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# Exploring the Effect of Individual Factors on Business Failure in Iranian New Established Small Businesses

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## Abstract

The majority of Entrepreneurship studies have focused on Business success while little information regarding Business failure exists. However our knowledge of entrepreneurship is not complete without recognition of the business failure. Also, more researches in this field have been done in developed countries and it is limited studies in those countries where economic, social, cultural and political differ. Individual factors are the main ones affecting the entrepreneurial process. This is a study on a sample of new established small businesses in industry sector. First, in qualitative study, interview analysis of 10 semi-structured interviews lead to identified four groups of individual factors including motivations, skills, capabilities, and characteristics. Then, these individual factors have been evaluated in a sample of 158 unsuccessful businesses and data analysis of 52 complete questioners pointed out that "Lack of crisis management skills" and "Lack of marketing, financial and human resource management skills" are the main individual factors affecting business failure in new established small businesses in industry sector.

**Keywords:** Business failure, Small business, New established business, Individual factor, Industry, Iran

## 1. Introduction

Business discontinuation is an important feature of dynamic economies, and entries and exits of businesses are closely linked (Bosma et al., 2009). Our understanding of entrepreneurship will never be completed until we have a clear understanding of what caused its discontinuation. Developing a deeper understanding of new venture failures, should provide critical information for several key stakeholders in new venture-entrepreneurs, venture financiers, and government policymakers (Liao et al., 2009).

Small and medium-sized enterprises (SME) are of almost importance for the Economy. In the European Union (EU), more than 99 % of the existing firms are SME; they stand for two-thirds of all employment possibilities and account for 60 % of value added. On the other hand, SME are economically and socially significant. They are not only seen as a main driver for generating employment, they also promote innovation, put business ideas into practice, foster Regional economic integration, and maintain social stability (ENSR, 2003). The high figures of SME inject economic variety (Hannan & Freeman, 1989) and generate competition, positive for economic output (Porter, 1990).

In spite of these facts, over a long period of time, policy-makers paid much attention to large enterprises, and SME was simply neglected in the public and academic focus. Only at the beginning of the 1990s, specific strategies and improvement of economic conditions for SME became a subject; meanwhile they rank high on the political agenda. Recently, much has been done to improve the environment for SME. A series of particular and appropriate legislation has been introduced to try to support growth and stability of SME and to redress the difficulties they face.

This seems to be mandatory, since research indicates that failure of SME is high, above all within the first years after starting (Franco & Haase, 2009). Timmons (1994) show that over 20 % of new ventures fail within one year and 66 % within six years. Other scholars state that approximately 50 % of small start-ups survive for more than five years (Franco & Haase, 2009). New established businesses no more than three years are usually faced difficulties and high percentage of this business lead to failure (FEE, 2004). Baldwin et al. (2000) show that 23 % of Canadian firms are likely to exit during their first year of operation. According to this research, a new firm has a 42% probability of surviving past its fourth year and a 20% likelihood of completing its first decade. They also show that small firms in their first years of entry have a higher hazard of exit compared with medium and large size firms. Mata and Portugal (1994) studying the survival of new manufacturing firms in Portugal, report on comparable results. Specifically they show that one fifth of such firms failed during the first year of entry and that only 50 % survived for four years.

Given that such a large number of SMEs are unsuccessful, it is meaningful to investigate the causes of poor performance and failure faced by these firms. According to Storey (1994), the failure of SME is a vitally important area for research and he rightly states that no policy can be formulated for SME without a central understanding of business malfunction's significance. This comprises the identification of major problems that are assumed to discourage and obstacle SME performance (Franco & Hasse, 2009). Much research has been done about success and growth factors of new firms (Franco & Hasse, 2009) while research on business failure of SME's help them to change. It is noted that some of the entrepreneurial capability variables cannot easily be changed. However, the benefits or risks associated with them can be assessed, with implications both for entrepreneurs and for public policy. Entrepreneurs whose resource base renders it less likely for them to succeed should proceed with caution or strengthen their position (Arasti & Zandi, 2010).

In Iran, the business discontinuation rate (6 %) is almost higher than average of efficiency-driven economies (4.9 %). Denmark and Italy in innovation-driven economies have the lowest business discontinuation rate (1.1 %) (Arasti, 2011a). In addition, Doing Business report published by World Bank (2011) is an annual report investigating the regulations that enhance business activity and those that constrain it. Doing Business reports a way to evaluate business environment of a country and presents quantitative indicators on business regulations and the protection of property rights that can be compared across 183 economies over time. Regulations affecting 11 areas of the life of a business are covered: starting a business, dealing with construction permits, registering property, obtaining credit, protecting investors, paying taxes, trading across borders, enforcing contracts, closing a business, getting electricity and employing workers. Iran with 72.9 million populations and GNI per capita (US\$ 4.530) is 129 from 183 countries in the ranking on the ease of doing business.

The ranking of starting a business in Iran is 42 while in obtaining credit is 89. We must mention that the Islamic Republic of Iran eased business start-up in 2011 by installing a web portal allowing entrepreneurs to search for and reserve a unique company name, the establishment of a new private credit bureau improved access to credit information. The Islamic Republic of Iran made enforcing contracts easier and faster by introducing electronic filing of some documents, text message notification and an electronic case management system. These data show that the business environment in Iran is not encouraging for entrepreneurs and makes a lot of barriers to them (Arasti, 2011b). Therefore, a study on business failure and the factors that cause failure in Iranian context could help policy makers to identify the most important challenges of business that lead to business discontinuance.

This paper has been structured in five parts. In the second section a review of the literature on individual factors in failure business and specifically on new established small businesses has been presented. The third section describes the methodology of research. The results have been presented in the fourth section. Finally paper has been concluded by result discussion and conclusion.

## **2. Literature Review**

The term "failure" in the Oxford English Dictionary is defined as "to become deficient, to be inadequate". In general, many different terminologies are related to business failure, such as firm closures, entrepreneurial exit, dissolution, discontinuance, insolvency, organizational mortality and bankruptcy. Normally, entrepreneurial failure is referred to as the cease of an operation for financial reasons. Since we examined nascent entrepreneurs during the firm's gestation process, one type of entrepreneurial failure is the discontinuance of venturing efforts by entrepreneurs (Liao et al., 2009). In particular, definitions of business disappearance, closure, exit, and failure are confused and often overlapping. "Disappearance" of a business may occur because the business failed, because the business acquired by or merged into another company, or because the owners voluntarily closed it (Cardozo & Borchert, 2004). "Exit" refers to several different meanings; it can refer to the exit of the business from trading in a specific market or from producing a particular product. It also refers to the end of the owner's participation in the business;

as in the search for “exit routes” by entrepreneurs wishing to sell or exit from a business (Stokes & Blackburn, 2002). But business failure can be defined as wanting or needing to sell or liquidate to avoid losses or to pay off creditors or general inability to make a profitable go of the business (Gaskill et al., 1993).

The majority of studies in business failure were focused on business rather than the owner of business, while the entrepreneurs and the factors related are the most important factors to entrepreneurial process. The most cases that have attracted the attention of researchers are reasons of business failure, patterns for failure prediction and strategy for weak businesses, while the events occurred for company and its owner and manager were review less than one (Stocks & Blackburn, 2002).

In reviewing the literature of effective factors on business failure, some factors have more prominent roles. Some researchers were categorizes effective factors of business failure as individual factors describe as some factors that controlled by the person and environmental factors describe as some factors that the person has no control on it but a strategy determination could reduce harmful pressures. Liao (2004) has mentioned the effects of four groups of factors including characteristics of founder, resources, structural characteristics and strategies of the firm, and environmental conditions in which a firm operates on business failure (Ooghe & De Prijcker, 2008).

Managerial experience and financial management, seems vital in determining the success or failure of the firm based on a survey to study the causes of firm bankruptcy in Canada found that almost half of the firms in Canada go bankrupt due to internal problems caused by managerial inexperience and lack of Knowledge and vision (Baldwin et al., 1997).

Management’s motivation, qualities and skills have an impact on the way a company is (miss) managed. Insufficient and inappropriate skills of management could cause failure in a lot of companies. Have expertise in only limited areas and not willing to accept professional advice, reduce the possibilities of the company’s chances to survive in the medium term (Ooghe & De Prijcker, 2008). Some other studies focused more on the managerial causes of failure, categorized them simply as poor management (FEE, 2004), and concluded that this combined with the personality traits of the owner-manager and external factors cause business failure (Berryman, 1983). Earliest empirical studies on business failure, examined the role of various owners and firm characteristics to explain business failures. Many aspects of poor management are reported to be connected to several related issues, such as poor financial circumstances, inadequate accounting records, limited access to necessary information, and lack of good managerial advice (Gaskill et al., 1993). Management’s qualities and skills are not the only factors affecting the survival chances of a company. It is remarkable how many personal characteristics strongly affect the performance of a company (Ooghe & De Prijcker, 2008). The numerous characteristics shared by failed firms, are directly related to personal decision-based characteristics of the owner including lack of insight, inflexibility, emphasis on technical skills, etc. (Gaskill et al., 1993).

Managers and entrepreneurs are obliged to anticipate and to adjust their decisions to the changes and opportunities in the environment. Optimism and risk behavior are other possible causes of declining performance. Research indicates that entrepreneurs are somewhat more inclined to take risks than are managers, this difference even increases when the entrepreneur has the goal of a significant venture growth. Many over-optimistic (young) entrepreneurs are faced with problems to attract external finance from banks. Moreover, a higher inherent risk aversion of management and changes in the value of tax shields and future bankruptcy costs also make relatively safe projects more desirable (Ooghe & De Prijcker, 2008).

New firms create new jobs, open up opportunities for upward social mobility, foster economic flexibility, and contribute to competition and economic efficiency, but they have more risk rather than established business (Liao et al., 2009). According to statistics, SME’s in comparison with large businesses are more vulnerable and have more challenges to survive. Due to their size and limited human resources, SME typically lack the middle managers or functional specialists who in large firms play a major role in developing and implementing organizational strategies. As a consequence, SME owner-managers carry out a multiplicity of roles (Jennings & Beaver, 1997), which makes strategic management complex and owner-focused. Small businesses in Uganda are faced with a number of challenges that lead to business failure. Lack of entrepreneurial qualification as a difficulty in starting and managing their firms during their early stages is a major cause of business failure for small businesses (Kazooba, 2006). There appears to be a trend that years of schooling and higher education level are positively associated with a firm’s performance (Bates, 2005). Prior experience in running a business, positively related with a firm’s success (Gimeno et al., 1997; Madsen et al., 2003; Bosmaet al., 2004), Lacking higher education levels and entrepreneurial experience are main difficulties for the SME (Franco & Hasse, 2009). Previous studies in Iranian context in different sectors, pointed out that management deficiency is the most important reason to business failure (Arasti & Zandi, 2010).

As we can see in the literature, previous studies mentioned the importance of individual factors in business failure but very limited studies investigated on the new establish small business. This first study on individual factors affecting business failure in Iranian new established small businesses in industry sector tries to answer the below question:

Which individual factors affect business failure in Iranian new established small businesses in industry sector?

### 3. Research Methodology

In order to answer the research question, a narrative study was done on a sample of new established (no more than 3 years) small businesses (less than 50 employees). Goal oriented sampling used until theoretical saturation. In total 10 semi-structured interviews conducted on June 2011 and the two last interviews didn't add some new concepts related to the subject. Therefore we cut the data gathering after the 10<sup>th</sup> interview. Each interview was taken in average 80 minutes. Content analysis of interviews leads to identify all individual factors affecting business failure in four categories of motivations, skills, capabilities and characteristics. To test these results, four hypotheses were developed:

H1: Business failure of new established small businesses is affected by motivations of business owner.

H2: Business failure of new established small businesses is affected by skills of business owner.

H3: Business failure of new established small businesses is affected by capabilities of business owner.

H4: Business failure of new established small businesses is affected by characteristics of business owner.

These hypotheses were tested by a quantitative study in a sample of 158 unsuccessful new established small businesses in industry sector. Data was gathered by a questionnaire between August and October 2011. Validity of questionnaire was guaranteed by expert opinion in the qualitative study. Reliability of questionnaire was measured by Cronbach's alpha that was 0.75 for whole questionnaire. To data analysis and examine the hypotheses one sample t-test and Friedman analysis of variance was used on 52 complete questionnaires by SPSS.

### 4. Finding

In this section we present the research finding in two subsections of qualitative and quantitative results.

#### 4.1 Qualitative Results

In the sample of 10 unsuccessful entrepreneurs, the average age was 42 years old. The majority of them (9) were men and most of them (6) have university degree. 6 have experience in related sector, 2 in management and 3 in entrepreneurship.

All Interviews were recorded and then transcribed for content analysis and conclusions. Content analysis is a research technique for making replicable and valid inferences from text or other meaningful matters, to the contexts of their use. To conduct a content analysis on any such text, the text is coded or broken down into manageable categories on a variety of levels - word, word sense, phrase, sentence, or theme - and then examined using one of content analysis basic methods, either conceptual analysis, or relational analysis. All levels of content analysis have been presented in this section.

Table 1 presents interview coding of one interview as a sample. This is an interview with a business owner whose product was cardboard. He expresses his management skills and capabilities as well as motivation that affect business failure. For example: "*I could not make up my mind in the crisis ahead*" that refer to "lack of crisis management skill" or "*It was not logical to put the rest of our capital to this unsteady market and we could not foresee the future*" that refer to "incapacity of estimate business environment". In this interview, five individual factors affecting business failure have been identified (see Table 1).

Insert Table 1 Here

The same coding process has been done for all 10 interviews. In total 33 individual factors have been identified as affecting individual factors of failure in Iranian new established small businesses. The results have been presented in Table 2.

Insert Table 2 Here

Some factors have been repeated in different interviews. For example "Insist on mistake and continue the job" has been discussed in the second interview and repeated in the 8<sup>th</sup> interview. Then in this step all repetitions have been omitted and the results are given in Table 3.

Insert Table 3 Here

In the last step, the identified factors have been categorized in four groups based on their nature. These are motivations, skills, capabilities and characteristics presented in Table 4. For example marketing, financial management and human resource, and team management are categorized as category of “management skills”.

Insert Table 4 Here

After content analysis on 10 interviews, all individual factors affecting failure in Iranian new established small businesses identified in four groups of factors including motivations, skills, capabilities and characteristics. The research model was presented in Figure 1.

Insert Figure 1 Here

#### 4.2 Quantitative Results

To test the research model and four research hypotheses, 52 complete questionnaires from unsuccessful businesses in Eshtehard Industrial sector were analyzed by SPSS. In the first subsection descriptive statistics on personal and organizational characteristics of sample and in the second one the results of t-test and Friedman analysis are presented.

##### 4.2.1 Sample Description

In our sample, most of the interviewees were aged between 25 and 45 years old and married. 96.2 % of them were men. 44.3 % have university degree. About half of them had experience in related sector but only 30 % had management experience and 23.5 % had entrepreneurial experience.

The businesses were in different industry sector. Most of them were in chemical industry (30.8 %) as well as in mineral nonmetal industry (21.2 %). Also, 50 % of these new established businesses failed before the age of two years (See Table 5).

Insert Table 5 Here

##### 4.2.2 Hypotheses Testing

To test the hypotheses we used “one sample t-test” analysis. According to the results, the individual factors affecting business failure in Iranian new established small business are “Lack of crisis management skills” and “Lack of marketing, financial, human resource and team management skills”. Then only the second hypothesis was conformed.

Also, according to result of Friedman analysis ( $P < 0.001$ , chi-square = 126.1), the mean rank is significant and table 6 show that “Lack of crisis management skills” (mean rank = 5.35) and “Lack of marketing, financial and human resource and team management skills” (mean rank = 4.38) are the main individual factors affecting business failure of Iranian new established small business in industry sector.

Insert Table 6 Here

## 5. Discussion

The results pointed out that crisis management skills are the most important individual factors affecting failure in new established small businesses. Previous studies mention that new established small businesses deal with more challenges than large stable businesses. The majority of small businesses failed in their first three years (Franco & Haase, 2009). Then crisis management skills are much more important for new established small businesses. While the importance of “lack of crisis management skills” as a factor of failure did not study in most of researches.

Other important individual factors of failure are management skills that refer to marketing, financial and human resource and team management skills. The majority of previous studies on business failure have confirmed the effect of “lack of management skills” as the most important factor (Berryman, 1983; Gaskill et al., 1993; Baldwin et al., 1997; Kazooba, 2006; Ooghe & De Prijcker, 2008).

The other individual factors have been studied in previous researches. For example, “level of education” in Baldwin et al. (1997), Jennings and Beaver (1997), Gideon et al. (1997), Madsen et al. (2003) and Busman et al. (2004), “characteristics” in Gaskill et al. (1993), Kazooba (2006), and Ooghe and De Prijcker (2008) and “motivations” in Ooghe and De Prijcker (2008). These factors have been examined in our research too and the results showed that “change of motivations over time”, “have a traditional look in business”, “insist on mistake” and “lack of capabilities (time, knowledge and experience)” are respectively other individual factors of failure in new established small businesses.

## 6. Conclusion and Implication

This study has been done to identify the individual factors affecting failure in new established small businesses with a mixed of qualitative and quantitative research. First, a literature review lead to a conceptual framework of research.



Then a qualitative study was done by the semi-structured interviews with 10 unsuccessful entrepreneurs and results pointed out the individual factors in four categories of motivations, skills, capabilities and characteristics. Also, some factors were added to the framework. “Lack of proper time spent for the business”, “have a traditional look in business”, “over confidence to others”, “insist on mistake”, and “lack of crisis management skills” are some factors that have been added to literature.

In these results, the frequency of reference to “lack of management skills” and “lack of crisis management skills” shows that these individual factors are the most important factors in business failure. Based on qualitative results, four hypotheses have been developed and tested in a quantitative study by a survey in a sample of 152 unsuccessful entrepreneurs. The results show that two individual factors of “lack of crisis management skills” and “lack of marketing, financial, human resource and team management skills” are the most important factors affecting failure in Iranian new established small businesses.

Based on these results that identified “lack of marketing, financial, human resource and team management skills” as the most important individual factor of failure, reinforcement of management skills via formal and/or informal training could decrease the rate of failure in these businesses. Considering more challenges of new established small businesses in competition with large established businesses, training of “crisis management skills” could help entrepreneurs to the best decision making.

This study tried to have a comprehensive but detailed look on effective factors of business failure but as a first study on individual factors of failure in Iranian new established small businesses, it had some limitations especially to identify and access to unsuccessful entrepreneurs, because there is no database of unsuccessful businesses in Iran and in addition the unsuccessful entrepreneurs don’t have a tendency to iterate the virulent memoirs of failure.

Future studies could examine the effect of motivations and capabilities on a larger sample. Also, comparative studies on a sample of successful and unsuccessful businesses as well as between cultures are suggested.

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Table 1. Verbal Statement and Derived Concepts from One of the Interviews

Type of product	Verbal statement	Concepts
Cardboard	I could not make up my mind in the crisis ahead.	Lack of crisis management skills
	We could not fully manage our work.	Lack of team management skills
	One of my partner setbacks and that was the first feeling of failure but I didn't want to abandon the business.	Insistence on continuation of activity
	It was not logical to put the rest of our capital to this unsteady market and we could not foresee the future.	Incapability to estimate business environment
	Change in environment lead to financial failure and made us completely disappointed.	Disappointment

Table 2. Extracted Concepts for Each Interview

Interview No.	Type of product	Concepts
1	Lathing	1. having two jobs and lacking time
		2. psychological and family problems
		3. lacks suitable education
		4. traditional look at business
2	Door and window profiles UPVC	5. too much confidence in others
		6. insistence on previous mistakes
		7. incapacity to solve the problems
		8. family problems psychological pressures
3	Keyboard	9. lacking motivation for continuation of the job
		10. change of motivation
		11. unrelated job experience with the economic activity
		12. spending less time in job
4	Medical equipment	13. lacking motivation for continuation of the job
		14. lack of crisis management skills
		15. lack of knowledge of the director
5	Industrial insulating glass	16. lack of motivation for continuation of the job
		17. lack of marketing management skills
6	Industrial switchboard	18. lack of understanding and evaluation of probable threats in the job
		19. lack of financial management skills
		20. lack of familiarity with market and marketing
7	UPVC profile	21. lack of management skills
		22. lack of crisis management skills
8	Cardboard	23. lack of crisis management skills
		24. lack of team management skills
		25. insistence on continuation of activity
		26. incapability to estimate business environment
		27. disappointment
9	Cement blocks	28. lack of marketing management skills
		29. disappointment
		30. lack of management skills
		31. lack of crisis management skills
10	Safety glass and laminate	32. lack of management skills
		33. lack of crisis management skills

Table 3. Extracted Components

No.	Extracted component	Coding
1	Change of motivation over time	10
	Lack of motivation for continuation of the job	9, 13, 16
	Disappointment in the job	27, 29
2	Lack of management skills	17, 19, 21, 24, 26, 30, 32
	Lack of marketing skills	20, 28
	Lack of crisis management skills	7, 14, 18, 22, 23, 31, 33
3	Lack of proper education	3, 15
	Lack of proper time spent for the business	1, 12
	Lack of proper knowledge and experience	11
4	Have a traditional look at the business	4
	Family problems and psychological pressures	2, 8
	Over confidence on others	5
	Insist on mistake and continue the job	6, 25

Table 4. Extracted Dimensions

No.	Extracted dimension	Coding
1	Motivation	9, 10, 13, 16, 27, 29
2	Skills	7, 14, 17, 18, 19, 20, 21, 22, 23, 24, 26, 28, 30, 31, 32, 33
3	Capabilities	1, 3, 11, 12, 15
4	Characteristics	2, 4, 5, 6, 8, 25

Table 5. Descriptive Statistics of Sample (n=52)

<b>Personal</b>	<b>Percentage</b>
Age	
Under 25 years old	6.8
Between 25 and 45 years old	85
More than 45 years old	8.2
Gender	
Male	96.2
Female	3.8
Marital status: Married	94.2
Level of Education	
Under diploma	10
Diploma	30
University degree	60
Previous Experience	
In related sector	49
Management experience	30
Entrepreneurial experience	23.5
<b>Organizational</b>	<b>Percentage</b>
Business Lifetime	
Less than 1 year	34.6
Between 1 and 2 years	34.6
Between 2 and 3 years	11.5
No response	19.2
Business Activity	
Metal industry	9.6
Mineral nonmetal industry	21.2
Alimentary industry	11.5
Electronic industry	1.9
Weaving industry	3.8
Chemical industry	30.8
Cellulose industry	5.8
No response	15.4

Table 6. The Result T-Test and Friedman Analysis

No	Individual factors	Mean	t	Sig	Mean Rank
1	Change of motivation and lack of motivation to continuation the job	3.23	1.3	0.1	3.37
2	<b>Lack of crisis management skills</b>	<b>4.40</b>	<b>13.1</b>	<b>0</b>	<b>5.35</b>
3	<b>Lack of marketing, financial, human resource and team management skills</b>	<b>3.62</b>	<b>4.4</b>	<b>0</b>	<b>4.38</b>
4	Lack of capabilities (time, knowledge and experience)	2.19	-5.3	1	1.92
5	Have a traditional look in business	2.92	-0.5	0.7	3.13
6	Insist on mistake	2.77	-2.1	0.95	2.87

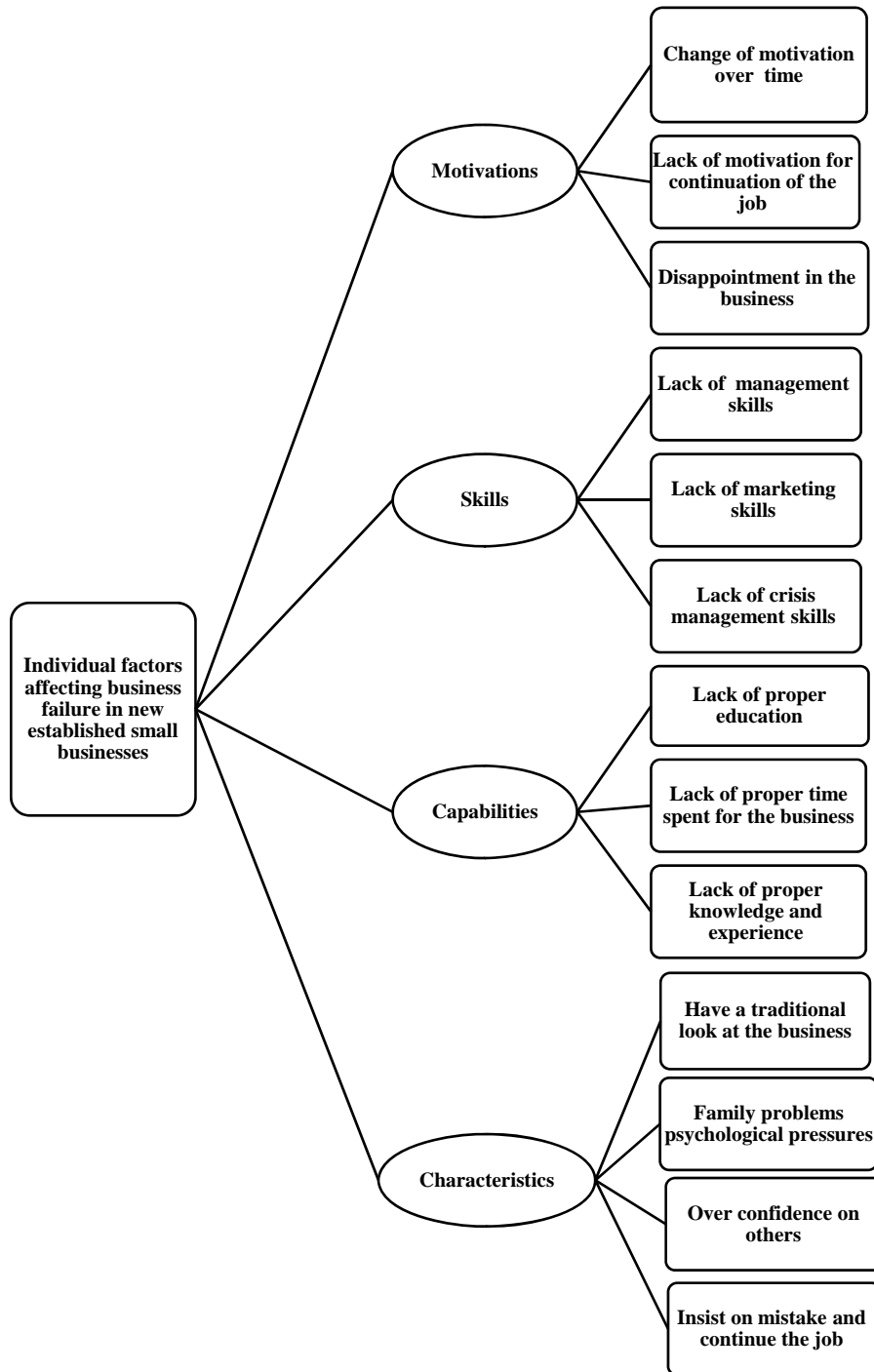


Figure 1. Individual Factors Affecting Business Failure of Iranian New Established Small Businesses

# Taking an Expanded View of Customer to Construct Hotel Rating System

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## Abstract

An attention on leisure consciousness and related activities by Taiwan people also signifies an enhanced standard on service quality and demand satisfaction of tourism and leisure industry, in which a perception of customer satisfaction perceived by consumers in terms of appraisal dimension and measurement was gradually replaced by intangible accommodation experience or personalized service by service personnel from tangible hardware facilities and equipments in the past. Tourism Bureau of Republic of China has recently announced the execution of “hotel rating system” which suspended for nearly twenty, an announcement of this policy has caused considerable echoes and support to scholars from the academy and the industry and consumers with regard to hotel business, the hotel industry in Taiwan will only be able to get connected with international tourism market so as to inspire the global awareness of tourism market in Taiwan through the implementation of “hotel rating system”. The study follows the assessment standards of “star hotel rating system” promoted and implemented by Tourism Bureau, Ministry of Transportation and Communications (MOTC) in 2010, to conduct analysis in terms of SERVQUAL’s five dimensions proposed by Parasuraman, Zeithamel and Berry (1985). According to the research results, the hotel rating system in Taiwan is badly in need of an attention to the establishment and assessment of indicators in terms of “service assurance” and “service empathy” dimensions, the results also indicated that tourists make judgment based on “tangible hardware” along with “intangible service” provided by the hotels, are important determinants to enable a differentiation.

**Keywords:** Hotel management, Hotel rating system, Fuzzy delphi method, Fuzzy, Analytic hierarchy process

## 1. Research Background

The World Tourism Organization (WTO) has proposed the “Tourism 2020 Vision” since 1995; forecasting an up to \$1.6T revenues achieved by “tourism” in 2020, where the number of visitors will be increased up to 1.62B visits worldwide, Europe (717m visits) is the primary region which attracts more number of visitors to come in 2020, followed by East Asia & Pacific regions (397m visits) and USA (282m visits), in which the tourism markets in East Asia & Pacific regions expect a 5 % annual growth, which is slightly higher than a 4.1 % annual growth of global tourist population, showing that East Asia & Pacific regions are the most potential and expandable areas of global tourism market in the future.

According to related statistics and forecast on the tourism industry’s contribution to the global economy conducted by World Travel & Tourism Committee (WTTC), the global tourism industry in 2009 (including tourism related industries, investment and tax income) comprised a 10.3 % of world GDP, which is equivalent to \$4.964T. And as 2016, the global tourism industry will expect to attain a 10.9 % of world GDP, which equivalent to \$8T and \$971.6B, in which WTTC said that the tourism industry in Taiwan reported a decline in terms of ranking on 3 key indicators - absolute economic output, relative contribution to national economy, and forecast on economic growth though it reported a trend of continuous growth in 2007.

Based on the optimistic forecast and analysis of global tourism industry by primary tourism research institutes in the world, how does Taiwan break through the current tourism market, think and propose tourism policies that report

sustainable development and remarkable effects, and the middle-/long-term tourism development plan to react to an era of diverse tourism marketing tactics that emerge in an endless stream? In fact, Taiwan has opened up to residents in Mainland China for tourism activities in Taiwan through off-shore islands (Kinmen county and Matse county) on July 15<sup>th</sup> 2008; expecting to get rid of a closed and passive tourism marketing manner through government's policy deregulation formerly to further get into other countries through a manner of enthusiasm, diverse creativity and spokesperson, to develop the awareness of Taiwan in the world and to attract more potential visitors to come visit Taiwan. However, many tourism activities mentioned above are all countermeasures of Taiwan while facing global tourism market, whether the tourism and travel industry inside Taiwan has to simultaneously enhance its global competitiveness and jointly create a Taiwan tourism market with charisma and distinguishing feature.

The Tourism Bureau of MOTC has recently announced that the "hotel rating system" which implemented in 1983 and suspended for nearly 20 years since 1989, this news has caused considerable echoes and support from scholars from the academy and the industry and consumers with regard to hotel business, the hotel industry in Taiwan will only be able to get connected with international tourism market through the implementation of "hotel rating system", so as to inspire the global awareness of tourism market in Taiwan, to stimulate the tourism image of tourists coming to Taiwan and to inspire the economic output of tourism market in Taiwan and the global competitiveness.

The purpose of re-promotion and implementation of hotel rating system is nothing but mainly about enhancement of global competitiveness of Taiwan tourism market, to improve the uneven quality of Taiwan hotels, insufficiency of fair pricing mechanism, integrated information for room booking and practice guidelines, which result in many negative image issues such as consumption disputes and arguments etc., to further attract more overseas visitors to visit and spend money in Taiwan, to increase foreign exchange earnings and to inspire an awkward situation of economic recession which lacks consumer confidence in Taiwan for the time being.

Hotel business has to be an industry which combines both tangible hardware (architecture, facility and equipment) and intangible software (service, atmosphere). According to Lewis (1989), intangible product is the most important part among hotel products, in which a process of excellent service delivery by service personnel will enable a concrete and effective marketing strategy and industry feature to the intangible service of the hotel. In which, the definition and measurement criteria of tangible hardware can be judged upon objective, fair and square indicators, while intangible software is inseparable to tangible hardware/facility and equipment, intangible software have to provide customized and differentiated service upon actual condition, which cannot be provided with a manner of output stored or simulated in advance. Lastly, whether the heterogeneity characteristics of intangible service (a difference existed in interactive outcome generated from a variance of who, what, when, where, why and how) is the most difficult part for hotel business to conquer, or the hardest part to exactly measure whether the given effect is achieved? Will tourists feel the effort of hotel or service personnel? These many tangible interactions at a key moment are key factor that affects tourists' judgment on hotel perception.

According to the viewpoints of characteristics of hotel industry, if the current hotel rating system design and implementation of hotel rating system executed by Tourism Bureau, MOTC fail to follow the overall system concept through SERVQUAL's dimensions proposed by Parasuraman et al. (1985) which classify the existing hotel assessment items, and conduct hierarchy analysis of research result upon a manner of hierarchy architecture and provided as a reference for the use of practice and theory verification among the academy/government/industry fields, will be primary research questions of the study.

The study aims to achieve below research purposes upon the contents and directions of above research questions:

- The SERVQUAL dimension upon PZB covers hierarchical hotel rating system of software/hardware concepts, to differentiate hotel business by nature of activity through hotel's organization structure and job responsibility, this will refer to SERVQUAL's dimension by Parasuraman et al. (1985) to divide tier-1 primary dimensions of hotel rating system into service assurance, service responsiveness, service tangibility dimension and service empathy, and to develop a "hierarchical hotel rating system" upon the "hotel rating system" covering architecture equipment and service quality assessment standards etc. implemented by Tourism Bureau, MOTC in terms of these two major dimensions afterwards.
- Key success factors to the development of hotel industry operation in Taiwan.

Develop overall hotel rating system of hierarchy importance, weight ratio and related judgment guidelines after deleting the assessment items without expert consensus upon Fuzzy Delphi Method and Fuzzy Analytic Hierarchy Process (FAHP).

## 2. Literature Review

This is mainly about discussion and analysis of various hotel rating systems and literature review with regard to

hotel rating system and lastly, to combine with the organization structure and job descriptions of hotel business through the primary concepts of SERVQUAL dimension by Parasuraman et al. (1985) to develop the prototype of hotel rating system established by the research plan upon discussion and analysis of various hotel rating system.

### *2.1 Discussion and Analysis of Hotel Rating Systems of the World*

The hotel rating system of the world all pay attention to tourism & travel industry development which is regarded as potential star industry in the 21<sup>st</sup> century along with IT technology. Furthermore, the scope of human activity and leisure life gradually extends to spatial category with the development of vehicles and rapid growth of a booming economy, which breaks through the barrier caused by time and gap caused by culture and unveils the beginning of a new era. In the meantime, The “hotel” industry plays a decisive role in an era of rising tourism concept, of course the hotel related study organizations in the world all emphasize on establishing ratings system of hotel industry; expecting to provide a fair and objective reference of overall hotel image to consumers, however, being limited by different industry environment, business culture background and operation type of various countries, there has no one standard which generally acknowledged by ratings organization or systems as of now.

The most noted hotel rating system for the time being is the rating system used by American Automobile Association (AAA), in which the AAA began to design the standards for hotel rating system since 1977, with scope of assessment subject to USA, Canada, Mexico and Caribbean based hotels, the hotel accommodation rating by AAA is conducted once a year with contents to cover hotel appearance, room facility and equipment, public areas, clearance, management and service quality. Acceptance of evaluation is free of payment simply becoming a member by registration, those who expect to hang a diamond mark will need to pay after the evaluation; in which the anonymous who report professional insight will be assigned by AAA to conduct hotel evaluation process without precaution during the evaluation process, and lastly, to award a certificate of 1-5 star diamond for hotel suppliers to post and announce. The contents of segmentation standards for hotel rating by WTO include number of guest rooms, facility and equipment, service items, service quality and employee quality. While the evaluation at UK, Italy, Greece and Switzerland in Europe region will roughly subject to service items, equipment & facility, geography and appearance. The Institutional Investors PLC will select 100 noted bankers in the world as evaluation commissioners annually to conduct ranking of world hotels, in which the geography, architecture style, equipment & facility and service quality over the years are what highly emphasized by the tourists.

Mobil Oil Corporation will take the opinions of experts from domestic/overseas travel and food & beverage business into account to enable an objective evaluation process without losing the feature of various hotels. The primary scope of evaluation in this system is quality, decoration, repair & maintenance, room affairs, general service and F & B service of hardware facility, while the distinctive features of climatic, historical, cultural and artistic value of various evaluation hotels regionally are also the key assessment factors, in which a rating from 1-5 star after evaluation will be rendered, this ratings system requires attainment of every item on the checklist is also one of features for this rating system.

The hotel rating system of Canada is managed by an integrated organization established by the government. In order to save the budget expenditure, the evaluation is conducted biennially, the recruitment of member is by volunteer application while the evaluation is conducted upon irregular manner without warning, and related evaluators will directly execute the evaluation matter through intensive training. The crown rating system promoted by the English Tourist Boards (ETBs) is conducted once a year, the implementation of evaluation is divided into two parts - quality assessment and ratings assessment, the suppliers will be able to freely choose either one to conduct assessment, and suppliers have to pass “rating assessment” first if suppliers wish to participate in “quality assessment”. “Quality assessment” is to categorize the quality of all facilities and services of hotels, to give a comprehensive appraisal of facts that are strong enough to affect visitor impression such as room décor, well crisis management capability, the rating evaluated can be divided into “approved”, “commended”, “highly commended” and “deluxe”; while the “rating assessment” will be evaluated in terms of hotel facility and service with scale ranged from crown 1-5 as its mark.

The hotel rating system of Mainland China is currently unified and established by the National Tourism Administration of the People’s Republic of China, called “People’s Republic of China tourism (foreign) Hotel Stars standard” with hotel rating segmented by 1 to 5 star. The evaluation organization of hotel star rating under the National Tourism Administration is responsible for conducting evaluation of 3-5 star hotels. This evaluation items cover architecture, equipment, décor, facility requirement and repair & maintenance, management standard and level of service quality, number of service items.

In order to actively maintain the basic rights of hotels under the governance of choosing period of local/overseas visitor, the Taipei City Government has established the brand image of hotel itself to achieve the ultimate goal of



effective hotel and city marketing by awarding the mark for identification. Therefore, China Credit Information Service Ltd. executes the hotel assessment system on the general hotels in Taipei under the commission of the Department of Transportation, Taipei City Government. The execution process of hotel rating system by Taipei City Government is divided into two stages - stage 1: self-assessment of suppliers, i.e. the suppliers have to subject to the written information of self-assessment to the organizer - Taipei City Department of Transportation, with the 2<sup>nd</sup> stage evaluation conducted after filing and a review; while the 2<sup>nd</sup> stage is to conduct field assessment by evaluation team, in which the members of evaluation team are composed of building administration, fire prevention, hygiene, environment protection and consumer protection areas of expertise, while the hotel rating system is mainly divided into overall environment, maintenance of room facility, business management and service management of hotels, with 20 sub-evaluation items formed to conduct assessment. The hotel rating system is designed upon a hierarchical concept with the indicators covered by various sub-evaluation items total up 100 scores, while the sub-items in various scopes are to distribute the different weight ratio upon its importance. The suppliers will need to conduct dialects upon exact evidence and document; in which particular merits can be proposed to evaluation team for bonus point. And lastly, the hotels which report outstanding and excellent merits upon total scores will be announced by Taipei City Department of Transportation.

