volatility in government revenue, as a means of tracking fiscal policy dynamics.

3.4 Recession Expectations and Private Investment Growth

Recession expectations variable featured in this study captures anticipated macroeconomic environment characterized by significant decline in economic activity among various sectors of an economy. In such environment, rational behavior concept alluded to earlier, again projects significant negative impact on investments growth due to expectations of adverse macroeconomic conditions. In other words, if economic actors (investors) anticipates significant decline in economic activities (Note 2) or if prevailing economic indicators suggest impending recessionary conditions, such condition, is projected to have negative impact on private investment growth because of heightened potential for lower profit margins. A study of existing literature suggests investments growth trajectory tends to revolve around prevailing macroeconomic conditions, as well as investors' ability to make accurate forecast pertaining to future market and macroeconomic conditions. Consequently, a forecast of impending decline in economic activity—i.e., recession expectation; is expected to have negative impact on investment decisions and ultimately, investment growth. For instance, if a forecast of macroeconomic condition such recessionary expectations are found to be credible (a threat to investment viability), investment growth will be negatively impacted because the threat will compel rational investors to hold off on planned projects. From these discussions, it is evident that significant portion of the variability in private investment growth tend to reflects macroeconomic expectations—i.e., forecasted or projected macroeconomic conditions. If private investors envisage significant positive trend in economic activity, such expectation will drive substantial growth in investment in the real economy and vice versa. Positive economic expectations, such as projected sustained growth in consumption expenditures will for instance occasion positive responds among investors bringing about significant growth in investment; however, a forecast of potential decline in consumer confidence could ultimately constrain investment growth. Given these analyses, this study projects that recession expectations—a negative macroeconomic condition, will engender negative responds among private investors; ultimately leading to anemic investment growth. It is further projected that recession expectation will tend to have more constraining effects on private investment growth than public investment growth. These projections are verified in subsequent empirical analysis. Recession expectations variable employed in this study is adopted from the Federal Reserve Economic Data (FRED)—St. Louis Federal Reserve.

4. Macroeconomic Conditions and Public Investment Growth

Reviewed literature identifies legion of factors and conditions as being responsible for fluctuations in public

investment growth. Although these factors ranges from macroeconomic to geo-political conditions, most of the reviewed studies still points to prevailing macroeconomic condition or performance as a key factor driving public investment growth. For instance, in their assessments of evolution of determinants of public investment in Europe, Väilä T. and Mehrotra A. (2005) found that public investment growth among economies in the European Monetary Union has been determined predominantly by national income (GDP growth), budgetary conditions/policies, and fiscal sustainability considerations. This conclusion suggests that among European economies, prevailing macroeconomic conditions, i.e., national income performance (GDP growth) as well as factors impacting budgetary conditions (fiscal policy considerations) drives public investment growth dynamics. Additionally, in an earlier study focusing on determinants of public investment growth, Galí and Perotti (2003) also concluded that public investment behavior tend to reflect prevailing macroeconomic conditions; and that, a percentage point change in expected output gap, moves up public investment growth by 0.04 percentage points. This conclusion further point to macroeconomic conditions as being a key determinant or factor explaining variability in public investment growth. Turrini (2004), whose study also focused on determinants of public investment growth in the EU, further concludes that public investment (as percentage of GDP) tends to decline with GDP growth and increasing public debt. This condition which further suggests inverse trend relationship between economic performance and public investment growth; thus, establishing another public investment growth—macroeconomic condition link. Apart from these macroeconomic considerations which dominate the literature, there is also significant evidence suggesting that portions of public investments made, tend to be acyclical in nature; that is; such investments tend to occur independent of the overall state of the economy or prevailing macroeconomic conditions. Such investments have been shown to be politically driven or motivated.

If public investment growth is predominantly driven by macroeconomic and at times, acyclical conditions as noted above, then it is likely that macroeconomic conditions modeled in this study could impact its growth trajectory or have absolutely no impact on it. This conclusion stems from the view that, if public investment decisions could be acyclical, then, it's possible for significant amount of public investment to occur regardless of prevailing or projected macroeconomic conditions. In order words, significant growth in public investments could still occur even during periods of significant macroeconomic uncertainty, inflation or recession expectations. Macroeconomic conditions tested in this study projects some form of uncertainty in an economy; however, this notwithstanding, one cannot conclude that such uncertainty or expectations will constrain public investment growth without robust holistic empirical analysis due to potential for acyclical investment decisions. Consequently, no such projections about the association between public investment growth and modeled macroeconomic conditions are attempted in this section; we rather allow empirical results verifying the nature of the relationship between the variables to inform final conclusions.

5. Private and Public Investment Growth and Macroeconomic Conditions

5.1 Model Specification

Controlling for effects of traditionally verified determinants of private and public investment growth such as interest rate, GDP growth etc., relationships between private investment growth; public investment growth; and modeled macroeconomic conditions are tested in a linear framework as follows:

$$Priv-Inv_t = \alpha_j + \beta Munc + \beta InfExp + \beta FiscVol + \beta RecEx + \varepsilon_t \quad (2)$$

$$Publ-Inv_t = \alpha_j + \beta Munc + \beta InfExp + \beta FiscVol + \beta RecEx + \varepsilon_t \quad (3)$$

Where

Priv-Inv_t and Publ-Inv_t = Private and Public Investment Growth respectively;

Munc_t = Macroeconomic uncertainty parameter derived through garch process;

InfExp_t = Inflation expectations capturing projected increase in general price levels;

FiscVol_t = Fiscal Policy volatility;

RecEx_t = Recession Expectations, perceived imminent slowdown in economic activities;

ε_t = Random error term assumed independent and identically distributed (iid).