Below is consolidation of items covered by the world hotel rating system stated above. In which the “hotel rating assessment system” promoted by the Tourism Bureau of MOTC will be ministered by the Tourism Bureau through a hierarchical manner, while the general hotels are ministered by various county/city governments with execution method of evaluation referring to the spirit of AAA ratings system in USA, covering both manpower and expenses to conduct the evaluation every 3 years preliminarily in terms of two stages - “architecture equipment” and “service quality”, and to award 1-5 star mark to suppliers upon the evaluation outcome so as to facilitate the understanding and consumption option of overseas/domestic visitors.

## 2.2 Related Literature Review of Hotel Ratings Systems

According to a study of “advantages of operation in chain hotel operation” by Frederick (2000), the most imperative factors for the operation of those chain hotels, are standardization, management and control; According to a study of “Tracking the Critical Success Factor for Hotel Companies” by Geller (1985), a survey on the 74 managers of 27 international leisure hotels in the U.S. is conducted to further derive 7 key success factors in international leisure hotels operation, including service attitude, customer satisfaction, excellent equipment, good location, cost control, high market share and accurate market segmentation of employees.

Yu (1987) summarized the 9 key success factors for the hotel business based on the research result of Taiwan’s tourism marketing strategy: service of service personnel, awareness, tangible products, product design, tourist source option, operating income, scale, location and number of employee at service. According to Gadotte and Turgeno (1988), service quality, food quality, employee attitude, environment cleanness, employee appearance, complaint management and price standard are key success factors; besides, Yesawich (1988) mentioned that the 9 key success factors in hotel operation in “*Marketing in the 1980s*”: existing reputation and brand, service quality, equipment standard, uniqueness of public facility and location, convenience of room booking, location, international chain, effectiveness of marketing activity, price/value ratio perceived by customers.

According to the research result of “a comparative study of global tourism hotel management strategies among Singapore, Hong Kong and Taiwan” by Chen (1993), the operators of these 3 locations all acknowledged that the key success factors of hotel industry are service quality, ad & promotion, location, personnel quality, equipment & décor and price. Hsieh (1998) also derived the 11 determinants to business performance in a” study of performance determinants of hotel business in Taiwan” upon regression analysis - location, time of establishment, room price, number of room, advertising expenses, number of employee, supplementary service, rating evaluated, preferential measures, number of parking space and effect of capital on business operation.

Wang (1997) pointed that the contents of hotel ratings system in Taiwan should be updated to establish a more objective, diverse and conscientious rating system to cater the trend of time and tourism industry development upon the situation of implementation of international tourism hotel education training in Taiwan, as well as the effect of external environment and internal factors inside the hotel. Su and Sun (2007) conducted construction and analysis based on the service quality assessment model proposed by Tourism Bureau in Taiwan in terms of the 5 dimensions of SERVQUAL scale, the results showed that the point of hotel service assessment inclines toward the indicators enabled by tangibility and assurance dimensions, while reliability, responsiveness and empathy are what lack and to be reinforced in the rating system of Taiwan region, the research result also pointed out that the establishment and development of hotel rating system should subject to the viewpoints of consumers, and to continuously update and foster the acceptance and confidence of consumers on hotel ratings system and to keep pace with the times.

According to a study of criteria for judgment of luxury hotels in Taiwan and Macao by Hung (2008), an emphasis is placed on developing the benchmark structure to judge the luxury recreation hotels from service contents, equipment contents, business management and customer driven dimensions, the result also indicated that “business management” and “customer driven” dimensions are the highlights generally acknowledged by scholars from the industry and government in Taiwan and Macao for tourists to judge the luxury hotels.

Currently, there has no related studies domestically or abroad in terms of re-establishment of hotel rating system, while most studies focused on exploring the current overall situation development and related flaws of hotel rating system, with customer-oriented viewpoint added (Butcher, Beverley & Frances, 2002; Mattila, 1999; Narver & Slater, 1990; Su & Sun, 2007; Susskind, Kacmar & Borchgrevink, 2007), or a necessary combination of software and hardware indicators for hotel assessment (Mattila, 1999; Paraskevas, 2001; Susskind et al., 2007), in which an assessment on hardware cannot be proceeded independently, or, it will be a meaningless evaluation design.

### *2.3 Organization Structure of Hotel Industry*

The organization structure of hotels will be varied by business characteristics, size, division of labor by various departments caused by whether to join the chain system, but in general, the process of overall hotel organization can be divided into two parts: from for house and back of the house (Wu, 2008), in which “from for house” refers to “business units” of hotel business with mission to cover comfortable and satisfactory accommodation facility, equipment and other service related contents provided to visitors, including concierge, cashier, lobby, business center, room service, restaurant and other supplementary public facility.

The nature of “from for house” is similar to the “primary activity” of value chain in if looking from the perspective of value chain by porter (1985), furthermore, the matters managed by “from for house” of hotels are routine oriented, therefore, the study has initially named the related job descriptions and procedure of “from for house” as “primary routine activity” dimension, The “back of the house” refers to the “management units” of hotel business and is responsible for the back-office mission, and is therefore, called “heart of hotel”, in which the department is responsible for related aim. and support inside the hotel, to properly provide tourists with various service skills and training under a principle of mutual division of labor, real-time support, is devoted to creating a psychological feeling of making themselves at home and accommodation value; including business management, HR, training, finance & accounting, general affairs, merchandising and engineering affairs, in the meantime, covering external advertising and marketing, professional training to service personnel. Furthermore, the duty that the “back of the house” is responsible for is trendy, variant and supportive tasks oriented.

According to the suggestions of above stated research conclusions, the study will firstly consolidate related literatures of operating performance of a successful hotel and then combine with the highlights of existing thinking stereotype that the research plan expects to break through: addition of customer perspective combined with hardware/software facility (equipment) as well as organization structure of hotel business, to re-divide the primary dimensions of tier-1 hotel ratings system as service assurance, service responsiveness, service tangibility and service empathy dimensions in terms of SERVQUAL’s dimensions by Parasuraman et al. (1985), and to develop “hierarchical hotel rating system” upon various items of architecture equipment and service quality assessment benchmark covered by “hotel ratings system” which implemented by Tourism Bureau of MOTC in terms of these 4 dimensions (Figure 1).

## **3. Research Methodology**

### *3.1 Research Framework*

The primary purpose of this study is to establish overall hierarchical structure of hotel rating system. Therefore, it will be conducted through a consolidation of documents of domestic/overseas hotel rating systems, situation of hotel operation in Taiwan and secondary data of direction for future development combined with the a hierarchical design concept of “hotel rating system” proposed by Taipei City Department of Transportation to draft a preliminary hierarchical structure of “establishment of hotel ratings system” as the basis of questionnaire design by Fuzzy Delphi Method and a reference to the selection of assessment items, so as to facilitate the process of subsequent empirical study.

### *3.2 Fuzzy Delphi Method*

The fuzzy theory was proposed by Zadeh (1965) at the university of California at Berkeley. Dr. Zadeh was of the opinion that the traditional scientific methods often ignored the uncertainty and ambiguous existence of human life, so he set out to use fuzzy sets theory and adopt the fuzzy logical concepts to process. Then Buckley (1985) incorporated the fuzzy set theory into the traditional AHP, FAHP thus became a suitable tool for solving real-world multi-criteria decision- making (MCDM) problems (Buyukozkan, Kahraman & Ruan, 2004).

This study introduces the fuzzy theory into the Delphi method by integrating with the points of view of many scholars, including Hsu (1998) and Chen (2001). In order to improve the problems faced by the traditional Delphi method, this study has used the bi-triangular fuzzy arithmetic to integrate the advice of experts and has then tested the convergence effect recognized by experts that refers to the “gray zone test method”. The fuzzy Delphi method is established by means of the following steps.

### *3.3 Fuzzy Analytic Hierarchy Process (FAHP)*

In incorporating the Fuzzy Theory into the Analytic Hierarchy Process developed by Saaty (1980), we assess the weight attached to various assessment criteria and sort out their importance through which more objective and reasonable key success factors could be induced. This analytical process combines the concepts of several scholars, including Buckley (1985), Robbins (1994), Hsu (1998), and Chen (2002) and has the advantage in that experts need to fill in only one definite value when making paired comparisons, without falling into the dilemma of not knowing how to specify the fuzzy number or the need to understand its definitions.

### *3.4 Construct the Questionnaire of Hotel Rating System*

#### *3.4.1 First and the Second Stage Questionnaire Design*

The first stage of questionnaire design was based on the above primary hierarchy framework and utilized fuzzy Delphi questionnaire to assess each measurement concept and evaluation criteria. This questionnaire comprised three parts, including questionnaire instruction, questionnaire content and basis data. Furthermore, all the criteria were measured using a scale ranging from zero to 10, with the higher grades indicating the higher importance. On the other hand, each criterion must complete an acceptance scope and single value of importance level. The questionnaire also provided a space for experts to express their professional opinions and assign a total grade for each concept.

#### *3.4.2 Research Objects*

The study introduces expert questionnaire by two stages as a basis for data judgment of analysis. The experts who answer the questionnaire are limited to experts who specifically focus on tourism study or scholars from the academy and government who engage in leisure hotels & resorts field, those who are interested in the issues and contents of the study and are willing to answer the questionnaire will be the top priority for investigation. According to Robbins (1994), a scale of 5-7 experts suits best for a process of group decision making, therefore, the expert questionnaire will be distributed in terms of a more objective and accurate manner.

Given a fact that the expert opinions will be consolidated with Fuzzy Delphi Method and FAHP introduced to construct a hotel ratings system of expert consensus, order of importance and weight relation. The study will therefore, focus on the 90 international tourism hotels and general hotel suppliers in Taiwan announced by Tourism Bureau of MOTC (Executive Information System of Tourism Bureau, MOTC, 2008); as well as the central and local governments and responsible persons of civic groups with regard to tourism & travel industry, with scholars who report professional insights on hotel assessment issues from academic units, to establish the optimal system and guideline to the hotel assessment in Taiwan by consolidating the opinions and communicating with experts from industry/government/academy circles.

## **4. Empirical Data Analysis of Key Indicators Establishment for the Hotel Assessment in Taiwan**

### *4.1 Result of Empirical Data Analysis*

#### *4.1.1 Questionnaire Analysis by Fuzzy Delphi Method in Stage 1-Establish a Hierarchical Structure upon Expert Consensus*

The study has firstly conducted literature review and consolidation of primary data, to draft preliminary hierarchical structure strategically, and to consolidate the expert opinions through an expert questionnaire survey by Fuzzy Delphi Method, with the optimal and considerably important judgment benchmark selected afterwards which is regard as an importance base to subsequently establish a hierarchical structure by FAHP.

#### *4.1.2 Condition of Distribution and Return of Questionnaire*

The expert questionnaire is conducted on the experts from the industry/academy/government in tourism & leisure field in the first stage of the study, which is distributed between Mar. 1, 2010 and Mar. 31, 2010. The research team firstly drafted a list of scholars from the industry/government during Dec. 2009 to Jan. 31, 2010, to liaise with respondents in terms of the research background and purpose of this expert questionnaire from one to one, the expert questionnaire enclosed with stamped envelope will be mailed to the address appointed by the respondent if the other side agrees to answer willingly. There are 50 expert questionnaires by Fuzzy Delphi Method distributed in stage 1, with 41 questionnaires returned and 34 valid questionnaires, reporting a 68 % rate of return, in which 9 are from

government, 16 from suppliers and 9 from scholars.

#### 4.1.3 Filter the Hotel Evaluation Criteria

This investigation applied the method of Lee, Lu, San and Hsu (2006) who designed an EXCEL program based on the fuzzy Delphi operation model and the statistical software - EXCEL Expert Choice 2000 to calculate the relative number. First, this study utilized the “bi-triangle fuzzy number” to identify evaluation criteria, and then analyzed the received completed.

Step 1: Each expert gave a potential interval-value aimed at every criteria item. The minimum interval-value means “the most conservative perceived values” from all experts’ evaluated each one’s quantification fraction. On the contrary, the maximum interval-value means “the most optimistic perceived values” from all experts.

Step 2: Then, it aimed to analysis “the most conservative perceived values” and “the most optimistic perceived values” of each criteria item ( $i$ ) from all experts. The observation value might be cast if it fell on twice of standard deviation. After that, it got the minimum value  $C_L^i$ , geometric mean  $C_M^i$ , the maximum value  $C_U^i$  from “the most conservative perceived values”, and got the minimum value  $O_L^i$ , geometric mean  $O_M^i$ , the maximum value  $O_U^i$  from “the most optimistic perceived values”.

Step 3: Bases on upon step, it might set triangular fuzzy number  $C^i = (C_L^i, C_M^i, C_U^i)$  of “the most conservative perceived value” and  $O^i = (O_L^i, O_M^i, O_U^i)$  of “the most optimistic perceived value” from each criteria item.

Step 4: Finally, it precedes the following methods to test the level of all experts’ common consensus.

- If  $C_U^i \leq O_L^i$ , it means there are no overlap phenomenon in bi-triangular fuzzy number. Furthermore, it also expresses all experts’ suggestions possessed common consensus. For this reason, it makes the “important level value of common consensus ( $G^i$ )” equal to the arithmetic mean from  $C_M^i$  to  $O_M^i$ , and uses  $G^i = \frac{C_M^i + O_M^i}{2}$  to calculate.
- If  $C_U^i > O_L^i$ , it shows an overlap phenomenon in bi-triangular fuzzy number. Furthermore, the grey-region of fuzzy relationship express like  $Z^i = C_U^i - O_L^i$   $M^i = O_M^i - C_M^i$ . Although there exists fuzzy section, but the extreme value not exceeds too much than the other expert’s suggestions to cause discrepancy and emanation.
- If  $C_U^i > O_L^i$ , it shows an obviously overlap phenomenon in bi-triangular fuzzy number. As well as the grey-region of fuzzy relationship express as  $Z^i = C_U^i - O_L^i$   $M^i = O_M^i - C_M^i$ . Moreover, it means each expert’s suggestion accounts an uncommon conscious region. So, it might supply these undiscrepancy data to all experts and repeats foregoing steps until it figured out  $G^i$ .

Step 5: Bases on step 4, it calculates  $G^i$  from each criterion. The higher  $G^i$  value means the higher common conscious level of experts. After all, it uses the most possible geometric mean from each criterion to get arithmetic mean (the *threshold value in this investigation*).

This study obtained a threshold value of 7.9, and also expressed that if the value of  $G^i$  from all criterion exceeding 7.9 is reserved rather than being deleted. Finally, the result is the deletion of 8 evaluation criteria and the retention of 25 (effective ratio is 68 %) (Table 1 and Figure 2). Moreover, this study uses Figure 2 to design the second stage expert questionnaire, and provides that questionnaire to managers, officials and scholars involved in tourism. Subjects then evaluate the relative importance of the various evaluation criteria. Finally, this study determines the relative weights of the various criteria by applying FAHP to identify real evaluation criteria in the hotel rating system in Taiwan.

#### 4.2 The Questionnaire Analysis by FAHP in Stage 2-Selects and Establishes the Hotel Assessment Indicator System in Taiwan

According to the aforementioned 17 assessment indicators selected upon expert consensus by Fuzzy Delphi Method in stage 1, the questionnaire in stage 2 of hierarchical structure is designed by AFHP as Figure 2.

The 2<sup>nd</sup> stage will introduce FAHP on the valid questionnaires to establish fuzzy inverse matrix value, with consistency test introduced to calculate the C.I. value (consistency indicator) and C.R. value (consistency ratio) of expert questionnaire in this stage to determine degree of consistency in this matrix, and to respectively calculate the fuzzy weight value of evaluation guidelines and weighted value after regulation between various dimensions and inside the dimension. Besides, calculation of key figure will be conducted by AHP using Expert Choice 2003

software.

#### 4.2.1 Condition of Questionnaire Distribution and Return

The duration of expert questionnaire in stage 2 is between May 1, 2010 and June 20, 2010, which subjects to the same respondents of scholars from the industry/government in stage 1, totaling 41 questionnaires by Fuzzy Delphi Method distributed in stage 2, reporting 38 questionnaires returned and 29 valid questionnaires, and a 70.7 % rate of return, in which 7 of them are from government, 14 from suppliers and 8 from scholars.

#### 4.3 Hierarchical Weight Analysis of Hotel Ratings System in Various Dimensions

##### 4.3.1 Hierarchical Weight Analysis of Primary Dimensions

The primary dimensions of this study include service assurance, service responsiveness, service tangibility and service empathy dimensions, with triangular fuzzy number introduced firstly to establish a positive reciprocal matrix (Table 2) as a basis for the calculation of fuzzy weight value (Table 3), and to conduct consistency test of fuzzy weight value upon the crisp value given by the scholars from the industry/government/academy on the expert questionnaire.

According to Table 2 listed above, the consistency index C.I. = 0.04 and C.R. = 0.04 of primary dimensions all conform to the acceptable error range of C.R. 0.1, therefore the judgment by expert opinion in this hierarchy before and after is consistent, and according to the result of weight analysis of hotel assessment in Taiwan upon the 4 indicator dimensions in Table 3, the weight value by order of importance is as service assurance (29.7 %), service empathy (21.2 %), and lastly, the service responsiveness (20.4 %).

##### 4.4 A Discussion of Key Indicators for Hotel Assessment in Taiwan

The consistency ratio hierarchy (C.R.H.) of establishing key indicators for hotel assessment in Taiwan is 0.051, which conforms to a standard range of C.R.H < 0.1, indicating that the hierarchical structure established by the study shows an optimal arrangement in terms of association between various judgment benchmarks, therefore the consistency of overall architecture model is acceptable.

Lastly, the study will follow the relative comparison weight (local priority) enabled by the judgment benchmark in various dimensions, to further calculate the global priority in overall, so as to understand the weight ratio comprised by various assessment criteria in overall architecture, to prioritize the various judgment benchmarks by absolute weight value and importance, and to further select and establish key indicators for the hotel assessment in Taiwan.

The study will consider Daniel (1961) point of view - the operation outcomes of most industry operation will subject to the most imperative 3-6 indicators, therefore the first assessment criteria listed in table 4 will be selected as key indicators for the establishment of hotel assessment in Taiwan, which are (1) service personnel to describe various service facilities and regulations of the hotel as detail as possible; (2) service personnel to exactly repeat the complete contents of to-do-items assigned by tourists; (3) service personnel to actively provide efficient service; (4) space planning and smooth movement inside and outside the hotel; (5) the geographic location and traffic convenience of hotel and (6) excellent garden and landscape design in hotel.

## 5. Conclusion and Suggestions

### 5.1 Conclusion

An attention on leisure consciousness and related activities by Taiwan people also signifies an enhanced standard on service quality and demand satisfaction of tourism & leisure industry, in which a perception of customer satisfaction perceived by consumers in terms of appraisal dimension and measurement was gradually replaced by intangible accommodation experience or personalized service by service personnel from tangible hardware facilities and equipments in the past. The study follows the assessment standards of "star hotel rating system" promoted and implemented by Tourism Bureau, Ministry of Transportation and Communications (MOTC) in 2010, to conduct analysis in terms of SERVQUAL's five dimensions proposed by Parasuraman et al. (1985). According to the research results, the hotel rating system in Taiwan is badly in need of an attention to the establishment and assessment of indicators in terms of "service assurance" and "service empathy" dimensions, the results also indicated that tourists make judgment based on "tangible hardware" along with "intangible service" provided by the hotels, are important determinants to enable a differentiation. Therefore, the service, equipment, fundamental the necessary contents that the hotel suppliers emphasize on should be conducted through various methods of business operations, which to be effectively delivered in terms of a manner expected by the customer, and to head toward a direction of establishing a positive feeling of customer on travel and experience enhancement, in which the details and scope covered by hotel business are expansive, it is difficult to effectively deliver the connotation of "customer driven" service mission conveyed through visitors' beautiful experience if there has no systematic management and

development of employees who report centripetal force, responsibility and organizational citizenship behaviors. And as a result, service assurance and service empathy are the highlights of the first importance that the hotel industry in Taiwan should emphasize on.

In fact, the 4 major dimensions for the hotel assessment in Taiwan that the study establish are similar to the I-P-O (input-process-output) model of business management theory, which effectively combines with the software/hardware (service and equipment contents) that the hotel business should cover; including service procedure with meticulous care, top/unique and exclusive facilities, equipment and effective design of supplementary goods through a comprehensive business management system and customer oriented philosophy, to adjust and react upon external/internal environment, to satisfy different consumption needs of visitors or create excellent accommodation experience of visitors, to foster the positive idea of consumption inside the consumers and focus on the ultimate goal of overall business performance.

### 5.2 Suggestions

Tourism industry actually reports shorter time of development, in which it lacks a consensus on related theories and thread of thoughts and is an immature field, therefore, related studies and discussions on hotel assessment are rare and little. Tourism industry is one of the important national policies for countries to develop the economy and global awareness, in which various countries should focus on the investment of tourism & leisure industry and plans in related manpower quality developments, and follow the development trend of global tourism market to adjust business strategies and establish competitive advantages, therefore the study suggests the scholars from the industry/government to focus on subsequent assessment ratings of tourism & leisure related industries, to propose a more insightful opinion and related empirical findings of this prospective and potential industry.

Establish a reference to the overall assessment indicators of tourism & leisure related industries, related measurement items and critical values, it is truly an urgent matter of immediacy and necessity to establishing the government policy for world tourism industry and the business goals for enterprises, this is an important foundation stone to enable a more mature, diverse and continuous upward enhancement of tourism & leisure field.

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Table 1. Analytic Table of Fuzzy Delphi Questionnaire

Concept	evaluation criteria	the most optimistic perceived values ( $O_L^i, O_M^i, O_U^i$ )			the most conservative perceived values ( $C_L^i, C_M^i, C_U^i$ )			Geometric mean	$M^i$	$Z^i$	Interval value of expert opinion	$G^i$
Service assurance	Excellent garden and landscape design overall in hotel	8	9.4	10	5	6.9	8	8.4	2.5	0	○	8.1
	Hotel environment cleanness and maintenance	9	9.7	10	6	6.9	8	8.4	2.8	-1	○	8.3
	Proper arrangement of public areas in hotel*	7	9.3	10	4	6.1	8	8.1	3.2	1		7.6
	Clear and easy-to-understand hotel marks in various types	9	9.7	10	4	6.3	8	7.9	3.4	-1	○	8.0
	Diverse thoughtful tourism (business) centers in hotel*	7	9.2	10	3	6.1	7	7.6	3.1	0	○	7.7
	Excellent parking space management in hotel	9	9.8	10	5	6.9	8	8.6	2.9	-1	○	8.3
	Comprehensive and complete banquet facilities	9	9.7	10	5	6.6	8	8.3	3.1	-1	○	8.2
	Familiarity of service personnel with hotel's telephone exchange service*	8	9.6	10	4	7.2	9	8.1	3.2	1		8.4
	Ability of service personnel to describe service facilities and regulations in hotel	9	9.7	10	3	6.3	7	8.0	3.3	-2	○	8.0
	Service personnel can complete finish the tourists' contents of the action items	9	9.7	10	3	6.4	8	8.3	3.3	-1	○	8.1
	Service personnel can clear record of tourists' information and archiving	8	9.4	10	5	6.6	8	8.3	3.0	0	○	8.0
Service responsive-ness	Excellent fire fighting equipment and harmonious space design at hotels*	7	9.1	10	3	6.2	8	7.6	2.9	1		7.5
	Equipment adequate escape	9	9.8	10	3	6.3	9	7.8	3.5	0	○	8.1
	Hotel promote the concept of green building green	9	9.7	10	5	6.3	8	7.9	3.4	-1	○	8.0
Service tangibility	Stylish building appearance merged with the environment	8	9.6	10	5	6.6	8	8.1	3.0	0	○	8.1
	Space planning and smooth movement inside and outside the hotel	9	9.7	10	3	6.4	8	8.3	3.3	-1	○	8.1
	Geographic location and traffic convenience of hotel	8	9.6	10	5	6.7	8	8.3	2.8	0	○	8.2
	Excellent garden landscape design at hotels*	7	9.3	10	2	5.6	7	7.4	3.6	0	○	7.4
	Exquisite and beautiful restaurant and banquet facilities in hotel*	7	8.9	10	2	5.4	7	6.8	3.5	0	○	7.2
	Diverse sports facility and complete maintenance	8	9.5	10	5	6.8	8	8.3	2.7	0	○	8.1
	Practical and stylish room equipments*	8	9.2	10	4	6.1	8	7.7	3.1	0	○	7.7
Service empathy	Excellent sound insulation effect between space and the tranquility inside the hotel	8	9.6	10	5	6.6	8	8.1	3.0	0	○	8.1
	Kind attitude and proper presence of service personnel	8	9.4	10	5	6.9	8	8.4	2.5	0	○	8.1
	Active attitude of service personnel who provide efficient service	8	9.5	10	5	6.5	7	8.2	3.0	-1	○	8.0
	Rich contents and practical service web system installed by the hotel*	8	9.4	10	5	6.1	7	7.8	3.2	-1	○	7.7
$G^i$		7.9										

Note: ○ indicates  $C_U^i \leq O_L^i$  that experts' opinions in the consensus section, and utilized  $G^i = (C_M^i + O_M^i)/2$  to calculate.

indicates  $C_U^i > O_L^i$ , and  $Z^i = C_U^i - O_L^i$   $M^i = O_M^i - C_M^i$ . It calculates fuzzy set by min and get  $G^i$ .

\* indicates the evaluation criteria be delete.



Table 2. The Consistency Test on the Main Concept in the Indicators Establishment for the Hotel Assessment in Taiwan

fuzzy inverted value matrix				
concept	service assurance	service responsiveness	service tangibility	service empathy
service assurance	(1.00, 1.00, 1.00)	(0.11, 0.45, 7.71)	(0.25, 4.00, 9.00)	(0.17, 2.65, 9.00)
service responsiveness	(0.13, 2.31, 9.00)	(1.00, 1.00, 1.00)	(0.25, 4.01, 9.00)	(0.17, 2.65, 9.00)
service tangibility	(0.13, 0.53, 7.21)	(0.11, 0.31, 4.00)	(1.00, 1.00, 1.00)	(0.13, 0.72, 5.00)
service empathy	(0.13, 0.88, 7.14)	(0.11, 0.38, 5.90)	(0.21, 1.37, 7.72)	(1.00, 1.00, 1.00)
$\lambda_{\max}=4.11$ C.I.=0.04 C.R.=0.04				

Table 3. Main Concepts of the Weight Analysis in the Indicators Establishment for the Hotel Assessment in Taiwan

concept	$W_{ai}$	$W_{\bar{a}i}$	$W_{\gamma i}$	Normalized weights	Importance order
service assurance	0.010	0.331	5.712	0.297	1
service responsiveness	0.008	0.092	4.012	0.204	4
service tangibility	0.008	0.162	5.221	0.287	2
service empathy	0.009	0.123	4.534	0.212	3

Table 4. Overall Assessment of the Results in the Key Indicators Establishment for the Hotel Assessment in Taiwan

Main concept	Weight on concept	Evaluation criteria	Hierarchy weight	Absolutely weight	Importance ranking
Service assurance	0.297 (1)	Excellent garden and landscape design overall in hotel	0.270	0.064	6
		Hotel environment cleanness and maintenance	0.151	0.036	14
		Clear and easy-to-understand hotel marks in various types	0.268	0.064	7
		Excellent parking space management in hotel	0.204	0.060	15
		Comprehensive and complete banquet facilities	0.166	0.039	9
		Ability of service personnel to describe service facilities and regulations in hotel	0.338	0.091	1
		Service personnel can complete finish the tourists' contents of the action items	0.333	0.089	2
		Service personnel can clear record of tourists' information and archiving	0.185	0.024	12
Service responsiveness	0.204 (4)	Equipment adequate escape	0.105	0.029	17
		Hotel promote the concept of green building green	0.157	0.033	10
Service tangibility	0.287 (2)	Stylish building appearance merged with the environment	0.245	0.051	8
		Space planning and smooth movement inside and outside the hotel	0.297	0.087	4
		Geographic location and traffic convenience of hotel	0.287	0.084	5
		Diverse sports facility and complete maintenance	0.141	0.018	13
Service empathy	0.212 (3)	Excellent sound insulation effect between space and the tranquility inside the hotel	0.143	0.034	16
		Kind attitude and proper presence of service personnel	0.157	0.037	11
		Active attitude of service personnel who provide efficient service	0.329	0.088	3
C.R.H.=0.051					

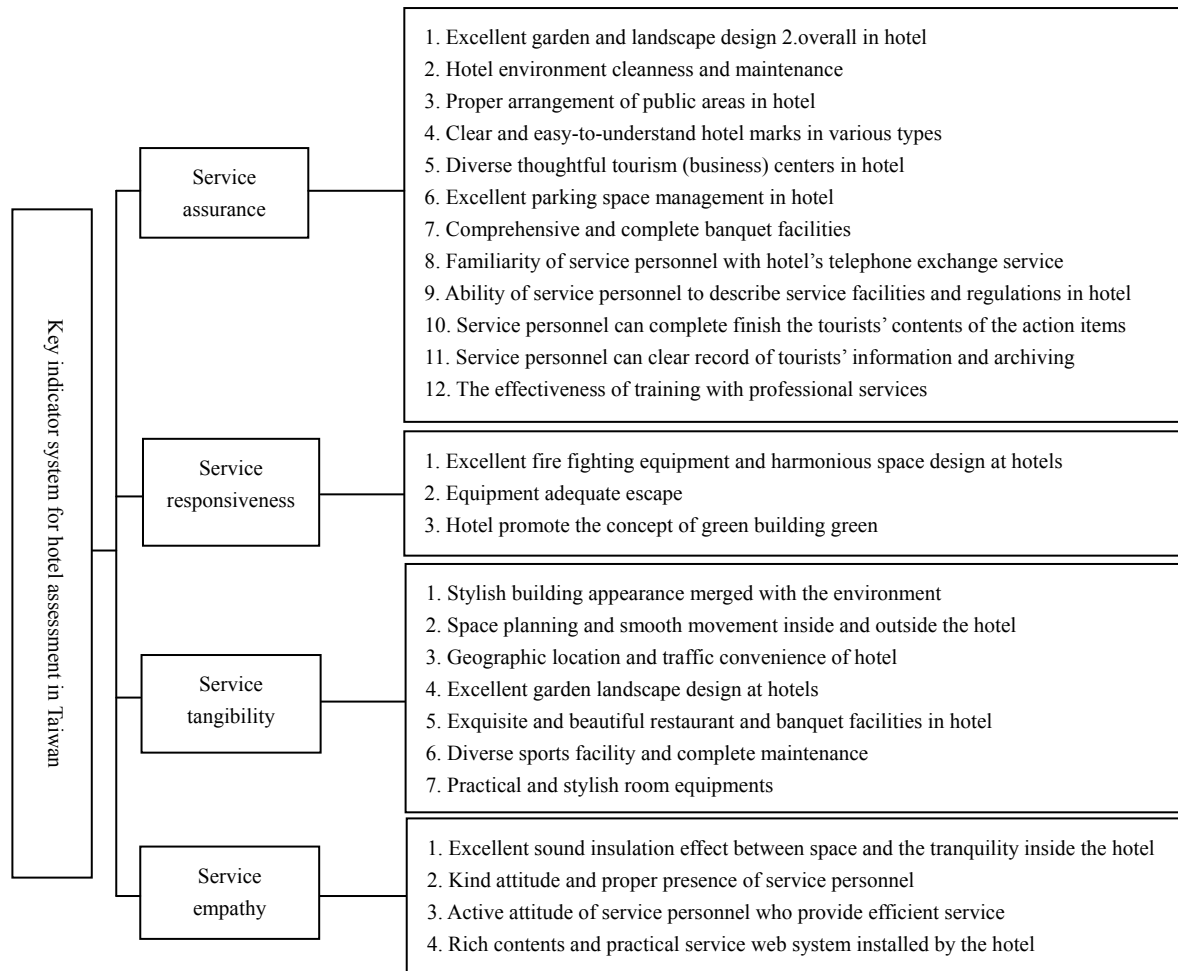


Figure 1. A Hierarchical Structure of Key Assessment Indicator for Hotel in Taiwan

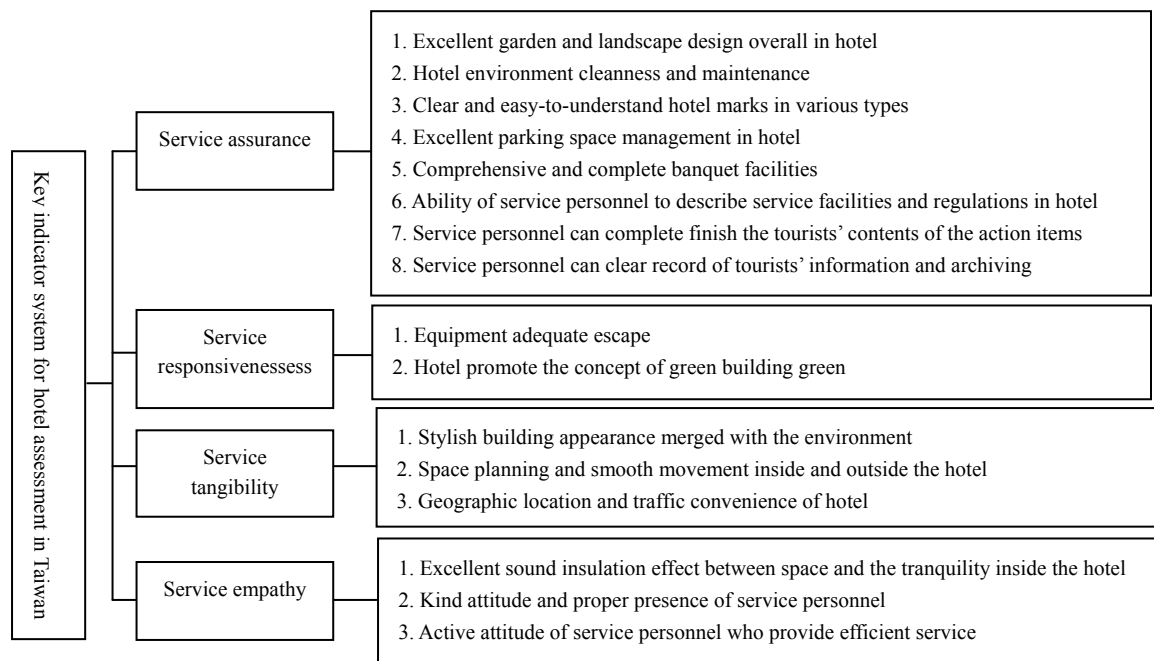


Figure 2. Second Stage Hierarchy Structure of Hotel Assessment Indicator in Taiwan

# Demographic Characteristics Differences and Sales Performance among Night Market Traders in Malaysia

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## Abstract

The purpose of this study is to investigate the relationship between the different demographic characteristics and the sales performance among Night Market Traders in Malaysia. The study was conducted in the East Coast region of Peninsular Malaysia on night market traders. A total of 350 night market traders were interviewed. Demographic Characteristics considered were gender, age and education level and business experience. The study concludes that there are no significant differences between sales performance and business traders' demographic characteristics such as gender, age and education level but business experience do show significant difference.

**Keywords:** Performance, Demographic characteristics, Night market

## 1. Introduction

Oxford University Press Dictionary defines Night Market as a group of night market stalls selling food items or places the needs of trade at night. The night markets are usually operated as early as 5.00 pm and lasting until 12:00 pm. Night market is a place of retail business which is categorized as a market / stall on the move, order desk, which extends down the road and using public or private site (Ibrahim & Leng, 2003). Night market business is also defined

as hawking activities although it is semi-static or seasonal. This business markets a wide range of consumer commodities from food and non food items that operates once or twice a week in different places. The existence of the night market is due to the availability of supply and demand from the night market traders that give them the opportunity to increase income and also for buyers to help them acquire diverse needs with everyday low prices. Among the variety of daily necessities in the night market that makes the night market favored by all segments of society are essential kitchen items (wet and dry goods), clothing, fruit, food, drinks and a few other items (www.hbp.usm.my).

Night market trader activity is contributing to the Micro, Small and Medium Enterprises (MSMEs) that have economic value. The role played by the night market traders in the economy is huge. According to the Dictionary of the House economy means to provide, produce, and create wealth or material of a country. Halvorson and Raundi (1992) in their study to state the business of micro-economic values; income and output, provide employment opportunities for the cheap, using domestic inputs and products / services cheaper.

MSMEs in Malaysia are regarded as a rapidly growing industry. It also stimulate and contributes to the achievement of national economic development objectives. The industry produces a variety of jobs that require skills and education, strengthens the family ties in the community, prevents the loss of population, attracts expertise and investment in the community and creates lasting stability (Minoo & Charles, 2003). According to the Census of Establishment and Company Foundation (Baseline Census of Establishments and Enterprises), launched in March 2005, on agriculture, manufacturing (including agro-based) and services, from 523 132 companies and enterprises that responded, it was found that 99.2 % or 518 996 of business is MSMEs that contribute to the total output of 38 %. In terms of employment, the MSMEs accounted for 65.1 % of total employment come from agriculture, manufacturing and services. The census also found that the majority of MSMEs are small in which 79 % or 411 849 companies are micro enterprises with full-time employees who work less than 5 people (BNM, 2006).

Several factors, directly and indirectly identified as stimulants to the development of MSMEs in Malaysia. Assistance by the government is an important factor in promoting MSMEs. For example, the government has allocated RM 1.1 billion through the Ninth Malaysia Plan (9MP) as provisions to support this industry. Prime Minister in his presentation of the 9MP suggested that implementing the product and process innovation, building a far-sighted and uses a sophisticated and affordable technology. Besides state aid, environmental changes such as globalization and technology development will also stimulate the development of MSMEs in Malaysia. Under the 9MP, all the MSMEs are urged to look ahead and invest in innovation, technology, human capital and the innovation process to ensure that development of new products and services continued to compete in the global market.

According to the definition of Micro Small and Medium Enterprise Development Council (MSMEs) Malaysia, micro company is based on total annual sales of less than RM 200 000.00 (current exchange rate 1 USD = RM 3.05) and has full-time workers less than 5 people as in Table 1. From the definition, among the sectors identified under this category are hawkers covering public and private markets, the group stalls, and night market traders. The Government has recognized the hawking and the night market as one of the most important economic activities carried on in many places in Malaysia. It is also a sector that has proven capable of providing retail services to the users and channels the supply of goods and services from producers.

In the report of SME Annual Report (2011), 99 % of the companies are the majority of SMEs (79 %) come from micro companies. This industry accounted for only 6 % of Gross Domestic Product (GDP) and 7.7 % of employment. This contribution is significantly lower than the global average of 80 % of SMEs contributing to 50 % of GDP. Given the level of SME contribution to GDP is 31.9 %, indicating that it has a low performance.

The purpose of this study is to investigate the differences between demographic characteristics and sales performance of Malaysian Night Market traders. The study would enhance the understanding of whether, and if so, how demographic characteristics can affect owners of Night Market performance.

This study is important to be executed based on several reasons. First, the performance of the night market traders is significant factors in MSMEs because they help business development. The results of this study will help the night market traders in particular and generally MSME entrepreneurs to obtain information and direction of their role in developing the business and contribute to GDP. Second, results from this study are important to help government institutions such as SIRIM, Entrepreneur Development Foundation and SMIDEC in providing guidance in the form of research to the MSME entrepreneurs to meet future needs, providing financial assistance, providing awareness and sales of retail and ongoing research to innovation can be implemented so that the MSMEs can keep pace with the activities of the Malaysian economy. Finally, this study is important to identify the factors that contribute to the success of SMEs and thus to the economy.

## 2. Literature Review

Sharma, Miller, and Reeder (1990) in their study define micro-business is characterized by companies such as: i) implemented and managed one or two employees; ii) established by family and; iii) the functions are in the informal sector. Factors which develops micro-businesses, including the sources of innovation, opportunities for new products and services of a market place and support private infrastructure and public companies.

There are many ways to measure the success of a micro business. Minoo and Charles (2003) measure the performance of micro-industry through sales, profit, market share and future stability in the study of micro-businesses. According to Brown and Eisenhardt (1995) success was measured based on financial performance including profitability, sales and market share. For Wasilczuk (2000) to measure progress and success of small businessmen was difficult, and it can be measured objectively and subjectively. Objective measurements are difficult to obtain information that could impact the achievement of an organization. The result can be measured in terms of quantity and quality and is usually measured by profitability and sales. While the subjective measure is the information that is not so easy to gather, include information on assessment and behavior business.

Knowles and White (1995) found that revenue and profit are two factors to develop a small business where the revenue in question is the amount of cash received from sales or services rendered (Gaber, Davidson, Stickney and Weil, 1993). Meanwhile, Worms (1998) use sales as a performance measure that can be easily understood by the respondent.

Research on gender differences in small business ownership is still a taboo (Minoo & Charles, 2003). However, this study provides a significant impact on business performance micro-focus after by several researchers (Coleman, 2000; Minoo & Charles 2003). Similarly, studies conducted to determine gender differences of annual sales and profit performance (Orser & Foster, 1992; Heck, Rowe & Owen, 1995; Coleman, 2000). The study found that there were significant differences on the performance of small scales industries run by men and women. The test results showed that gender is not a problem for women entrepreneurs than men in getting critical resources. A study by Minoo, and Charles (2003) on expertise in business such as marketing, strategic planning and technical, financial categories (resources that are critical to success) has found that women entrepreneurs are not having problems than do men manage their critical resources. However, a study conducted by Sonfield, Lussier, Corman and Mc Kinney (2001) found no difference between genders in terms of innovation, risk acceptance and the strategic approach used.

Inmyxai and Takahashi (2010), conducted a study of the 840 MSMEs in Lao to examines and compare the performance contrast of male and female headed firms. This research discovered that, the differences exist between male and female headed firms in terms of determinants factors of firm performance.

MSME business entrepreneurs are comprised of all ages. Several studies have been carried out to see the relationship between age and successful business owners. A study by Heck et al. (1995) concluded that more business owners and educated age showed a better performance. Another study by Orser and Foster (1992) also yields the same result of a business owner, 40 years and has a chance to earn more than those younger than 40 years.

Academic level of the business owners also plays an equally important role in developing the business. This business owner has the only level of education until the end of primary school graduates. Heck et al. (1995) states that a well-educated business owners to continue business operations and get a good income. Similarly, a study by Wasilczuk (2000) supports the finding from the study above. He concluded those who are educated to manage the company towards a better development than those less educated.

## 3. Research Design and Methodology

The study was conducted in the East Coast region of Peninsular Malaysia on night market traders. A total of 350 night market traders were interviewed.

### 3.1 Study Area

This study was conducted to identify demographic characteristics that influence the performance of the night market traders in the state. Studies was conducted in all seven districts comprise of three (3) areas classified as urban, agriculture and fisheries. The selection area based on the following justifications: i) Urban areas selected according to the night market business conducted in urban areas. ii) The business of agriculture as the night market conducted in agricultural areas such as at the confluence of age and rural areas where agricultural activities are focused on. iii) The business of fishing as the night market conducted in coastal areas where the majority of people carrying out activities related to fishing or fisheries.

### 3.2 Firm Performance

Minoo and Charles (2003) measure the performance of micro-industry through sales, profit, market share and future stability in the study of micro-businesses. Brown and Eisenhardt (1995) measured success based on financial

performance including profitability, sales and market share. For Wasilczuk (2000), it is difficult to measure progress and success of small businessmen, because it can be measured objectively and subjectively. Objective measurements are difficult to obtain information that could impact the achievement of an organization. The result can be measured in terms of quantity and quality and is usually measured by profitability and sales. The subjective measure is the information to include information on assessment and behavior business.

Knowles and White (1995) found that revenue and profit are two factors to develop a small business where the revenue in question is the amount of cash received from sales or services rendered (Gaber et al. 1993). Meanwhile, Worms (1998) use sales as a performance measure that can be easily understood by the respondent. Since there is no consensus the best for performance measurement in business research, a measure must be selected for this study. Researchers will use the annual sales as a measure of success.

### *3.3 Night Market Traders*

This study involved field studies of the night market traders who were interviewed using a convenience sampling method. This task is performed by the researchers themselves. A total of four researchers went to interview the night market traders and the answers were recorded to ensure correct answers. Researchers visited the area by regions according to a schedule provided by district councils throughout the state. A total of 350 night market traders were interviewed. During the conducted interviews, a set of questionnaires was also used to record the information. The developed questionnaire for this study is used to obtain demographic information, and annual sales.

## **4. Findings**

A total of 350 questionnaires were processed and only 286 (81.7 %) can be used for analysis because the questions were only partly answered. This section presents findings on the profile of night market traders and the type of business carried on, sex, age, education level, business experience and annual sales.

### *4.1 Analysis of Demographic Profiles of Respondents*

The first objective of the study is to file a demographic factors (gender, age, academic level and business experience) night market traders with their annual sales. Referring to Table 2, a total of 286 questionnaires analyzed, there were 53.1 % and 46.9 % male traders female traders, the majority (93 %) consists of the Malay race. The remaining 0.7 % consists of Chinese and 6.3 % are from other nations, especially the people of Cambodia. In terms of age, the majority (85 %) is in middle age, i.e. 26-55 years and 8 % in the age group above 55 years old and the oldest was 70 years old. This indicates that the need to continue to do business is only to continue their living. In terms of education, most of the low-educated businessmen with primary school education (33.6 %), lower secondary education (22.7 %), SPM (O-Level equivalence) (36.7 %) and STPM (A-Level equivalence) (4.5 %). There is only 2.4 % diploma and degree-educated traders.

### *4.2 Analysis of the Sales Performance*

Some night market traders (42 %) earn less than sales of RM50 000.00 per annum. 33.6 % traders earn annual sales between RM50 000.00 to RM99 999.00 followed by the annual sales of RM100 000.00-RM149 999.00 annual sales with 5.6 %. Annual sales gain exceeding RM200 000.00 and from the findings of the study. One trader's annual sales were RM546 000.00. These show that the night market traders are able to generate very high sales.

### *4.3 Night Market Traders' Performance*

Next discussion is to look into the night market traders' demographic characteristics and their sales performance in terms of the annual sales. Several factors were considered such as gender, age, education level, business experience using cross-table analysis to see the performance of the night market traders in general. A summary profile of demographic differences and of their sales performance is display in Table 3.

### *4.4 Demographic Characteristics and Sales Performance*

#### *4.4.1 Gender and Sales Performance*

Table 3 shows that 42.0 % of business acquired annual sales less than RM50 000.00. 22 % are business women and 19.9 % were males. While traders have high annual sales and more than RM200 000.00 was 3.1 % and 2.4 % women are men. This shows that there is no significant difference in terms of annual sales by women and men.

#### *4.4.2 Age and Sales Performance*

In terms of age as compared to annual sales, it is found that the traders of 36 to 45 years of age are the most numerous (26.6 %) to make annual sales of less than RM100 000.00. This was followed by the traders aged between 26 to 35 years with 19.2 %. Similarly, the achievement of annual sales turnover exceeding RM200 000.00 are from the same

age category. This shows that the age category of 25 to 45 year old make up the majority of the night market traders which is by 56.3 %.

#### 4.4.3 Education Level and Sales Performance

The Educational level showed no difference between the night market traders with diploma / degree and night market traders who complete education up to secondary school in terms of annual sales across different types of businesses. Whether the night market traders have high school education or diplomas / degrees, both obtained annual sales of less than RM50 000.00. The most interesting thing is that night market traders who have no formal education / primary school (1.4 %) could make annual sales exceeding RM200 000.00.

#### 4.4.4 Business Experience and Sales Performance

Table 3 also shows that the number of years in business does not always translate to higher sales revenue. This can be seen from the number of years in the business over 25 years (0.3 %) is only able to generate the annual sales of up to RM100 000.00 compared with number of years in business under 5 years (0.3 %) which have been able to generate sales of more than RM200 000.00.

This section makes hypothesis testing involves four criteria demographic of the traders covering gender, age, academic level and business experience. Therefore, the t-test was used to examine the significant difference between genders with sales performance. Meanwhile, analysis of variance (ANOVA) will be used to compare differences between age groups, levels of academic and business experience with the sales performance.

- Gender

*Hypothesis 1: There are significant differences based on sales performance and the gender night market traders.*

Result of the t-test is to compare between genders with sales performance. Table 4 below showed there was no significant difference on sales performance between male and female traders. So, hypothesis 1 was failed to be accepted. T-test showed  $t(286) = 1.16, p > 0001$ . The study describes the businessmen and women are equally able to achieve higher sales results or have the potential to succeed in this field.

- Age

*Hypothesis 2: There are significant differences based on sales performance and the age of the night market traders.*

Results from the analysis of variance displayed in Table 5, shows the mean sales for the traders in the category of less than 25 years of age was 0.88, 26 to 35 years (2:01), 36 to 45 years (2:08) and 1.73 for the category exceeds 56 years. However, the mean difference shown insignificant at 12:05 with a confidence level  $F(286) = 0585, p > 0.05$ . These findings show there is no significant difference between the annual sales based on age of traders. Therefore, Hypothesis 2 was failed to be accepted.

- Education Level

*Hypothesis 3: There are significant differences based on sales performance and the academic level of the night market traders.*

Table 6 shows the results of analysis of mean differences between the educational levels of sales performance. Mean difference is displayed is found to be significant at the confidence level of  $F(00:05)(286) = 0.49, p > 0.05$ . Based on the findings, there is no significant difference between the education levels of traders to their sales performance. Thus hypothesis 3 also failed to be accepted.

- Business Experience

*Hypothesis 4: There are significant differences based on sales performance and the business experience of night markets traders.*

Table 7 shows the results of analysis of the mean difference between business experience and sales performance of the traders. Mean difference is displayed is significant at the confidence level of  $F(00:05)(286) = 4182, p > 0.05$ . Based on the findings, there is significant difference between the business experience and sales performance. Thus Hypothesis 4 is accepted.

## 5. Conclusion and Recommendations

### 5.1 Gender

The first hypothesis of the study is “There is no significant difference between the traders’ demographic factors, particularly gender with sales performance.” After testing this hypothesis, the findings have proven there is no significant difference between gender with sales performance and shows the trader’s sales performance is the same man and woman. The study is contrary to the studies carried out to identify gender differences in the performance of

annual sales and profits by Orser and Foster (1992); Heck et al. (1995) and Coleman (2000) found that there were significant differences on performance of small industry run by men and women. Similarly, a study by Coleman, (2000); Minoo and Charles (2003) have a significant impact on the performance of micro-businesses. However, Minoo and Charles (2003) who conducted the study of gender differences in small business ownership, his findings were ambiguous.

### 5.2 Age

“There was no significant difference between the traders of demographic factors, particularly age of traders’ sales performance” is the second hypothesis in the demographic factors for this study does not prove the existence of significant differences between the age of the performance of traders’ sales and it shows age cannot determine sales performance. Traders, young and old can each play a role in determining the success of a business based on sales. The results of this study once again are contrary to the study by Heck et al. (1995) which concluded that more business owners’ age and education showed a better performance. Similarly, another study by Orser and Foster (1992) who also produced the same results that a business owner of 40 years and older have a chance to earn more than those younger than 40 years old.

### 5.3 Education Level

Education level of the traders is said to play an equally important role in developing the business. As with other businesses, traders at the night market also have a level of education only until the end of primary school graduates. However, the results of this study also found that the education level did not provide significant differences on the sales performance. Again, these results contradict the results of a study conducted by Heck et al. (1995) who found that highly educated business owners to continue business operations and get a good income. Similarly, a study by Wasilczuk (2000) supports the finding from the study above. He concluded that those who are educated to manage the company towards a better development than those less educated.

### 5.4 Business Experience

Experience increased in parallel with the age of traders. If a business can continue operations beyond the initial period and growing business within five years, it could be said that the business has been successful (Gray & Gray, 1994). Orser and James (1992) found that the longer a business operates, more and more workers are employed and thus the annual income increases. The findings of this study also proved the age of the business have significant differences with the sales performance.

Conflicting findings of demographic factors in this study with previous studies is possibly due to different respondents, or differences in or under one category of micro-businesses. This study focuses on the night market traders which are also defined as hawking activities even though it is semi-static or seasonal. This business markets a wide range of consumer commodities from food and non food items that operate once or twice a week in different places. In Malaysia, the business conducted on a regular night markets across the country, while in countries where previous studies carried out, the micro-industry business made more formal and permanent place.

Given the differences between the night market traders against the respondent micro business elsewhere, contradictions found between this study and previous studies may be accepted. Because this study supports existing theory and other related studies, it is very important to examine in detail how the business practices, in contrast to other micro industries. The study will come to see the same thing on an ongoing basis and compared with the findings from this study. Studies have consistently useful to look at changes to business practices so that there will be improvement.

Given this research tool using independent variables derived from previous studies and self-evaluation by the subjects performed outside the country have different customs and culture, follow-up studies on new subjects to be done to see how far the consistency of the findings from the study. The proposed studies are based on such qualitative study of work culture night market traders will be able to help you understand the aspects and business patterns that can generate high annual sales. This will help researchers to make comparisons in terms of values and beliefs to evaluate aspects of the similarities and differences compared to quantitative measurement.

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Table 1. Definition of Micro Enterprises (MEs)

Sectors	i) Annual Sales Turnover or	ii) No. of Full time Employees
Manufacturing, Manufacturing-Related Services, & Agro-based Industries	Less than RM250 000 OR	Less than 5
Services, Primary Agriculture, Information & Communication Technology (ICT)	Less than RM200 000 OR	Less than 5

Table 2. Demographic Profiles of the Respondents (n = 286)

Respondents'	Characteristics	Percentage (%)
Gender	Male	53.1
	Female	46.9
Age	Below 25 years	7.0
	26 – 35 years	20.6
	36 – 45 years	35.7
	46 – 55 years	28.7
	56 and above	8.0
Education Level	No formal education	33.6
	SRP / PMR (lower Secondary)	22.7
	SPM (equivalent to O level)	36.7
	STPM (equivalent to A level)	4.5
	Diploma / Degree and above	2.4
Business Experience	Below 5 years	34.3
	5 – 14 years	38.1
	15 – 24 years	23.8
	25 – 34 years	2.8
	More than 35 years	1.0
*Annual Sales	Less than RM49 999	42.0
	RM50 000 – RM99 999	33.6
	RM100 000 – RM149 999	14.0
	RM150 000 – RM199 999	4.9
	More than RM200 000	5.6

Note: \* Current Exchange Rate: 1USD = RM3.05.

Table 3. Crosstabulation between Sales Performance and Demographic Characteristics

Demographic Characteristics	*Sales Performance									
	Less than RM49 999		RM 50 000 - RM99 999		RM100 000 - RM149 999		RM150 000 - RM199 999		More than RM200 000	
	N	%	N	%	N	%	N	%	N	%
<b>Gender</b>										
Male	57	19.9	59	20.6	21	7.3	8	2.8	7	2.4
Female	63	22.0	37	12.9	19	6.6	6	2.1	9	3.1
<b>Age</b>										
Below 25 years	13	4.5	13	4.5	4	1.4	2	0.7	0	0.0
26 – 35 years	30	10.5	25	8.7	7	2.4	3	1.0	6	2.1
36 – 45 years	40	14.0	36	12.6	18	6.3	5	1.7	7	2.4
46 – 55 years	26	9.1	21	7.3	11	3.8	2	0.7	2	0.7
56 and above	11	3.8	1	0.3	0	0.0	2	0.7	1	0.3
<b>Education Level</b>										
No formal education	41	14.3	33	11.5	14	4.9	4	1.4	4	1.4
SRP / PMR	28	9.8	21	7.3	11	3.8	3	1.0	2	0.7
SPM	45	15.7	36	12.6	11	3.8	6	2.1	7	2.4
STPM	4	1.4	4	1.4	2	0.7	0	0.0	3	1.0
Diploma / Degree and above	2	0.6	2	0.6	2	0.6	1	0.3	0	0.0
<b>Business Experience</b>										
Below 5 years	52	18.2	35	12.2	8	2.8	2	0.7	1	0.3
5 – 14 years	40	14.0	30	10.5	25	8.7	6	2.1	8	2.8
15 – 24 years	23	8.0	29	10.1	6	2.1	3	1.0	7	2.4
25 – 34 years	2	0.7	2	0.7	1	0.3	3	1.0	0	0.0
More than 35 years	3	1.0	0	0.0	0	0.0	0	0.0	0	0.0

Note: \* Current Exchange Rate: 1USD = RM3.05.

Table 4. Sales Performance Based on Gender

	Male		Female		t	Sig-t
	Mean	S.D	Mean	S.D		
Sales Performance	2.54	.6588	2.43	.6563	1.16	.266

Note: Not significant at confidence level 0.05 (two-tailed).

Table 5. Sales Performance Based on Age

Age (year)	Less than 25		26 - 35		36 - 45		46 - 55		More than 56		F	Sig.F
	Mean	S.D	Mean	S.D	Mean	S.D	Mean	S.D	Mean	S.D		
Sales Performance	1.80	0.88	2.01	1.21	2.08	1.16	1.92	1.01	1.73	1.12	.585	.674

Note: Not significant at confidence level 0.05 (two-tailed).

Table 6. Sales Performance Based on Education Level

Education level	No formal education		SRP / PMR		SPM		STPM		Diploma / Degree and above		F	Sig.F
	Mean	S.D	Mean	S.D	Mean	S.D	Mean	S.D	Mean	S.D		
Sales Performance	1.92	1.06	1.92	1.04	1.99	1.17	2.54	1.56	2.00	1.00	0.888	.490

Note: Not significant at confidence level 0.05 (two-tailed).

Table 7. Sales Performance Based on Business Experience

Business Experience	Below 5 years		6 – 14 years		15 – 24 years		25 -34 years		35 years and above		F	Sig.F
	Mean	S.D	Mean	S.D	Mean	S.D	Mean	S.D	Mean	S.D		
Sales Performance	1.62	0.81	2.13	1.22	2.21	1.09	2.25	1.30	2.17	1.34	4.182	.003*

Note: \* Significant at confidence level 0.05 (two-tailed).

# The Impact of E-CRM on Customers Attitude and Its Association with Generating Competitive Advantages in Iranian Financial B2B Context

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## Abstract

In the emerging competitive and technological driven banking era, banks have to strive hard for retaining and enlarging their customer base. Electronic customer relationship management (E-CRM) is the combination of traditional CRM with the e-business applications marketplace. An E-CRM system provides financial institutions with the opportunity to establish individual and need oriented customer relationships. E-CRM enables the financial institutions to provide the right financial product at the right time (Sascha, 2003). Focus of this paper is to explore E-CRM benefits that have positively effects on customer satisfaction and association between them in Iran Financial Institutions. The findings indicates that Proliferation of channels (e.g. Internet), Up to date of banks, Services quality, International customers' satisfaction, Improve cash flow management, Safety and Transaction security have positive effects on customer satisfaction. Furthermore, it seems that there is significant association between Quality factor and Safety factor and also between Infrastructure improvement and Customer responsiveness.

**Keywords:** Electronic customer relationship management (E-CRM), Competitive advantages, Business to business (B2B)

## 1. Introduction

The service industry, especially financial institutions grapples with increasing competition currently. In such environment, differentiation is necessary and banks begin to realize that no bank can offer all products and be the best/leading bank for all customers. They are forced to find a new basis for competition and they have to improve the quality of their own products/services (Zineldin, 1996). Nowadays, financial institutions will not only confined to borrowing collection of savings and lending loans, but also forced to learn the advanced and modern rules and tools to provide convenience environment for their customers and satisfy their needs.

Recently it has been acknowledged that company relationships with customers can be greatly improved by employing information technology (Karimi, 2001) which can facilitate and enhance customer relationships in various ways but mainly enables companies to attain customization, which is the essence of a customer-centric organization (Stefanou, 2003). Relationship marketing is becoming important in financial services (Zineldin, 1995). If a bank develops and sustains a solid relationship with its customers, its competitors cannot easily replace them and therefore this relationship provides for a sustained competitive advantages (Gilbert & Choi, 2003).

In the early 1990s, the concept of relationship marketing was formally introduced into the services marketing literature. Financial services institutions, airlines and other service providers found it profitable to retain and reward existing customers rather than run after new customers (Mittal & Kumra, 2001).

E-CRM is defined as a mean of selling, serving, or communicating with customer through the web. Further he takes E-CRM as a subset of CRM, which means that E-CRM is one of the channels that a company can use to deploy its CRM strategies (Dyche, 2001). The goal of E-CRM system is to improve customer service, retain valuable customers and to aid in providing analytical capabilities within an organization (Fjermestad, 2003).

Business to business and the move to electronic transactions is allowing corporate to gain efficiencies, reduce costs, streamline business processes and provide their products and services to a larger customer base. Business to business e-commerce migrate the traditional business model towards the emerging digital marketplace (Duckett, 2001). According to Morris, Relationship marketing as a concept is widely embraced by industrial marketers, today it's time for relationships, particularly in business markets (Morris, 1998).

### 1.1 Research Problem

Confronted with the fierce competition in the internet age and today telecommunication marketplace goes to banks grapple with difficulties for survival when the customer is having access to a variety of products and services. Due to some problems occurred in this situation such as: customer inquiries are not provided and transactions become complicated, the customers' expectations and requirements are changed. They need the organizations which utilize different electronic technologies like call centers, ATMs, voice response systems and etc., to satisfy their need with the best quality fast and in the cost effective way (Puccinelli, 1999).

“Managers really need to look at areas where opportunities lie because industry consolidation, virtual delivery channels and the ability to move money around at the click of a mouse are making it easier for customers to pack their bags and say bye to the bank” (Puccinelli, 1999, pp 48). For providing high quality of customers service, Of course, technological capabilities are not adequate (Dyche, 2001). Accordingly, analyzing of the business situation and understanding the requirements for automation are two basic steps for companies which focus on customer service (Xu, 2002).

In this difficult and demanding situation, adoption of the internet and availability of electronic channels of communication, are becoming possible and significant way to gather customer related information with the aim of building customer database. Through the using of high advanced electronic communications tools and E-CRM applications, the organizations can handle and manage customer interactions over these new electronic channels of communications (Mittal & Kumra, 2001).

Unexpectedly there is a lack of scientific research toward E-CRM that focuses principally on the advantages of it in banking sector. Therefore, for well awareness of the target customers and building profitable and long term relationship with the manager of the financial institutions and them, we have formed the problem area as: “Gaining Competitive Advantages on E-CRM In Financial Institutions in Iran through B2B Model” to better understanding of the E-CRM and its advantages.

### 1.2 Overall Research Purpose

Regarding the reasoning above, the purpose of this study is to examine the competitive advantages on E-CRM in financial institutions. A primary purpose of management and marketing strategy is to develop a competitive advantage which provides customers with superior value compared to competitive offerings, thereupon to justify this purpose; two main objectives are followed in this study, which contain:

1. What are the core attributes constructing the E-CRM in Financial Institution that have positively effects on business customer satisfaction?
2. To understand the association between E-CRM benefits and competitive advantages in Financial Institution.

### 1.3 Research Hypotheses

In this study, following hypotheses are going to be examined. They are:

H<sub>1</sub>: E-CRM benefits have positive effect on customers' satisfaction.

H<sub>2</sub>: E-CRM competitive advantages have positive effect on customers' satisfaction in choosing the banks to do their financial and business works.

### 1.4 Key Concepts

**Customer Knowledge:** “Customer knowledge is the collection of information and insight that your business has built up over time and needs to use to leverage successful customer relationships and provide the products and service that those customers need.” (Note1)

**Marketing Strategy:** “It is a written plan (usually a part of the overall corporate plan) which combines product development, promotion, distribution, and pricing approach, identifies the firm's marketing goals, and explains how they will be achieved within a stated timeframe.” (Note 2)

**Service Quality:** The quality of a service is subjectively perceived by customers during the interactions with an organization (Grönroos, 2000). Parasuraman defined service quality as “the consumers' judgment about a firm's overall excellence or superiority”. (Parasuraman et al., 1988)

**Data Warehouses:** The system serves as a single repository of data. When data warehouse is up and running with clean data, it provides a single version of a customer or group of customers. The appropriate query and analysis tools and data mining software enable a business to make a better understanding of its customers' needs (Dar & Hu, 2005).

**Call Center Automation:** A call center has the ability to handle large volumes of customer and other telephone calls. It screens the calls, routes them to a qualified person or automated response, and logs all interactions. Improving efficiency, customer service, and oversight while lowering the overall costs associated with a customer contact center are determined as principle aims of a call center. (Note 3)

**Marketing Automation:** Marketing Automation enables businesses to more effectively manage multi-channel campaigns. Collecting and integrating customer data, captured from multiple sources lead to the organization plans, manage and execute focused marketing campaigns across multiple channels (email, direct mail, messaging, Web, etc.). (Note 3)

**Sales Force Automation:** Sales Force Automation is a best practices process that uses software to automate the business tasks of sales while providing sales agents with access to contact details, appointments, sales opportunities, customer purchase history, order management, territory overview in real time. (Note 3)

**Service and Support Automation:** The ultimate goal of Customer Service and Support Automation is to increase customer value while reducing the cost of doing business. As an integral part of CRM, Customer Service and Support allows organizations to manage business relationships effectively so as to improve and sustain customer loyalty and retention while reducing overall business expenditures. (Note 3)

**Cash Flow Management:** It is the process of monitoring, analyzing, and adjusting your business' cash flows. The most important aspect of cash flow management is avoiding extended cash shortages, caused by having a too great gap between cash inflows and outflows. "You won't be able to stay in business if you can't pay your bills for any extended length of time". (Note 4)

**Campaign Management:** The campaign management process continues to increase in difficulty, with marketers having to ask increasingly complex questions such as:

- How many leads are needed for sales to hit its target?
- Based on historical performance, how many leads are realistic based on my budget?
- What is the right mix of offers, messages, and tactics?

In addition to these questions, effective tactics within go-to-market channels are constantly changing, requiring marketers to understand the subtleties of email, and web-based campaigns. Campaign managers need to plan campaigns diligently but be ready to adapt quickly based on response rates or changing channel dynamics. (Note 5)

**Search Ability:** Search engine optimization involves a website's presentation, structure and coding. The site should be "search engine friendly" in terms of design, menus and content. (Note 6)

Search ability is one of the implementation E-CRM benefits in financial institutions which help everyone to find for example one of their old accounts everywhere.

**Customer Segmentation:** Segmentation helps banks target the right prospects and offer the right services to their customers. Segmentation and targeting based on customer profiles is becoming increasingly important. Customer segmentation is the subdivision of a market into discrete customer groups that share similar characteristics. It can be a powerful tool to identify unmet customer needs. Companies that identify underserved segments can then outperform the competition by developing uniquely appealing products and services. (Note 7)

**Customization:** It is a useful service that separate one similar product or service from another. By accurate customization, the better you can provide personalized individual service the more customers you will attract.

**Unraveling Complexity in Products and Services:** Walk into any bank, or insurance agency, you will see complexity at work: More products and services are available to consumers than ever before. But, as businesses increase their product and service portfolios in response to evolving customer demands or through mergers and acquisitions, they run the risk of adding too much complexity, which can tax existing resources and ultimately harm returns. In this special situation, experts George Group Consulting and Wharton offer insight on how complexity can create considerable problems for companies often while remaining difficult to spot and suggest strategies for eliminating complexity or making it works to a company's advantage (Note 8).

## 2. A Brief Literature

This section focuses on providing the reader with the necessary information about the relevant literature that is related to this research problem. A collection of E-CRM benefits are presented also at the end of this part.

### 2.1 According to "E-CRM in Indian Bank"

According to (Mittal & Kumra, 2001) Technology, people and customer are the three elements on which hinge the success of banking in the fast changing economic environment. The ultimate performance of a bank depends upon

the satisfaction of its customers. They thought in the emerging competitive and technological driven banking era, banks have to strive hard for retaining and enlarging their customer base. E-CRM, which is the latest buzzword in the corporate sector, is perceived as one of the effective tool in this direction by the banks. Its emphasis is on defining the customers as valuable in the long-term and on viewing customer relationships as learning relationships. The concept of CRM, when seen in the context of e-business, it translates into e-CRM, which essentially deals with managing customer interactions over the web.

They analyzed the concept of e-CRM in Indian banks from its various dimensions covering specifically its need, process, present status and future prospects. In the first step, they investigated current status of e-CRM in Indian Banks and then looked for E-CRM Techniques which used by Banks in India. On the other hand, as currently internet have enabled banking at the click of the mouse, they wanted to investigate that Click and brick is the right method for Indian bank or not. There are five functional categories for online banking sites on line brochure center, interactive bank, e-mails, calculations and cyber banks, which offer customers access to account information, inter-branch funds transfer and utility bill payments. They surveyed the following banks in India: MTNL, BSES, ICICI Bank, HDFC Bank, Global Trust Bank and foreign banks, Citibank, Federal Bank, HSBC Bank, Deutsche Bank and ABN AMRO Bank UTI Bank.

They found out that Banks must build their brand image in assuring customers about the safety of their money and security of transaction on the Net. They concluded that the most useful E-CRM technologies which are used in Indian banks are: Internet banking, Data Warehousing and Data Mining, ATMs, Telephone banking or Mobile banking, computerized decision support system, E-mail, Computer networking and Customer smart cards. Furthermore, e-CRM based alone on Internet will seems to be a wrong strategy for banks in India. Jose Fonellosa of Spain BBVA, which acquired first e-CRM, says internet is at best a zero sum game for banks. For high end products, customer cannot only rely on e-banking. For social interactions, people would like to visit their traditional brick and mortar branches. Click and brick seems to be the right model which ultimately will succeed in India. Banks in India are on the learning curve of e-CRM and are trying to meet the latent needs of the customers. The success of e-CRM will depend upon the development of robust & flexible infrastructure, e-commerce capabilities, and reduction of costs through higher productivity, lower complexity and automation of administrative functions.

### *2.2 According to "Benefits of E-CRM for Banks and Their Customers: Case Studies of Two Swedish Banks"*

The customer relationship management (CRM) is essential and vital function of customer oriented marketing. Its functions include gathering and accumulating customer-related information in order to provide effective services. E-CRM is a combination of IT sector but also the key strategy to electronic commerce (Anumala & Reddy, 2007). Bank customers form expectations derived from many sources Boulding proposed that customers form expectations of what will happen in their next encounters based on what they "deserve". (Boulding, 1993). Zeithaml and Bitner identify two levels of expectations, desired service and adequate service. Desired service represents the "wished for" level of performance and adequate service reflects showing more basic service expectations (Zeithaml, 2000). The model permits exploration of the perceived difference between expected service and the experienced service, particularly the zone of tolerance developed by Parasuraman, they're by customer specific benefits are: Customer interaction and satisfaction, Convenience, Speed of processing the transaction through e-Response, Trust, Service quality (Parasuraman, Berry & Zeithaml, 1991).

They considered the following research questions how can the benefits of E-CRM for banks are described and how can the benefits of E-CRM for bank customers be described. They used a qualitative research approach Empirical data was collected through in-depth interviews were conducted with two Swedish banks and a group of their customers. According to the first research question their findings indicate that E-CRM enables financial institutions and organizations to maintain relationship with customers and both of the banks less use email for their business purpose and their Personalized and One to One Service are improved by implementing E-CRM. Moreover, to improve and maintain transactions security of the customers, the mentioned banks has latest techniques and technologies. They also investigated about the benefits of E-CRM for the customers and they found out Customer interaction and satisfaction is found to be an important benefit and Trust and Convenience is a major benefit provided to the customers of the banks. There are other advantages which they discovered them like: Speed at which the transactions have been processed and their rate of accuracy, Reliable employees, availability of the latest information technology.

### *2.3 According to "Electronic Customer Relationship Management in Online Banking"*

Customers are getting more involved to use web because of the internet is becoming more available and customers are comfortable with web business, those customers who are not using Web will use tomorrow and those who have never purchased today will buy tomorrow on the web (Feinberg & Kadam, 2002). To satisfy customers, companies

should maintain consistency in all interaction channels like the Internet, E-mail, Telephone, and Web, Fax and company areas like sales, services, marketing and other fields. Traditional CRM has limitations to support outside channels while E-CRM supports marketing, sale and service (Shan & Lee, 2003). In electronic and online environment, they investigated how banks use E-CRM tool to maintain their customer relations by using the Internet and what benefits are derived by using this E-CRM tool and how successfully this tool is implemented in a bank.

For their research purpose, they conducted two case studies of Sweden and Denmark banks. They found out two cases banks implemented and used E-CRM mostly for Mass Customization, Customer Profiting, Self Service, One to One interaction and Automatic locks in flow of financial data like Security which ultimately results in reduces cost of operation and increased customer loyalty and more profits. According to their third research question, their findings indicates that for a successful E-CRM implementation, Staff training and customer feedback are two tangible factors. In this part, the literature which is relevant to above discussion is summarized. (Table 1)

### **3. Methodology**

In the previous part, a review of literature was presented. In this section, it will be covering the research process and methodology that will be used in this research work. Based on the research problem, the collections of methodology are presented to provide best answers for the research questions. At the end of each section, motivations and justifications of each adopted methodological option will be clarified.

#### *3.1 Research Purpose*

For any study research design looks like the framework which is used to collect and analyze data. Conducting a well research design brings about ensuring these facts that the study will be relevant to the problem and economical procedures will be used within this process. There are many research design frames, that are usually classified in three major parts: Exploratory, Descriptive or Casual (Churchill, 2010).

The purpose and research objectives of this research indicate that this study is descriptive and somewhat exploratory. As E-CRM is a new research area for the banks and financial institutions and also it is not possible to find similar research and studies which concentrate on our field of study, firstly it is described the area of the research and later explain the issues. Therefore, descriptive and exploratory research is suitable research designs for our study.

#### *3.2 Research Approach*

This section focuses on the approaches on which the research will be worked. The research approach can be either qualitative or quantitative. There are several characteristic about quantitative research, among them selectivity and distance to the object of research are the main ones. In comparison, qualitative approach is opposed and it is subjective in nature and is characterized by the closeness to the object of research (Zikmund, 2000).

While conducting our study we found that both qualitative and quantitative approaches fulfilling the requirements of this thesis. According to the base of this thesis that is based on scientific theories, we used deductive approach in our research. This research is started by using existing theories in the area of E-CRM due to the fact that it is appropriate to start up with the established theories to get a solidified substructure of research and to further construct the questions in the interview guide and questionnaires and then logically to draw conclusions based on the knowledge and empirical findings.

#### *3.3 Research Strategy*

There are different types of strategies that are available to choose for conducting the research. Denscombe determined five major research strategies: Surveys, Case Study, Experiment, Action Research, and Ethnographic (Denscombe, 2000).

The purpose of this study was to bring an insight and better understanding of the competitive advantages of E-CRM in Iranian financial institutions that impact of E-CRM on customers' attitude. Due to this reasons, we did not have and require control over behavioral events. Thereupon, both case study and survey are suitable choices for our study.

Survey and analysis are techniques in which the required information is gathered by distributing questionnaire among sample of people (Zikmund, 1994). On the other hand, surveys are advantageous when the researcher goal is to describe the incident or prevalence of a phenomena and also when it is to be predictive about certain outcomes (Yin, 1984). Moreover, in this study it was tried to answer 'what (which)' questions, so survey was very appropriate for this work.

#### *3.4 Sample Selection*

When conducting research, it is often impractical and impossible or too expensive to collect data from all the potential units of analysis included in the research problem. So, from smaller number of units, a sample, as often



chose to represent the relevant attributes of the whole set of units. Due to the fact that samples are not perfectly representative of the population from which they are drawn, the researcher cannot be certain that the conclusions will generalize to the entire population (Graziano & Raulin, 2004).

In this paper, convenience sampling was used to examine financial institutions which have some internet and electronic facilities and in the near future they will contemplate to implement E-CRM creating the long-term and profitable customer relationship with their customer through E-CRM technology such as internet, web and etc.

In regard to the business customers (Business customers are defined as customers who are staff of the organizations, banks or financial institutions and do their business works with bank by the envelopment of their organizations and have business relation with financial institutions or potential customers that need specific services from financial institutions), the questionnaire was distributed among four hundred ninety organizational customers and financial institutions' employee. As mentioned above, the convenience sampling is suitable choice in determining the sample size to be close to our desired results as much as possible in B2B context.

### *3.5 Data Collection Methods*

According to Yin (1984), preparation for data collection can be complex and difficult. If they are not handled well, the entire case study investigation and all of the earlier work can be imperiled.

According to Churchill (2010), Structured-Undisguised questionnaire is the most typical questionnaire which is used very frequently in marketing research. This type of questionnaire consists of standardized and same wording questions for all respondents to ensure that all the candidates are replying to the same questions.

Based on the above discussion, it is used both types of data collection, primary and secondary data. Since face-to-face contact was the source of primary data and secondary data was collected through the census reports, relevant journals-national as well as the international pertaining to the topic of research, books, and business magazines and websites of banks and financial institutions.

As the study has both descriptive and exploratory nature, it is utilized the great instruments which are established upon execution of exhaustive face-to-face interview and structured-undisguised questionnaire.

The customers' questionnaire consists of three main parts, the first part contains seventeen questions about E-CRM benefits, the second part includes eleven questions about E-CRM competitive advantages and the last part has six questions about E-CRM technologies. All of the items of part one and two were measured by using five-Point Likert-type response scales anchored at 5 Very Important and 1 Unimportant.

### *3.6 Data Analysis*

After data collection, for deciding what and which meaning can be attributed to the words, determining the implications and finding the relation of the attributes to the topic being investigated, the researcher should analyze the obtained data and findings (Denscombe, 2000).

The analysis has been conducted by using pervious theories and studies mentioned in section 2 that provided the base for data collection, analysis and comparison of this thesis. The findings were analyzed including the profile data of financial institutions and customers by considering the general strategy. Data reduction technique was used to identify more relevant data. Further, the acquired data of questionnaires have been analyzed by statistical package for social Sciences (SPSS 19) software. In Figure 1 all of the research methodology steps that were used in this paper.

### *3.7 Research Quality Criteria (Validity & Reliability & Normality Test)*

Construct validity is recognized by the level by which it determines or confirms association of linked hypotheses produced from a theory, which relies on the concept. Construct validity can be depended upon the theoretical reason involved in concepts. In order to reach construct validity the researcher needs to have resolute meaning of the measure by launching what essential researchers call convergent validity and discriminant validity (Zikmund, 2000).

As mentioned above this research is to some extent are exploratory research, so the questions of this study are explored one by one from different and pervious study. In the first step, all the attributes and questions in English language are collected. Then, the attributes have been translated from English to Persian. In the next step, the attributes are specialized and translated from the regular words into language of banking system and marketing according to field of Iranian Financial institutions and culture.