Using equations (2) and (3), dynamic private and public investment growth models are estimated via error correction process. This empirical process estimates short and long run relationships between US private

investment growth; public investment growth; and stated macroeconomic conditions. This estimation process is achieved using autoregressive distributed lag model (ARDL). ARDL test framework is adopted in this empirical process because it has been shown to yield significant results irrespective of the order of integration of variables in treatment; that is, whether study regressors are purely I(0), I(1), or mutually cointegrated; Pesaran et al. (2001). Further evidence provided by Alam and Quazi, (2003), indicates the ARDL approach yield robust estimates even when explanatory variables are endogenous. Additionally, instead of ARDL bound test approach which relies on critical bound values suggested by Pesaran et al. (2001), this study opt for bounds test critical values suggested by Narayan (2004). Critical bound values suggested by Narayan have been shown to be more accurate for small sample data sets (< 500) compared to those propounded by Pasaran et al. (2001) which dominates studies in the finance and economics literature. Following Ahmed Imtiaz and Qayyum Abdul (2007), long run effects of modeled macroeconomic conditions on US private and public investment growth using ARDL technique are modeled from equations (2) and (3) as follows:

$$Y_t = \mu + \Pi_1 Y_{t-1} + \Pi_2 Y_{t-2} + \dots + \Pi_k Y_{t-k} + e_t \quad (4)$$

Where Y_t is a vector of dependent and independent variables in the model (Private and Public investment growth, macroeconomic uncertainty, recession expectations, inflation expectations and fiscal policy volatility), μ , a vector of constant term, and e_t , the error or disturbance term assumed to be (iid) with $(0, \sigma^2)$. Using the difference notation, $\Delta=1-L$, where L is the lag operator; a dynamic error correction model (ECM) of how public and private investment growth responds to modeled macroeconomic conditions can further be derived from as follows:

$$\Delta Y_t = \mu + \sum_{i=1}^{p-1} \Gamma_i \Delta Y_{t-i} + \Pi Y_{t-k} + Ecm_{t-1} + e_{t-k} \quad (5)$$

Where: $\Gamma_i = -(I - \Pi_1 - \dots - \Pi_i)$, Ecm = error correction parameter and $i = 1, 2, 3, \dots k-1$.

Error correction model in equation (5) estimates how private and public investment growth responds to stated macroeconomic conditions in the short run.

In the following pre-estimation analysis, stationary conditions characterizing variables employed in the study are verified; afterwards, this section proceeds to examine long and short run effects of stated macroeconomic conditions on public and private investment growth in a comparative analysis.

5.2 Empirical Estimates, Results and Discussions

5.2.1 Data and Variables

Comparative empirical analysis conducted in this study utilizes data from St. Louis Fed and Bureau of Economic Analysis. The data is made up of quarterly time series spanning the period 1960 to 2012. Variables employed include, inflation expectations (InfExp_t), recession expectations (RecEx_t), Macroeconomic Uncertainty (Munc_t) and fiscal policy volatility (FiscVol_t) and Private and Public investment growth (Priv-Inv_t and Pub-Inv_t) respectively. With the exception of recession expectations and inflation expectations, variables in treatment are all made up of percentage change in the absolute macroeconomic indicator from quarter to quarter.

Assessing Unit Root Conditions

Table 1. Unit root test analysis

Variables	ADF Test			Philips Perron Test		
	Optimal Lag Order	Test Statistics	Results	Newey-West lag	Results	Z(t) tau Statistics
Publ-Inv _t	5	-14.53***	I(0)	4	I(0)	-14.72***
Priv-Inv _t	5	-15.26***	I(0)	4	I(0)	-15.36***
Munc _t	5	-4.92***	I(0)	4	I(0)	-5.064***
InfExp _t	5	-2.05	I(1)	4	I(1)	-2.38
FiscVol _t	5	-10.10***	I(0)	4	I(0)	-10.05***
RecEx _t	5	-12.32***	I(0)	4	I(0)	-12.12***

Indication of stationary condition: ***

5.2.2 Univariate Time Series Analysis (Unit Root Test)

Stationary conditions associated with variables employed in this study are verified using optimum lag order selected by Akaike Information Criterion (AIC). AIC test estimate suggests optimum lag order of 5 for the following unit root tests. Table 1 report unit root test for stationary conditions characterizing study variables using both the Augmented Dickey-Fuller test (ADF)-Dickey-Fuller (1981)) and the Phillip-Perron (1988) (PP) unit root tests procedures. Results reported in table 1 indicate employed variables are stationary with the exception of inflation expectations in both testing procedures.

5.2.3 Multivariate Cointegration Analysis

Multivariate cointegration analysis in this section precedes tests for short and long run dynamic relationships between modeled macroeconomic conditions and US Private and Public investment growth. This cointegration procedure test the hypothesis of no cointegration between Private investment growth; Public investment growth; and modeled macroeconomic conditions as specified earlier. These analyses are meant to verify existence of long run relationships between key dependent variables in this study, and modeled macroeconomic conditions. Estimation method adopted relies on ARDL-bound test approach to cointegration testing using F-test manipulation technique to make judgment on cointegrating conditions between variables in treatment. This cointegration technique utilizes critical bound values to determine relative cointegrating relationships between variables of interest. As indicated earlier, this study adopts critical bound values propounded by Narayan (2004). Using this technique, if computed or estimated F-test statistic is found to exceed adopted upper critical bound value, the null hypothesis of no cointegration between variables in treatment can be rejected; however, if computed F-test statistic falls below adopted lower bound value, the null hypothesis of no cointegrating relationship between tested variables cannot be rejected. If computed test statistic however, falls between the upper and the lower bound values, then no conclusive admission could be made about the relationship between variables in treatment. The following procedure test the hypothesis of an existence of k cointegration vector(s) against condition of no-existence of such vector(s) z. That is, existence of long run relationship between private investment growth, public investment growth and stated macroeconomic conditions. The following null hypothesis is thus tested:

$$H_{o(k)} : rank(\Pi) = k \quad (6)$$

Against the alternative hypothesis

$$H_{1(k)} : rank(\Pi) = z \quad (7)$$

Tables 2 and 3 report test results verifying long run or cointegrating relationships between the two stated investment growth strands and key explanatory variables using the F-test technique. Test statistic values reported in both tables 2 and 3, that is (32.35 and 30.13 respectively) far exceeds upper critical bound values at 1%, 5% and 10% significance levels; consequently, the null hypothesis of no cointegration or long run relationship between US private and public investment growth and modeled explanatory variables can be rejected in support of significant long run relationship.

Table 2. Bound test for cointegration (private investment growth)

Test Statistics	Value	Alpha Level	Lower Bound	Upper Bound
			Critical Value	Critical Value
F-Statistic	32.35		I(0)	I(1)
		1%	3.42	4.88
		5%	2.55	3.71
		10%	2.17	3.22

Critical values based on Bound Critical Values Propounded by Narayan (2004), Case II. ($R^2=0.59$).

Table 3. Bound test for cointegration (Public Investment Growth)

Test Statistics	Value	Alpha Level	Lower Bound	Upper Bound
			Critical Value	Critical Value
F-Statistic	30.13		I(0)	I(1)
		1%	3.42	4.88
		5%	2.55	3.71
		10%	2.17	3.22

Critical values based on Bound Critical Values Propounded by Narayan (2004), Case II. ($R^2=0.58$).

6. Empirical Results: Short and Long Run Relationships and Comparative Analysis

6.1 Short Run and Long Run Dynamics of Private and Public Investment Growth

This section estimate and compare relative disparities in how modeled macroeconomic conditions already stated, impact US public and private investment growth. This analysis is accomplished through short and long run elasticity procedures through ARDL-Error Correction framework. The first step in this process involves estimating parsimonious private and public investment growth error correction model based on equation (5) after pre-estimation econometric conditions have been met. The second testing procedure based on equation (4), on the other hand, verifies how stated macroeconomic conditions influence public and private investment growth in the long run. With significant cointegration or long run relationship between US private and public investment growth; and modeled explanatory variables already established, an error correction model estimating how stated investment strands responds to modeled macroeconomic conditions in the short run is tested. Tables 4 and 5 present coefficient estimates of how modeled macroeconomic conditions influence private and public investment growth in the short run.

6.2 Short-Run Public Investment Growth and Macroeconomic Conditions

Coefficient estimates reported in table 4 shows that with the exception of recession expectations or projected significant decline in economic activities, all modeled macroeconomic conditions tested are insignificant in explaining variability in public investment growth in the short run. These results suggest that, among the macroeconomic conditions tested, only recession expectations or impending decline in economic activity has some influence public investment growth. Recession expectations coefficient reported in table 4 however, suggest the condition rather tend to have positive impact on public investment growth; an outcome which is consistent to some extent with observed public investment behavior by federal and state governments. This result, thus, intimates that public investments (by the federal and local governments) are often made to either prevent substantial decline in economic activities or shore-up stagnating economic trend during periods of constrained economic performance. It further suggests that federal and state investment expenditures responds positively to projected or expected decline in economic activities all things being equal.

Table 4. Error correction—short run results (Public Investment Growth)

Variables	Public Investment	Standard
	Growth	Error
Id. Munc _t	-0.1395	0.3564
Id. InfExp _t	0.0522	0.8191
Id. FiscVol _t	0.0199	0.0171
Id. RecEx _t	0.0515*	0.0228
ECT _{t-1}	-0.9955***	0.0768
Const	0.1429	0.6152

$R^2=0.51$.

6.3 Short-Run Private Investment Growth and Macroeconomic Conditions

Empirical results reported in table 5 vary significantly from those presented in table 4. Reported coefficient estimates in this instance, suggests macroeconomic uncertainty and fiscal policy volatility have significant negative impact on US private investment growth in the short run. The results also show that in the short run, inflation and recession expectations have no statistically significant impact on private investment growth all things being equal; possibly due to lag period in how investors respond to such macroeconomic conditions. Among macroeconomic conditions tested, this study also finds that private investment growth respond more negatively to macroeconomic uncertainty than other variables found to be significant in explaining variability in private investment growth in the short run (i.e. fiscal policy volatility).

Table 5. Error correction—short run results (Private Investment Growth)

Variables	Private Investment Growth	Standard Error
ld. Munc _t	-7.2866***	2.0497
ld. InfExp _t	-0.1499	2.9987
ld. FiscVol _t	-0.1438*	0.0635
ld. RecEx _t	-0.1273	0.0850
ECT _{t-1}	-0.5208*	0.2831
Const	-0.2375	1.6702

R²= 0.51.

6.4 Short Run Comparative Analysis

Coefficient estimates of the relationship between stated dependent variables and modeled macroeconomic conditions reported in tables 4 and 5 have shown that US private and public investment growth respond to, or are impacted by varied macroeconomic conditions in the short run. The results also show that adverse macroeconomic conditions do not necessarily impact all investments strands (private and public) negatively in the short run as is ordinarily believed. This study for instance found that, public investment growth tends to trend positively with recession expectations; that is, anticipation of significant decline in economic activities in the short run. In other words, recession expectations rather enhance public investment growth. Additionally, the results further demonstrate that the two investment strands tested, may not always trend in the same direction in responds to a specific macroeconomic condition.