In this research the significant attributes of E-CRM that provided customers' satisfaction of Iranian Financial Institutions are explored. Principle component analysis was used, since it was an exploratory factor analysis. The factor analysis was not only an efficient test for the validity of this research and reduction of attributes, but also was

best analysis to determine the most important attributes and the independence among them. For both constructs of our study, factor analysis is conducted. The results represent as follow:

- E-CRM benefits affecting customers' satisfaction.

In this study, seventeen benefits of E-CRM are explored by considering other authors' opinion about E-CRM benefits including as obviously showed in below table to find out which of these benefits are affecting customers' satisfaction. (Table 2)

The initial factor analysis was run using principle component analysis method in SPSS window. The result were not satisfactory, as some of the attributes showed an extraction value below 0.5, which was taken as the minimum level for acceptance, thus after successive removal of attributes with low extraction value, it was found that a solution containing 7 variables gave a high KMO (MSA: Measure of Sampling) value of 0.920 (Table 3).

As shown in table above, KMO statistic variable is 0.920 (it is near to 1) that let to run factor analysis for this research. For these two constructs, it is necessary to measure internal reliability of them.

Ten benefits were rejected from the original selection of seventeen attributes. In addition, to test the internal reliability, the Cronbach's alphas of the seven attributes were calculated. The obtained alpha was larger than 0.4 (a level considered acceptable in most research) (Table 4).

For satisfying the customers' requirements, retaining the valuable customers and attract the new ones, financial institutions should consider these seven elements which were mentioned above.

- E-CRM competitive advantages affecting on Customer satisfaction in choosing the banks to do their financial and business works.

The competitive advantages of E-CRM which were tested in this study are shown in Table 5, like the pervious section, the initial factor analysis was run using principle component analysis method in SPSS window. The result indicated that some of the attributes have extraction value lower than 0.5. By continuous attributes removing that have low extraction value, 5 competitive advantages were obtained with the KMO of 0.859 (Table 5 and Table 6).

According to six removal steps to obtain the MSA with the value of more than 0.5, finally five competitive advantages were accepted that the Cronbach's alphas of them were 0.762 (Table 7).

As mentioned in the above table, the Cronbach's alphas of both parts are lower than 0.4 (a level considered acceptable in most research), so the constructs of this paper are reliable.

After exploring the factors and determining their related questions, I compute the score of each variable by using Compute technique towards the means of attributes. Later, to test the normality it seems that Sample Kolmogorov-Smirno (K-S) Test is the best method.

The findings indicate the sig. of all the factors are lower than 0.05, therefore, none of them have the normal distribution. (Table 8)

#### **4. The Finding Sections**

##### *4.1 Business Customers' Information*

According to the four hundred ninety business customers who participated in the survey, the majority of them were male (65.3 %). The majority of assigned people as the financial institutions' business customers were at the age of 30 to 40 and partly between 20 to 30 (160 persons), that implies most of the business customers are young and the tendency of these young people to implementation of E-CRM in Iran financial institutions is more than other business customers who are younger than 20 or older than 40.

The most percentage of business customers (66.7 %) are belonged to those customers who have business relationship with the financial institutions more than 5 years. Thus, the more the financial institutions provide advanced service and manage their relationship with their customers in best way, the more customers' satisfaction and loyalty are obtained.

##### *4.2 Benefits of E-CRM*

As motioned in the section 3, we explore seven benefits of E-CRM by considering other authors' opinion about E-CRM benefits to find out which of these benefits are the most important benefits in implementation of E-CRM in Financial Institutions in Iran; these benefits include: Up to date of banks, Services quality, International customers' satisfaction, Transaction Security, Proliferation of channels (e.g. Internet), Improved cash flow management and Increase of Safety.

#### 4.2.1 The Most Significant Benefits of E-CRM

In this part for better understanding that all the benefits have the same importance in customers' viewpoints, we used Friedman Test. The Friedman test is the non-parametric alternative that can be used to test differences between groups when the dependent measured variable is ordinal. It compared the mean rank the related factors and indicated how the factors differed.

As the sig. is 0.000 and is less than 0.05, so  $H_0$  is rejected. It implies these benefits do not have the same importance in customers' viewpoints. As it shows in Table 9, Friedman test is ranking the attributes based on their importance. The least value in this test shows the most important attribute. The results of comparing the mean rank of benefits represent the five E-CRM benefits which have the highest importance among four hundred ninety business customers: Improved cash flow management, International customers' satisfaction, Proliferation of channel, Increasing safety and Service quality. (Tables 10 and Table 11)

#### 4.2.2 The Impact of E-CRM Benefits on Customer Satisfaction

For this research, it has been considered several hypotheses that in this part the first hypothesis for determining and measuring important benefits of E-CRM implementation on customer satisfaction in Iran financial institutions is tested. To check the impact of benefits of E-CRM on customer satisfaction, the most appropriate method is Stepwise Linear Regression analysis, but before applying this test, we must test the normality as one of the necessary information to perform regression.

Stepwise multiple regressions are useful tool to describe the relationship between one 'predicted' (dependent) variable and a selection of 'predictor' variables (independent). This method brings about simplest equation with the best predictive power. (Note 9)

The results of normality test were accepted, as mean of attributes are close to zero and the standard deviation showed a value close to one. After analysis the findings in following table indicate that mean is 0.009 which is close to zero and the standard deviation equals to 1.003 that closed to one. Thereupon, the distribution of errors is approximately normal. (Table 12)

Normality in regression part allowed us to do regression analysis for testing the impact of benefits of E-CRM on customer satisfaction. In Step wise method, the independent variables are not in the equation which have the smallest probability of F is entered, if that probability is sufficiently small. Variables already in the regression are removed if their probability of F becomes sufficiently large. This method stops when no more variables are eligible for removal (Hartman, 2000). Therefore, in this thesis, the results indicate that from the seven explored E-CRM attributes, four of them have sufficient probability to enter, so they have more influence on satisfying of customers: Increasing safety, Proliferation of channels, Up to date of banks and Transaction security.

Regarding to Beta value and P-value (sig.), we can say that increasing safety has the most impact on customers' satisfaction. It means by unitage variation in safety, 0.479 variations are occurred in customers' satisfaction (Beta = 0.479 and P-value < 0.05). Consequently, the first research hypothesis is accepted. (Table 13)

#### 4.2.3 The Association between E-CRM Benefits in Iran Financial Institutions

As the seven mentioned explored benefits of E-CRM did not have normal distribution, for testing the consistency of all the factors, it has used Spearman Correlation analysis.

Under this, correlation of every item with the total of major and the computed value is compare with the standard value .0159. If the captured value is found less than the standard value, then whole statement will drop and will be term as an inconsistency. But if the value is more than the standard value, it is termed as a consistency.

As it is shown in Table 14, due to this fact that the sig. of all attributes is less than 0.05 and the standard value of them are upper than 0.159, there is positive correlation between the factors.

Moreover, for detecting the strong correlations between four independent variables, Multi-collinearity was used in logistic regression models. This may be due to good effects in that most customers who are feeling happy with the resolution of the problem will reflect back and state that the operator was friendly (Tang & Weiner, 2005). Tolerance, Variance Inflation Factor, Eigen value and Condition Index are four essential indexes that determined the multi-collinearity of variables. Since for each independent variable, Tolerance = 1-R square, where R square is the coefficient of determination for the regression of that variable on all remaining independent variables, low values indicate high multivariate correlation. The Variance Inflation Factor (VIF) is 1/Tolerance, it is always  $\geq 1$  and it is the number of times the variance of the corresponding parameter estimate is increased due to multi-collinearity as compared to as it would be if there was no multi-collinearity. Values of VIF exceeding 1 are often regarded as indicating multi-collinearity. (Allison, 1999)

In addition, if the value of Eigen Value is near to zero and the value of Condition Index is more than 15, the multi-collinearity between variable will be enhanced. The findings detected that tolerance of variable are not very low and the Eigen value of three of them which indicated in following table are not close very much to zero. In this case, condition index of three elements are bigger than 15 that represent. According to the mentioned results, there is multi-collinearity between the independent variables, but due to this fact that the condition indexes of them are less than 30, there is no major problem in using regression. (Ghayomi, 2010) (Table 15)

Regardless of the mentioned reason for the correlation between the attributes, we need to find a modeling tool that is capable of determining the relative contribution of each of these attributes to overall satisfaction. The above discussion represent that customer satisfaction is function of four significant E-CRM benefits that three of them have small multi-collinearity correlation. The following model is shown the impact of E-CRM benefits on customers' satisfaction in Iranian Financial Institutions. (Figure 2)

#### 4.3 Competitive Advantages of E-CRM

Implementation of Electronic Customer Relationship in financial institutes and banking systems brought several competitive advantages for both customers and banks. By understanding customers' requirements and finding which advantages are favorable and useful for customers, banks tend to compete for implementation of advanced electronic technology to attract and satisfy their needs.

The competitive advantages of E-CRM tested in this study as explored in pervious chapter are: Improvement integrated customer profitability, Decreasing response time, Improving response to customer activity, Utilization of Marketing and Strategic factors, Creating business structure.

##### 4.3.1 The Most Significant Competitive Advantages of E-CRM

According to the discussion in the former section, the Friedman test is appropriate to test that there is no difference between the importance of the mentioned competitive advantages of E-CRM with each other and they have different importance in customers' viewpoint.

As the sig. is 0.000 and is less than 0.05, so  $H_0$  is rejected. The findings are indicated that E-CRM competitive advantages don't have same importance in viewpoint of customers. (Table 16)

Based on the ranking results of Friedman test, the most significant attribute in implementation of E-CRM that brought about competitive advantages for Iranian Financial Institutions and business customers is creating business structure. It is worth to note that decreasing in response time has the lowest importance in opinions of business customer. (Table 17)

##### 4.3.2 The Impact of E-CRM Competitive Advantages on Customers' Satisfaction in Choosing the Banks to Do Their Financial and Business Works

This section determined the vital E-CRM competitive advantages on customer satisfaction in Iran financial institutions in choosing the banks to do their financial and business works. Like the pervious section, first of all the normality test of regression is tested.

The results present that the normality in regression part were accepted, because the mean of competitive advantages was equal to zero and the standard deviation was very close to one. (Table 9)

The findings of Table 18 is a suitable reason for acceptance of the second hypothesis, it means that Improve integrated customer profitability and decrease of response time are two competitive advantages which have the highest impact on customers' satisfaction in choosing the banks to do their financial and business works while utilization of marketing and strategic factors is the factor that has a very poor influence on customers' satisfaction in choosing the banks to do their financial and business works.

##### 4.3.3 The Association between E-CRM Competitive Advantages in Financial Institution in Iran

First of all, in this section the consistency of all the attributes was captured by applying items to Spearman Correlation analysis.

The findings indicate that all the competitive advantages have high correlation with each other. The correlations between these competitive advantages are shown in the Table 19. In this part, in order to find out which variables are nearly collinear with which other ones, we used the multi-collinearity test also. The outcomes indicate that tolerances of variable are not very low to make some problems in performing regression. On the other hand, Eigen values of three of them are close to zero and the Condition index of these attributes are more than 15.

Regard to the above discussion, although there are multi-collinearity between Creating business structure, Improve response to customer activity and Utilization of Marketing and Strategic factors, as the condition indexes of them are less than 30, there is no major problem in using regression. (Ghayomi, 2010)

Finally, the relevant model of competitive advantages' impact on customers' satisfaction in choosing the banks to do their financial and business works is presented.

## 5. Conclusion

In this new era technology and electronic society customer expect to use banking services in the shortest time in cost effective way, therefore customers are the elements which the banks and financial institutions are focusing on them to manage customer relationship and these improvements lead customers to determine that Improved cash flow management as the most important E-CRM benefits with highest priority. Regarding to this fact that in today banking system, transaction security, bring the banks up to date and safety are very poor, customers need improvement in these fields. Financial institutions should look for ways that people trust and success in customer satisfaction.

It is needless to say that, although all of the E-CRM benefits and also all of the E-CRM competitive advantages have positive association with each other, increasing safety has the most impact on customers' satisfaction. This element is the most efficient attribute that leads to attract customers' trust and satisfaction. Unsafe environment in banking sector prevents customers to do their transactions comfortably.

## 6. Limitation

Like most other studies, in this study there is a risk that some of the questions given in the questionnaire may have been misunderstood and misinterpreted. The questionnaire in this study included terms such as customer Interactivity and Knowledge, personalized services or one to one services, international customers' satisfaction, improved cash flow management, search ability which have professional meanings and are extracted from professional context but they may have other explanation in respondent's mind. Therefore, more description about few questions could be helpful that had paid attention to this point and contacted with the respondents one by one. On the other hand, distributing these questioners among different public/private organizations, financial institutions and banks in business to business context because of their heavy time schedules, difficulties and rules, is very hard and took a long time.

## 7. Further Studies

During this research, It has cleared that there can be much more researches in this field because financial institutions are more competitive in Iran and there are lots of opportunities to better understanding of customers and their requirements about modern and electronic technologies. This study has provided some attractive choices for researchers who would like to investigate for new subjects or involve in this expanded field: E-CRM benefits and competitive advantages in financial institutions and banking sector.

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### Notes

- Note 1. [http://www.dobney.com//Knowledge/ck\\_definition.htm](http://www.dobney.com//Knowledge/ck_definition.htm), accessed on 4 January 2011.
- Note 2. <http://www.businessdictionary.com/definition>, accessed on 4 January 2011.
- Note 3. <http://www.businessdictionary.com/definition/delivery-timeliness.html>, accessed on 4 January 2011.
- Note 4. <http://sbinfocanada.about.com/cs/managmeent/g/cashflowmgt.htm>, accessed on 4 January 2011.
- Note 5. <http://www.marketbright.com/products/campaignmanagement.html>, accessed on 4 January 2011.
- Note 6. <http://www.searchability.com/>, accessed on 4 January 2011.
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- Note 8. [http://knowledge.wharton.upenn.edu/special\\_section](http://knowledge.wharton.upenn.edu/special_section), accessed on 4 January 2011.
- Note 9. <http://www.statsguides.bham.ac.uk/HTG/HTGtextonly/tfr/slr.htm>, accessed on 11 September 2011
- Note 10. <http://www.entrepreneur.com/encyclopedia/term/82212.html>
- Note 11. <http://www.businessdictionary.com/definition/competitive-advantage.html>

Table 1. Relevant Literatures

Scholars	E-CRM	E-CRM Benefits	Year
Brandon & Randall, 2007 (Anumala & Reddy, 2007)	Service quality satisfied customers.	<ul style="list-style-type: none"> <li>• Increase Profitability</li> <li>• Retain customers</li> <li>• Increase Customer Loyalty</li> </ul>	2007
(Kennedy, 2006)	E-CRM is considered as strategic technology centric relationship marketing business framework.	<ul style="list-style-type: none"> <li>• Enhanced Customer Interaction and Relationship</li> <li>• Managing customer Touch Points</li> <li>• Personalization and E-Loyalty</li> <li>• Source of Competitive Advantage</li> </ul>	2006
(Yu-Lin, 2005)	Personalization is a strategy that can be easily differentiated and which cannot be simulated by competitors in the market.	<ul style="list-style-type: none"> <li>• Enhance sales</li> <li>• Improve customer relationship</li> <li>• Improving effectiveness and efficiency in serving customers</li> </ul>	2005
Jennifer, R. 2005 (Anumala & Reddy, 2007)	Convenience plays a vital role when selecting a brand and if the customers are not happy with the convenience of a particular brand.	<ul style="list-style-type: none"> <li>• Switching the brands by customers is brought about by convenience</li> </ul>	2005
(Lavender, 2004)	Identifying the needs of the customers and providing them a best solution before he makes a request shows excellence in service of the customers.	<ul style="list-style-type: none"> <li>• Customer of the banks becoming choosier</li> </ul>	2004
(Jelassi & Enders, 2004)	E-CRM is the use of internet and IT applications used to manage relationship with customers. E-CRM elements: 1. Customer selection 2. Customer Acquisition 3. Customer Retention 4. Customer Extension	<ul style="list-style-type: none"> <li>• Increase customer satisfaction</li> <li>• Acquire new customers</li> <li>• Turn one-time customers to regular customers as long as possible</li> <li>• Maximize lifetime value of a customer</li> </ul>	2004

(Jelassi & Enders, 2004)		<ul style="list-style-type: none"> <li>• Create long-term relationship with customers with minimum cost</li> <li>• Reduce the customer defection rate</li> <li>• Increase the profitability from low-profit customers</li> <li>• Focuses on high-value customers</li> </ul>	2004
Michael, 2003 (Anumala & Reddy, 2007)	A convenient location is often considered to be an additional service aspect of the core service.	<ul style="list-style-type: none"> <li>• Reduce travel costs</li> <li>• Saving the time</li> <li>• Increase Convenience</li> </ul>	2003
(Shan & Lee, 2003)	E-CRM expands the traditional CRM techniques by integrating technologies of new electronic channels, such as Web wireless and Voice technologies and combines them with e-business applications into the overall enterprise CRM strategy.		2003
(Fjermestad, 2003)		<ul style="list-style-type: none"> <li>• Serve the customers in better way</li> <li>• Retain valuable customers</li> <li>• Enhance analytical capabilities in an organization</li> </ul>	2003
(Rigby, 2002)	Vital and important key point is that E-CRM takes into different forms, relying on the objectives of the organizations. It is about arranging in a line business process with strategies of customers provided back up of software's.		2002
Feinberb 2002 (Anumala & Reddy, 2007)		<ul style="list-style-type: none"> <li>• Availability of amount of information to customer browsing</li> </ul>	2002
(Singh, 2002)	Faster processing the transaction by E-CRM, the fact that e responses to customer queries, order acknowledgement, delivery and payment information via e- mails or automated responses are greatly appreciated by customers	<ul style="list-style-type: none"> <li>• Strengthen the relationship between the supplier and customers</li> <li>• Increase the speed of processing the transaction through e-Response</li> </ul>	2002
(Scullin, 2002)	Believes that increased customer loyalty, information accumulated by e- CRM system helps organizations to identify the actual input cost of winning and retaining long lasting relationships with customers.		2002
(Dyche, 2001)	E-CRM is combination of software, hardware, application and management commitment.	<ul style="list-style-type: none"> <li>• Improve customer service</li> <li>• Develop a relationship</li> <li>• Retain valuable customers</li> <li>• Enhance delineation in customer's value</li> </ul>	2001
(Rosen, 2001)	E-CRM is about people, process and technology and these are key paramount to success.		2001
Goldfinger, 2001 (Anumala & Reddy, 2007)	Believes safety was seen as a major barrier to Internet banking.	<ul style="list-style-type: none"> <li>• Managing security with least repercussions by the banks</li> </ul>	2001
(Research, 2001)	E-CRM is the consolidation of traditional CRM with e-business market place application.		2001
(Awad, 2000)	The most popular tool for customer service is e-mail.	<ul style="list-style-type: none"> <li>• Inexpensive</li> <li>• Fast</li> <li>• Providing quick and accurate information to all customer</li> </ul>	2000
(Zeithaml, 2000)	Identify two levels of expectations, desired service and adequate service.		2000
(Newell, 2000)	E-CRM systems use rich databanks of customer information to manage the relationship with customers.		2000
(Sims, 2000)	E-CRM systems support all stages of the interaction with the customer for e.g. order, delivery and after-sales service. E-CRM systems cover online banking, e-mail knowledge bases that can be used to generate customer profiles and customer will get personalize services.	<ul style="list-style-type: none"> <li>• Help customer vs. bank interaction</li> </ul>	2000
(Haverty, 1998)	E-CRM providing cost savings, opportunism, and threats drive action and innovation even in conservative banks.	<ul style="list-style-type: none"> <li>• Establishing new service delivery channel</li> <li>• New markets for existing services (Loan, Letter of credit, etc.)</li> </ul>	1998



James, 1998 (Anumala & Reddy, 2007)	The increasing knowledge and superiority, of the customers banks are now trying to woo the customer by determining the aspects, which are really vital for them.	<ul style="list-style-type: none"> <li>• Increase reputations</li> <li>• Improve Service and Operating hours</li> <li>• Increase Interest on saving</li> <li>• Convenience</li> <li>• Improve Friendliness</li> <li>• Improve Responsiveness</li> <li>• Increase efficiency of employees</li> </ul>	1998
(Wong & Maher, 1998)	It is an attitude of trust among the partners of substitute. Trust is an essential relationship structure, which is found in most of all relationship models.		1998
Mosad, 1995 (Anumala & Reddy, 2007)	<ul style="list-style-type: none"> <li>• Interaction has got a very prime place in the banking service.</li> <li>• Service quality is an important criterion that is being used by the customers in selecting a bank.</li> </ul>	<ul style="list-style-type: none"> <li>• Marinating long-term relationship with customers</li> <li>• Confidence</li> <li>• Trust</li> <li>• Ethic and friendship</li> </ul>	1995
Berry & Parsuraman (Mittal & Kumra, 2001)	The client on its part may enhance the quality of services offered by engaging in long-term business relationship with a bank.	<ul style="list-style-type: none"> <li>• Enhanced service quality</li> <li>• Create long term client relationship</li> </ul>	1991
Berry (Mittal & Kumra, 2001)	It is generally less costly for any service firm (bank) to maintain and develop an existing client relationship.	<ul style="list-style-type: none"> <li>• Less costly service</li> <li>• Maintain to maintain and develop an existing client relationship</li> </ul>	1983

Table 2. E-CRM Benefits

	Initial	Extraction		Initial	Extraction
Trust in E-CRM	1.000	.516	International customers' satisfaction	1.000	.513
Up to date of banks	1.000	.616	Transaction Security	1.000	.556
Accessibility to site	1.000	.415	Proliferation of channels (e.g. Internet)	1.000	.553
Customer Interactivity and Knowledge	1.000	.539	Increased control over bank	1.000	.446
Decrease of technology preparation	1.000	.440	Improved cash flow management	1.000	.591
On-time order fulfillment	1.000	.413	Increase of transaction process speed	1.000	.470
Personalized services or one to one services	1.000	.487	Search ability	1.000	.670
Services quality	1.000	.487	Data Centralization	1.000	.614
Increase of Safety	1.000	.553			

Note: Extraction Method: Principal Component Analysis.

Table 3. KMO and Bartlett's Test of E-CRM Benefits

<b>Kaiser-Meyer-Olkin Measure of Sampling Adequacy.</b>		<b>.920</b>
Bartlett's Test of Sphericity	Approx. Chi-Square	2739.566
	df	136
	Sig.	.000

Table 4. The Conclusive E-CRM Benefits Affecting Customers' Satisfaction

Number of question	E-CRM benefits	Cronbach's Alpha
17	Proliferation of channels (e.g. Internet)	.754
8	Banks being up to date	
14	Services quality	
15	International customers' satisfaction	
19	Improved cash flow management	
23	Increasment of Safety implementation	
16	Transaction Security	

Table 5. E-CRM Competitive Advantages

	Initial	Extraction		Initial	Extraction
Preparation of up to date technology	1.000	.469	Decrease of response time	1.000	.659
Create Organizational culture	1.000	.479	Improved response to customer activity	1.000	.621
Increase of price competition	1.000	.330	Utilization of Marketing and Strategic factors	1.000	.624
Decrease of product and service complexity	1.000	.298	Creating business structure	1.000	.787
Innovation in banking services	1.000	.448	Drive down operating costs	1.000	.402

Note: Extraction Method: Principal Component Analysis.

Table 6. KMO and Bartlett's Test of Competitive Advantages

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.859
Bartlett's Test of Sphericity	Approx. Chi-Square	1717.735
	df	55
	Sig.	.000

Table 7. The Conclusive E-CRM Benefits Affecting on Customer Satisfaction in Choosing the Banks to Do Their Financial and Business Works

Number of question	E-CRM competitive advantages	Cronbach's Alpha
30	Improve integrated customer profitability	.762
33	Utilization of Marketing and Strategic factors	
34	Creating business structure	
31	Decrease of response time	
32	Improve response to customer activity	

Table 8. Normality Test

		Benefits of E-CRM	Competitive advantages of E-CRM
N		490	490
Normal Parameters <sup>a, b</sup>	Mean	4.2839	4.2261
	Std. Deviation	.60245	.65095
	Absolute	.118	.133
Most Extreme Differences	Positive	.117	.117
	Negative	-.118	-.133
Kolmogorov-Smirnov Z		2.601	2.954
Asymp. Sig. (2-tailed)		.000	.000

Note: <sup>a</sup> Test distribution is Normal. <sup>b</sup> calculated from data.

Table 9. Normality Test for E-CRM Competitive Advantages

	Minimum	Maximum	Mean	Std. Deviation	N
<b>Predicted Value</b>	2.2449	4.9037	4.4112	.44031	484
<b>Residual</b>	-3.08370	1.73413	.00000	.71589	484
<b>Std. Predicted Value</b>	-4.920	1.119	.000	1.000	484
<b>Std. Residual</b>	-4.285	2.410	.000	.995	484

Note: Dependent Variable: satisfying customer by E-CRM.

Table 10. Friedman Test Statistics

<b>N of Items</b>	480
<b>Cronbach's Alpha</b>	370.355
<b>Df</b>	6
<b>Asymp. Sig.</b>	<b>.000</b>

Table 11. The Most Significant E-CRM Benefits

<b>E-CRM benefits</b>	<b>Mean Rank</b>
Up to date of banks	4.53
Services quality	4.37
International customers' satisfaction	3.27
Transaction Security	4.50
Proliferation of channels (e.g. Internet)	3.99
Increase of Safety implementation	4.30
Improved cash flow management	3.04

Table 12. Normality Test for E-CRM Benefits

	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>N</b>
<b>Predicted Value</b>	2.1374	4.8314	4.4621	.46056	483
<b>Residual</b>	-3.60545	2.48000	.00582	.67867	483
<b>Std. Predicted Value</b>	-5.096	.803	-.005	1.009	483
<b>Std. Residual</b>	-5.328	3.665	<b>.009</b>	<b>1.003</b>	483

Note: Dependent Variable: satisfying customer by ECRM.

Table 13. The E-CRM Benefits That Has Positively Effects on Customer Satisfaction

<b>Model</b>		<b>Un standardized Coefficients</b>		<b>Standardized Coefficients</b>	<b>t</b>	<b>Sig.</b>
		<b>B</b>	<b>Std. Error</b>	<b>Beta</b>		
<b>1</b>	(Constant)	2.557	.163		15.669	.000
	increasing safety	.430	.036	.479	11.932	.000
<b>2</b>	(Constant)	2.033	.178		11.411	.000
	increasing safety	.310	.040	.345	7.807	.000
	Proliferation of channels (e.g. Internet)	.244	.039	.275	6.225	.000
<b>3</b>	(Constant)	1.652	.204		8.092	.000
	increasing safety	.258	.042	.287	6.197	.000
	Proliferation of channels (e.g. Internet)	.187	.042	.211	4.488	.000
	Up to date of banks	.188	.051	.176	3.684	.000
<b>4</b>	(Constant)	1.464	.219		6.679	.000
	increasing safety	.226	.044	.252	5.166	.000
	Proliferation of channels (e.g. Internet)	.172	.042	.194	4.097	.000
	Up to date of banks	.168	.052	.157	3.255	.001
	Transaction Security	.107	.047	.105	2.289	.023

Note: Dependent Variable: satisfying customer by ECRM.

Table 14. The Association between E-CRM Benefits

			Up to date of banks	Services quality	International customers' satisfaction	Transaction Security	Proliferation of channels (e.g. Internet)	increasing safety	Improved cash flow management
<i>Spearman's rho</i>	Up to date of banks	Correlation Coefficient	1.000	.369**	.198**	.363**	.446**	.421**	.123**
		Sig. (2-tailed)	.	.000	.000	.000	.000	.000	.006
		N	490	490	488	489	488	486	489
	Services quality	Correlation Coefficient	.369**	1.000	.269**	.398**	.420**	.412**	.132**
		Sig. (2-tailed)	.000	.	.000	.000	.000	.000	.004
		N	490	490	488	489	488	486	489
	International customers' satisfaction	Correlation Coefficient	.198**	.269**	1.000	.232**	.276**	.209**	.381**
		Sig. (2-tailed)	.000	.000	.	.000	.000	.000	.000
		N	488	488	488	487	486	484	487
	Transaction Security	Correlation Coefficient	.363**	.398**	.232**	1.000	.366**	.477**	.158**
		Sig. (2-tailed)	.000	.000	.000	.	.000	.000	.000
		N	489	489	487	489	487	485	488
	Proliferation of channels (e.g. Internet)	Correlation Coefficient	.446**	.420**	.276**	.366**	1.000	.407**	.154**
		Sig. (2-tailed)	.000	.000	.000	.000	.	.000	.001
		N	488	488	486	487	488	484	487
	increasing safety	Correlation Coefficient	.421**	.412**	.209**	.477**	.407**	1.000	.139**
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.	.002
		N	486	486	484	485	484	486	485
	Improved cash flow management	Correlation Coefficient	.123**	.132**	.381**	.158**	.154**	.139**	1.000
		Sig. (2-tailed)	.006	.004	.000	.000	.001	.002	.
		N	489	489	487	488	487	485	489

Note: \*\* Correlation is significant at the 0.01 level (2-tailed).

Table 15. Collinearity Diagnostics

Model	Dimension	Eigen value	Condition Index	Variance Proportions					Collinearity Statistics	
				(Constant)	Increasing safety	Proliferation of channels (e.g. Internet)	Up to date of banks	Transaction Security	Tolerance	VIF
1	1	1.980	1.000	.01	.01					
	2	.020	9.895	.99	.99				1.000	1.000
2	1	2.958	1.000	.00	.00	.00				
	2	.022	11.593	.34	.14	.98			.764	1.309
	3	.020	12.103	.66	.86	.02			.764	1.309
3	1	3.945	1.000	.00	.00	.00	.00			
	2	.022	13.320	.30	.02	.86	.02		.676	1.478
	3	.021	13.826	.24	.94	.05	.03		.659	1.518
	4	.013	17.745	.46	.04	.09	.95		.641	1.561
4	1	4.928	1.000	.00	.00	.00	.00	.00		
	2	.024	14.399	.13	.00	.81	.00	.13	.607	1.647
	3	.021	15.451	.23	.82	.04	.03	.00	.643	1.556
	4	.016	17.695	.08	.09	.09	.26	.76	.622	1.608
	5	.012	20.103	.56	.09	.07	.71	.11	.683	1.465

Table 16. Friedman Test Statistics

<b>N of Items</b>	487
<b>Cronbach's Alpha</b>	337.571
<b>Df</b>	4
<b>Asymp. Sig.</b>	<b>.000</b>

Table 17. The Most Vital E-CRM Competitive Advantages

<b>E-CRM competitive advantages</b>	<b>Mean Rank</b>
Improve integrated customer profitability	3.07
Decrease of response time	3.57
Improve response to customer activity	3.37
Utilization of Marketing and Strategic factors	2.67
Creating business structure	2.32

Table 18. The Association between E-CRM Benefits

			<b>Improve integrated customer profitability</b>	<b>Decrease of response time</b>	<b>Improve response to customer activity</b>	<b>Utilization of Marketing and Strategic factors</b>	<b>Creating business structure</b>
<i>Spearman's rho</i>	<b>Improve integrated customer profitability</b>	Correlation Coefficient	1.000	.395**	.403**	.372**	.345**
		Sig. (2-tailed)	.	.000	.000	.000	.000
		N	490	490	490	489	488
	<b>Decrease of response time</b>	Correlation Coefficient	.395**	1.000	.580**	.331**	.239**
		Sig. (2-tailed)	.000	.	.000	.000	.000
		N	490	490	490	489	488
	<b>Improve response to customer activity</b>	Correlation Coefficient	.403**	.580**	1.000	.352**	.309**
		Sig. (2-tailed)	.000	.000	.	.000	.000
		N	490	490	490	489	488
	<b>Utilization of Marketing and Strategic factors</b>	Correlation Coefficient	.372**	.331**	.352**	1.000	.595**
		Sig. (2-tailed)	.000	.000	.000	.	.000
		N	489	489	489	489	487
	<b>Creating business structure</b>	Correlation Coefficient	.345**	.239**	.309**	.595**	1.000
		Sig. (2-tailed)	.000	.000	.000	.000	.
		N	488	488	488	487	488

Note: \*\*. Correlation is significant at the 0.01 level (2-tailed).

Table 19. Collinearity Diagnostics

Model	Dimension	Eigen value	Condition Index	Variance Proportions						Collinearity Statistics	
				(Constant)	Improve integrated customer profitability	Decrease of response time	Creating business structure	Improve response to customer activity	Utilization of Marketing and Strategic factors	Tolerance	VIF
1	1	1.977	1.000	.01	.01						
	2	.023	9.301	.99	.99					1.000	1.000
2	1	2.963	1.000	.00	.00	.00				.804	1.244
	2	.025	10.949	.22	.97	.08				.804	1.244
	3	.013	15.356	.78	.03	.91					
3	1	3.916	1.000	.00	.00	.00	.00			.751	1.331
	2	.047	9.111	.03	.06	.05	.98			.796	1.256
	3	.025	12.587	.21	.90	.08	.00			.887	1.127
	4	.012	17.760	.77	.04	.87	.02				
4	1	4.898	1.000	.00	.00	.00	.00	.00		.726	1.378
	2	.050	9.936	.01	.02	.02	.97	.02		.576	1.736
	3	.026	13.737	.08	.97	.03	.00	.05		.866	1.154
	4	.016	17.508	.75	.00	.02	.01	.44		.568	1.760
	5	.010	22.063	.16	.01	.93	.02	.49			
5	1	5.865	1.000	.00	.00	.00	.00	.00	.00	.719	1.392
	2	.060	9.926	.02	.04	.03	.30	.03	.13	.571	1.750
	3	.026	14.982	.06	.93	.03	.02	.05	.04	.580	1.725
	4	.023	16.007	.03	.03	.00	.64	.00	.83	.564	1.774
	5	.016	19.171	.73	.00	.02	.02	.44	.00	.553	1.807
	6	.010	24.153	.16	.01	.92	.02	.48	.00		

Note: Dependent Variable: Importance of competitive advantage in E-CRM implementation.

Table 20. The E-CRM Competitive Advantages That Has Positively Effects on Customer Satisfaction

Model		Un standardized		Standardized	t	Sig.
		Coefficients		Coefficients		
		B	Std. Error	Beta		
1	(Constant)	2.886	.165		17.463	.000
	Improve integrated customer profitability	.356	.038	.395	9.448	.000
2	(Constant)	1.929	.224		8.606	.000
	Improve integrated customer profitability	.247	.041	.274	6.091	.000
	Decrease of response time	.311	.051	.273	6.073	.000
3	(Constant)	1.615	.227		7.114	.000
	Improve integrated customer profitability	.193	.041	.215	4.730	.000
	Decrease of response time	.286	.050	.252	5.707	.000
	Creating business structure	.173	.034	.214	5.119	.000
4	(Constant)	1.494	.231		6.474	.000
	Improve integrated customer profitability	.174	.041	.194	4.214	.000
	Decrease of response time	.209	.059	.184	3.561	.000
	Creating business structure	.160	.034	.198	4.701	.000
	Improve response to customer activity	.136	.054	.130	2.510	.012
5	(Constant)	1.448	.231		6.278	.000
	Improve integrated customer profitability	.165	.041	.183	3.983	.000
	Decrease of response time	.196	.059	.173	3.351	.001
	Creating business structure	.106	.042	.130	2.550	.011
	Improve response to customer activity	.125	.054	.120	2.310	.021
	Utilization of Marketing and Strategic factors	.099	.043	.120	2.283	.023

Note: Dependent Variable: satisfying customer by ECRM.

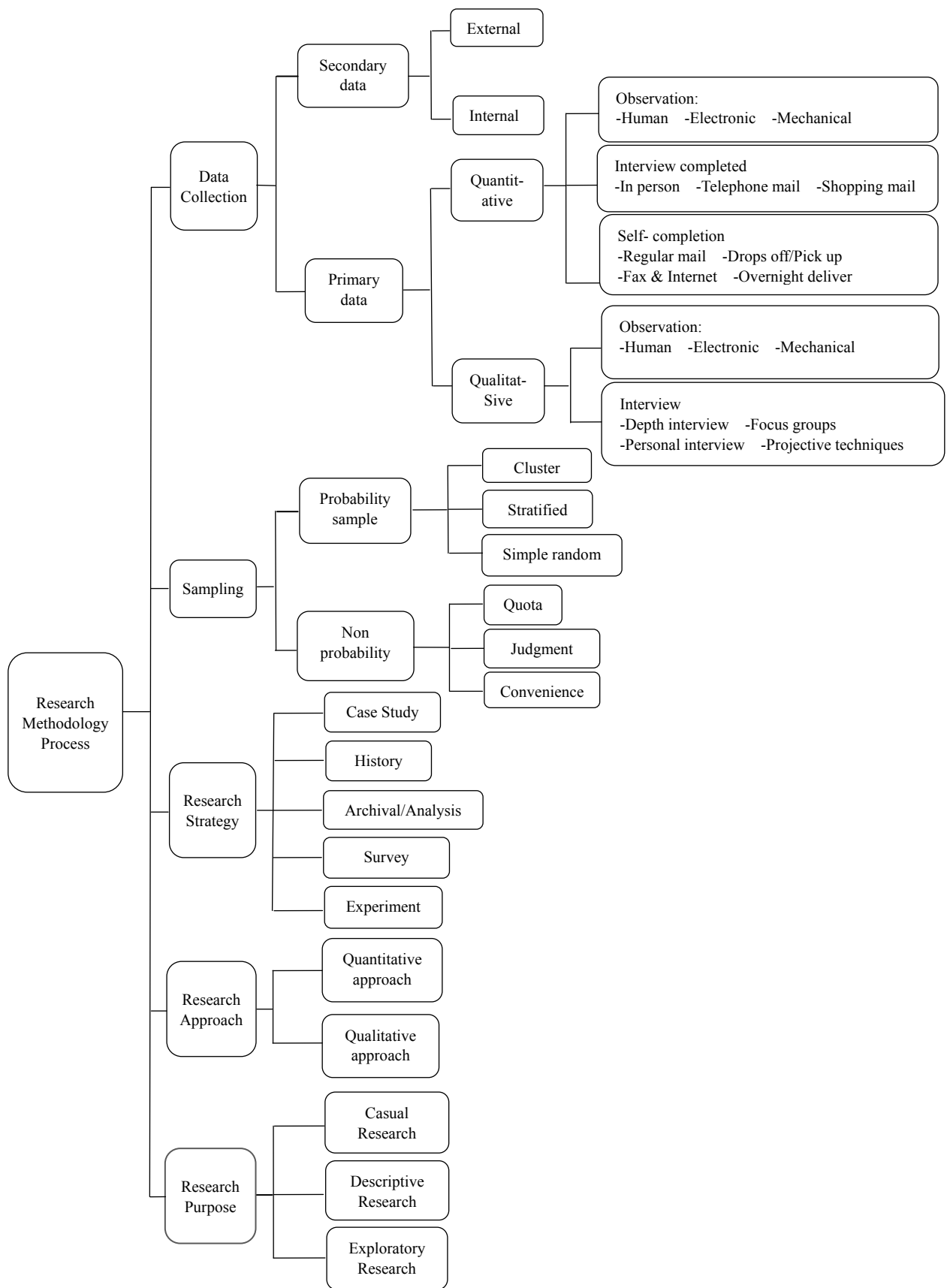


Figure 1. Summary of Research Methodology

Source: (Churchill, 2010) & (Joseph F.Hair).