6.5 Long-Run Private and Public Investment Growth Dynamics—A comparative Analysis

Results presented in table 6 illustrate effects of modeled macroeconomic conditions on US private and public investment growth in the long run. Reported coefficient estimates suggest that unlike conflicting short run relationships analyzed above, private and public investment growth components tested in this section tend to respond to similar adverse macroeconomic conditions. This study finds that among macroeconomic conditions tested; only macroeconomic uncertainty and recession expectations are significant in explaining variability in both US private and public investment growth in the long run. Reported estimates also show that whereas the two macroeconomic conditions tend to constrain private investment growth in the long run, recession expectation or anticipation of significant decline in economic activity rather augment or have positive impact on public investment growth in the long run; a condition which confirms similar outcome reported in earlier short run analysis. Comparatively, our results further suggest that effects of macroeconomic uncertainty and recession expectations on private investment growth tend to be more severe than effects on public investment growth. For instance, in table 6, a percentage growth in intensity in the two macroeconomic conditions in question, is found to have more significant impact on private investment growth than public investment growth. Coefficient estimates for private investment growth in this regard are significantly higher in absolute terms compared to those of public investment growth during periods of macroeconomic uncertainty and recession expectations. This comparative analysis further reinforce the view that private investment growth conditions are relatively more vulnerable to adverse macroeconomic conditions than public investment growth. It also supports the view that private investments react more significantly to prevailing macroeconomic conditions than public investments.

Table 6. Effects of macroeconomic conditions on US private and public investment growth

Variables	(1)		Variables	(2)	
	Public Investment Growth	Standard Errors		Private Investment Growth	Standard Errors
l.Munc _t	-0.6779*	0.3652	l.Munc _t	-3.8922**	1.2728
l.InfExp _t	-0.0719	0.2034	l.InfExp _t	-0.1104	0.7150
l.FiscVol _t	0.0271	0.0200	l.FiscVol _t	0.0936	0.0698
l.RecEx _t	0.0530*	0.0291	l.RecEx _t	-0.2775**	0.1050
Const	.0153	0.7521	Const	4.9322	2.6476

*p<0.05, ** p<0.01, *** p<0.001 Levels of significance.

6.6 Conclusions and Recommendations

This study verified how private and public investment growth trends in US respond to specific macroeconomic conditions in a comparative analysis. Our results show that modeled macroeconomic conditions have much lower significant impact on public investment growth in the short run than private investment growth. This study also finds that macroeconomic uncertainty and recession expectations have significant impact on both public and private investment growth in the long run; and that the two macroeconomic conditions tend to constrain private investment growth more than public investment growth. Comparative analysis following the various estimates further indicate that contrary to some projections, recession expectations tend to rather have positive impact on public investment growth; but constrains or have significant negative impact on private investment growth. Estimated coefficients further suggest that private investment growth dynamics are more susceptible to adverse macroeconomic conditions than public investment growth. These reported differences in vulnerability to macroeconomic conditions between the two investment strands suggest that policies geared towards promoting sustained investment growth, and consequently economic growth, should address such unique features. Reported results further highlight the need for formulated policies to critically address private investment growth's vulnerability to prevailing or anticipated macroeconomic conditions such as those modeled in this study. It further calls for concerted efforts in formulating adaptive policies to deal with ever-evolving macroeconomic conditions since 'one-size fit all' type of investment oriented policies might not be effective in promoting holistic investment growth.

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Notes

Note 1. To be reviewed in subsequent sections.

Note 2. Often precipitated by stagnant economic performance.

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How Green Marketing Can Create a Sustainable Competitive Advantage for a Business

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Received: October 28, 2013

Accepted: November 22, 2013

Online Published: December 23, 2013

doi: 10.5539/ibr.v7n1p130

URL: <http://dx.doi.org/10.5539/ibr.v7n1p130>

Abstract

The concept of green marketing has undergone tremendous transformation as a business strategy since its first appearance in the 1980's. Business firms have realized the importance of green marketing as a means of gaining competitive advantage over rivals in the industry. Business strategy of a business is devised in response to the changing needs in the market and Green marketing has received a tremendous boost with the revival of environmental consciousness among consumers. Green marketing in fact represents a paradigm shift strategy in many business firms since it has altered the manner in which a business goes about in reaching out to the customers.

The thesis paper discusses the importance of competitive advantage for a business firms and how green marketing is being relied upon by business firms to realize competitive advantage. The term green marketing and its main characteristics are described in order to understand the import of it in the present business world context. The thesis paper dwells at length on green market strategy implementation so as to provide glimpse as to how various businesses deploy marketing mix in green marketing. The necessary prerequisites for a successful green marketing strategy are identified and the drawbacks encountered by a business firm embarking on green marketing strategy are analyzed while evaluating some strategies in place. The success of green marketing strategy, as the thesis paper underlies, rests largely on the contribution, interaction and cooperation between different stakeholders of a business.

Keywords: green marketing, competitive advantage, sustainability

1. Introduction

Competitive advantage of a business refers to a firm's ability to earn consistent profits over rival firms in the industry by delivering a service which cannot be matched easily. Much of a firm's competitive advantage is discussed by Michael Porter in his work on competitive advantage and the forces of competition. Porter has identified commitment to a generic strategy such as cost, differentiation or focus as a means of gaining competitive advantage (Porter et al., 1995).

The strategy of low cost involves providing a product at relatively a cheap price by reducing a firm's cost. The strategy of differentiation entails providing a unique product which can be clearly distinguished from the existing products in the market. The focus strategy is aimed at targeting a select group of customers whose needs are being exclusively catered to. The focus strategy may contain both cost element and differentiation aspect. The type of strategy to be used in the business world has aroused much interest and it can be surmised the strategy too is responsive towards the consumer needs (Porter et al., 1995).

A cost strategy would require operational excellence through cost reduction, better handling of sources of finance and new modes of production and delivery of goods. Differentiation strategies have more to do with brand development, promotions, positioning of products in niche markets, customer satisfaction and being responsive towards customer needs and wants; hence it is no surprising that differentiation strategies are closely identified with marketing strategy of a business (Polanski, 2001).