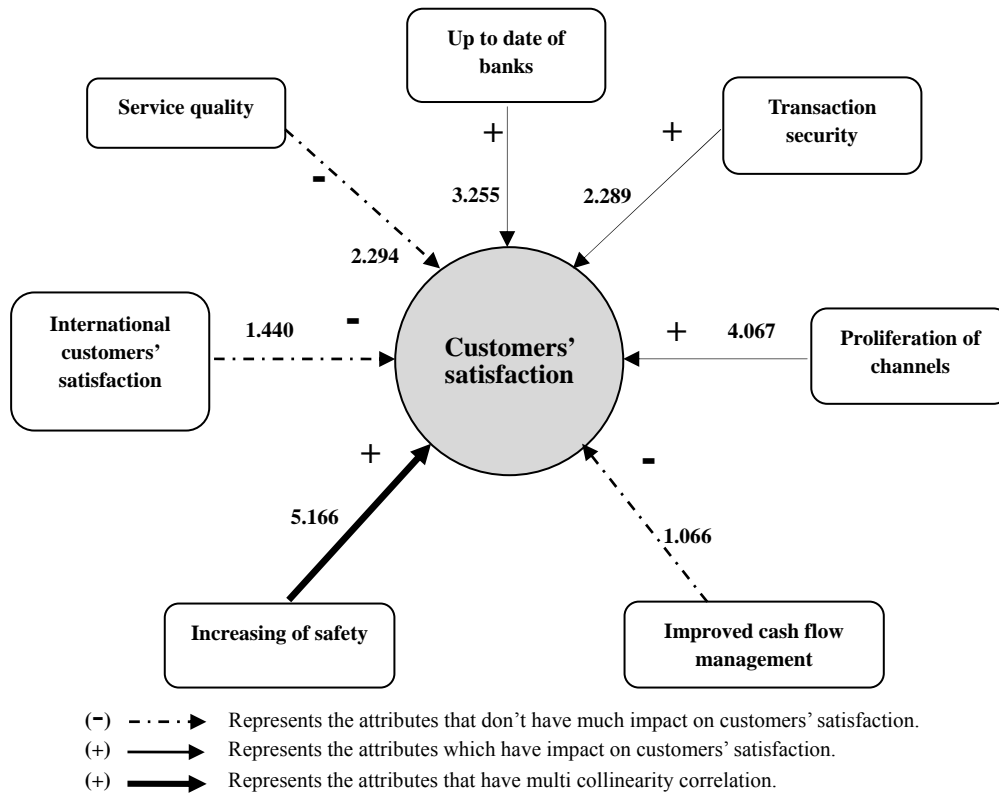


Figure 2. Model of E-CRM Benefits and Customers' Satisfaction

Source: Author's own construction.

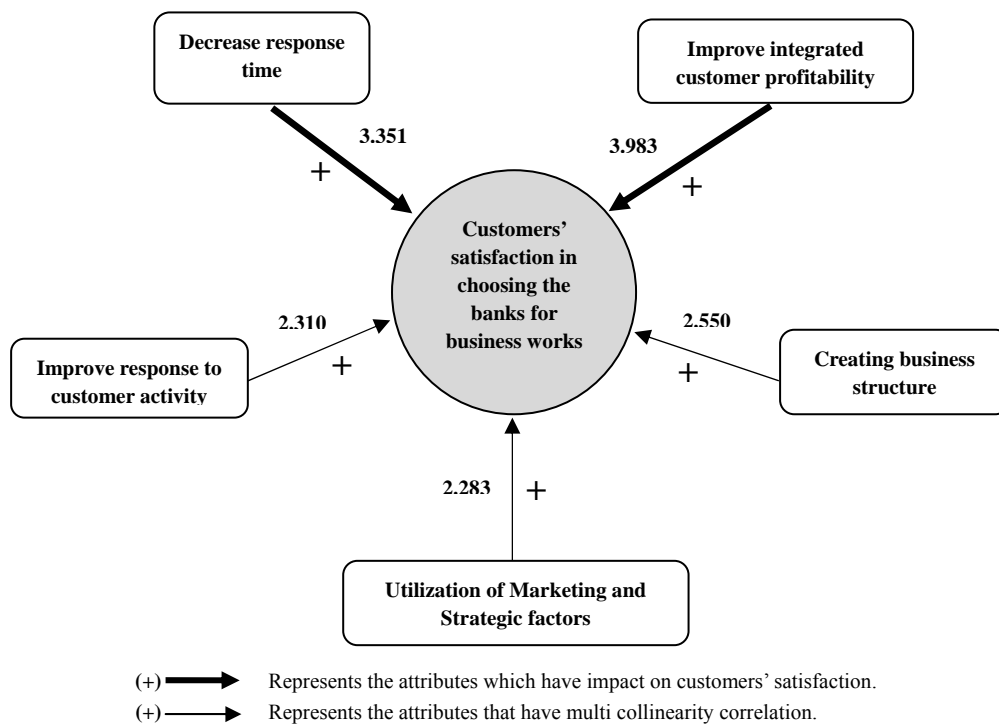


Figure 3. Model of E-CRM Competitive Advantages and Customers' Satisfaction

Source: Author's own construction.



# Endorser Credibility Effects on Yemeni Male Consumer's Attitudes towards Advertising, Brand Attitude and Purchase Intention: The Mediating Role of Attitude toward Brand

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## Abstract

The use of celebrity as spokespeople for companies continues to be a popular method of advertising. The reason behind the popularity of celebrity advertising is the advertiser's belief that messages delivered by well-known personalities achieve a high degree of attention and recall for some consumer. The present study assesses the impact of dimension's source credibility on Yemeni consumer's attitude towards advertisement (Aad), the effect of (Aad) on consumer's attitude toward brand (Ab), the impact of (Ab) on consumer's purchase intention (PI) and explores the mediating role of (Ab) between (Aad) and (PI). This study will use the elaboration likelihood model (ELM) and theory of dual mediating hypotheses (DMH) as predictors to explain the relationship between variables. We surveyed 400 Yemeni male consumers who viewed a real advertisement. They rated the credibility of the endorser, attitude towards advertisement, attitude towards brand, and purchase intention. Path analysis confirmed that endorser attractiveness had strongest impact on (Aad) more than endorser expertise. It found also, (Ab) is considered to be a partial mediator between (Aad) and (PI) relationship.

**Keywords:** Endorser credibility, Attitude towards advertisement, Attitude towards brand, Purchase intention, Consumers, Yemen

## 1. Introduction

Professional communicators know how difficult it is to get a message over to an audience. Speeches are often received with skepticism. Business particularly focuses an incredulous reception. Corporate speechmaking is an indispensable tool that must be used to maintain or gain credibility in an incredulous age. Speech offers a number of features: 1. it humanizes the message. 2. It is readily adaptable to the needs and interests of the audience. 3. It permits interaction. 4. It allows a person to probe an issue in considerable depth. Speech is a credible medium (Tarver et al., 1981).

Because of the importance of communicator's role, companies try to percent themselves, their products, and services with good communicators whom able to trigger consumer's perception and change their attitude toward companies and their products and services.

The rational of paying millions of dollars to these actors and athletes, of course, is that these message sources will add credibility to the advertisement. This added credibility due to the celebrity endorsement is expected in turn to enhance consumers' attitude toward ad (Aad) (Yoon et al., 1998).

Yoon et al. (1998), mentioned few questions as scales, if companies' want to choose the right spokesperson, these directions questions as follows:

- Does the speaker have credibility and cachet?
- Does the speaker have any correlation to your company's event?
- Does the speaker have the skills to deliver a compelling keynote address?

- Is the speaker over-saturated in the market?
- Will your audience relate to the speaker?
- Is the speaker too self-serving?
- Will the speaker overshadow your event?
- Will the speaker refer to your company in the speech?
- Are speakers chosen based on your company president's personal preferences?

Many advertisements feature well-known athletes, actors, and other famous people to influence consumer perceptions and purchase intentions of the advertised brands. Communications scholars and advertisers practitioners seem to share the belief that the perceived attributes or characters of product endorsers influence the persuasive effects of the ads. As much, the use of celebrities as spokespeople for brands is a popular method of advertising (Ohanian, 1991).

However, many researchers have demonstrated that (Aad) influences consumers' attitudes towards the advertised brand (Goldsmith et al., 2000; 2002; 2004; Lutz & Belch, 1986; Mitchell & Olson, 1981). They have found robust evidence that brand attitude (Ab) influences purchase intention (PI). A particularly noteworthy model in this stream of research is what is commonly known as the dual mediation hypotheses (DMH), originally proposed by Lutz et al. (1983) and later modified by Yoon et al. (1998). The basic premise of the DMH is that consumers' PIs are influenced by both (Ab) and (Aad) (either directly or indirectly through Aad's influence on Ab). This study will focus only on the effects of dimensions of source credibility on (Aad), the effect of (Aad) on (Ab), the impact of (Ab) on (PI) and the mediating role of (Ab) between (Aad) and (PI).

## 2. Print Advertising in Yemen

According to Sallam (2008) mentioned that Print advertising practice in Yemen actually started during the Ottoman Empire in 1918 in a local newspaper called Sana'a. The advertisements at that time covered only foreign products from England and Germany. Local products were rare and so were their advertisements. Some local advertisements were about house and shop rentals as well as advertisements linked to social activities.

Today, the number of advertisements has increased and new and modern advertising techniques are flourishing. Yemen marketers are now using the media to sell and promote their products - i.e. from tangible to intangible products. Although print advertising is still popularly being used, studies focusing on them and their effect on consumers' behavioural purchase processes are scarce. To date, only two local studies were found focusing on the topic of advertising on Yemeni consumers' behaviour. However, both studies were on TV advertising. The scarcity of advertising related studies may also be due to what has been decided previously about budget limitations that firms have and on the fact that Yemeni consumers can be irrational and they do not think about the purchase they make (Sallam, 2008).

## 3. Literature Review

### 3.1 Attitude

Attitude is an individual's internal evaluation of an object such as a branded product, and has been an important concept in marketing research since 1960s. Hoyer and MacInnis (1997) define attitude as "relatively global and enduring evaluation of an object, issue, person, or action". There are two major reasons for this long-term interest. First, similar to Hoyer and MacInnis's definition, attitudes are often considered relatively stable and are enduring predisposition for consumer to behave in particular way (Fishbein & Ajzen, 1975). Thus, consequently, they should be useful predictors of consumers' behavior towards a product or service (Oskamp, 1999). Second, several theoretical models on the attitude construct can be found in social psychology literature especially through studies by Fishbein and Ajzen (1975) that have stimulated attitudinal research in marketing.

Previous studies have referred attitude towards specific dimensions such as attitude towards advertiser (Lutz, 1983), attitude towards advertisement and attitude towards brand (Goldsmith et al., 2000). The present study is focusing on two of them, which are, attitude toward advertisement (Aad) and attitude toward brand (Ab).

The literature defines attitude toward advertisement (Aad) as "a predisposition to respond in a favourable or unfavourable manner to a particular advertising stimulus during a particular exposure situation" (Mackenzie, Lutz & Belch, 1986; Biehal, Stephens & Curlo, 1992). At times one's attitude toward an object can affect his/her attitude toward another object with which it is associated (Hoyer et al., 1997). In other words, a consumer's liking of advertising may be eventually transferred to the brand portrayed in the advertising. Thus, (Aad) plays an important role in affecting the consumer's attitude toward brand (Ab), and his/her purchase intention in either direct and/or indirect ways.

Attitude toward brand (Ab) is a “predisposition to respond in a favourable or unfavourable manner to a particular brand after the advertising stimulus has been shown to the individual” (Phelps & Hoy, 1996). (Ab) has been found to play an important role in affecting the consumer’s purchase intention (Goldsmith et al., 2000; 2002; Gresham & Shimp, 1985; Yi, 1990).

Purchase Intention (PI) refers to the predisposition to buy a certain brand or product (Belch et al., 2004). PI also indicates how likely it is that the individual would purchase a product (Phelps & Hoy, 1996). Many previous studies have used (PI) as a dependent variable (Goldsmith et al., 2000; Yi, 1990; Cox & Locander, 1987; Sallam, 2011).

### 3.2 Source Credibility and Its Dimensions

According to Anderson (1970), source credibility can be conceptualized as a “weight” that can enhance the value of information in a message. Source credibility, which refers to a message source’s perceived expertise and trustworthiness, has history in persuasion research (Tromala et al., 2006). Source credibility as one aspect of message sources (person, groups, or organizations) that influence the persuasiveness of a communication (Inoue et al., 2012). Persuasive communications play a key role in the dialogue (Johnston et al., 2010). There is ample research evidence to support a main effect of source credibility such that a highly credible communication source is more effective than a less credible source in causing positive attitude change and behavioral intentions. The effectiveness of a highly credible source, however, has been found to be moderated by some contextual factors. For example, Yoon et al. (1998) mentioned that, the main effect of source increases when a highly credible source is identified early in the message and use of evidence can increase the influence of a low-credibility source. In addition, the effectiveness of source credibility has been found to be moderated by some receiver characteristics including the locus of control, authoritarianism, involvement, and extremity of initial attitude. For instance, Yoon et al. (1998) mentioned that, highly authoritarian people tend to be more influenced by high-credibility source. Yoon et al. (1998) suggested that individuals highly involved with the issue are relatively immune to the effect of source credibility, in other words, people with low involvement may simply accept or reject the message on the basis of source without carefully examining the arguments. Yoon et al. (1998) found that people with initial positive attitude towards the advocated position were more influenced by a less credible source and people with initial negative attitudes toward the advocated issue were more persuaded by a more credible source.

In addition to studying the role source credibility in the persuasion process, a considerable amount of attention has been paid to what constitutes source credibility. Although various dimensions have been proposed, most of the studies suggest that expertise and trustworthiness are two of the most important and enduring components of source credibility. In the advertising context, attractiveness has also been suggested as a component of source credibility (Ohanian, 1990).

However, Ohanian (1990) in next Table 1 summarized the dimensions of source credibility and components of measure for source credibility which were used in previous studies.

Insert Table 1 Here

According to dimensions of endorser credibility, (Ohanian, 1990; 1991; Goldsmith et al., 2000; 2001; 2002; Sallam, 2011) have sourced that endorser credibility has three dimensions, expertise, trustworthiness, and attractiveness.

Ohanian (1990) mentioned that “source credibility” is a term commonly used to imply a communicator’s positive characteristics that affect the receiver’s acceptance of a message. Understanding and defining source credibility in the advertising and speech communication context is often confusing because of the many different operationalizations that appear in the literature. For example, in experimental studies, source credibility is often considered a categorical variable, such that individuals are presented as having high or low credibility (Anderson et al., 2000). Other approach commonly used to describe this phenomenon includes the use of such labels as: ethos, prestige, reputation, status, authority, competence, etc (Yoon et al., 1998). Research and reflection on the topic of celebrity endorsement rest on two general models: the source-credibility model and the source attractiveness model. The source credibility model resulted from a land mark study by Hovland and his associated (1953). They analyzed the factors leading to the perceived credibility of the communicator and concluded that two factors namely, expertness and trustworthiness-underscore the concept of source credibility.

Ohanian (1990) defined expertise as “the extent to which a communicator is perceived to be a source of valid assertions” and trustworthiness as “the degree of communicator’s intent to communicate the assertions he considers most valid”.

While the source-attractiveness model has its origins in the social psychological research and are a component of the “source valence” model of (McGuire, 1985). The attractiveness model contends that the effectiveness of a message depends on source “familiarity” “likability” “similarity” and “attractiveness” to the respondent.

For the present research, both the source-credibility model of Hovland et al. (1953) and the attractiveness model of McGuire (1985) were used in defining the dimensions of the source valence. Expertise and trustworthiness as suggested by Hovland et al. (1953) and attractiveness were used as hypothesized dimensions of source attributes. Ohanian (1990) mentioned that, the decision to use attractiveness was further motivated by the fact that attractiveness has become an important factor through the increasing use of celebrities as endorsers for products, services and/or social causes. Source likability and similarity were not used in the development of the scale but were employed as measures for homological validity. Following is a discussion of the three dimensions of expertise, trustworthiness, and physical attractiveness as the hypothesized dimensions of celebrity endorsers' credibility.

### 3.2.1 Trustworthiness

The trust paradigm in communication is the listener's degree of confidence in, and level of acceptance of, the speaker and the message. Ohanian (1990) mentioned, that concept of trust, in a tour of the centuries from Aristotal to King, and concluded that what Aristotal called "ethos" and what Hovland et al. (1953) called "source credibility" are the same concept: a listener's trust in a speaker. Furthermore, such term as "favourable disposition" "acceptance" "psychological safety" and "perceived supportive climate" are often mentioned as favourable consequences of trust.

Numerous studies support the effect of trustworthiness on attitude change. For example, in the context of fear arousing communication, Yoon et al. (1998) investigated the impact of source trustworthiness on the persuasibility of the communication. The results indicated that when the communicator was perceived to be high trustworthy, an opinionated message was more effective than a non opinionated communication in producing attitude change. However, when trustworthiness was low, this relationship was not significant. Ohanian (1990) manipulated a source's expertise and trustworthiness to assess the impact of each of these components on the communicator's persuasiveness. Their finding indicated that a source who was perceived to be both an expert and trustworthy generated the most opinion change. In fact, the trustworthy communicator was persuasive, whether an expert or not, Ohanian (1990).

### 3.2.2 Expertise

Expertise is the second dimension of source credibility as defined by Hovland et al. (1953). This dimension is also referred to as "authoritativeness", "competence" and "expertness". Adjectives such as "trained-untrained" "informed-uninformed" and "educated-uneducated" commonly have been used to measure this dimension, Ohanian (1990).

### 3.2.3 Attractiveness

A considerable body of research in advertising and communication suggests that physical attractiveness is an important cue in an individual's initial judgment of another person (Homer, 1985). Most companies are concerned about their corporate reputation because of its potential effects on consumer behavior, both positive and negative. Moreover, many of these same firms utilize endorsers in their ads, and the credibility of these endorsers is important to persuading consumers to buy the advertised brand (Goldsmith et al., 2000). The rationale of paying millions of dollars to these actors and athletes, of course, is that these message sources will add credibility to the advertisement. This added credibility due to the celebrity endorsement is expected in turn to enhance consumers' attitude toward the ad (Aad) (Yoon et al., 1998). Ohanian (1990) mentioned that numbers of empirical investigations have examined the effectiveness of using credible spokesperson to enhance the persuasiveness of message, Studies have measured the process by which a communicator's perceived attractiveness, trustworthiness, and expertise mediate immediate and delayed attitude change and persuasion (Hovland et al., 1953).

Ohanian (1991) explored that two dimensions namely trustworthiness, and attractiveness of endorser credibility have an insignificant effect on respondent's purchase intention, but the expertise only was most closely with intention. Then, this conflicts with the result of Yoon et al. (1998) who proved that the three dimensions of endorser have normal significance on respondent's purchase intention; in addition, they empathized that attractiveness has more effect on (Aad) and that attractiveness is important in ad.

However, Barbara et al. (2004) mentioned that the two dimensions of source credibility as expertise and trustworthiness are important to the endorser, but dimension of attractiveness suggests that the message conveyed by the image of the endorser and the image of the product should converge, implying a need for congruence between the product image and the endorser image based on attractiveness. Credible endorser can serve as an important antecedent in evaluations of advertisements and brand. Specifically, a credible endorser has been shown to have a positive effect on consumer's attitude towards advertisement, (Goldsmith et al., 1999; 2000; 2002; Goldberg et al., 1990; Mitchell et al., 1981; Mackenzie et al., 1986). So, Endorser credibility has direct relationship with (Aad). In addition, endorser credibility has indirect relationship with (Ab) through (Aad) when consumer is interested with Ad he/she will form positive attitude toward the advertised brand that available in the Ad. Also, Endorser credibility has indirect

relationship with (PI) through (Aad) and this happens when consumer possess affective response toward (Ad) then he/she form positive purchase intention toward company's product or service, Goldsmith et al. (2000). That endorser credibility has totally positive and significant effect on attitude toward advertising (Aad) (Goldsmith et al., 1999; 2000; 2001; 2002; Ohanian, 1991; Goldberg et al., 1990). Scholars also explored that endorser credibility has positive and significant effect on attitude toward brand (Ab) through (Aad) (Goldsmith et al., 1999; 2000; 2001; 2002; Ohanian, 1991; Goldberg et al., 1990; Yoon et al., 1998).

Finally, they found that endorser credibility has significant and positive effect on purchase intention (PI) either through (Aad) or (Ab), (Yoon et al., 1998; Ohanian, 1991; Goldsmith et al., 1999; 2000; 2001; 2002).

The next section will explore that as follow:

### *3.3 Endorser Credibility's Relationship with Attitude toward Advertisement, Brand Attitude and Purchase Intention*

If a consumer has a positive perception about an endorser that appears in an advertisement, this will lead him or her to form a positive (Aad).

Previous studies confirm that a credible endorser can serve as an important antecedent in the evaluations of advertisements and brands. Specifically, a credible endorser has shown to have a positive effect on the consumers' (Aad) (Goldsmith et al., 1999; 2000; 2002; Goldberg et al., 1990; Mitchell et al., 1981; Mackenzie et al., 1986). Thus, En/C has a direct relationship with (Aad). On the other hand, En/C has an indirect relationship with (Ab) through (Aad); when a consumer is interested with an advertisement, he or she will form a positive attitude toward the advertised brand that is available in the advertisement.

Previous studies show that there is an indirect relationship between En/C and (Ab) (Goldsmith et al., 1999). This is consistent with the literature on (Aad) according to the Elaboration Likelihood Model (ELM). Endorser credibility is linked with the peripheral route to attitude to advertising, thus En/C has an indirect relationship with (Aad). Because endorser credibility is linked with the peripheral route to attitude, the endorser has a delicate relationship with (PI) based on (Aad). Previous studies also confirm that En/C has an indirect relationship with (PI) through (Aad) and this happens when the consumer possesses an effective response toward (Ad); then he or she forms a positive PI toward the company's product or service (Goldsmith et al., 2000).

That En/C has a totally positive and significant effect on (Aad) (Goldberg et al., 1990; Goldsmith et al., 1999; 2000; 2001; 2002; Ferle et al., 2005). Some scholars also explored and discovered that En/C has a positive and significant effect on (Ab) through (Aad) (Goldberg et al., 1990; Yoon et al., 1998; Goldsmith et al., 1999; 2000; 2001; 2002; Ferle et al., 2005). Finally, they found out that En/C has a significant and positive effect on (PI) either through (Aad) or (Ab) (Yoon et al., 1998; Goldsmith et al., 1999; 2000; 2001; 2002; Ferle et al., 2005). This study carried out in Yemen and focused only on the effect of dimensions of endorser credibility En/C on Yemeni consumer's attitude toward advertisement (Aad).

### *3.4 The Relationship between Attitude toward Advertisement (Aad), Attitude toward Brand (Ab) and Purchase Intention (PI)*

Attitude towards advertisement (Aad) has been defined as a predisposition to respond in a favorable or unfavorable manner to a particular advertising stimulus during particular exposure situation (Mackenzie et al., 1986; Biehal et al., 1992). In a print advertisement for example, consumers will be depending very much on the picture(s) and information about the product that are inserted in it to motivate them to take a closer look at and continue reading it. An advertisement that provides good picture(s) may give a significant impact as the picture(s) help reader consumers to get "connected" with the product. Consumers can get closer to the product as they experience certain feeling(s) from watching the product e.g. the product seems authentic, credible and real (Brosius, Donsbach & Birk, 1996). According to Garcia and Stark (1991) novel in-text picture(s) are identified as (advertisement) content component(s) that are most likely to foster curiosity and thus motivate readers to continue reading. This is in addition to the line of catchy words (especially in the headline) that are carefully positioned to attract consumers when they read them (Boduch, 2001). A good advertisement can change one's perception as has been proven by N.W. Ayers, a New York based advertising agency on whom in 1938 was given a task of changing public perception towards diamond from a "one time object of financial investment" to being a "symbol of commitment and everlasting love" (Jhally, 2003). Today, we can see that the perception of romantic love is associated with the giving of diamonds to the loved ones. The present study assumes that attitude toward advertisement is already available with any consumer. As the consumer is exposed to an advertisement, its influence can be observed through consumer's reactions such as his/her persuasion speech (can be either positive or negative) about the brand on other people and his/her own behavior towards it. The uniqueness of (Aad) is that it has been used as antecedent to other variables or independent variable (Biehal et al., 1992), mediating variable (Ugur & Abdulla, 1993), even as dependent variable (Holbrook et al., 1987; Yi, 1990; Edell

& Burke, 1987; Homer & Yoon, 1992) in past studies. Its usage depends very much on the way of how it is perceived and positioned by the researchers.

Many studies considered attitude towards advertisement (Aad) as the main input of attitude towards brand (Ab), with both (Aad) and (Ab) hypothesized to have an effect on consumers' purchase intention (PI). Many previous studies have attempted to model the advertising effects that are assumed to happen through the flow of casual relationship between (Aad-Ab), (Aad-PI), and (Ab-PI). The advertising effect models can be found in studies such as Goldsmith et al. (1999; 2000; 2001; 2002) and Shimp and Gresham (1985). Attitude toward brand (Ab) is defined as a predisposition to respond in a favourable or unfavourable manner to a particular brand after the advertising stimulus has been shown to the individual (Phelps and Hoy, 1996). Previous studies indicated that (Aad) and (Ab) are not considered as one variable as they are different from each other, and had been used as separated variables (Goldsmith et al., 2000; 2002). The difference between the two, i.e. (Aad) and (Ab) is very clear from each one's given definition in the literature.

Messages in advertisements may affect the relationship between (Aad) and (Ab), specifically when consumers are not familiar with the advertised brand due to their lack of prior knowledge on which to base their (Ab) evaluation. Thus, they are more likely to rely on (Aad) in forming their (Ab). Consumers with prior brand familiarity, by contrast, are more likely to draw on their existing brand knowledge, attenuating the influence of attitude towards specific advertisement (Aad) on (Ab). Therefore, the effect of (Aad) on brand evaluations should be greater when the advertisement is for an unfamiliar rather than a familiar brand (Campbell & Keller, 2003). There is a general agreement on the effect of (Aad) on (Ab) when unfamiliar brands are tested. However, the relationship between (Aad) and (Ab) is different when brand familiarity is tested. Both (Aad) and (Ab) have been assumed to have effect on consumers' purchase intention (PI) (Shimp & Gresham, 1985; Goldsmith et al., 2000; 2002). The consumer, who is effectively affected by advertising, may form a positive (Aad) that may then influence his/her (PI). A direct relationship between (Aad) and (PI) for both familiar and unfamiliar brands were found in Goldsmith et al.'s studies (2000; 2002). The relationships appear when affective responses are evoked, especially under conditions of low involvement. However, there can also be an indirect relationship between (Aad) and (PI) through (Ab), as will appear when the consumer develops a positive (Aad) which leads him or her to form (Ab) before starting to build a positive (PI) (Shimp & Gresham, 1985; Mackenzie et al., 1986; Brown & Stayman, 1992; Yoon et al., 1998). Phelps & Hoy (1996) in their study found out there is a significant effect of (Aad) on (PI) for both familiar and unfamiliar brands. Cox & Locander (1987), in their study, found out that (Aad) had an effect on (PI). However, Shimp & Gresham (1985) found out that (Aad) had both the direct effect on (PI) and the indirect effect through (Ab). In addition, Homer (1990) also found out that (Aad) had an effect on (PI). As for association between (Ab) and (PI), many studies found that (Ab) to have a positive and significant effect on (PI) (Mitchell & Olson, 1981; Shimp & Gresham, 1985; Batra & Ray, 1986; Phelps & Hoy, 1996). For example, Shimp's (1986) study found out a strong relationship between (Ab) and (PI). Many other studies have found out positive effects of (Ab) on (PI) when familiar and unfamiliar brands were tested. (Shimp & Gresham., 1985; Batra & Ray, 1986; Rajeev et al., 1986; Homer, 1990; Karen et al., 1990; Yi, 1990; Brown & Stayman, 1992; Homer & Yoon, 1992; Phelps & Hoy, 1996). In addition, the causal sequence of (Aad-Ab-PI) relationship explored in the previous studies considered attitude towards brand (Ab) as a mediator in the relationship between (Aad) and (PI) (Mechleit et al., 1988; Phelps et al., 1996). From the review of literature, Fighter 1 below depicted the proposed theoretical framework of the study. Next approach shows the hypotheses as follows:

#### 4. Hypotheses of Study

Credible endorser can serve as an important antecedent in evaluations of advertisements and brand. Specifically, a credible endorser has been shown to have a positive effect on consumer's attitude toward ad (Goldsmith et al., 1999; 2000; 2002; Goldberg, et al., 1990; Mitchell et al., 1981; Mackenzie et al., 1986). So, Endorser credibility has direct relationship with (Aad). In addition, endorser credibility has indirect relationship with (Ab) through (Aad) when consumer is interested with (Ad) he/she will form positive attitude toward the advertised brand that available in the (Ad). Also, Endorser credibility has indirect relationship with (PI) through (Aad) and this happen when consumer possess affective response toward (Ad) then he/she form positive purchase intention toward company's product or service, Goldsmith et al. (2000). The contribution of this study, it carried out in Yemeni and tries to assume direct relationship between En/C and Yemeni male consumer's attitude toward advertisement (Aad), the effect of (Aad) on (Ab), the impact of (Ab) on (PI) and to explore the mediating role of (Ab) between (Aad) and (PI). Thus, this study hypothesis that:

*H1: Endorser credibility has direct and positive relationship with (Aad).*

Corollary hypotheses are as follows:

H1.1: Attractiveness of endorser credibility has direct and positive relationship with (Aad).

H1.2: Trustworthiness of endorser credibility has direct and positive relationship with (Aad).

H1.3: Expertise of endorser credibility has direct and positive relationship with (Aad).

H2: *There is a significant and positive relationship between Attitude toward Advertisement (Aad) and Attitude toward Brand (Ab).*

H3: *There is a significant and positive relationship between Attitude toward Brand (Ab) and Purchase Intention (PI).*

H4: *Attitude toward Brand (Ab) mediates the relationship between Attitude toward Advertisement (Aad) and Purchase Intention (PI).*

## 5. Methodology

### 5.1 Choice of Real Product Advertisement

Yemeni's consumer who act as users of cover head product (Projeh) were considered the population for this study. However, since this will include many of them only Yemenis' men, who wear and use Projeh product were selected as samples. To achieve the objective, an advertisement for a very popular and well known brand for a cover head product in Yemeni i.e. Projeh, was chosen to be evaluated by Yemeni's consumers. A total of 400 questionnaires were personally distributed to selected group of Yemeni's consumers. The questionnaires contain a full-page advertisement of the Projeh brand and also the picture of the person who endorses the brand to represent the En/C and a series of related questions pertaining to the objectives of the study.

These men were invited to a showing of an advertisement and then were asked to fill in a survey questionnaire. A five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree were used to measure responses for all En/C, (Aad), (Ab) and (PI) variables in the study. To En/C, Newell and Goldsmith's (1999) instrumentation were closely followed although there were items on which were developed specifically to suit the study's objectives. En/C was initially proposed as three-dimensional; i.e. expertise (6 items) five adopted from (Goldsmith et al., 1999), 1 self-developed. Trustworthiness (5 items), while attractiveness (4 items). This study however enlisted 4 items to be measured for expertise dimension (3 from Newell and Goldsmith (2001), 1 self-developed) and 6 items for trustworthiness (4 from Newell and Goldsmith (2001), 2 self-developed). But the results of the factor analysis explored that 4 items of the endorser's trustworthiness were dropped because of a cross factor, so this study just used only two dimensions of endorser credibility which are namely endorser (attractiveness and expertise). For (Aad), the study adapted Holbrook and Batra (1987) and Goldsmith et al.'s (1999; 2002) instruments. For (Ab), five items were adapted from the study of Goldsmith et al. (1999; 2002), and lastly, this study adopted the three items measure from Goldsmith et al. (1999; 2002) study for (PI).

## 6. Results

Of the total 400 respondents surveyed, all of them use cover head product Projeh, most of them were found to be married (78 percent). The majority of the respondents are aged over 25 years (80 %). In addition, the most of them have first degree (97 %). However, approximately 87 % of them admitted their concern about the brand of cover head that they used in their wearing.

### 6.1 Multiple Regression Analysis

The multiple regression analysis is the statistical technique used to analyze the relationship between a single dependent (criterion) variable and several independent (predictor) variables (Hair et al., 1998; 2000). In order to test the hypothesis, both dimensions of endorser credibility (i.e. attractiveness and expertise) seem to have an effect on (Aad) with a significant value of  $\beta = 0.40$  ( $p > 0.01$ ) and  $\beta = .19$  ( $p > 0.05$ ) sequential. These results indicate that H1 is accepted and two of its corollary hypothesis, i.e. H1.1, H1.2 are accepted and Table 2 below shows that.

### 6.2 Hierarchical Regression Analyses

Hierarchical regression analysis was utilized in order to test the mediating effect of attitude toward brand (Ab) on the relationship between attitude toward advertising (Aad) and purchase intention (PI). After regressing (PI) with both (Aad) and (Ab), both yielded significant effects. Therefore, (Ab) is considered to be a partial mediator between (Aad) and (PI).

### 6.3 Simple Regression Analysis

The simple regression analysis is the statistical technique used to analyze the relationship between a single dependent (criterion) variable and single independent (predictor) variables. The simple regression analysis was used to find the effect of (Aad) on (Ab) and the impact of (Ab) on (PI). In terms of hypothesis H2, attitude toward advertisement and attitude toward brand relationship, the study found that Aad has been hypothesized to have an effect on (Ab). Table 3 below shows that (Aad) explained (0.28) of the variance in Ab ( $R^2 = 0.28$ ). The variable of (Aad) was also found to be

positively and significantly associated with (Ab) as ( $\beta = 0.53, p < 0.01$ ). This means that H2 which has proposed the effect of (Aad) on (Ab) is accepted. This finding seems to be in line with the previous study of Goldsmith et al. (2000). Similar tests were conducted for the third hypothesis (H3) that focused on the relationship between attitude toward brand and purchase intention. There is a positive and significant relationship between consumers' brand attitude (Ab) and purchase intention (PI) and Table 4 below shows that.

## 7. Discussion and Implications

The objective of this study as stated earlier is to investigate the En/C relationship with (Aad), the effect of (Aad) on (Ab), the impact of (Ab) on (PI) and to illustrate the mediating role of (Ab) between (Aad) and (PI). The study found that endorser attractiveness was found to have a greater impact on (Aad), then, endorser expertise. This result reflects that Yemeni consumer is impacted by attractiveness of endorser more than his expertise to trigger him toward advertisement. This result seems to contrast with previous studies' results. For example, (Yoon, et al., 1998) as they found that attractiveness has more effect on (Aad) than other dimensions. In addition, the study found positively and significantly associated between (Aad), (Ab) and (PI) sequential. This finding seems to be in line with the previous study of (Goldsmith et al., 2000).

In this study, the relationships amongst the four variables are revisited. The main difference between this study and previous studies lies in exploring the most positive dimensions of endorsers who used in developing country for example Yemen, compared to developed countries. In addition, illustration dimensions of endorsers effect on (Aad). This will provide the first insight on Yemeni consumer's behaviour in this area of study.

## 8. Conclusions

This study has undertaken an in-depth review of source credibility En/C and its effect on (Aad). It concluded that attractiveness more significant component of En/C rather than expertise. The findings provide an understanding of Yemeni's consumer behaviour and thus gave practitioners some ideas in understanding how to use the endorser credibility factor by focusing more on attractiveness of endorser than expertise to enhance the consumers' attitude toward advertising (Aad) that leads to effect on consumer's attitude brand (Ab) which form consumer's purchase intention (PI). It is hoped that the study can provide insights for further research in this area and help policy makers of companies to employ the implementation of the role of source credibility as it is found to be the main driver of consumer behaviour in marketing, we hope that the future studies of source credibility be long-term studies to give more deeply evaluation and high quality benefits. However, the limitations of the study need to be noted. For instance, using a sample size of only 400 Yemeni male consumers means that the results cannot be generalized for all Yemeni consumers. And that collecting data at only one point in time knowing that source credibility is based on long-term marketing strategies that needs time to be built and to be nurtured points to the more appropriately used longitudinal approach study in order to cope with the long-time nature of the marketing strategies investigated in this study.

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Table 1. Summary of Major Research Studies That Have Addressed the Components of Source Credibility

Authors	Dimensions measured	Number of items
Applbaum and Anatol, (1972)	Trustworthiness	13
	Expertness	10
	Dynamism	5
	Objectivity	3
Berlo, Lemert, and Mertz (1969)	Safety	5
	Qualification	5
	Dynamism	5
Bowers and Phillips(1967)	Trustworthiness	7
	Competence	5
DeSarbo and Harshman (1985)	Expertness	4
	Attractiveness Trustworthiness	2
	Likability	1
	Additional Dimensions Evaluated	2
	Potency Activity	
McCroskey (1966)	Authoritativeness	6
	Character	6
	Authoritativeness	23
	Character	20
Simpson and Kahler(1980-81)	Believability	8
	Dynamism	6
	Expertness	7
	Sociability	3
Whitehead (1968)	Trustworthiness	18
	Competence	4
	Dynamism	3
	Objectivity	3
Wynn (1987)	Expertness	12
	Dynamism	6
	Believability	3
	Sociability	3

Table 2. H1 Multiple Regression Analyses: the Relationship between Source Credibility Dimensions and Attitude toward Advertisement

Attitude toward Advertisement	Beta	t-test	Sig	VIF	tolerance
Endorser's Expertise	.19*	3.6	.000	1.7	.60
Endorser's Attractiveness	.40**	8.8	.000	1.3	.8
R <sup>2</sup>	.39				
Adjusted R Square	.38				
F Value	59.4**				

Note: Significant levels: \*\* p<0.01, \* p<0.05.

Table 3. H2 Simple Regression Analyses: Relationship between Attitude toward Advertisement and Attitude toward Brand

Attitude toward Brand	Beta	t-test	Sig	VIF	tolerance
Attitude toward Advertisement	.53**	12.0	.000	1.000	1.000
R <sup>2</sup>	.28				
Adjusted R Square	.27				
F Value	142.9**				

Note: Significant levels: \*\* p<0.01.

Table 4. H3 Simple Regression Analyses: Relationship between Attitude toward Brand and Purchase Intention

Purchase Intention	Beta	t-test	Sig	VIF	tolerance
Attitude toward Brand	.63**	15.7	.000	1.000	1.000
R <sup>2</sup>	.40				
Adjusted R Square	.40				
F Value	246**				

Note: Significant levels: \*\* p<0.01.

Table 5. H4 Attitude toward Brand (Ab) as a Mediator in the Relationship between Aad and PI

	Model (1) Purchase Intention Beta	Model (2) Attitude toward Brand Beta	Model (3) Purchase Intention Beta	t-test	Sig	VIF	tolerance
Aad	.56**	.53**	.32**	7.2	.001	1.4	.72
Ab			.46**	10.0	.000	1.4	.72
t-test	13	11					
Sig	.000	.000					
VIF	1.000	1.000					
tolerance	1.000	1.000					
R <sup>2</sup>	.32	.28	.47				
F	172.5**	143**	166**				

Note: Significant levels: \*\* P<0.01.