Over the years marketing strategists have come to terms with environmental issues affecting the global community and some have thought of responding to these concerns as most of the environmental issues have to

do with consumption. The term green marketing has begun to assume importance as result of firms finding ways and means of being receptive to environmental concerns. Green marketing basically refers to making sure that the marketing activities of a business are geared to be responsive to minimize environmental hazards. This shows an increasing recognition on the part of firms towards cementing a positive relationship with the customers who have shown alacrity for the preservation of environment (Crane, 2000).

Firms have recognized the value of green marketing as a step towards catering to customer needs while appreciating the significance to the growth and expansion of a business. It has become fashionable for companies to be touted being green as a way of identifying themselves with customers. Green marketing in fact represents a paradigm shift strategy in many business firms since it has altered the manner in which a business goes about in reaching out to the customers. Firms deploy number of green marketing strategies to outsmart rivals in the industry so as to gain competitive advantage. There are pitfalls and limitations in green marketing but overall as a marketing strategy it has brought about unique elements as strategy evolves in different contexts (Ottman, 1998).

2. What is Green Marketing?

As has been defined by many experts it can be concluded that green marketing refers to all marketing activities which are responsive towards protecting the environment. There is much avoidable confusion regarding the term green marketing, as people loosely identify it with various phenomena in the present era. Some attribute it as being responsive towards climate change and global warming, while others believe being in conformity with environmental standards as green marketing. Another group of people perceive recycling as inherent in green marketing while the majority of consumers and marketers alike simply identify green marketing as something that involves of promoting products emphasizing their contribution towards environment (Baker, 1999).

Since marketing is seen as a process whereby the marketing mix (Product price, promotions & place) is used to respond to the needs and wants of customers while achieving business objectives many marketers have seen green marketing as simply another way of satisfying consumer needs under the same marketing mix. However a closer look at the concept of green marketing shows a distinct variation that has transformed the traditional marketing thinking (Kotler, 1997).

The term green marketing itself has undergone many changes with different terminology such as environmental Marketing and ecological Marketing being vaguely used. The word green marketing began to come to the surface in the 1980's since there was growing awareness of the global community regarding the environmental hazards and impending holocausts. It was in this context that environmentalists began to exert pressure on business firms to minimize the environmental pollution in the production of goods and services. The firms too have responded in equal measure by emphasizing and incorporating these environmental concerns in their business activities (Grant, 2007).

Today the concept of green marketing entails certain fundamental elements. Marketing products which are environmentally safe; developing and marketing products to minimize environmental hazards; produce, promote, and package products in a manner befitting so as to protect the environment are some characteristics of Green marketing as the term is understood in the present business world context (Ottman, 1998).

Green marketing involves establishing a link between the business and customer; and this process entails a holistic approach since business will naturally have to integrate all its activities in line with environmental concerns. As a strategy, green marketing involves strategic options such as Green products, Green packaging, Green prices and Green communication (Ottman, 1998).

Green products are recognized as ecologically friendly products. Green packaging which is the explicit phenomena in most instances has to do with suitable packaging that reduces environmental damage. Green prices show the reflection of environmental concerns in monetary terms which are intrinsic and transferable to the customer. Green communication fosters a positive image and conveys a business firm's concern towards the environment and the public (Ottman, 1998).

3. Strategies of Green Marketing

Change is inevitable in any sphere of discipline and marketing is no exception. The growing concern among consumers towards environment has forced business organizations to make changes in their marketing strategies. Green Marketing strategy encompasses two essential characteristics; Firms will have to take care in order to develop a product that would satisfy consumers' needs satisfactorily with minimum negative impact on environment; coupled with this is the creation of a perception in the minds of the customers so as to emphasize the quality of the product and the firm's commitment towards the environment (Menon et al., 1997).

A green marketing strategy brings about a qualitative change in the relationship between customers and a business organization. When satisfying consumer needs using green marketing strategy, the functional as well as emotional benefits of a product will have to be highlighted since most environmental concerns involve spiritual needs of people. A green marketing strategy differs from a classical marketing strategy since it has more to do with being proactive, Value based; long term oriented, integrated approach and more importantly the lives of human beings which are central to all initiatives (De Bakker & Frank, 2009).

The proactive approach in Green marketing is aimed at gaining competitive advantage by strategically positioning the products in the minds of customers. The integrated business functions need to incorporate suppliers, distributors and business partners. All the key players down the business pipeline need to be made aware of green marketing objectives and this requires inculcating a sense of environmental consciousness among all the major players (Peattie, 1999).

In evolving a Green marketing strategy to derive competitive advantage a company has to do its own home work by being clear on what it ought to do. This aspect needs to be given thought since achieving organizational objectives would not simply result in profits; rather they involve making a positive contribution towards the environment. In order to reap advantage, a green marketing strategy has to address some fundamental areas of importance such as market segmentation, developing a green product, green positioning, setting green prices, application of green logistics, proper waste management, launch of green promotion, forging green partnerships and in essence having the right green marketing mix (Peattie, 1999).

A company in the first place has to select the customer group or the business activity which needs to be harnessed to reap benefits. Some companies prefer to indulge in promoting their products through pro-environmental media to reach out to environmentally conscious groups of customers (Staib, 2009). Most customers are concerned with the design of the product since many environmental hazards can be traced to the design part of the product. Hence it is incumbent upon a company to make necessary alterations in the product design to be in harmony with environment. This may require investing in new product development and seeking ways of introducing new designs in products. Having designed or developed products, they need to be positioned appropriately (Singh, 2004).