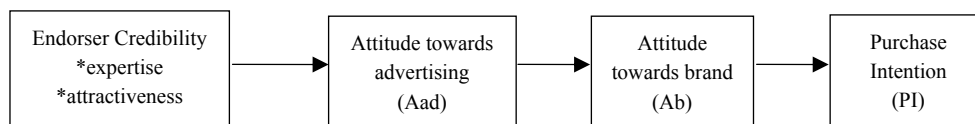


Figure 1. Framework of the Study

# Observations on the State of Tourism in Italy

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## Abstract

In this paper, we analyze the features of the structures and tourist's hotels in the years 2003-2008. In particular, we studied the presence of tourists in hotels. The official statistical data on tourism reported in this article were provided by ISTAT. One of the main economic resource in Italy is the tourism sector. The tourism sector is growing and it is an important source of income for the Italian economy and the world. The growth and spread of tourism causes excessive consumption of natural resources related to intensive building. This inevitably leads to an alteration of the natural habitat. In Italy the system of official statistics on tourism offers a variety of sources, most of which are represented by ISTAT. The tourist's hotel structures in Italy are made up of complementary facilities such as hotels and campsites, tourist villages, bed and breakfasts, etc. The environment is the cornerstone of the tourism product, and it inevitably suffers the environmental changes. Diversification and quality are key competitive factors in the tourism sector. Therefore, the farm is one of the sectors in which investment is convenient. The Italian farm holiday is the fourth largest in Europe after France, Germany and Great Britain. Farmhouses must meet user's expectations; economists say: "experience good user satisfaction".

**Keywords:** Hotel structures, Tourism, Natural resources, Farmhouses, Customer satisfaction

## 1. Introduction

One of the main resources for the Italian economy is the tourism. The tourism sector is growing and is an important source of income for the Italian economy and the world. According to data collected by the WTO (World Tourism Organization-World Tourism Organization) in 2006, the tourism market had a turnover of over 700 billion dollars. The predictions are that by 2020 more than a billion and a half travellers will cross the borders of their countries, moving not only themselves, but also a lot of money. The growth and spread of tourism results in a natural habitat alteration, excessive consumption of natural resources, intensive building and risk of loss of cultural identity. In recent years it has spread a new form of tourism called "sustainable". This concept was born at the end of 1980. The tourist facilities and services must be made so in such a way as not to penalize the environment. In Italy the system of official statistics on tourism will use different information sources, most of which are represented by ISTAT. The tourist's hotel structures in Italy consist of facilities such as hotels and campsites, tourist villages, bed and breakfasts, etc. Statistical data provided by ISTAT aim to assess the number of Italian and foreign clients and their average length of stay in tourist's facilities. The data analyzed and reported in this study are referred to Sicily region and to the nation.

Highlights of a correct strategy of expansion of tourism are as follows:

- Tourism and environmental sustainability.
- Diversification and Quality: variables in which to invest.
- Capacity and movement of customers in accommodation.

## 2. Tourism and Environmental Sustainability

The spread of tourist traffic should be associated with environmental sustainability. Tourism development causes unavoidable changes in the environment (Sinclair et al., 1997). Therefore, the excessive and uncontrolled development of tourism can threaten environmental resources. The environment is the cornerstone of the tourism product which invariably modify it. For this reason, conservation programs and the environment's improvement are topics of high attention (Sinclair et al., 1997). There is no developed tourism without causing effects on the environment, but you have to minimize the negative effects.

### 3. Diversification and Quality: Variables in Which to Invest

In an increasingly competitive environment, the diversification and quality are key competitive weapons in the tourism sector. In the specific case of the environment, we must act with inspired policies. The farm holidays are the main field in which the tourism industry invests. This represents the fusion of two very different activities: tourism and agriculture. (Hirsch, 1981; Musu, 2000; L. 730 05.12.1985) The Italian farm holidays are the fourth largest in Europe after France, Germany and Great Britain. In Italy the vast heritage of rural buildings led to an increasing demand for holidays in the countryside. This spreading is the answer to return to nature, urban alienation as a reaction. It stimulates the desire for a return to nature, wholesome food and to the life of the fields. The innovative element introduced from the farm is that it offers recreational activities in rural areas (courses in enology, beekeeping, harvesting, handicrafts). In the farm it is necessary to ensure the expectations of users. Economists define "good experience", the end-user satisfaction. Therefore we must promote only what we can effectively guarantee. One must strive to live up to expectations.

### 4. Capacity and Movement of Customers in Accommodation

In our country the large number of hotels can accommodate a large number of tourist's guests. According to the ISTAT until the year 2008 the number of tourist accommodation B & B has grown up to 76 % of the total of all hotel businesses. The number of tourists recorded in Italy during 2008 was 373.7 million. The average length of stay was 3.91 nights. Compared to 2007, arrivals fell by 0.6 percent and attendance was down 0.8 % (Table 1) (ISTAT, 2007-2008; ISTAT, 2003-2008; Bimonte et al., 2003; Ballatori et al., 1990). These results marked a reversal of the positive development of previous years. In 2008, there was a reduction in the presence of 0.1 % nationally and 2.2 % in foreign countries. The number of Italian tourists in the country grew by 0.5 %. The arrivals of Italian and foreign tourists are reported in Tables 2 and 3. In relation to the demands of tourists, the most recent data show a willingness to move away from the daily chaos of the city to spend time outdoors and farm holiday. Here traditions are more deeply rooted and food is still possible to enjoy authentic regional specialties made with fresh ingredients and unique recipes of the area. The demand for this type of tourism (rural tourism) is also widespread in Italy and foreign. The presence of tourists in the farm has grown significantly in recent years. In addition, the presence of Italian and foreign tourists in the farm are the same (49.5 and 50.5 % for the Italians for foreigners) (Candela et al., 2010; Baldacci, 2006; Bencardino et al., 2007).

The highest attendance was recorded in Tuscany (about 3.0 million) and Trentino-Alto Adige (about 2.0 million), the lowest attendance are recorded respectively in Aosta Valley (27 256) and Molise (8 842). Sicily with a value equal to 332 550 attendances is in fifth place for number of appearances. Of these 32.3 % are registered in the province of Syracuse and 15.4 % in the province of Trapani.

In 2009 international tourism in Italy has reached a historic low with 159.5 million and 41.1 million foreign tourists' arrivals. The 2010 budget was close to the Italian tourism visitor record in 2007 (163.5 million) (Leoni et al., 2010).

The surveys ConIstat (economic data) for 2010, revealed two opposing trends: more movements of foreign tourists, less of Italian tourists (Becheri et al., 2011). It is estimated that in 2010 the foreign tourists rose by 2.4 % and arrivals of 4.6 %, compared to previous years, while those inside were down -3.1 % and -2.6 % of arrivals. Italy tourism is slowly recovering at the end of 2011; foreign travellers' spending has grown by 4-5 % in 2010, exceeding 30 billion euros. The signals come from summer 2011 tell us that it is slightly increasing the share of nationals who are granted a holiday. Who has not travelled, was largely forced by economic reasons (53 %). In the global ranking of the top ten countries for international arrivals, Italy is fifth (43.6 million, +0.9 %). The numbers of the tourism economy in 2010 are as follows: 95 billion euros Expenditure made by tourists in Italy. This has produced a wealth estimated at more than 100 billion euros (7 % of all domestic value added). In 2011 there was a new record; the tourists were over 170 million. The highest quantity of foreign tourists who visit Italy come from Germany (16 %), and the U.S. (11 %). The propensity to spend more proper to the Russians (1382€ per tourist) and Japanese (1531€).

### 5. Final Considerations

To promote tourism development is necessary to protect and enhance the properties of cultural and traditional territories.

In Italy the system of official statistics on tourism will use different information sources, most of which are represented by ISTAT.

The main points to be put in place to obtain a correct and updated tourism policy are as follows:

- Tourism and environmental sustainability.
- Invest in the quality of traditional products linked to the territory.

- Implement the capacity of accommodation facilities in the country.
- Improve end user satisfaction. Defined by economists good experience.

The farm is one of the tourist areas on which it is worth investing. The new element introduced by the farm is to carry out recreational activities in a natural environment and agriculture. Here tourists can engage in courses of winemaking, beekeeping, harvesting, handicrafts.

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In 2011 there was a new record; the tourists were over 170 million.

The Italian agritourism is the fourth largest in Europe, after France, Germany and Great Britain. This spreading is the answer to return to nature, urban alienation as a reaction. It stimulates the desire for a return to nature, wholesome food and to the life of the fields. The presence of tourists in the farm has grown significantly in recent years.

The highest number of tourists who resort to this kind of vacation is recorded in Tuscany (about 3.0 million). This region is particularly rich in natural areas. Tourism remains the most important productive sector of the country, with a key role in balancing the external accounts.

Foreign tourists who visit Italy are coming in greater quantities from Germany (16 %), and the U.S. (11 %).

The propensity to spend more proper to the Russians (1382€ per tourist) and Japanese (1531€).

The tourism sector, therefore, requires appropriate policies in order to spread throughout the country.

Such a policy planning is found in the so-called “Agenda 21” (so called because written at the beginning of the twenty-first century), signed by over 170 countries in Rio de Janeiro in 1992 during the UN World Conference on Environment and Development.

In Chapter 28 of Agenda 21, states “Each local government should discuss with citizens, local organizations and private enterprises and adopt its own Local Agenda 21”. Through consultation and consensus building, local authorities should learn and acquire by the local community and industry information necessary to formulate the best strategies. Local Agenda 21 has the target to activate a Local Action Plane through which local and global sustainability can be reached.

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Table 1. Arrivals, Attendance and Average Stay in Hotels (2003-2008)

Years	Arrivals	Variations in % on previous year	Attendance	Variations in % on previous year	Average length of stay
2003	82.724.652		344,413,317		4.16
2004	85.956.568	3.9	345,616,227	0.3	4.02
2005	88.338.564	2.8	355,255,172	2.8	4.02
2006	93.044.399	5.3	366,764,778	3.2	3.94
2007	96.150.083	3.3	376,641,751	2.7	3.92
2008	95.546.086	-0.6	373,666,712	-0.8	3.91

Source: Based on ISTAT data.

Table 2. Arrivals and Presences in Hotels (Expressed in Thousands) and Percentage Changes on Previous Year (2003-2008)

Years	Arrivals						Attendance					
	Italian		Foreigners		Total		Italians		Foreigners		Total	
2003	39.156	-	28.174	-	67.330	-	135.217	-	93.935	-	229.151	-
2004	40.767	4.1 %	29.916	6.2 %	70.684	5.0 %	136.845	1.2 %	97.175	3.4 %	234.020	2.1 %
2005	41.276	1.2 %	30.943	3.4 %	72.219	2.2 %	138.123	0.9 %	102.312	5.3 %	240.435	2.7 %
2006	42.521	3.0 %	33.513	8.3 %	76.033	5.3 %	140.397	1.6 %	107.859	5.4 %	248.255	3.3 %
2007	43.282	1.8 %	34.769	3.7 %	78.051	2.7 %	141.311	0.7 %	113.017	4.8 %	254.329	2.4 %
2008	43.498	0.5 %	33.667	-3.2 %	77.165	-1.1 %	141.187	-0.1 %	110.492	-2.2 %	251.678	-1.0 %

Source: Based on ISTAT data.

Table 3. Arrivals and Hotel Stays in Complementary (Expressed in Thousands) and Percentage Changes on Previous Year (2003-2008)

Years	Arrivals						Attendance					
	Italian		Foreigners		Total		Italian		Foreigners		Total	
2003	8.563	-	6.832	-	15.395	-	69.543	-	45.719	-	115.262	-
2004	8.473	-1.0 %	6.800	-0.5 %	15.273	-0.8 %	67.602	-2.8 %	43.994	-3.8 %	111.596	-3.2 %
2005	8.936	5.5 %	7.183	5.6 %	16.119	5.5 %	68.631	1.5 %	46.189	5.0 %	114.820	2.9 %
2006	9.330	4.4 %	7.681	6.9 %	17.011	5.5 %	69.507	1.3 %	49.003	6.1 %	118.509	3.2 %
2007	9.995	7.1 %	8.104	5.5 %	18.099	6.4 %	71.865	3.4 %	50.448	3.0 %	122.313	3.2 %
2008	10.251	2.6 %	8.130	0.3 %	18.381	1.6 %	70.683	-1.6 %	51.306	1.7 %	121.988	-0.3 %

Source: Based on ISTAT data.



# Replicating Hofstede in Jordan: Ungeneralized, Reevaluating the Jordanian Culture

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## Abstract

Hofstede was credited with completing the largest cross-cultural study applicable to international management theory and a review of the literature indicates that the dimensions identified by Hofstede capture the essence of many dimensions and value orientations proposed by other researchers. The effect of culture on people's life is so great that it will even affect the motives and choices of people's behavior. The aim of the study is to update the Hofstede cultural value dimensions. We argue that scores (findings) obtained by Hofstede in his previous studies conducted in Arab countries and then generalized to Jordanian culture are not scientifically valid. This study replicates Hofstede's study with data obtained from students studying for their master degrees in different universities in Jordan. Throughout the history of studying national cultures, a number of researchers, through their intense investigation of cultures, explored different cultural frameworks. This paper begins by reviewing the literature on culture and cultural frameworks. In the section after that, a replication of Hofstede's study was conducted and findings were obtained. The final section concludes with a discussion of findings, and why findings obtained differ from those found earlier by Hofstede himself in previous research.

**Keywords:** Jordan, Culture, Cultural dimensions, Hofstede, Arab Countries, Individualism, Collectivism, Power distance, Uncertainty avoidance, Masculinity, Femininity

## 1. Culture Defined

The definition of culture and what is meant by culture has been open to debate and differences of interpretation (Ayoun, 2008). Culture is a complex universe including knowledge, beliefs, arts, morals, laws, customs, and any capabilities and habits a member of society can obtain (Taylor, 1974). Culture can be learned and shared (Hofstede, 1980), is the social heritage and life regulator (Chang, 1987), continues to grow and change; and every field of human life is related to it (Soares, Farhangnher & Shohmes, 2008). In short, culture is the sum of all treasures created by human beings, and the generic term for all life demonstrated by society (Chang & Chwang, 2005).

Cultures can be understood as systems of symbols and meanings that even their creators contest, that lack fixed boundaries, that are constantly in flux, and that interact and compete with one another (Swider, 1986). It is a complex construct that can be studied on different levels; organizational, regional, and national (Hofstede, 1998).

## 2. Cultural Frameworks

The concept of culture can help us understand the puzzle of human diversity that is so dominant in public discussions today about multicultural societies. Marketing and business researchers, on the other hand, view national culture more as a dynamic process affecting a wide range of behaviors, particularly those relating to buying and consumption (Chuang & Chang, 2005).

Triandis (1994) illustrates that culture cannot be separated from the individual; it is not a system of abstract values that exists independently of individuals. Neither can culture be separated from its historical context; culture is to society what memory is to an individual. It includes the things that have worked in the past, shared beliefs, attitudes, norms, roles, and values found among speakers of a particular language who live during the same historical period in a specific geographic region. These shared elements of subjective culture are usually transferred from generation to generation. Language, time, and place, therefore, help define culture.

Kluckhohn (1969) claims that the essential core of culture consists of patterns, explicit and implicit, behavior acquired and transmitted by symbols, constituting the distinctive achievements of human groups, including their embodiment in artifacts; traditional (i.e. historically derived and selected) ideas and especially their attached values. Culture systems may, on the one hand, be considered products of action and on the other, conditional elements of future action.

In his try to elaborate on the effect of values in shaping national cultures, Hofstede (1997) proposed two aspects of values that must be distinguished: (1) values as guiding principles in life, and (2) values as preference for one mode of behavior over another. The distinction refers to the desirable and the desired, or what people think ought to be desired and what people actually desire - how people think the world ought to be versus what people want for themselves. Mead (1994) defined values as the abstract ideas about what a group believes to be good, right and desirable, Rokeach (1973) sees a value as an enduring belief that one mode of conduct or end-state of existence is preferable to an opposing mode of conduct, or end-state of existence.

Another important part that shapes culture is attitudes. De Mooij (2002) views attitudes as a lasting general evaluation of people, objects and issues. Equally important, are attitudes which are expressed values that dispose a person to act or to react in a certain way toward something. Values refer to a single belief of a very specific kind, as opposed to an attitude that refers to an organization of several beliefs around a specific object or situation (Adler, 1989). Furthermore, Kotler (2005) thinks that attitudes put people into a frame of mind of liking or disliking things, of moving towards or away from them.

## 3. Components of Culture and Cultural Frameworks

Some researchers (e.g., Hofstede, 1991; Barkow et al., 1992; Adler, 1998; chang & chwang, 2005) tried to study components of culture more deeply. Barkow et al., (1992) distinguished three kinds of culture: Meta culture, evoked culture, and epidemiological culture.

The conceptual background of culture implies that values are among the important factors that form the basis of a given culture. Values are shared among people living in the same generation and are transmitted from one generation to another by the socialization process. These historically learned values provide a basis for the formation of a culture and a standard for socially acceptable norms which affect people's formation of attitudes. (KO, 1994). Similarly, Kluckhohn (1961, 1969) assumed that values hold the key to understanding a culture. Values are considered by many as the most essential component in defining and studying culture. In most of the culture studies, reviewed herein, the fundamental component of culture reflected is its value system; hence values were the analytic focus of cultural assessment.

Values are at the core of Hofstede's model of culture. These values form the most hidden layer of culture. Values as such represent the ideas that people have about how things "ought to be". As such, Hofstede also emphasizes the assumption that values are strongly influencing behavior.

Beyond the values, Hofstede (1991) describes three levels of culture that are more clearly observable; rituals, heroes, and symbols. The differences that exist among societies inspired many researchers (e.g., Strodbeck, 1964; Hall et al., 2004; De Mooij, 1998; Triandis, 1995; Hofstede, 1980; Schwartz, 1994; Adler, 1998). Furthermore, Hofstede (1998) argued that the cultural orientation of a society reflects the complex interaction of values, attitudes and behaviors displayed by its members. Individuals express the normative qualities of culture through the values they hold about life and the world around them. These values, in turn, affect their attitudes about the form of behavior considered most appropriate and effective in any given situation.

Kluckhohn (1961) assumed that cultures shape and influence individuals and provide distinct answers to the same questions. This insight inspired Hofstede to search for cultural solutions to organizational problems. Hofstede (1991) found that there are three factors that, at least to some degree, determine the behavior of a person in the workplace such as, national culture, occupational culture, and organizational culture. Hofstede (1997) believes that culture influences behavior through its manifestations: values, heroes, rituals, and symbols. These are the forms through which culturally-determined knowledge is stored and expressed. Thus, each cultural group possesses different cultural manifestation.

On the other side, Schwartz (1994) tried to establish an alternative approach for deriving cultural dimensions of work-related values. In his study, a set of 56 value questions were used. Respondents rated each value for importance as “a guiding principle in their own life”. From these 56 values, 10 individual level value types were derived. The technique used was smallest space analysis. A consequence of this technique is that the value types are not independent. The 10 value types were organized on two basic bipolar dimensions. Each pole constitutes a higher-order value type that combines two or more of the 10 types. One dimension opposes Openness to Change (Self-Direction and Stimulation) to Conservation (Conformity, Tradition and Security). The other dimension opposes Self-transcendence (Universalism and Benevolence) to Self-Enhancement (Achievement and Power). Although this structure applied to individual values, it was used as a hypothesis for the structure of culture-level values. Analysis across 47 cultures established that of the 56 values, 45 had nearly equivalent meanings across cultures (Schwartz, 1994).

Hofstede (1991) introduced new cultural dimensions to the field of cultural studies; Power Distance, Uncertainty Avoidance, Individualism and Collectivism, Masculinity vs. Femininity, and long-term vs. short-term orientation. The following represent a thorough investigation of these dimensions.

**Power Distance:** Power-distance is the extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally (Hofstede 1997). It ranges in value from zero, for a culture with a small power-distance, to about 100, for a culture with a large power distance. In cultures with large power distance, everybody has his/her rightful place in society, there is respect for old age, and status is important to show power. In cultures with small power distance, people try to look younger than they are and powerful people try to look less powerful (De Mooij & Hofstede, 2002).

### *3.1 Uncertainty-Avoidance*

Uncertainty-avoidance is the degree to which employees feel threatened by unknown or uncertain situations. Uncertainty-avoidance is scored from zero, indicating a culture with the weakest uncertainty avoidance, to 100, indicating a culture with the strongest uncertainty avoidance (Hofstede, 1997). In cultures of strong uncertainty avoidance, there is a need for rules and formality to structure life and competence is a strong value resulting in belief in experts. In weak uncertainty avoidance cultures there is a strong belief in the generalist. Moreover, in weak uncertainty avoidance cultures, people tend to be more innovative and entrepreneurial. In cultures of strong uncertainty avoidance, people tend to be better groomed than in cultures of weak uncertainty avoidance because it is one way to face a threatening world. For example, purity in food is an important need in cultures of high uncertainty avoidance (De Mooij & Hofstede, 2002).

### *3.2 Individualism/Collectivism*

The dimension of individualism refers to the extent to which the ties between individuals are loose (Hofstede, 1997). In individualist cultures, people look after themselves and their immediate family only. In collectivist cultures, people belong to groups that look after them in exchange for loyalty. In individualist cultures, the identity is in the person; in collectivist cultures, identity is based in the social network to which one belongs. In individualist cultures there is more explicit, verbal communication; in collectivist cultures communication is more implicit (De Mooij & Hofstede, 2002).

Similarly, Triandis (1995) defined collectivism as a social pattern that consists of individuals who see themselves as an integral part of one or more collectives or in-groups, such as family and co-workers. People who are more collectivist are often motivated by norms and duties imposed by the in-group, give priority to the goals of the in-group, and try to emphasize their connectedness with the in-group. He defines individualism as a social pattern that consists of individuals who see themselves as autonomous and independent. People who are more individualistic are motivated by their own preferences, needs, and rights, give priority to their personal goals, and emphasize a rational analysis of their relationships with others (Triandis, 1994). Additionally, in individualist cultures, people often ignore the potential negative consequences of their buying behavior preferring to focus on the positive consequences of their actions and on their own feelings and goals. This may not be true for people from collectivist cultures, who are more likely to focus on the potential negative consequences of their behavior and the effect of their actions on in-group members (Triandis, 1995).

### 3.3 Masculinity versus Femininity

In masculine cultures the dominant values are achievement and success performance and achievement are important. Status is important to show success. In contrast, the dominant values in feminine cultures are caring for others and quality of life. Feminine cultures have a people orientation, small is beautiful, and status is not very important. In masculine cultures there is substantial role differentiation between males and females whereas, in feminine cultures there is less role differentiation (De Mooij & Hofstede, 2005). The cultural characteristic of masculinity refers to societies where gender roles are clearly divided. Men are expected to be assertive, tough, and focused on material success. Women are expected to be “modest, tender, and concerned with the quality of life (Hofstede, 1997).

### 3.4 Long Term Orientation and Short Term Orientation

Long term orientation and short term orientation have two different characteristics. Long term directions societies, in the one hand, are characterized by persistence, ordering relationships by status and observing this order, thrift, and having a sense of shame. On the other hand, People from short term societies are characterized by personal steadiness and stability, protecting the ‘face’, respect or tradition and reciprocation of greetings, favors, and gifts (Note 1). Long term oriented cultures found in East Asia value acceptance of change, perseverance, thrift, and pursuit of peace of mind unlike the short term oriented cultures found in the Western world (De Mooij & Hofstede, 2005).

Hofstede (1991) describes long term orientation as characterized by persistence, ordering relationships by status, and observing this order, thrift, and having a sense of shame. On the other hand, short term orientation is characterized by personal steadiness. Long term orientation tries to distinguish the difference in thinking between the East and West (long term demision, 2008). The extent to which a society exhibits a pragmatic, future-oriented perspective rather than a conventional historic or short term perspective is another component of long term orientation. Moreover, this dimension describes a society’s “time horizon,” or the importance attached to the future versus the past and present. In long term oriented societies, values include persistence (perseverance), ordering relationships by status, thrift, and having a sense of shame; in short term oriented societies, values include normative statements, personal steadiness and stability, protecting ones face, respect for tradition, and reciprocation of greetings, favors, and gifts.

## 4. Replication of Hofstede’s Cultural Dimensions in Jordan

Hofstede’s original data were derived from matched populations of employees from national subsidiaries of one multinational firm, IBM. More than 116,000 questionnaires were administered in 72 countries and in 20 languages between 1967 and 1973. The results were originally validated against some 40 cross-cultural studies from a variety of disciplines, and have been extended by Hofstede (2001). Hofstede states that these dimensions differentiate national cultures around the world and he provides ratings on these dimensions for many countries as characterized below (Hofstede’s cultural dimensions, 2008).

Hofstede (1980, 1991, 1997) study was replicated in different settings; in information technology (Harvey, 1997), in economic dynamics and institutional stability (Tang & Koveos, 2008), in work related values (Kirkman, Lowe & Gibson, 2006), in international marketing studies (Soares, Farhangmehr & Shoham, 2007), in public anxiety (Arrindell et al., 2004), in facework studies (Merkin, 2006), in transformational leadership (Ergeneli, Gohar & Temirbekova, 2007), and in crossvergence and cultural tendencies (Kelley, MacNab & Worthley, 2006).

Hofstede’s work remains the most comprehensive study of cultural differences with putative relevance to marketers (Holden, 1999) and his five dimensions are the most widely accepted as a solid framework for conducting national culture research (Hambrick & Brandon, 1988). When researchers discuss culture in an international context, the name of Hofstede is invariably invoked and his dimensions are applied as an authority of holy writ (Holden, 1999) and most cultural models done after Hofstede clarify and support Hofstede’s dimensions and can most relate back to Hofstede’s dimensions (Smith, Dugan & Trompenaars, 1996). In addition to the fact that Hofstede’s cultural dimensions have substantial face validity (Kolman et al., 2003), Hofstede’s framework is still considered the most robust measure of national culture (Gong et al., 2007).

Hofstede (1980, 1997) studied some Arab countries (Egypt, Iraq, Kuwait, Libya, UAE and Lebanon) and generalized findings obtained to all Arab countries including Jordan. Craig and Douglas (2005) pointed out that one of the misleading recommendations researchers do is to generalize findings obtained from one culture to other cultures without careful consideration of major differences exist among these cultures. Even though Egypt, Saudi Arabia, Iraq and UAE are similar to Jordan in terms of some important aspects (religion and language), these countries are still far less similar from each other with regard to GDP, disposable income, social life, government intervention, educational institutions, level of literacy and economic infrastructure. (Central Intelligence Agency (CIA), 2009). Tang and Koveos (2008) argue that changes in economic conditions are the source of cultural dynamics, while the endurance of institutional characteristics provides the foundation for cultural stability. They also found that national wealth,

measured by GDP per capita, has a curvilinear relationship with individualism, long-term orientation, and power distance scores. Therefore, Hofstede's generalization of findings taken from these countries and applied at Jordan should be revised with careful consideration of differences mentioned. According to Hofstede's (1980, 1997) typology, the Arab countries, to which Jordan belongs, were classified as having high power distance (80), high uncertainty avoidance (68), a collectivist culture (91 on Individualism), and a masculine culture (53).

The aim of the study is to update the Hofstede cultural value dimensions. We argue that scores obtained by Hofstede in his previous studies conducted in Arab countries and then findings generalized to Jordanian culture is not scientifically valid. This study replicates Hofstede's study with data obtained from students studying for their master degrees in different universities in Jordan. To operationalize culture, Hofstede (1980) have used matched samples to eliminate the effect of other factors. This study replicates Hofstede's study in the same way; using a matched sample on as many characteristics as possible (age and education). A total of 795 graduate students have participated in this study of which 375 were males and 420 were females.

## 5. Methodology

Through an empirical study using the mixed method approach, qualitative and quantitative content analysis, this study used the Hofstede Value to stay in alignment with similar studies. Hofstede Value Survey Module 94 (VSM 94) was used to measure national culture dimensions. Hofstede survey has shown to have acceptable convergent, discriminant and external validities (Swierczek, 1991; Hoppe, 1990; Holden, 1999; Lee, Anne & Geoffrey 2006; Hambrick & Brandon, 1988; Smith & Bond, 1998; Gong et. al, 2007). Hofstede Survey used covered four cultural dimensions; Power distance, Individualism, masculinity and uncertainty avoidance.

Individualism Index (IDV): to calculate the (IDV) index, the following equation was used:

$$IDV = -50m(01) + 30m(02) + 20m(04) - 25m(08) + 130 \quad (1)$$

In which, m (01) is the mean score for question 01, etc. The index normally has a value between 0 (strongly collectivist) and 100 (strongly individualist), but values below 0 and above 100 are technically possible. Questions included in the test are:

- Have sufficient time for your personal or family life.
- Have good physical working conditions (good ventilation and lighting adequate work space, etc.).
- Have security of employment.
- Have an element of variety and adventure in the job.

Answers to these questions range from 5; of utmost importance to 1; of very little or no importance.

Masculinity Index (MAS): to calculate the (MAS) index, the following equation was used:

$$MAS = +60m(05) - 20m(07) + 20m(15) - 70m(20) + 100 \quad (2)$$

In which m (05) is the mean score for question 05, etc. The index normally has a value between 0 (strongly feminine) and 100 (strongly masculine), but values below 0 and above 100 are technically possible. The following questions were involved in analysis:

- Work with people who cooperate well with one another.
- Have an opportunity for advancement to higher level jobs.

Answers to these questions range from 5; of utmost importance to 1; of very little or no importance. The following questions were used:

Respondents were also asked to show to what extent do they agree or disagree with each of the following statements and to circle one of the options that describe their opinion using a scale ranges from 5; strongly agree to 1; strongly disagree. The following questions were used:

- Most people can be trusted.
- When people have failed in life it is often their own fault.

Uncertainty Avoidance Index (UAI): to calculate the (UAI) index, the following equation was used:

$$UAI = +25m(13) + 20m(16) - 50m(18) - 15m(19) + 120 \quad (3)$$

In which m (13) is the mean score for question 13, etc. The index normally has a value between 0 (weak Uncertainty Avoidance) and 100 (strong Uncertainty Avoidance), but values below 0 and above 100 are technically possible.

Respondents were asked to indicate to what extent do you agree or disagree with each of the statements mentioned. Answers range from 1; strongly disagree and 5; strongly agree. These statements include the following:

- Competition between employees usually does more harm than good.
- A company's or organization's rules should not be broken not even when the employee thinks it is in the company's best interest.
- One can be a good manager without having precise answers to most questions that subordinates may raise about their work.

Respondents were also asked to answer how often do they feel nervous or tense at work. Scale for this question ranges from 1; never to 5; always feeling nervous.

Power Distance Index (PDI): to calculate the (PDI) index, the following formula was used:

$$PDI = -35m(03) + 35m(06) + 25m(14) - 20m(17) - 20 \quad (4)$$

In which m (03) is the mean score for question 03, etc. The index normally has a value between 0 (small Power Distance) and 100 (large Power Distance), but values below 0 and above 100 are technically possible. Respondents were asked to think of an ideal job, disregarding their present job, if they have one. In choosing an ideal job, they were asked to answer how important would it be to them. The scale ranges from 5; of utmost importance to 1; of very little or no importance. The following questions were used:

- Have a good working relationship with your direct superior.
- Be consulted by your direct superior in his/her decisions.
- An organization structure in which certain subordinates have two bosses should be avoided at all costs.
- How frequently, in your experience, are subordinates afraid to express disagreement with their superiors? This question was measured through a scale ranges from 1, which indicates very seldom, and 5, which indicate very frequently.

Table1 shows Mean scores per question for all cultural dimensions proposed by Hofstede. Based on these mean scores, the following cultural index values were calculated.

Insert Table 1 Here

New indices were calculated for Jordanian culture as follows:

Power Distance Index (PDI)

$$PDI = -35m(03) + 35m(06) + 25m(14) - 20m(17) - 20 \quad (5)$$

New calculated Jordan Index =  $-35(1.78) + 35(2.16) + 25(3.05) - 20(3.09) - 20 = 7.75$

Individualism Index (IDV)

$$IDV = -50m(01) + 30m(02) + 20m(04) - 25m(08) + 130 \quad (6)$$

New calculated Jordan Index =  $-50(2.79) + 30(1.71) + 20(1.72) - 25(1.96) + 130 = 27.2$

Masculinity Index (MAS)

$$MAS = +60m(05) - 20m(07) + 20m(15) - 70m(20) + 100 \quad (7)$$

New calculated Jordan Index =  $60(1.80) - 20(2.01) + 20(3.19) - 70(2.58) + 100 = 51$

Uncertainty Avoidance Index (UAI)

$$UAI = +25m(13) + 20m(16) - 50m(18) - 15m(19) + 120 \quad (8)$$

New calculated Jordan Index =  $25(2.6) + 20(3.28) - 50(1.86) - 15(3.17) + 120 = 110$

## 6. Discussion

This research aims to contribute to recent research on Hofstede cultural dimensions by testing the robustness of the Hofstede model, in view of the fact that the social scientific work requires many replications in order to establish a database of facts (Hunter, 2011). Hofstede's national culture dimensions are considered as a base for understanding the influence of national culture on people's behavior. In his book "Culture and organizations: Software of the mind", Hofstede (2005) has grouped all Arab countries in one cluster and called them "Arabic-speaking countries" and compared them to other parts of the world. Hofstede (1980) findings documented that all Arab countries share same scores and accordingly share similar cultural values despite the fact that Hofstede only studied some of them (Egypt,

Iraq, Kuwait, Libya, UAE and Lebanon) and generalized findings obtained to all other Arab countries, including Jordan.

This study utilizes the original cultural dimensions developed by Hofstede (1980) to calculate cultural indices in different countries. Hofstede's scales has been applied in different studies across cultures to understand the behavior of people across cultures, and thus appeared to have an acceptable convergent, discriminant and external validities (Kolman et al., 2003; Swierczek, 1991; Hoppe, 1990; Holden, 1999; Lee, Anne & Geoffrey 2006; Hambrick & Brandon, 1988; Smith & Bond, 1998; Gong et al., 2007).

A closer look into the results of this study reveals some interesting insights. First, the Hofstede dimensions for Arab cultures, studied previously by Hofstede (Egypt, Iraq, Kuwait, Libya, UAE and Lebanon), appeared to show similar scores for Jordanians on the dimensions of Masculinity (51) and Individualism (27.7), and a difference on the dimensions of uncertainty avoidance (110) and power distance (7.75). Differences in scores found prove the fact that Arab countries differ in their value orientations (Barakat, 1993; Al-Nashmi & Syd Zin, 2011).

Second, findings show similarities in both Masculinity and individualism. According to Hofstede, Arab countries score 53 on Masculinity index, while the Jordanian Culture scores 51 which validates that Jordan shares same Masculine characteristics as other Arab countries. A high score in Masculinity indicates that the culture places high value on competitiveness and accumulation of wealth; and a very discrete gender role. Although Arab countries differ from each other in terms of wealth, Hofstede himself reported that the Masculinity- femininity dimension is not related to national wealth (Hofstede, 2005). Third, Jordan culture also appeared to be a collectivist culture with a score of 27.7 on individualism which is close to what Hofstede reported about Arab countries (38). In collectivist societies, people emphasize cooperation and relationship building, trustworthiness, solidarity with others and being conservatives. A quick review of the Arab history and religion of Islam, a reader can notice that Arab countries share these characteristics as a direct effect of religion and the Arabs' history before Islam.

Fourth, as for uncertainty avoidance scores, this study found that Jordanian culture score (7.75) which differs from other Arab countries score (80) reported previously by Hofstede. This study proves that the Jordanian Culture is low on power distance unlike other Arab countries. From my experience with Jordanians and other Arab nationals, I found the Jordanian culture to represent a "new version" of modern cultures where employees are young, not afraid of disagreeing with their bosses, and are consulted in decisions related to their work. Hofstede (2005) reported that cultures with low power distance observe adaptability and carefulness. Hofstede (2005) also reported that education level, and occupation has a significant effect on the level of power distance inside societies. Jordanians are famous of having a thirst for knowledge and education which is unique. The ministry of education in Jordan initiated many reform movements related to modernizing education and encouraged Jordanian institutions to become world leaders to earn better accreditation (Khasawneh, 2011). A Jordanian family is proud of having member of a family going to university for either an undergraduate or a graduate education. Despite the limited resources Jordanians possess compared with their Arab counterparts, Jordan has a better education index than other Arab countries (.87) (Arab statistics, 2011) and the public expenditure on education approaches 20.6 % of total government expenditures. As a result of these progressing figures of the quality of teaching, Jordan is one of Arab countries with the highest skilled workers (Athamneh, 2008). This might explain the low power distance reported for Jordanians in this study which matches the finding reported by Hofstede (2005) in his latest study where he found that cultures with unskilled and semiskilled workers showed the highest power distance index.

In conclusion we argue that Hofstede's (1980, 1991, 2005) assumption that people who grow up in the same place will share similar views about life does not apply to his findings about Arab cultures and thus his generalization made to Jordanian culture is not validated. In addition Jordan was not represented in Hofstede's researches and this contradicts with his latest finding where Hofstede (2005) reported that Arab countries differ among themselves and the country with more representation in the study is more likely to show different scores. This finding is also validated by the new work of Al-Nashmi and Syd Zin (2011) who argued that Hofstede findings do not represent a true generalization. They also proposed that Hofstede should have divided the Arab region into different territories according to the cultural proximity (e.g. Yemen, Iraq, and all the Arab Gulf countries as one territory; Syria, Lebanon, Jordan, and Palestine as another one; Egypt as a separate territory; Arab West as a territory; and Sudan, Djibouti, and Somalia as a separate territory). Al-Nashmi and Syd Zin (2011) also found that different Arab people from different Arab countries are not the same in terms of their national culture values.

Based on the findings obtained in this study and the discussion followed, researchers recommend that Hofstede's dimensions should be tested in every individual country. In addition, and due to the fast changing environmental factors specially those closely related to culture and society, researchers recommend a continuous revision and update of Hofstede's scores over time.

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### Notes

Note 1. <http://www.Clearlycultural.com>

Table 1. New Mean Scores for Each Question Used in the Survey

Question's in the survey	Number	Question	Cultural dimension	Mean score
Question 1		Have sufficient time for your personal or family life.	<i>Individualism</i>	2.7857
Question 2		Have good physical working conditions (good ventilation).	<i>Individualism</i>	1.7054
Question 3		Have a good working relationship with your direct superior.	<i>Power Distance</i>	1.7768
Question 4		Have security of employment.	<i>Individualism</i>	1.7232
Question 5		Work with people who cooperate well with one another.	<i>Masculinity</i>	1.7946
Question 6		Be consulted by your direct superior in his/her decisions.	<i>Power Distance</i>	2.1607
Question 7		Have an opportunity for advancement to higher level jobs.	<i>Masculinity</i>	2.0179
Question 8		Have an element of variety and adventure in the job.	<i>Individualism</i>	1.9643
Question 13		How often do you feel nervous or tense at work?	<i>Uncertainty Avoidance</i>	2.5982
Question 14		How frequently, in your experience, are subordinates afraid to express disagreement with their superiors?	<i>Power Distance</i>	3.0536
Question15		Most people can be trusted.	<i>Masculinity</i>	3.1875
Question16		One can be a good manager without having precise answers to most questions that subordinates may raise about their work.	<i>Uncertainty Avoidance</i>	3.2857
Question17		An organization structure in which certain subordinates have two bosses should be avoided at all costs.	<i>Power Distance</i>	3.0982
Question18		Competition between employees usually does more harm than good.	<i>Uncertainty Avoidance</i>	1.8571
Question19		A company's or organization's rules should not be broken.	<i>Uncertainty Avoidance</i>	3.1696
Question20		When people have failed in life it is often their own fault.	<i>Masculinity</i>	2.5804

# Other Corporate Information Sources Usage: Evidence from Jordanian Individual Investors

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## Abstract

This study aims to provide insight into of the extent of usage of other corporate financial information sources by Jordanian individual investors in taking their investment decisions in Amman Stock Exchange (ASE) in comparison with annual corporate reports. The study also aims to identify the main reasons for using sources of information other than corporate annual reports. The result of study revealed that corporate annual report was the most used sources of information. This followed by published daily share price, newspapers and magazines, corporate web sites, advice of friend, tips and rumours, stockbrokers' advice and discussion with company staff respectively. These results indicated that Jordanian individual investors put more emphasis on the usage of the written sources than verbal sources. The results also indicated that Jordanian individual investors start to give more attention to the usage of electronic sources as the corporate web sites ranked forth. In respect to reasons that encouraged investors to use sources of information other than corporate annual reports, the results indicated that the first three reasons include; easier to get information, containing new information and giving up-to-date information. These reasons form the features of the written sources which were indicated as the most used sources of information.