The pricing factor plays a major part of green marketing strategy since it is the monetary value paid by the customer. There is a tendency among customers to pay a premium price for green products considering the positive impact. On the other hand developing green products would have involved huge sum of money in terms of research and development, wastage management, recycling and incorporating other external costs. In the light of these facts some green products may have higher prices while some products would carry low process owing to the lowering of packaging cost (Keegan et al., 2000).

Another significant aspect of a green marketing strategy is the manner in which supply chain and the process of transforming inputs into outputs are handled. Care has to be exercised to have the environmental friendly production processes at the plant or factory by manufacturers. The proper handling of inventory may help to reduce waste and extraction of resources from the environment. In fact one of the major areas of growing concern has been the disposal of waste. A business has to avoid the release of waste in a hazardous manner to the environment. Business firms have begun to realize the importance of recycling of waste as an effective counterbalance to offset damages to the environment.

Effective green promotion is largely an outcome of selecting the right mode of means, channels and messages at the right time to reach out to the intended group of customers. One has to bear in mind that no promotion would be successful unless what is being propagated is not practiced at the business. In simple language this refers to walk the talk; that is doing what you say you will do. This is an area where the credibility of business is assessed by the customers. One of fundamental flaws that have backfired in green marketing strategies in the past is the absence of translation of words into deeds (De Bakker & Frank, 2009).

Entering into strategic partnerships with other businesses in order to realize green marketing objectives has become a mainstay of companies. It can be observed that some business firms lack expertise or some may not have the requisite positive image to start off with a green marketing strategy. An ideal remedy would be to form alliances with business partners to further objectives. This would come handy if the partners have a proven track record of being environmentally conscious throughout. Such strategic partnerships would be mutually beneficial since there is a flow or exchange of knowledge and pooling of resources together (Zintom et al., 2001).

The proactive approach in green marketing has to recognize the value of continuous learning and adapting to the changing needs of customers. New technologies will have to be introduced and there should be new methods of using natural resources. A business firm using green marketing strategy will have to always explore and

understand hitherto unexpressed desires and needs of the customers. These needs need to be aroused, catered to & satisfied. In every effort towards gaining competitive advantage a business has to be aware of the need to be in compliance with ecological standards (Pickett et al., 1997).

4. Marketing Mix in Green Marketing

Marketing mix refers to generally the different ways made use of by a company to bring a good or service to the market. In green marketing, the marketing mix will have to be responsive towards environmental concerns. In the case of service sector products marketing mix is known as the extended marketing mix. Marketing mix as popularly known as 4P's comprises of components such as product, price, place and promotion. In the extended marketing mix as in case of service products people, physical evidence and process are added to make up 7P's. As per green marketing philosophy each element in the marketing mix must have a green outlook from developing to introducing a product to the market (Kotler, 1997).

A product could be termed as a green product if the process of production is ecofriendly and causes less damage to the environment. A business has to minimize the environmental pollution in its production process. The raw materials contained in a product should be extracted in manner so as to preserve natural resources. Waste management as has been discussed forms a vital area in this connection. Business will have to introduce ecofriendly design and the packaging should minimize pollution and hazards. Product improvements necessarily involve considerable sunk costs but they are worth the effort since changes in the product would bring about a turnaround in sales. The technique of reversed logistics whereby customers return to the business used packaging, wrapping and even the used product itself would considerably help to preserve the environment (Peattie, 1999).

Going green is expensive as they involve numerous costs such as installation of new technology, machines, training people, absorbing external costs, converting waste in to recycled products. Obviously these costs would make into the price of a product. Hence green price is a premium price. There is added burden on promotions due to premium price. Marketing efforts will have to justify these expenses & consumers need to be persuaded to pay a premium. All this would require rational messages in adverts. However the price of green products may be low in case of doing away with packaging material. In fact some businesses have found this to be an attractive proposition when packaging costs form a large part of the unit cost (Peattie, 1999).

Green distribution involves selecting channels in a manner so as to minimize environmental damages. Mostly damages to the environment are caused during transportation of goods. Hence safety precautions will have to be introduced in the delivery of goods (Peattie, 1999).

Green marketing has to go into the promotional material of a business. The key message of being green has to be conveyed to the customers through sales promotions, direct marketing, public relations and advertising. Public relations and advertising in fact have become the most widely used platforms to project the green outlook of a business. Going green sometimes turns out to be a major public relations exercise as it builds a bridge between the business and the community. Green advertising can be used to publicize products, justify their features and price (Peattie, 1999).

Green promotional strategy should realize the fact that most customers are not truly aware of the significance of green product since lack information. To address this void in the absence of information a business can resort various green promotional strategies. Customers need to be informed of the types of environmental problems a product would solve in the first place for them to evince an interest in a green product. More over customers need to be shown a range of solutions that can be made use in order to protect the environment. Customers need to be given assurance of the performance of green products as to their efficacy since some have doubts over the functioning of so called green products (Peattie, 1999).

Consumers who prefer green products would be more receptive to direct marketing channels. Public relations can be projected as a means of building a positive image about the organization as a whole. Green marketing has to focus on identifying needs and directing consumers to use less harmful products to the environment. Hence green marketing strategy has to be supported by marketing research (Gottfried, 2004).

A company adopting green marketing as a business strategy will have to make some adjustments in their internal process. This requires restructuring of the business process. It is a misplaced belief to assume that only the marketing division in an organization can bring about a turnaround through green marketing. Green marketing in fact will have to be a green strategy by aligning the other functions in the organization. This implies that in order to gain competitive advantage a business has to make changes in the philosophy of the company. There has to be strategic fit by aligning the marketing strategy with the business strategy (Grant, 2007).

A change in business model as required by green marketing can be achieved through contemplating certain

measures. An environmental audit needs to be undertaken to establish standards and measure the current performance in terms of impact on the environment. A green strategy would be aided if the management of a business goes beyond what is generally accepted as green marketing. The keenness of the management has to be demonstrated. Employees need to be encouraged throughout to make positive contributions by conducting educational programmes. The positive performance results will have to be periodically published to enlighten stake holders of a business. There has to be integration the products and process through continuous learning (Menon et al., 1997).

Marketers can resort to a life cycle analysis of products whereby various positive and negative contributions by a product in different stages of its life cycle can be listed. This analysis would throw light on harmful effects at the stages of processing, packaging, transporting and selling of products (Menon et al., 1997).

It is no exaggeration that environmental issues cannot be simply solved by businesses alone. This effort requires the combined support of various stakeholders. This is where strategic partnerships come into play. Strategic partnerships often involve joining hands together with general public, suppliers, employees, regulators, pressure groups, competitors (Grant, 2007).

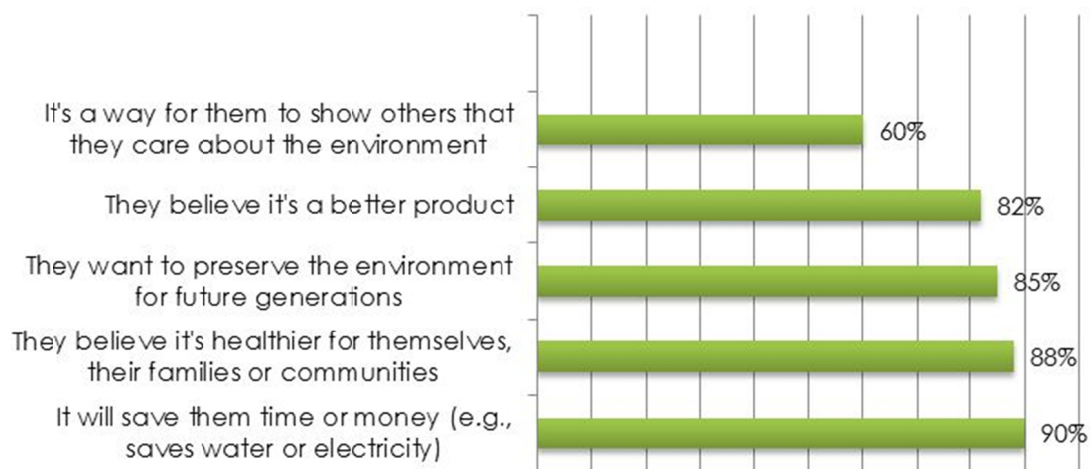


Figure 1. Why Americans are motivated to purchase environmental products

Source: Extracted from: www.snappygreen.com

The above diagram shows the motivation for Americans to purchase green products.

5. The Effectiveness of Green Marketing as a Business Strategy

A green marketing strategy brings about certain benefits to a business which can be harnessed to derive competitive advantage. One of the main benefits has been the reduction in cost of production. Green production process would result in cutting down costs in terms of less waste, less use of raw materials and saving of energy costs. A significant reduction in cost would raise the profits of a business (Baker, 1999).

Another advantage that accrues to a business as a result of green marketing would be the brand loyalty. Studies have proved that customers attach less importance to brand loyalty in the case of products which carry intrinsic benefits. Green products are held in a different perspective owing to their contribution to the environment. There develops a spiritual relationship between green products and customers. Increased brand loyalty would make a product less price sensitive so that even if the product carries a premium still customers would tend to buy them. Even in times of economic downturns green products would witness a less drop in sales since owing to health concerns even at worst times consumers look for a positive outcome (Baker, 1999).

Green products would foster a positive image about brands and the business as a whole. Being green may increase customer attraction and the company may gain recognition among the populace at large. Even consumers who do not use products of a company may switch their allegiance. Green product companies would be able to gain acceptance from regulators and the general public so that many promotional activities would bear fruit without much effort since the general public at large would respond to them enthusiastically. The positioning of product in the mind would occupy a strategic position so that most green products would become

top of the mind products as they can be easily recalled by customers. This would serve as a unique selling proposition so that a business stands out among rival firms quite easily (Baker, 1999).

Producing or selling of green products would result in a pleasant business environment with reduction in chaotic business activities. This would enhance the ambience and healthy working environment. Since the process of evolving a green marketing involves a holistic approach aligning all the functions of the business a strategic congruence can be attained. Apart from this, the strategy formulation would build better relationships with employees as their participation is sought. Employee engagement would increase and there would be a mutual understanding between different stakeholders of a business (Zintom et al., 2001).

A business would stand to gain mileage if it introduces an innovative ecological product to the market as customers can be lured from existing products in the market. A green marketing strategy would result in a win-win situation for business stakeholders as in the process there would be pooling together of each other's skills, capabilities and resources which are transferred. In the end consumer satisfaction increases since customers would be able to get high quality products at reasonable prices. This would increase the overall welfare of an economy and a sustainable development would result from green marketing initiatives (Baker, 1999).

6. Limitations of Green Marketing as a Strategy

Green marketing as a business strategy came to entice businesses in the early part of the 1980's as the evidence suggest that there was a growing concern among consumers to consuming green products. Corporate sector began to respond to this concern by making green products & green practices as fundamental to their business processes. In fact at the beginning of the 1990's many companies that successfully ventured into green marketing stood to gain over their rival firms. It can be observed that at the height of green marketing there was a plethora of corporate activities and academic interest in the subject as if frenzy was on (Smith, 1998).

However beginning from the latter part of the 1990's green marketing began to lose much of the euphoria surrounding it owing to various reasons. It is pertinent to understand these reasons as they provide a clue as to the limitations of green marketing strategy as a means of gaining competitive advantage (Menon et al., 1997).