**Keywords:** Corporate annual reports, Corporate information sources, Individual investors, Amman stock exchange, Jordan

## 1. Introduction

Accounting information is useful and effective when it supports decision-making. Optimal decision support is the main purpose of accounting information that corresponds to decision usefulness (Bagaeva, 2008). However, a big change has been taken place in the current Jordanian business environment which was created many other sources for financial information. This research seeks to contribute to the development of knowledge in this field in Jordan as a developing country and to identify the main other information sources that used by individual investor for invest decision-making.

Different regulative institutions and laws have played an important role in developing accounting in Jordan. These include for example, Amman Stock Exchange (ASE), Jordanian Association of Certified Public Accountants (JACPA), Income Tax Law, General Sales Tax Law and Companies Law. In addition, Jordan has been under pressure to use and enforce international accounting standards, exerted by several international institutions including the International Accounting Standards Board (IASB), the International Federation of Accountants (IFAC), the International Organization of Securities Commissions (IOSCO), the World Bank, and the International Monetary Fund (IMF).

The above discussion revealed that different regulative institutions have played an important role in developing and increasing the information content of Jordanian corporate annual reports. However, Abu-Nassar and Rutherford (1996) findings suggested that there is a need for further research on the use of information other than corporate annual reports specifically in the context of less-developed countries (see also Abu-Nassar & Rutherford, 1995). Consequently, the current study seeks to answer the following two questions from the perspective of individual investors:

**Question One:** What is the extent of usage of other financial information sources by individual investors in taking their investment decisions in ASE in comparison with corporate annual reports?

**Question Two:** What are the main reasons for using sources of information other than corporate annual reports?

The reminder of the paper is organised as follows. Section two presents the relevant literature in the subject. Section three describes the data collection process. Section four reports the finding of the study. Section five concludes the study.

## 2. Previous Literature

The frequency and timing of financial reporting vary from one country to another (Alford, Jones, Leftwich & Zmijewski, 1993). In terms of the extent of usage of various sources of corporate information, Baker and Haslem (1973) found that individual investors in USA depended mainly on stockbroker's advice as the main source of information to take their investment decision. Scott and Smith (1992) findings indicated that newspapers, trade journals, other financial reports, advisory services and direct contact with company officials are the most used sources of information in taking investment decisions. In UK, Bartlett and Chandler (1997) asked respondents to indicate which other sources of information they read thoroughly or briefly. The findings of the study indicated that financial press reports were the most widely read. This followed by full corporate annual reports, interim financial statements, summary annual financial statements, preliminary announcements, stockbrokers' reports, Teletext or other TV media and DataStream or other computer software respectively. In Saudi Arabia, Al-Abdulqader, Hannah and Power (2007) listed ten sources of information available to Saudi investors and showed that respondents frequently use company quarterly reports as their main source of information. Newspapers and company annual reports come second and third respectively. These followed by financial statements, banks, Saud Arabia Monetary Agency (SAMA), statistical and information services, advice from friends, tips and rumours and discussion with company staff respectively. In USA, Loibl and Hira (2009) asked respondents to rank the frequency of their use of information sources including five internet-based sources (general internet search; internet trading; market watch websites; investment analysis or management software; and email investment newsletters); three mass media sources (newspapers, magazines, newsletters, or books; TV programs; and radio programs); four interpersonal sources (friends or colleagues; classes or workshops; investment clubs; and financial advisors); and one workplace-based source. Based on study findings, it is reasonable to assume that an information search on financial markets can only to some limited extent become automatic. In this regard, Abdelsalam and Street (2007) argued that companies in England and Europe should voluntarily focus on improving the timeliness of corporate internet reporting.

Investors believed that corporate annual reports are generally correct and complete but criticized them as being too promotional and biased to be completely objective. In addition, despite the fact that almost half of American investors hold the bachelor's degree or higher, annual reports are considered by many users to be difficult to understand (Scott & Smith, 1992). Abu-Nassar and Rutherford (1996) also found that Jordanian users faced difficulties in understanding the various accounting polices reported at annual reports (Courtis, 2004). Furthermore, Jordanian users indicated that the most important reasons given for using alternative sources of information were that the information they provided was more up to date and that the other sources gave information not found in annual reports. Mirshekary and Saudagaran (2005) indicated that annual reports were deficient in providing the necessary information due to a lack of adequate detail and a delay in publishing. However, Mirshekary and Saudagaran (2005) asked the respondents to rank seven potential problems in using annual reports. The results indicated that a high proportion of responses (52.7 %) showed concern at the delay in the availability of published annual reports both overall and within five user-groups. Separate Kruskal-Wallis tests were carried out for each of the seven problems. The results show statistically significant differences among user-groups regarding their opinions about the lack of a comprehensive accounting system, lack of access to annual reports, lack of professional accountants, and lack of published accounting standards. But there is no statistically significant difference in users' opinions about the remaining three problems. Therefore, it can be concluded that all user groups believed that delays in publishing annual reports, lack of trust in information, and a lack of adequate information were areas of concern. According to Al-Attar and Al-Khater (2007), the first three most important reasons given for using sources other than corporate annual reports were that they provide new information, more useful and easy to get information. Preparation of them by neutral party and the relevancy of their information were the least important reasons respectively. Thus, investors try to obtain information from different sources such as stock exchange reports, newspapers, government agencies, friends, stockbrokers, managers, trade journals and others (Mirshekary & Saudagaran, 2005; Baker & Haslem, 1973; Al-Ajmi, 2009; Al-Razeen & Karbhari, 2004a, 2004b). This is because measurement of accounting information is not an easy task and depends on many internal and external factors (Bagaeva, 2008).

The above mentioned studies reviled mixed results. Furthermore, the previous studies used a limited number of other financial information sources and they put less emphasis on the role of electronic sources in providing the

individual investors with the necessary information to take their optimal investment decision. This study incorporated a broad range of information sources to assess their extent of usage by individual investors in ASE.

### 3. Sample Selection and Data Collection

The current study aims to assess the extent of usage of other corporate financial information in comparison with the traditional source namely; corporate annual reports by individual investors in ASE. The study also aims to identify the main reasons that encourage the individual investors to use other financial sources. To achieve these objectives, a well designed questionnaire was sent to 160 respondents. A total of 103 questionnaires were collected including 94 usable questionnaires. This yielded a response rate of 58.8 %. This paper is one of many papers aimed to investigate the different sources of corporate financial information depending on the same questionnaire that filled by Jordanian investors in ASE in the beginning of 2012. However, Table 1 shows the demographic characteristics of the individual investors. Of these, Table 1 shows that 55.3 % of the investors were aged above 50 years and about 56.4 % of them had a bachelor degree or higher. These, however, are good indicators that the sample of this study is relevant and can give a reliable data. In addition, Table 1 shows the investment characteristics of Jordanian individual investors. The table shows that about 43.6 % of the investors own 10 000 shares or more in different sectors. This also gives a good indicator about the diversity of investment portfolio for Jordanian individual investors.

Insert Table 1 Here

### 4. Results and Discussion

#### 4.1 Extent of Usage of Other Financial Information Sources

The first research objective attempts to determine the extent of usage of a set of other corporate information sources among Jordanian individual investors. These sources include stockholders' advice, published daily share price, discussion with company staff, newspaper and magazine, advice of friends, tips and rumours and corporate web sites. The investigation is mainly conducted in comparison with corporate annual reports. Table 2 shows the usage frequency in terms of the relative weight placed on each of the information source, as well as the mean and standard deviation for each source. The results presented in the table showed that corporate annual report was ranked as "used to a great extent" or "used to a very great extent" by about 54.3 % of the Jordanian individual investors with a means of 3.52. Thus, the corporate annual report was the most used sources of information by Jordanian individual investors. In respect to the other information sources, the published daily share price was ranked second as it ranked as "used to a great extent" or "used to a very great extent" by about 53.2 % with a mean of 3.33. This, however, is expected as most of Jordanian individual investors used to attending the trading room of shares in ASE using special monitors including the daily share prices. Newspapers and magazines were ranked third. This result is almost consistent with that of Al-Abdulqader et al. (2007) who found that Saudi investors were ranked newspapers as the second in terms of their extent of usage (see also Scott & Smith, 1992). Corporate web sites were ranked fourth with a mean of 3.02. This result is a positive indicator about the trend for the future usage of electronic sources by Jordanian individual investors. This result, however, contradicts the argument of Loibl and Hira (2009) which assumes that an information source on financial markets can only to some limited extent become automatic. This followed by advice of friend, tips and rumours, stockbrokers' advice and discussion with company staff respectively. This result indicated that Jordanian individual investors put more emphasis on the usage of written financial information sources and avoid the usage of verbal sources such as stockbrokers' advice and discussion with company staff.

Insert Table 2 Here

#### 4.2 Reasons of Usage Other Corporate Information Sources

The second research objective attempts to identify the main reasons that encourage the individual investors to use other corporate financial information sources other than corporate annual reports. To recall from the previous analysis, individual investors use other information sources such as published daily share price, newspapers and magazines and corporate web site to a considerable extent. Thus, six expected reasons were suggested for such usage and individual investors were asked to indicate the importance of each. These reasons were adapted from previous studies in the field (Abu-Nassar & Rutherford, 1996; Al-Attar & Al-Khater, 2007).

Table 3 shows that the most important reason for using alternative information sources was that they easier to get information as they ranked as "important to a great extent" or "important to a very great extent" by about 54.3 % with a mean of 3.41. The second and third important reasons were that they contain new information and that they give up-to-date information respectively. This result is consistent with that of Mirshekary and Saudagaran (2005) which indicated that annual reports were deficient in providing the necessary information due to a lack of adequate

detail and a delay in publishing. To this point, these results supported the previous result which indicated that Jordanian individual investors put more emphasis on the usage of written sources more than verbal sources. This is because written sources are easier to get information and contain new and up-to-date information than verbal one. This argument is almost similar to that of Al-Attar and Al-Khater (2007) which argued that these types of results give a good indicator about the reliability of the collected data. The fourth important reason for using alternative information sources other than corporate annual reports is that they are more understandable with a mean of 3.16. This reason as it comes at the bottom of the list means that Jordanian individual investors not face any problems in understanding the corporate annual reports contents. This result almost consistent with that of Abu-Nassar and Rutherford (1996) and contradicts that of Scott and Smith (1992). This result also supported the demographic characteristics of respondents which indicated that Jordanian investors were well-educated as 56.3 % of them had a bachelor degree or higher (Scott & Smith, 1992). Two reasons namely; they are more useful and they contain more relevant information were ranked the least important with a mean of 3.14 for each of them. Supplementary analysis has also been conducted using One Sample T-test (Table 4). The result of One sample T-test indicated that the t-value for each of the six reasons that encouraged investors to use other sources of information is significant ( $p=0.000$ ).

Insert Table 3 Here

Insert Table 4 Here

## 5. Summary and Conclusion

This study was designed to provide insight into of the extent of usage of other corporate financial information sources by Jordanian individual investors in taking their investment decisions in the ordinary shares of publicly quoted companies listed at the ASE in comparison with corporate annual reports. Furthermore, the study aims to identify the main reasons for using sources of information other than corporate annual reports. The result of study indicated that corporate annual reports were the most used sources of information by Jordanian individual investors. This followed by published daily share price, newspapers and magazines, corporate web sites, advice of friend, tips and rumours, stockbrokers' advice and discussion with company staff respectively. These results indicated that Jordanian individual investors give more weight to the usage of the written corporate information sources rather than verbal sources. This is clear as the verbal sources were ranked at the bottom of the list. The results also indicated that Jordanian individual investors start to give more attention to the usage of electronic sources as the corporate web sites ranked forth. In respect to reasons that encouraged investors to use sources of information other than corporate annual reports. The results of study indicated that the first three reasons include; easier to get information, containing new information and giving up-to-date information. These reasons form the features of the written sources which were indicated as the most used sources of information. This, however, indicates a consistency in the response of individual investors which support the reliability of the study as a whole. The last three reasons include; more understandable, more useful and more relevant information. These three reasons not contributed significantly in using other sources of information. This, however, is a good indicator about the ability of individual investors in analysing and understanding any sophisticated information. However, results from One Sample T-test indicated that all the listed six reasons were significant. This, however, means that these reasons -as a whole- contributed significantly toward using sources of information other than corporate annual reports.

Like any research study, the results have to be considered in light of some limitations. The current study adopted a cross-sectional design, which was conducted at one point in time and did not show the use of different sources of information over time. In addition, the study used a primarily quantitative approach as the main research methodology. The study also directed this study to the individual investors only, while many other groups are active in ASE.

Despite these limitations, this research provided useful insights on the state of different sources of corporate information sources in Jordan. The limitations of this study create many possibilities for future research. Thus, future research should be conducted using qualitative approach and investigated many other issues related to the usage, limitations, importance and contents of different corporate information sources in Jordan and other developing countries. Finally, future project could use larger sample, additional groups and more powerful statistical analytical methods to investigate different issues of financial reporting in Jordan and other developing countries.

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Table 1. Background Information of Participants

Respondent	Investors Number	Investors Rate (%)
<b>Gender</b>		
Male	88	93.6
Female	6	6.4
Total	94	100
<b>Age group</b>		
Under 30	8	8.5
30-40	16	17
41-50	18	19.1
Over 50	52	55.3
Total	94	100
<b>Education qualification</b>		
PhD	1	1.1
Master	5	5.3
Bachelor	47	50
Diploma	30	31.9
Others	11	11.7
Total	94	100
<b>Degree field</b>		
Accounting	27	28.7
Business administration	15	16
Economics	9	9.6
Finance	5	5.3
Others	38	40.4
Total	94	100
<b>Shares owned</b>		
Fewer than 1000	8	8.5
1000 to 3999	15	16
4000 to 7999	15	16
8000 to 9999	15	16
10000 or more	41	43.6
Total	94	100
<b>Investors' sector of focus</b>		
Banking	31	33
Insurance	11	11.7
Manufacturing	50	53.2
Trading	35	37.2
Services	73	77.7
Mining	12	12.8
Others	6	6

Table 2. Extent of Usage of Different Corporate Information Sources in Comparison with Corporate Annual Report

Corporate information source	Extent of usage				Mean	S.D
	% rating 1	% rating 2	% rating 3	% rating 4 & 5		
Corporate annual reports	8.5	11.7	25.5	54.3	3.52	1.24
Stockbrokers' advice	26.6	29.8	22.3	21.3	2.45	1.21
Published daily share price	10.6	14.9	21.3	53.2	3.33	1.22
Discussion with company staff	35.1	21.3	17.0	26.5	2.43	1.34
Newspapers and magazines	12.8	23.4	23.4	40.4	3.05	1.26
Advice of friends	10.6	30.9	25.5	33.0	2.85	1.09
Tips and rumours	30.9	19.1	24.5	25.6	2.57	1.38
Corporate web sites	20.2	18.1	17.0	44.7	3.02	1.39



Table 3. The Importance of Reasons That Lead to the Usage of Other Corporate Information Sources Other than Corporate Annual Reports

Reason	Importance				Mean	S.D
	% rating 1	% rating 2	% rating 3	% rating 4 & 5		
They contain new information	6.4	21.3	29.8	42.6	3.21	1.12
They are more useful	5.3	26.6	29.8	38.3	3.14	1.11
They are more understandable	5.3	25.5	28.7	40.4	3.16	1.10
They contain more relevant information	5.3	28.7	26.6	39.3	3.14	1.14
They give up-to-date Information	9.6	20.2	27.7	42.6	3.18	1.20
They are easier to get information	7.4	13.8	24.5	54.3	3.41	1.14

Table 4. One Sample T-test / Reasons That Lead to the Usage of Other Corporate Information Sources Other than Corporate Annual Reports

Reason	Mean	S.D	t-value	Sig.
They contain new information	3.21	1.12	27.921	0.000
They are more useful	3.14	1.11	27.338	0.000
They are more understandable	3.16	1.10	27.839	0.000
They contain more relevant information	3.14	1.14	26.653	0.000
They give up-to-date Information	3.18	1.20	25.699	0.000
They are easier to get information	3.41	1.14	29.048	0.000

# The Lean Supply Practices in the Garments Manufacturing Companies in Jordan

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## Abstract

The purpose of this study is to identify the extent of applying lean supply practices in the Garments manufacturing companies in Jordan, five variables were selected to be studied since the researcher believes that, they represent the lean supply concept, these variables are, Supplier feedback, Just in time delivery by suppliers, Supplier development, Customer involvement and Facilitation of just in time production, a survey questionnaire was distributed for that purpose to those who occupy managerial positions in those companies, the study revealed that the Garments Manufacturing Companies in Jordan adoption to the lean supply practices is considerably high at all aspects, except for supplier development which was given average rating.

**Keywords:** Lean supply, Lean productions, Garment industry, Jordan

## 1. Introduction

According to literature the term lean means getting rid of what is unneeded, in other words is to cut fat, for manufacturing environment, lean means to keep inventory, waste, defects, and time required, at the minimal level. Womack et al. (1991) came up with the following definition for the lean production, which put emphasis on the input and output dimensions of manufacturing, based on his view, Lean production is "lean" because it uses less of everything compared with the other traditional manufacturing method, such as mass production, it may use half the human effort in factory, half the manufacturing space, half the investment in tools, half the engineering hours to develop a new product in half time. Also, it requires keeping far less than half the needed inventory on site, results in many fewer defects, and produces a greater and ever growing variety of products.

Lean production is an approach that encompasses a wide array of managerial practices, which may include, just-in-time (JIT), quality principles, team work values, advanced manufacturing methods, good supplier management, and many more principles in an integrated system. The essence of lean production is that, these managerial practices can work interchangeably to create a high quality system that produces products at the pace of customer demand with little or no waste.

As competition is the major slogan of the 21 century, the purchasing and supply function has become a key issue for most companies, leading to the recognition to its strategic relevance (Dyer, 1996; Carter & Narasimhan, 1996; Narasimhan & Das, 1999; Mol, 2003).

Global supply of fashion clothes suffer the undesirable combination of changing demand, short life cycles and long supply lead times, which often results in excessive obsolescence or shortages (Fisher et al., 1994), hence, Jordan apparel industry is not an exception since it experiences problems that require solutions based on lean inventory and supply production systems, which makes the research problem a very relevant and timely one.

Jordan's garment and textile industry is a heavy hitter in the world markets; Jordan has 13 QIZ with over 50 factories operating inside of these zones (QIZ, 2005).

There are agreements that have influenced the garment and textile industry in Jordan include the General Agreement on Tariffs and Trade (GATT), Jordan-European Union Association Agreement, and the General Agreement on Services (GATS); all of which make Jordan a strong competitor in the world garment and textile market (Jordan FTA, 2009).

Over 55,000 people are employed in the textile and garment industry in Jordan which is about one third of Jordan's industrial labor force (Growth of MENA industries, 2007). In 2004, the Jordan Economic & Commerce Bureau

states textiles and apparels were one of their main exports not only to the United States but to the world. Over 30 % of Jordan's total exports are from textile and garment manufacturing (Apparel & Textile, 2005).

## 2. Related Literature and Studies

Lean production is sometimes called the Toyota production system, with the Toyota Motor Company's Eiji Toyoda and Taiichi Ohno given credit for its approach and innovation. There are four underlying principles to TPS (Spear, 2004):

- Work shall be completely specified as to content, sequence, timing, and outcome.
- Every customer-supplier connection, both external and internal, must be direct and specify personnel, methods, timing, and quantity of goods and service provided.
- Product and service flows must be simple and direct, goods and services must be directed to specific person or machine.
- Any improvement in the system must be made in accordance with the scientific method at the lowest possible level in the organization.

Lean production is being supported by Just-in-time, which is a philosophy of continuous and forced problem solving, lean production supplies the customer with exactly what the customer wants, when the customer wants it, without waste, through continuous improvement. Lean production is driven by the pull of the customer's order. Just-in-time is a key ingredient of lean production. When implemented as a comprehensive manufacturing strategy, Just-in-time and lean production sustain competitive advantage and result in greater overall returns (Fullerton & Watters, 2001). However, the concepts and techniques under the lean label were basically the same as those of just-in-time a decade earlier (2007).

Companies store inventories to enable continuous deliveries and overcome problems such as demand variability, unreliable deliveries from suppliers, and breakdowns in production processes. However, there is a need to maintain inventories at the minimum level because excess inventories would require more valuable spaces and result in higher carrying costs. Moreover, they accumulate the risk of "products becoming obsolete". Excess inventories are seen as "evils" because they hide problems such as defects, production imbalances, late deliveries from suppliers, equipment down time and long setup time (Liker, 2004).

Built up inventory is a waste of resources and an expense. The Toyota Production System evolved into just-in-time production (JITP), and is at present known as lean production. JITP is lean production (DeGarmo, Black & Kohser, 1999; Nicholas, 1998; Rothenberg et al., 2001).

JITP's mission is "to reduce inventory slowly, identify problems, then change policies and practices to remove problems, having done so, then reduce inventory a little bit more" (Nicholas, 1998).

Lean production is most frequently associated with elimination of waste commonly held by firms as excess inventory or excess capacity (machine and human capacity) to ameliorate the effects of variability in supply, processing time, or demand. According to Little's law (Anupindi et al., 1999), the most important source of waste is inventory. Inventory in the form of work-in-progress is especially wasteful, since it hides problems and keeps problems from getting solved. However, since inventory exists for a reason, the causes behind the existence of inventory must be removed first. Important ways of reducing the need for inventory are, to reduce set-up times, use preventive maintenance to reduce machine downtime, and change layouts to reduce transportation distances for parts (Ahlstrom, 1998).

There are three bundles that Lean Manufacturing is made off; namely JIT (with items such as JIT delivery, frequent supplier delivery, kanban pull systems, small lot sizes, and so on), TQM (with items like statistical process control, poka yoke, equipment problem-solving, and so on) and HRM (with items such as employee encouragement, multiple task training, flat organization structure, and so on) (Dal Pont et al., 2008).

The role of purchasing as one of the determinants of lean production has evolved dramatically in the recent past, due to both the increased level of outsourcing and the globalization of the business environment, requiring the development of advanced supply management capabilities (Olsen & Ellram, 1997).

In order to create a strong supply chain, the logistics between successive partners need to be integrated. Many researchers regard this as important for supply chain operations in general (Vaart & Donk, 2008).

The Lean supply model (Lamming, 1993; Womack & Jones, 1996), which was developed in the automotive industry as a way to manage complex, tiered networks of suppliers with the goal of reducing costs while ensuring high quality. This model prescribes long-term relationships between customers and suppliers, based upon a close

integration of both physical and information flows, adopting practices such as EDI exchange, cost transparency, JIT with Kanban, co-design, etc.

Lean manufacturing requires that not only should technical questions be fully understood, but existing relationships between manufacturing and the other areas of the firm should also be examined in depth, as should other factors external to the firm (Womack & Jones, 1994).

More recently lean manufacturing (Womack et al., 1990) and lean thinking (Womack & Jones, 1996) have demonstrated the broad potential of the elimination of waste in improving business performance. The emphasis on waste elimination is closely associated with reduced inventory and one of the key concepts is enforced problem solving, which is very effectively portrayed by the ubiquitous ship and rocks analogy. As the inventory is lowered, the sources of waste are exposed in the form of late delivery, poor quality conformance, long set-ups, unreliable processes, etc. The elimination of these sources of waste and unevenness enables the inventory to be lowered further without impeding material flow.

According to Womack and Jones (1996), “The critical starting point for lean thinking is *value*...defined by the ultimate customer...only meaningful when expressed in terms of a specific product...Value is created by the producer.” He also added; product flow is managed by customer demand, just-in-time, since upstream production is only initiated when end customers purchase products downstream, triggering the pulling of products from producers through suppliers.

A study that empirically explores the supply strategies of European manufacturing firms within the third edition of the International Manufacturing Strategy Survey was conducted by (Cagliano et.al, 2004), they identified four clusters on the basis of the supplier selection criteria and the integration mechanisms adopted. Two clusters are similar to the Lean and the Agile models, while the other two are more traditional supply strategies, even if they present some advancement compared to the arm’s-length supply model. The strategies are then described in terms of contingent and structural factors and manufacturing performance. Lean and Agile strategies outperform the other clusters on many dimensions, while no significant difference emerges between the two in terms of performance.

Corsten and Will (1995) described lean production tenets as kanban systems, standardized work, teamwork, just-in-time inventory practices, continuous production flows, zero defects, integrated product development, continuous process improvement, and production islands.

Womack and Jones (1996), confirmed that, product flow is managed by customer demand and just-in-time, since upstream production is only initiated when end customers purchase products downstream, triggering the pulling of products from producers through suppliers. Pull-systems are achievable mainly through the lean manufacturing inventory management concept of kanbans/production signaling, and by co-locating functions into cellular structures to minimize travel, waiting, and inventory requirements. In addition, trailer arrival, loading, and unloading processes are standardized to facilitate frequent, just-in-time deliveries.

In their research on measuring the lean maturity level in manufacturing firms in turkey, (Satuglu & Durmusoglu, 2007) concluded that, Suppliers Relationship Management was determined to be the most successful Lean Production Technique, and Kanban System was determined to be the least successful Lean Production technique. Because the manufacturing companies in Turkey could not be able to leave the Push Production Control System. In addition they hold excessive inventories in order to provide just-in-time deliveries.

In their research on the Lean Assessment in Organizations: An Exploratory Study of Lean Practices by Electronics Manufacturers, (Doolen & Hacker, 2005), found that, while electronic manufacturers have implemented a broad range of lean practices, the level of implementation does vary and may be related to economic, operational, or organizational factors.

Sohal (1996) examined Trico Australia’s successful implementation of lean production. Trico Australia is a producer of windshield wiper products. Upon the successful implementation of lean production, Trico Australia experienced reductions in tooling setups, increases in stock turn over, and new product development. (Young, 1992) narrowed lean production tenets to kaizen, kanban systems, total quality control, just-in-time purchasing and secondary controls.

A survey examined 65 conceptual studies, 25 empirical studies, and 15 mathematical studies. It concluded that the major tenets of the just-in-time (lean production) philosophy are the elimination of waste, a sound production strategy, a program promoting quality control and assurance, a program promoting continuous improvement, a strong management commitment, employee participation, and vendor participation (Ramarapu et.al,1995).

TQM and JITP (lean production) support each other in the reduction of inventory, shortening of cycle times, reducing of lot sizes, and the flow of material through the production system. “TQM and JITP (lean production) can

function effectively alone, however when applied together, synergies result that can lead to further performance improvements” (Flynn et al., 1995).

### 3. Research Problem

With lower trade barriers, the global textile and Garments industry during the last 10 years has grown more competitive, prices have fallen and margins are thinner. The average Garment import price in Jordan’s largest market, the US, fell by almost 18 %. This has meant increased pressure on buyers and manufactures to produce at lower cost and at faster speed, though most buyers remain committed to Jordan today, but some have started removing orders as a direct result of increased compliance cost (World Bank, 2008).

Lean supply adoption can be one of the solutions for Jordan to be competitive on the global level. That is why the research sought to find an answer for the main research problem which is: Is there a lean supply environment at the Garment Manufacturing Companies in Jordan.

### 4. Research Objective

Taking into consideration the above mentioned problem, the research objective is to find out, the degree of the practice of the lean supply concept at the Garment Manufacturing Companies in Jordan, in terms of:

1. Supplier Feed back
2. Just in time delivery by suppliers
3. Supplier development
4. Customer involvement
5. Facilitation of just in time production

### 5. Research Hypothesis

The study tackled different lean supply practices concepts .Therefore; the main null hypothesis of the study is:

H01: The Garments manufacturing companies in Jordan practice Lean Supply concept at a very low level.

From the main hypothesis the researcher derived the following sub-hypothesis:

H0a: The Garments manufacturing companies in Jordan do not pay attention to the Supplier feedback.

H0b: The Garments manufacturing companies in Jordan do not ask suppliers to deliver based on the Just in time system.

H0c: The Garments manufacturing companies in Jordan do not get involved in activities or programs that lead to supplier development.

H0d: The Garments manufacturing companies in Jordan do not involve customer in the production process.

H0e: The Garments manufacturing companies in Jordan do not Facilitate the just in time production.

H02: There are no significant differences among the answers of the respondents of the study in relation to their demographic profile.

### 6. Research Methodology

A descriptive and analytical methods were used in this study, in addition to that, the researcher utilized partially a construct developed by (shahna & ward, 2007) to measure the level of the lean supply practices, the researcher also sought the feedback and the advice of the people from the Garments industry and some academicians about the suitability of the research instrument, who confirmed that the instrument is fit to the garments manufacturing companies environment setting, at the same time they selected only items that are relevant to the lean supply concept.

The instrument made off the following parts:

The first Part: Covers the demographic profile of the respondents.

The second part: Includes the lean supply practices such as, Supplier feedback, Just in time delivery by suppliers, Supplier development, Customer involvement and Facilitation of just in time production.

Nominal scale was used to allow the respondents to answer the questions related to their demographic profile, while likert scale was used to allow the respondents to rate their answers on the different lean supply practices, which is ranging from strongly agree as the highest while strongly disagree as the lowest.

### 6.1 Population and Sample of the Study

A purposive sampling technique was utilized, 120 questionnaires have been distributed to employees who only occupy managerial posts in the garments manufacturing companies in the northern & the national capital region of Jordan, 109 or 90.84 % of the questionnaires were recovered, 13 or 10.84 % of which were excluded for not meeting the validation requirements, hence 96 or about 80 % of the questionnaires were valid for analysis.

### 6.2 Data Collection Method

A secondary source of data such as references and published and unpublished researches in the field of the lean supply has contributed to the development of the theoretical framework and allowed researchers gain more deep understanding on the topic. In addition to that Primary data were also obtained through the main instrument of the study, which is a tested research construct developed by (shahna & ward, 2007).

### 6.3 Statistical Treatment

The following statistical techniques were applied in this study:

1. Descriptive analysis such as: mean and standard deviation of the answered items of the study.
2. One sample t-test to test the main hypothesis of the study.
3. Analysis of variance one way ANOVA was used to test the second main hypothesis, which is regarding the demographic profile of the respondents. In addition Post Hoc Multiple comparisons Scheffe was also used.
4. Pearson correlation was used to measure the inter-correlation between the different lean supply practices.

## 7. Data Presentation and Research Finding

Insert Table 1 Here

Table 1 shows that most of the study respondents were males with a percentage of (58.3 %) and that is probably fair result, and the role of the female population also cannot be underestimated since they account for 41.7 %, in a culture that discourage the female population from working in the industrial sector.

The table also shows the age bracket of most of the respondents is less than 40 years old, which indicates the attractiveness of the industrial sector to the young workers.

Most of the study respondents are bachelor degree holders since the positions they are occupying, require professional and technical knowledge to able to make the appropriate decision.

Most of the respondents have a position of head of departments in the company with a percentage of (33.3 %).

Most the respondents have experience between 5-10 years in the company with a percentage of (54.2 %) which shows a fair degree of stability in the industrial sector in Jordan.

Most the respondents have an experience in the same position of less than 5 years, this means that, selection criteria for managerial position is based on the degree of the knowledge the worker has and not on the length of time he or she spent in the company.

Most of the industrial companies that took part in the study were of age between 10-15 years with a percentage of 62.5 %, which shows stability in the business environment in Jordan.

The analysis shows also most of the garments manufacturing companies are of large size with a percentage of 66.7 %, also they target serve international with 87.5 % percentage, and most of these manufacturing companies employ more than 240 employees.

When it comes to the ownership of these industrial companies, results show that, most are owned by Non-Jordanians with a percentage of 70.8 %.

### 7.1 Reliability Test and Analysis of the Coefficient of Internal Consistency

Insert Table 2 Here

A reliability test the of the items in the questionnaire was conducted, the table above shows the values of coefficient of internal consistency of lean practices variables, the result is .8765 % which is acceptable since it is more than the minimum required percentage which is 60 % for social science researches (Cronbach,1951).

### 7.2 Answering the Main Hypothesis of the Study

The first main problem of the study: Is there a lean supply environment at the Garment Manufacturing Companies in Jordan? To answer this question the first main Null Hypothesis was formulated, which is:

H01: The Garments manufacturing companies in Jordan practice Lean Supply concept at a very low level.

Insert Table 3 Here

The table above shows that the highest average among these factors was the Supplier feedback, which got a rating of (4.40), this shows the extra attention that Garments manufacturing companies in Jordan pay to the supplier feedback, followed by Customer involvement got a rating of (4.33) then Just in time delivery by suppliers rated (4.22) and the lowest were Facilitation of just in time production (4.09) and the Supplier development (3.59) which are according to our scale at the medium level. The average mean for all factors turned out to be at the medium level with a rating of (4.13).

#### 7.2.1 Answering the First Sub Hypothesis (H0a)

The Garments manufacturing companies in Jordan do not pay attention to the Supplier feedback.

Table 4 Presents data related to the first sub-problem, it has been ranked and classified according to the respondents rating for each item.

Insert Table 4 Here

Table 4 Shows that the overall average was 4.40 which indicates a high acceptance rating among the respondents of the study on the questions related to supplier feedback. It is also important to point out that, the item that got the highest rating is “We frequently are in close contact with our suppliers” with an average of (4.62), that is due the availability of advance information and communication technology, followed by “we frequently are in close contact with our suppliers” with an average of (4.60), but the lowest in rating was “we visit our supplier’s plants regularly with a rating of (4.10)”.

Insert Table 5 Here

The table above shows that the first sub-hypothesis was rejected because the t-value is more than the tabulated t- (33.746 > 1.96) and under the significance level of ( $\alpha \leq .05$ ), therefore the alternative hypothesis (H1) was accepted, which means that the Garments Manufacturing companies in Jordan pay attention to Supplier feedback.

The second sub-hypothesis (H0b) test: The Garments manufacturing companies in Jordan do not ask suppliers to deliver based on the Just in time system.

Insert Table 6 Here

Table 6 shows that “Suppliers provides us the appropriate quantity needed”, got (4.5), which is the highest average among all items related to sub-problem no.2, and a standard deviation of (0.58), followed by, “our key suppliers deliver to plant on JIT basis” with an average of (4.29) and a standard deviation of (0.614), but the lowest with an average of (3.875) and a standard deviation of (.7847) is related to the, Suppliers are directly involved in the new product development process.

#### 7.2.2 Testing the Second Sub-Hypothesis

Insert Table 7 Here

It is shown in the table above that the second sub-hypothesis was rejected, because the t- value is more than the tabulated t- (22.821 > 1.96), and under the significance level of ( $\alpha \leq .05$ ), therefore the alternative hypothesis (H1) was accepted, and that means: The Garments manufacturing companies in Jordan do ask suppliers to deliver based on the Just in time system.

#### 7.2.3 Testing the Third Sub-Hypothesis (H0c)

The Garments manufacturing companies in Jordan do not get involved in activities or programs that lead to supplier development.

Insert Table 8 Here

Table 8 Shows that the overall average for the third lean supply practice is medium with an overall average of (3.597), which pertains to the nature of Garment industry which is sometimes referred to as traditional one that does not let suppliers get involved totally in the product or process development.

But the item “We have corporate level communication on important issues with key suppliers” got a high a rating of (4.458) because no company can succeed now a day without an efficient communication. Going to the items on the table above it is obvious that a high rating was also given to the item “Our suppliers are contractually committed to annual cost reductions” with an average of (4.29) and a standard deviation of (0.7386), but the lowest was “Our key suppliers are located in close proximity to our plants with a rating of (1.75) and a standard deviation of (0.9733)”, this due to the fact that most suppliers are located outside of Jordan. It also should be noted that, the item “our key suppliers manage our inventory” got a medium average of (3.75) with the highest standard deviation of (1.133).

Insert Table 9 Here

Table 9 shows that  $H_0c$  was rejected because the t-value was more than the tabulated t- ( $53.446 > 1.96$ ) under the significance level of ( $\alpha \leq .05$ ) therefore the alternative hypothesis ( $H_1$ ) was accepted, which means that the suppliers get involved in activities or programs that lead to supplier development.

#### 7.2.4 Testing the Fourth Sub-Hypothesis ( $H_0d$ )

The Garments manufacturing companies in Jordan do not involve customer in the production process.

Insert Table 10 Here

Table 10 Shows that the overall average for Customer involvement is (4.333), which is considered a high response rating, this confirms the sensitivity of the Garments industry that calls for getting the customer involved and keeping in touch with him, because this type of industry is effected heavily by trends and styles, but among items, the highest rating went to the item; We frequently are in close contact with our customers, with a rating of 4.625 followed by, Our customers give us feedback on quality and delivery performance with an average of (4.5). The lowest equal rating of (4.1250) went to the items “Our customers frequently share current and future demand information with marketing department” and “We regularly conduct customer satisfaction surveys”, though that rating is considered the lowest but it is still high.

Insert Table 11 Here

The table 11 shows that the fourth sub-hypothesis was rejected because the t-value was more than the tabulated t- ( $39.188 > 1.96$ ) under the significance level of ( $\alpha \leq .05$ ) therefore the alternative hypothesis ( $H_1$ ) was accepted, which means that The customers are involved and they participate in product development process and their opinions are considered as necessary production data.

Testing the fifth sub-hypothesis ( $H_0e$ ): The Garments manufacturing companies in Jordan do not facilitate Just in Time production.

Insert Table 12 Here

The table above shows that the overall average for all items concerning the fifth sub- problem is (4.093), which represent a high response rate. The highest rating went to item number (1) which is Production is “pulled” by the shipment of finished goods, the lowest average went to the query related to “We use Kanban, squares, or containers of signals for production control” with an average of (3.75). The highest standard deviation with an average of (1.19) to the query related to “We use a “pull” production system” this represent a high variation in answers.

#### 7.2.5 Testing the Fifth Sub-Hypothesis

Insert Table 13 Here

The table 13 shows that the fifth sub-hypothesis was rejected because the t-value was more than the tabulated t- ( $19.26 > 1.96$ ) under the significance level of ( $\alpha \leq .05$ ) therefore the alternative hypothesis ( $H_1$ ) was accepted, which means that there is a facilitation of just in time production in the Garments Manufacturing Companies in Jordan.

The second main Null Hypothesis: There is no significant difference among the answers of the respondents pertains to their demographic profile.

In order to prove or reject this hypothesis one way ANOVA was used which is shown in the table below.