One of the drawbacks of green marketing strategy lies in the difference between the concern for the environment and translating this concern into actual purchase decisions. Most of the market research carried out would bear testimony to the fact that consumers prefer environment products and they indeed value preserving environment. But the purchase decisions of customers would not be solely governed by their concern for the environment. This is a complex phenomena associated with consumer behavior (Menon et al., 1997).

It cannot be denied that the products in the mainstream markets over the years have improved their quality and reduced the impact on environment. In the light of this green products may no longer appear to be superior or preferred by customers. Fundamental to this problem is the growing cynicism with which green products are perceived by customers. Since there has been a polarization of the market with claims of being green, customers have begun to doubt the authenticity of such claims. Lack of trust serves as a major impediment to stimulate purchasing decisions of customers. Some green products are no longer unique since as customers believe that the industry itself has become green. Too much emphasis on green has made the customers aver the preference for them as generic (Smith, 1998).

Green marketing strategy sometimes would be constrained by the finance orientation in marketing. There can be a tendency in a business to embrace green marketing solely as a cost cutting measure since reducing packaging can be touted as a response towards being green. In fact a finance orientation would create short termism and a business may be greedy in its green activities. Instead of developing new products business may be bogged down by cost cutting. Green marketing suffers from compartmentalization since green marketing strategy is confined to the marketing division and there is little effort if no effort at all in integrating it with the business strategy. As a result green marketing becomes an isolated activity with less input from other business functions. In such a scenario the strategy may never help the company to gain advantage (Smith, 1998).

Many business firms have come under criticism for resorting to green marketing since they are perceived to be engaged in a green spinning. Some critics would argue that a business that has been at the end of criticism for damaging the environment may suddenly turn green or propagate being green as a diversionary tactic. Hence a green strategy may be seen as eyewash and subjected to ridicule by pressure groups and media let alone other rivals in the industry (Singh, 2004).

Public relations exercises carried out under green marketing may turn out to be cosmetic steps unless they are supported by the business activities and practices. If a business cannot control the harmful effects of its suppliers

and other business partners then green marketing would turn out to be lacking overall control (Peattie, 1999).

Green selling is another phenomena encountered by marketers when implementing a green strategy. A business may be prone to adopt a complacent attitude believing that anything green would sell and must sell. Business may attempt to solely focus on promotional activities without resorting to product development. Customers may not see a difference between the actual product & the claims made through adverts. Business firm implementing a green strategy may be hindered by compliance marketing whereby immediate concern would be to merely comply with the environmental regulations laid down by regulators. This approach may not encourage a firm to go beyond the average standards and a business cannot be distinguished from other businesses in such a scenario (Smith, 1998).

A green strategy may create confusions in the minds of customers as to the types of decisions to be made. As the market is flooded with numerous green products customers may be at loss in making choices. This is especially true in the case of recyclable products. Many customers are unaware of the manner in which to deal with recycling process (Menon et al., 1997).

Green strategies in general and green marketing strategies in particular are costly and they require long term planning. The outcome of a green marketing strategy cannot be expected in the short run. Most of the benefits of green marketing are not directly related to consumer decision making since they may not clearly identify them. Apart from this environmental benefits cannot measured so easily and they cannot be directly attributed to a marketing strategy (Menon et al., 1997).

The success of a green marketing strategy is largely dependent on the contribution made by different stake holders of a business and different functional divisions of a business. The top management commitment towards a green market strategy would be crucial since in many instances green strategies have failed to deliver the goods owing to the internal dynamics with in the organizations. To overcome these difficulties, a business has to look at the concept of green marketing in an innovative way to reap the benefits. It has to be conceded that green marketing alone would no help a firm to gain competitive advantage in the present business context (Baker, 1999).

7. Conclusion

Competitive advantage gives a business firm superiority over its rivals so that it can earn profits consistently. Business firms use diverse strategies to gain competitive advantage over rivals ranging from low cost, differentiation, focus strategy etc... The type of strategy to be used in the business world has aroused much interest and it can be surmised the strategy too is responsive towards the consumer needs.

Over the years marketing strategists have come to terms with environmental issues affecting the global community and some have thought of responding to these concerns as most of the environmental issues have to do with consumption. Green marketing has begun to assume importance as result of firms finding ways and means of being receptive to environmental concerns. Firms have recognized the value of green marketing as a step towards catering to customer needs while appreciating the significance to the growth and expansion of a business.

As the term is understood at present, the concept of green marketing entails certain characteristic such as marketing products which are environmentally safe; developing and marketing products to minimize environmental hazards; produce, promote, and package products in a manner befitting so as to protect the environment. Green marketing involves establishing a link between the business and customer. A green marketing strategy brings about a qualitative change in the relationship between customers and a business organization. The proactive approach in Green marketing is aimed at gaining competitive advantage by strategically positioning the products in the minds of customers.

In order to gain competitive advantage, a green marketing strategy has to address some fundamental areas of importance such as market segmentation, developing a green product, green positioning, setting green prices, application of green logistics, proper waste management, launch of green promotion, forging green partnerships and in essence having the right green marketing mix. In green marketing, the marketing mix will have to be responsive towards environmental concerns.

A green marketing strategy brings about certain benefits to a business which can be harnessed to derive competitive advantage. These benefits would accrue to a business in the form of reduction in cost of production, fostering a positive image about brands and the business as a whole, positioning of product in the mind of customer would make it a top of the mind recall product. Consumer satisfaction increases since customers would be able to get high quality products at reasonable prices thereby increasing economic welfare of the society.

Since there has been a polarization of the market with claims of being green, customers have begun to doubt the authenticity of such claims. A green marketing strategy may be vulnerable to finance orientation, growing cynicism, green spinning, and green selling. The success of a green marketing strategy is largely dependent on the contribution made by different stake holders of a business and different functional divisions of a business.

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