Insert Table 14 Here

Table 14 shows differences among the answers of the sample of the study pertains to their demographic profile, because the level of significance is less than 0.05 ( $.000 < .05$ ), and indicates a high difference among the answers of the of the respondents regarding the Lean supply practices in their Manufacturing company. The F value is  $> 1.96$  in all factors, which implies that, workers have different opinions regarding the Lean supply practices.

#### 7.2.6 Correlation between the Variables of the Study

Insert Table 15 Here

The table above shows the correlation between the different variables of the study, it is noted that almost all factors has a very high correlation except between Supplier development and Customer involvement and between the Just in time delivery by suppliers and Supplier development with a very low correlation of about 19 % only, with a confidence level of about .059 which is greater than the significant level of .05. Another weak correlation is between



supplier feedback and Supplier development with a significance level of 25.2 %, which represents a very low correlation

### **8. Research Conclusion**

The Garments Manufacturing Companies in Jordan adoption to the lean supply practices is considerably high at all aspects, except the supplier development which was rated average.

They are regularly in close contact with their suppliers, furthermore, they are working on building long relationships with their suppliers, because they believe that, they can be the major key of success as well as failure. Aside from that suppliers are given feedback concerning quality and delivery to avoid any future problem, this result is similar to the finding of (Sohal, 1996).

In terms of the Just in time delivery, majority of the respondents agreed that get the right quality and quantity of materials they need and when they are needed, but they issue suppliers certificate based on some criteria through which they can classify them, which can lead to better performance (Flynn et al., 1995).

The Practice of supplier development was rated average because their Suppliers are not located in close proximity with the Garments companies, but when it comes to cost reduction, most of the respondents believe, suppliers are committed to that, which in return will lead to optimum resource utilization and improved process efficiency (Beamon & Ware, 1998). Besides, the Garment companies maintain good communication with their suppliers at the corporate level.

Garments manufacturing companies are in close contact with their customers, whom they seek to satisfy their psychological need more than their physical need, since trends and fashion are major determinants of clothing production. That also requires Garment companies to get regular feedback on quality and delivery performance, which allow customers to play active role in products offering.

The Garments manufacturing companies in Jordan facilitate the Just in time production, because production is conducted according to Customers orders which are delivered to right after manufacturing.

Even inside the plants no in process inventory is accumulated because Production at stations is “pulled” by the current demand of the next station.

### **9. Limitations**

This paper is the first of its kind that explores an issue such as Lean supply, thus the researcher had a difficulty in finding a similar studies which have been applied to similar or different industries or countries, thus he relied mostly on related studies on the topic of lean production.

The study also covers only garments companies operating in Jordan, which means the findings and conclusions, can be only applied to the target population of the study.

### **10. Recommendations for Future Researches**

The researcher recommends future scholars to explore the broader venue of lean production and relating it to variables such as, quality, flexibility and competitiveness in particular and corporate performance in general.

It is also recommended that other industrial sectors will be explored, especially those in need and have the potentials to do so, such as, Electronic, Pharmaceutical, and Furniture sectors.

The Garments Sector is recommended to conduct researches regularly on Lean production, to make it sure that their sector is moving on the right track of competitiveness.

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Table 1. Distribution of the Sample of the Study

Variable	Category	Frequency	Percentage (%)
Sex	Male	56	58.3
	Female	40	41.7
Age	Less than 30	36	37.5
	30- less than 40	32	33.3
	40- less than 50	20	20.8
	50 & above	8	8.3
Education	10+2 and less	20	20.8
	Diploma	20	20.8
	Bachelor	48	50.0
	Higher education	8	8.3
Position	Executive/ general manager	12	12.5
	Head of department	32	33.3
	Production manager	24	25.0
	Supervisor	20	20.8
	Engineer	8	8.4
Experience	Less than 5 years	24	25
	5- less than 10 years	52	54.2
	10- less than 15 years	8	8.3
	15 years & above	12	12.5
Number of experience years in the same position	Less than 5 years	48	50.0
	5- less than 10 years	32	33.3
	10- less than 15 years	12	12.5
	15 years & above	4	4.2
Industrial company age	Less than 4 years	8	8.3
	4- less than 8 years	24	25.0
	8- less than 12 years	60	62.5
	12 years & above	4	4.2
Size of Industry	Large	64	66.7
	Medium	32	33.3
Market	International	84	87.5
	Local	12	12.5
Number of employees	Less than 60	4	4.2
	60- less than 120	16	16.7
	120- less than 240	12	12.5
	240 employees & above	64	66.7
Ownership	local	28	29.2
	International	68	70.8
	Total	96	100

Table 2. The Internal Consistency of Lean Supply Practices

Factors	N of Cases	N of Items	Alpha
Supplier feedback	96	6	.7278
Just in time delivery by suppliers	96	4	.8031
Supplier development	96	6	.7797
Customer involvement	96	7	.6277
Facilitation of just in time production	96	4	.7156
Reliability for all	.8765		

Table 3. Descriptive Statistics for All Factors of Lean Supply Practices

Factors	N	Mean	Std. Dev.	Std. Err. Mean
Supplier feedback	96	4.4028	.40729	.0416
Just in time delivery by suppliers	96	4.2292	.52774	.0539
Supplier development	96	3.5972	.65946	.0673
Customer involvement	96	4.3333	.33337	.0340
Facilitation of just in time production	96	4.0938	.55636	.0568
<b>Total average</b>	<b>4.1313</b>			

Table 4. Sub-Problem No. 1

Q	Supplier feedback	N	Mean	Std. Deviation	Rank
1	We frequently are in close contact with our suppliers	96	4.6250	.60263	1
2	Our suppliers visit our plants regularly	96	4.2813	.62750	4
3	We visit our supplier's plants regularly	96	4.1042	.81408	5
4	We give our suppliers feedback on quality and delivery performance	96	4.3854	.62188	3
5	We strive to establish long-term relationship with our suppliers	96	4.4271	.69198	2
	<b>Total average</b>	<b>4.4028</b>			

Table 5. The First Sub-Hypothesis Test One-Sample Test

Lean supply factor	t	df	Sig. (2-tailed)	Mean Difference	95 %Confidence Interval of the Difference	
					Lower	Upper
Supplier feedback	33.746	95	0.00	1.4028	1.3203	1.4853

Note: Test Value = 3,  $\alpha \leq 0.05$ .

Table 6. Sub-Problem No. 2

No	Just in time delivery by suppliers	N	Std. Deviation	Mean	Rank
1	Suppliers provides us the appropriate quantity needed	96	.58038	4.5000	1
2	Our key suppliers deliver to plant on JIT basis	96	.61416	4.2917	2
3	Suppliers are directly involved in the new product development process	96	.78472	3.8750	4
4	We have a formal supplier certification program	96	.66491	4.2500	3
	<b>Total average</b>	<b>4.2292</b>			

Table 7. One-Sample Test

Lean supply factor	t	df	Sig. (2-tailed)	Mean Difference	95 %Confidence Interval of the Difference	
					Lower	Upper
Just in time delivery by suppliers	22.821	95	0.00	1.2292	1.1222	1.3361

Note: Test Value = 3,  $\alpha \leq 0.05$ .

Table 8. Sub-Problem No. 3

Q	Supplier development	N	Mean	Std. Deviation	Rank
1	Our suppliers are contractually committed to annual cost reductions	96	4.2917	.73866	2
2	Our key suppliers are located in close proximity to our plants	96	1.7500	.97333	5
3	We have corporate level communication on important issues with key suppliers	96	4.4583	.91671	1
4	We take active steps to reduce the number of suppliers in each category	96	3.5833	.95880	4
5	Our key suppliers manage our inventory	96	3.7500	1.13323	3
6	We evaluate suppliers on the basis of total cost and not per unit price		3.7500	.97333	3
	<b>Total average</b>	<b>3.5972</b>			

Table 9. Testing the Third Sub-Hypothesis One Sample Test

Lean supply factor	t	df	Sig. (2-tailed)	Mean Difference	95 %Confidence Interval of the Difference	
					Lower	Upper
Supplier development	53.446	95	0.00	3.5972	3.4636	3.7308

Note: Test Value = 3,  $\alpha \leq 0.05$ .

Table 10. Sub-Problem No. 4

Q.	Customer involvement	N	Mean	Std. Dev.	Rank
1	We frequently are in close contact with our customers	96	4.6250	.48666	1
2	Our customers visit our plants	96	4.2917	.61416	4
3	Our customers give us feedback on quality and delivery performance	96	4.5000	.50262	2
4	Our customers are actively involved in current and future product offerings	96	4.4583	.57887	3
5	Our customers are directly involved in current and future product offerings	96	4.2083	.70958	5
6	Our customers frequently share current and future demand information with marketing department	96	4.1250	.78472	6
7	We regularly conduct customer satisfaction surveys	96	4.1250	.44129	6
<b>Total average</b>			<b>4.3333</b>		

Table 11. Testing the Fourth Sub-Hypothesis One-Sample Test

Lean supply factor	t	df	Sig. (2-tailed)	Mean Difference	95 %Confidence Interval of the Difference	
					Lower	Upper
D- Customer involvement I	39.188	95	0.000	1.3333	1.2658	1.4009

Note: Test Value = 3,  $\alpha \leq 0.05$ .

Table 12. Sub-Problem No. 5

Q.	Facilitation of just in time production	N	Mean	Std. Deviation	Rank
1.	Production is "pulled" by the shipment of finished goods	96	4.3542	.72517	1
2	Production at stations is "pulled" by the current demand of the next station	96	4.2396	.77792	2
3	We use a "pull" production system	96	3.7708	1.19190	3
4	We use Kanban, squares, or containers of signals for production control	96	3.7500	1.04630	4
<b>Total average</b>			<b>4.0938</b>		

Table 13. One-Sample Test

Lean supply factor	t	df	Sig. (2-tailed)	Mean Difference	95 %Confidence Interval of the Difference	
					Lower	Upper
Facilitation of just in time production	19.262	95	0.000	1.0938	.9810	1.2065

Note: Test Value = 3,  $\alpha \leq 0.05$ .

Table 14. Analysis of Variance (ANOVA)

variable		Sum of Squares	df	Mean Square	F	Sig.
Sex	Between Groups	17.183	26	.661	7.414	.000
	Within Groups	6.151	69	.089		
	Total	23.333	95			
Age	Between Groups	65.260	26	2.510	7.616	.000
	Within Groups	22.740	69	.330		
	Total	88.000	95			
Education	Between Groups	61.971	26	2.383	9.207	.000
	Within Groups	17.863	69	.259		
	Total	79.833	95			
Experience	Between Groups	61.097	26	2.350	8.891	.000
	Within Groups	18.237	69	.264		
	Total	79.333	95			
Position	Between Groups	124.899	26	4.804	5.608	.000
	Within Groups	59.101	69	.857		
	Total	184.000	95			
Number of experience years in the same position	Between Groups	55.513	26	2.135	11.958	.000
	Within Groups	12.320	69	.179		
	Total	67.833	95			
Industrial company age	Between Groups	33.871	26	1.303	7.117	.000
	Within Groups	12.629	69	.183		
	Total	46.500	95			
Market orientation	Between Groups	7.286	26	.280	6.015	.000
	Within Groups	3.214	69	.047		
	Total	10.500	95			
Size of industry	Between Groups	12.299	26	.473	3.613	.000
	Within Groups	9.034	69	.131		
	Total	21.333	95			
Number of employees	Between Groups	37.229	26	1.432	2.347	.003
	Within Groups	42.105	69	.610		
	Total	79.333	95			
Type of industry	Between Groups	15.028	26	.578	8.299	.000
	Within Groups	4.806	69	.070		
	Total	19.833	95			

Note:  $\alpha \leq 0.05$ .

Table 15. Correlation between Variables of the Study

Factors		Supplier feedback Just in time delivery by suppliers	Supplier development Customer involvement	Facilitation of just in time production Supplier feedback	Just in time delivery by suppliers Supplier development	Customer involvement
Supplier feedback Just in time delivery by suppliers	Pearson Correlation	1	0.252*	0.610**	0.566**	0.474**
	Sig. (2-tailed)	-----	0.013	0.000	0.000	0.000
Supplier development Customer involvement	Pearson Correlation		1	0.525**	0.194	0.544**
	Sig. (2-tailed)		-----	0.000	0.059	0.000
Facilitation of just in time production Supplier feedback	Pearson Correlation			1	0.389**	0.515
	Sig. (2-tailed)			-----	0.000	0.000
Just in time delivery by suppliers Supplier development	Pearson Correlation				1	0.503**
	Sig. (2-tailed)				-----	0.000
Customer involvement	Pearson Correlation					1
	Sig. (2-tailed)					-----

Note: \* Correlation is significant at the 0.05 level (2-tailed).

\*\* Correlation is significant at the 0.01 level (2-tailed).



# Locational Determinants of Foreign Direct Investments in Nigeria

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## Abstract

In this paper, we examine country specific or locational determinants of foreign direct investments (FDI) in Nigeria. Using time series data from 1975-2008 and applying Generalized Method of Moments (GMM) with autoregressive error technique, we find that the index of government expenditure, index of energy consumption, and the indicator of political stability are positive and significant predictors of FDI in Nigeria at 5 percent significance level. Other locational variables suggested in the literature such as inflation rate, exchange rate, market size, infrastructure and human capital are however not significant determinants of FDI in the country. We thus recommend that the varying influences of these variables should be noted for appropriate policy actions in order to fully attract FDI into the country.

**Keywords:** Foreign direct investments, Infrastructural development, Human capital development, Index of energy consumption

## 1. Introduction

The Nigerian government at the advent of democratic government in May 1999 enthusiastically announced its desire to attract and embrace foreign direct investments (FDI) into the country. This renewed interest emanated from the perceived opportunities derivable from utilizing this form of foreign capital injection into the economy (Adeseyoju 2001). In the first instance, FDI is believed to be more stable and easier to service than commercial bank credit or portfolio investments. FDI is usually a long-term economic activity in which repatriation of profits only occur when the project generates enough returns. Secondly, Nigeria is expected to access modern technologies through FDI to upgrade the country's productive capacities through adaptation of such technologies to her local conditions. Thirdly, on account of its integrated network of activities across the globe, FDI is potent enough to integrate Nigeria into the global market (both for existing economic activities as well as new ones that are likely to emerge). Such penetration into international market engenders substantial capacity building and economies of scale, among others (Hood & Young 1979; Aremu, 2000). Moreover, FDI provides employment opportunities to underutilized factors of production, guarantees formal and informal trainings, and returns to domestic resource owners in the Nigerian economy. As multinational corporations (MNCs) through their affiliates (branches, subsidiaries and associates) integrate Nigerian economy into their system, the country's domestic productive capacities are expected to be improved.

Indeed, the need for a paradigm shift from a largely inefficient public sector led economy to a more efficient private sector led economy, among other things, motivated the introduction of the Structural Adjustment Programme (SAP) in

Nigeria in 1986. Thus, policies such as financial liberalization, currency devaluation, privatization and commercialization of public enterprises, removal of price controls and subsidies were introduced. Also, actions were taken to remove all obstacles to the growth of private investments even as efforts were made to provide incentives to existing, as well as potential investors Okwo (1999).

Policymakers in the country further realized the need to embark on proactive investment promotion strategy in order to promote the country to potential investors abroad. Indeed, key issues relating to investment climate and business operating conditions were to be taken seriously. In the era of globalization of markets, investment and technology, investment capital has become rather more selective in its search for outlets and growth. Given the emergence of trading and regional blocks, the competition for scarce capital has become even more intensified. Policymakers in Nigeria then realized that the country could no longer take for granted that foreign capital would flow into the country in line with global economic conditions. The challenge therefore was to formulate and implement policies that would help to retain existing investments (and sustain their capacity) as well as attract new investors with carefully designed and enduring incentive structure. Such policies would involve not just the creation of favourable tariff, tax and exchange regimes but also the qualitative assurances of warm, cordial and mutually beneficial relationship between an investor and the host country.

Towards the realization of the aforementioned policy thrust, the Nigerian government introduced laws that removed restrictions that were hitherto placed on foreign investments and provided guarantees that no investment will be nationalized or expropriated by any government of the federation. Also, no person owning capital of any enterprise, wholly or in conjunction with others, will be compelled by law to surrender his interest to any person. The provision on the guarantees against nationalization or expropriation is worth noting. It was meant to further assuage the fears of foreign investors. Even where in extreme and rare circumstances, due perhaps to considerations of the national interest, acquisitions will be immediately followed by prompt payment of fair and adequate compensation. A right of access to the law courts for the determination of the investors' interest or right and the amount of compensation to which such investor is entitled is also guaranteed. In addition, the Nigerian Investment Promotion Commission was established with the task of coordinating and monitoring all investment promotion activities in Nigeria. The Commission is to, among other things: initiate and support measures which shall enhance the investment climate in Nigeria for both Nigerian and non-Nigerian investors; promote investment in and outside Nigeria through effective promotional means; collect, collate, analyze and disseminate information about investment opportunities and sources of investment capital and advise investors on their request on the availability, choice or sustainability of partners in joint venture project; issues guidelines and procedure, which specify priority areas of investment and prescribe applicable incentives and benefits, which are in conformity with government policy; and Negotiate specific incentive packages for the purpose of promoting identified strategies or major investment as the Commission may specify in consultation with appropriate government agencies.

In spite of all these incentives, Nigeria has failed to attract substantial inflow of FDI over time. Although FDI grew from USD 1079.27million in 1995 to USD 8824.80 million in 2006, FDI inflow has consistently fallen below remittances inflow since 2007 and is even about half of the latter in 2009. (See Table 1 and Figure 1). An important question then is: How come Nigeria is unable to attract substantial FDI inflow in spite of all the incentives in place? Put differently, what are the determinants of foreign direct investment in Nigeria?

The purpose of this study is to ascertain the host-country specific (or locational) determinants of FDI into Nigeria. This becomes imperative since a firm's method of entry into a foreign market and eventual system of management are often heavily dependent upon the motives underlying the investment. Therefore, any theoretical or empirical attempt to provide guidance in international investment decision making and management cannot fail to include an assessment and diagnosis of the factors that account for the decision to go abroad. Also, Government policy on FDI (for example, a policy for attracting such investment) that is designed without a clear recognition and adequate understanding of the factors that determine foreign investment is likely to be predicated upon incorrect premises and apt to prove ineffective. Moreover, the wide variations in the inflow of FDI both over time and among developing countries also raise question of what factors influence the inflows of FDI to developing countries.

This paper is divided into five sections. Following this introductory section, section II reviews relevant theoretical and empirical studies while the methodology of the study is explained in section III. The findings of this study are presented in section IV while section V contains the concluding remarks.

## 2. Literature Review

FDI is defined in the IMF Balance of Payments Manual (1993) as "investment that involves a long-term relationship reflecting a lasting interest of a resident entity in one economy (direct investor) in an entity resident in an economy other than that of the investor. The direct investor's purpose is to exert a significant degree of influence on the

management of the enterprise resident in the other economy". To the World Bank (2010), FDI is the net inflow of investment to acquire a lasting management interest (10 percent or more of voting stock) in an enterprise operating in an economy other than that of the investor. It is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments. WTO (1996) says that "FDI occurs when an investor based in one country (the home country) acquires an asset in another country (the host country) with the intent to manage that asset. The management dimension is what distinguishes FDI from Portfolio investment (PI) in foreign stocks, bonds, and other financial instruments. In most cases, the investor and the asset being managed abroad are business firms. In such cases, the investor is typically referred to as the "parent firm" and the asset as the "affiliate" or "subsidiary". Three main categories of FDI are identified by WTO (1996), namely: (a) Equity capital, which is the value of the Multinational Corporation (MNC)'s investments in shares of an enterprise in a foreign country; (b) reinvested earnings which are the MNC's share of affiliate earnings not distributed as dividends or remitted to the MNC; and (c) other capital which refers to short or long-term borrowing and lending of funds between the MNC's and the affiliate.

Root (1990) notes that FDI "is the distinctive feature" of MNC. Hence a theory of FDI is also a theory of MNC as an actor in the world economy. He further explains that FDI is the extension of an enterprise from its home country into a foreign host country and this extension involves the flow of capital, technology, and entrepreneurial skills to the host economy where they are combined with local factors in the production of goods for the local and/or export markets. This transfer of a "bundle" of factor services remains under the control of the investing (parent) firm, as do the subsequent production and marketing activities of the subsidiary in the host country. Dunning, (1993b) concurs that FDI involves the transfer of a package of resources (e.g., technology, management skills, organizational capacity and entrepreneurship) across national boundaries, the de jure governance of which continues to remain in the hands of the transferring firms or (in the case of a substantial local equity interest) is shared with the transferring firm. He defines MNC as an enterprise that engages FDI and "owns or controls value-adding activities in more than one country". In other words, "The usual mode of ownership and control is by FDI". Sodersten and Reed (1994) emphasize that for MNC to come into existence FDI must be in place and that the distinguishing feature of FDI is the exercise of control over decision-making in an enterprise located in one country by investors located in another.

Dunning (1993a) distinguishes between FDI and foreign indirect (or portfolio or contractual) investment. "Firstly, the former involves the transfer of a package of assets or intermediate products, which includes money, capital, management and organizational enterprise, technology, entrepreneurship and access to markets across boundaries; the latter involves only the transfer of money capital. Secondly, unlike arm's length trade in assets and intermediate products, foreign direct investment does not involve any change in ownership: in other words, the control of decision taking over the use of the transferred resources remains in the hands of the investing entity. Put another way, while the indirect exchange of assets and intermediate products is organized by the market, the direct exchange is administered by, and within, investing hierarchies".

Prakash and Assaf (2001), Hausmann and Fernandez-Arias (2000), Dadush et al. (2000), and Lipsey (2001) note that FDI, in sharp contrast to other forms of capital flows has proven to be resilient during financial crises, such as East Asian crisis of 1997-98, Mexican crisis of 1994-95 and the Latin American debt crisis of the 1980s. This resilience, among other benefits, makes many developing countries to favour FDI over other forms of capital. Hausmann and Fernandez-Arias (2000) further suggest that many host countries view international debt flows, especially of the short-term variety, as "bad cholesterol". "It (short-term lending from abroad) is driven by speculative considerations based on interest rate differentials and exchange rate expectations not on long-term considerations. Its movement is often the result of moral hazard distortions such as implicit exchange rate guarantees or the willingness of governments to bailout the banking system. It is the first to run for the exit in times of trouble and is responsible for the boom-burst cycles of the 1990s". FDI on the other hand is viewed as "good cholesterol" because it confers so many benefits and is thought to be "bolted down and cannot leave so easily at the first sign of trouble".

Dunning (1993b) identifies four main reasons prompting firms to undertake FDI. These are: "to acquire natural resources, the price of which (net of transportation costs) is lower and/or the quality is higher than in the investing country; to service foreign markets, particularly in the country in which the investment is being made; to restructure existing foreign value-added activities, so as to improve overall efficiency and change the range of products produced; and to acquire assets which might be complementary to existing assets, or competitive to them, so as to reduce risk, capture the economies of scale or synergy, or generally strengthen the acquiring firms' competitive position in national or world market." Based on these four main motives, Dunning (1993a), recognizes four types of multinational enterprises, namely: Resource seekers; Market seekers; Efficiency seekers; and Strategic asset or capability seekers.

Moreover, Dunning (1993a) posits that the theory of the determinants of FDI must explain the location of value-adding activities as well as the ownership and organization of these activities. Thus, it is imperative to follow and incorporate the theory of international resource allocation (factor endowments) and focus on the location of production. It also must include the theory of economic organization, which emphasizes ownership of that production and the ways in which the transactions relating to it are managed and organized.

Indeed, the determinants of FDI can be situated in many theories. These include: the Neoclassical Trade Theory, that posit that capital movement can be attributable to differences in capital returns (Aliber, 1970); the Proximity-Concentration Hypothesis or horizontal FDI model (Krugman, 1983; Brainard, 1993; Markusen, 1984; Ethier, 1986; Horstmann & Markusen, 1992); the product cycle (Vernon, 1966); the Factor-Proportions Hypothesis, theory of international fragmentation or vertical FD model (Helpman, 1984; Dixit & Grossman, 1982; Deardorff, 2001); the risk diversification model (Agmon & Lessard, 1977; Michel & Shaked, 1986); the Knowledge Capital Model (Markusen, 1997); Ownership advantages such as monopolistic advantage (Hymer, 1960; Kindleberger, 1969; Caves, 1971) and the Internalisation theory (Buckley & Casson, 1979; Swedenborg, 1979; Rugman, 1981; Hennart, 1982); as well as the Ownership, Locational and internalisation (OLI) model (Dunning, 1977; 1979; 2001). Moreover, Kojima (1973; 1978; 1982; 1990), and Kojima and Ozawa (1984) propound the macro-economic theory of FDI to explain which activities of firms are best undertaken in particular countries and that the distribution of value-added activity both within a country and between countries can only be explained in terms of comparative costs and benefits.

In line with the foregoing, many studies have empirically tested some of the variables identified by some of the theories mentioned above. In line with the OLI model, Dunning (1980) shows that location-specific variables (such as market size, transport costs, factor costs, political stability, trade barriers and infrastructure quality) are the main drivers of FDI inflow. Using Gross National Product (GNP) or Gross Domestic Product (GDP) as a measure of market size, Dunning (1980) examination of FDI determinants in US, that of Swedenborg (1979) in Sweden, Schneider and Frey (1985) of FDI into some 54 developing countries and Papanastassiou and Pearce (1990) study of FDI into UK demonstrate this variable to be positively and significantly associated with inward FDI. Papanastassiou and Pearce (1990) also show that GNP per capita positively influence FDI in UK while Root and Ahmed (1979) conclude that the rate of growth of GDP is a more significant discriminating factor than the size of the GDP. Swedenborg (1979) however finds GNP to be negatively, and sometimes significantly, related to inward FDI.

An important FDI issue concerns the motivation behind a firm's choice to service a foreign market through affiliate production instead of licensing arrangements or exporting. The justification has been found in the existence of firm-specific intangible assets (or ownership advantages) such as research and development (R&D), advertising expenditure, managerial skill and technology and firm size, etc. Caves (1974) and Swedenborg (1979) have shown these to be important determinants of FDI. Moreover, Brainard (1993) reveals that Proximity-Concentration Hypothesis and horizontal FDI model explain FDI determination. In addition, policy factors like corporate tax rates and tax concessions (Root & Ahmed, 1978; Rolfé et al., 1993; Bénassy-Quéré et al., 2001) and risk factors like market risk, the exchange rate and the interest rate (Cushman, 1988; Klein & Rosengren, 1994) empirically account for FDI inflow.

Asiedu (2002) is of the opinion that the determinants of FDI in one region may not be the same for other regions. In the same vein, the determinants of FDI in countries within a region may be different from one another and from one period to another. Also, Obwona (2001) shows that macroeconomic policy consistency and political stability are important drivers of FDI into Uganda while Hanson (2001) indicates that factor price differentials motivate FDI flows.

Aremu (1997) categorizes the various types of foreign investment in Nigeria into five: wholly foreign owned; joint ventures; special contract arrangements; technology management and marketing arrangements; and subcontract co-production and specialization. With respect to FDI determinants in Nigeria, Ekpo (1995) reports that political regime, real income per capita, rate of inflation, world interest rate, credit rating and debt service are the key explanatory factors. Odozi (1995) reveals the negative effects of macroeconomic policies on FDI inflow before the structural adjustment programme (SAP) in Nigeria. These macro-policies also led to the proliferation and growth of parallel markets and sustained capital flight in the country. Moreover, Anyanwu (1998) identifies change in domestic investment, change in domestic output or market size, indigenization policy, and change in openness of the economy as major determinants of FDI. He further notes that the abrogation of the indigenization policy in 1995 encourages FDI inflow into Nigeria. In addition, Oke (2001) shows that host country market size, openness of the economy to foreign trade, and political stability, positively affect FDI inflow to Nigeria while exchange rate, attractiveness of host country's domestic policies, domestic inflation rate, and physical infrastructure negatively influence realized FDI in the country between 1970 and 2000.

### 3. Methodology

In this study, we focus on the country-specific or locational determinants of FDI in Nigeria between 1975 and 2008. Employing the Generalized Method of Moments (GMM) estimation technique, we add a one period autoregressive (AR) term to the equation specification in order to account for serial correlation. To analyze a total of thirty three (33) time series observations involved during the estimation period, we use EViews 7 statistical package.

#### 3.1 Specification of the Model

The implicit form of the model of the locational determinants of FDI in Nigeria is specified as follows:

$$\begin{aligned} \text{LogFDI}_t = & \beta_0 - \beta_1 \text{LogINF}_t + \beta_2 \text{LogGDP}_t + \beta_3 \text{LogINFDEV}_t + \beta_4 \text{LogGOVEXP}_t \\ & + \beta_5 \text{LogHCA}_t - \beta_6 \text{LogPOLSTAB}_t + \beta_7 \text{LogIEC}_t + \beta_8 \text{LogEXCR}_t + \text{AR}(1) \end{aligned} \quad (1)$$

In order to satisfy the order of condition for identification, we use the following instrumental variables:

$\text{LogFDI}_{t-1}$ ;  $\text{LogINF}_{t-1}$ ;  $\text{LogGDP}_{t-1}$ ;  $\text{LogINFDEV}_{t-1}$ ;  $\text{LogGOVEXP}_{t-1}$ ;  $\text{LogHCA}_{t-1}$ ;  $\text{LogPOLSTAB}_{t-1}$ ;  $\text{LogIEC}_{t-1}$ ;  $\text{LogEXCR}_{t-1}$ .

Where, *FDI* = Foreign direct investment; *INF* = Inflation rate; *GDP* = Gross domestic product; *INFDEV* = Infrastructural development; *GOVEXP* = Government expenditure; *HCA* = Human capital development; *POLSTAB* = Political stability; *IEC* = Index of energy consumption; *EXCR* = Exchange rate. We expect 'a priori',  $\beta_2, \beta_3, \beta_4, \beta_5, \beta_6,$  and  $\beta_7 > 0$  while  $\beta_1$  and  $\beta_8 < 0$ . In other words, all the independent variables, except inflation rate and exchange rate, are expected to positively influence FDI.

#### 3.2 The Variables

**DOMESTIC INFLATION RATE (INF):** A high rate of inflation is an indication of macroeconomic instability and of the failure of the government to manage the economy (Fisher, 1993). Inflation beyond certain threshold will contract private investments (including foreign) by increasing risk and distorting price signals in the economy. (Dornbusch & Reynoso, 1989). Foreign investors seek economic stability as assurance for their investments. A negative relationship is thereby hypothesized to exist between levels of FDI and inflation rate.

**GROSS DOMESTIC PRODUCT (GDP):** The market size is an important 'pull' factor since a large market size potentially leads to increase in demand for products and services offered by foreign investors (Dunning, 1993a). Following Asiebu (2002) and Erdal and Tatoglu (2002), we use Gross Domestic Product (GDP) as a measure of the market size and postulate a positive relationship between FDI and GDP.

**INFRASTRUCTURAL DEVELOPMENT (INFDEV):** Foreign investors would prefer a host country with a good infrastructure, which will facilitate communication, transportation and distribution, and impact positively on returns on investments (Asiedu, 2002; Erdal & Tatoglu, 2002; Jenkins & Thomas, 2002). We expect a positive relationship between infrastructure development and FDI.

**HUMAN CAPITAL DEVELOPMENT (HCA):** The importance of education to economic growth is proxied by the ratio of secondary and tertiary institution enrolment in the population. Following Balasubramanyan, Mohammed, and Sapsford (1996), we expect a direct relationship between human capital and FDI.

**POLITICAL STABILITY:** It is widely acknowledged that when a country is politically stable its economy will grow and development will be enhanced. An unstable political climate will have the opposite effect in addition to discouraging investments, both local and foreign. We use dummy variable to capture periods without coups d'état in this study. We expect a direct relationship between the measure and FDI.

**INDEX OF ENERGY CONSUMPTION (IEC):** Given the availability of data we use electric power consumption as a proxy for this variable. The variable is measured as per capita electricity power consumption.

**FOREIGN EXCHANGE RATE (EXCR):** An overvalued exchange rate or highly distorted foreign exchange rate is expected to discourage exports and negatively affect FDI. Frost and Stein (1989) indicate that the values of the US dollar and the propensity of foreign firms to invest in the US are negatively and significantly related since the former alter relative wealth across nations.

### 4. Research Findings

From the GMM result in Table 2, we obtained the following:

$$\text{LogFDI}_t = 16.11 + 0.16 \text{LogINF}_t - 0.16 \text{LogGDP}_t - 1.98 \text{LogINFDEV}_t + 0.94 \text{LogGOVEXP}_t + 1.21 \text{LogHCA}_t + 0.65 \text{LogPOLSTAB}_t + 0.74 \text{LogIEC}_t + 0.19 \text{LogEXCR}_t - 0.48 \text{AR}(1) + \mu_t$$

The results of the GMM as presented in Table 2 below show that *Log(GOVEXP)* (the index of government expenditure and of fiscal policy), *Log(IEC)* (Index of energy consumption), and *POLSTAB* (indicator of political

stability) are positive and significant predictors of FDI in Nigeria at 5 percent significance level during the period under consideration. The parameter estimates thus comply with the 'a priori' expectations of a positive relationship between FDI and each of these variables. It is not surprising that power availability, government expenditure and a stable polity will enhance FDI in a country that is still hugely driven by the public sector. All the remaining explanatory variables however are insignificant determinant of FDI at 5 percent level and only the indicator of human capital is rightly signed among them. Both Inflation and exchange rate enter with a negative sign while the indicator of market size (GDP) and the index of infrastructure enter with negative sign. It is indeed surprising and paradoxical that market size and infrastructure negatively influenced FDI while inflation rate and exchange rate have positive influence. It perhaps could mean that both rate of inflation and exchange rate have not reached the threshold that discourages FDI while both GDP and infrastructure are too low to attract FDI into the country.

The results further show that the coefficient of determination ( $R^2$ ) value is high at 0.94 and is statistically different from zero. Thus, over 94 % of the variations in FDI can be attributed to variations in the independent variables. Moreover, the J statistic of almost zero means that the model is well specified.

## 5. Conclusion

In this paper, we examine country specific or locational determinants of FDI in Nigeria. The results of the GMM as employed in this study the index of government expenditure, index of energy consumption, and the indicator of political stability are positive and significant predictors of FDI in Nigeria at 5 percent significance level from 1975 to 2008. Inflation, exchange rate, market size, index of infrastructure and the indicator of human capital are not significant determinant of FDI, although the latter is rightly signed. The result indicated that there is a very strong and positive correlation between the explanatory variables and FDI as indicated by the coefficient of determination of 94 %. It is recommended that guided training and integration be given to the human resources of the country to enable them to contribute positively to economic growth wherever they find themselves employed either with foreign or with indigenous firms and whichever sector they are in. The power sector may be further liberalized to allow for its more positive impact on FDI. Greater policy sensitivity towards infrastructural development is needed so that the cost of doing business in Nigeria can be significantly reduced thereby increasing the inflow of FDI into the country. The need for improvement in infrastructure in the country cannot be overemphasized.

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Table 1. Resource Flows to Nigeria US\$ Millions

	1995	2000	2004	2005	2006	2007	2008	2009
FDI	1079.27	1140.14	1874.03	4982.53	8824.80	6033.00	4876.45	5786.68
Remittances	804.00	1391.80	2272.70	3328.70	5435.00	9221.00	9980.00	9584.75

Source: World Bank (2011) "Migration and Remittances Factbook 2011" The International Bank for Reconstruction and Development / The World Bank, 2nd Edition.

Table 2. GMM Estimates

Dependent Variable: Log(FDI)				
Variables	Coefficient	Std. Error	t-Statistic	P Value
Log(INF)	0.1633	0.1569	1.0408	0.3088
Log(GDP)	-0.1612	0.1541	-1.0524	0.3036
Log(INFDEV)	-1.9786	1.3567	-1.4584	0.1583
Log(GOVEXP)	0.9449	0.2018	4.6820	0.0001***
Log(HCAP)	1.2062	1.4679	0.8217	0.4197
POLSTAB	0.6514	0.1638	3.9777	0.0006***
Log(IEC)	0.7433	0.3489	2.1304	0.0440**
Log(EXCR)	0.1902	0.2046	0.9298	0.3621
AR(1)	-0.4782	0.2068	-2.3119	0.0301
C	16.1084	15.5143	1.0383	0.3099
R-squared	0.9438			
Adjusted R-squared	0.9218			
Durbin-Watson stat	2.2425			
J-statistic	4.68E-18			
Observations	33			
Period Covered	1975-2008			

Source: Authors computation (2011) using EViews 7 statistical package.

Note: \*\*\* Significant at 1 percent level; \*\* Significant at 5 percent level.

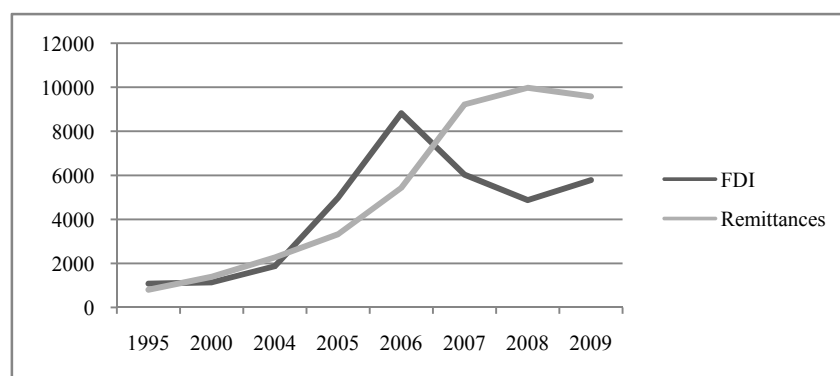


Figure 1. Resource Flows to Nigeria US\$ Millions

Source: Authors computation (2011) using EViews 7 statistical package.

# Measuring the Impact of BRAC Microfinance Operations: A Case Study of a Village

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## Abstract

The study attempted to measure the impact of BRAC microfinance operations on the livelihood of the borrowers of a sample village. With the purpose of measuring the impact of microfinance, randomly 208 people having minimum three-year attachment with BRAC microfinance operations were selected from a village. Primary data were collected by a semi-structured questionnaire, and both qualitative and quantitative data were used to assess the efficacy of microfinance operations. Findings of the study suggest that the overall impact of microfinance operations is positive. Borrower's income and their contribution to the family expenditures increased significantly after joining BRAC. However, the income increased shows that the borrowers have been able to intersect only the extreme poverty line while the moderate poverty line is yet to be exceeded. On the other hand, there is a moderate impact observed in the creation of employment opportunity. In addition, the sample clients have been able fairly to employ themselves into self-employment activities which generate higher income. However, impact on savings and improvement of borrowers' dwelling house's condition is less significant. The volume of monthly savings is not significant, but the attitude of the borrowers towards savings is noticeable.

**Keywords:** Microfinance, Impact, Poverty alleviation, Livelihood, Microfinance institutions (MFIs), Socioeconomic development

## 1. Introduction

"Around the world, in rich or poor nations, poverty has always been present" (Shah, 2008). According to the World Bank, 1.4 billion people live in poverty across the world (based on 2005 PPP), which are nearly 25.2 % of the world population (Bauer et al., 2008). However, the extreme poverty (based on \$1.25) was reduced worldwide from 52 % in 1981 (1.9 billion people) to 26 % in 2005 (1.4 billion people) (ibid). Global poverty reduction was mainly driven by China (ibid), which has reduced the world's poverty rate, and excluding china, the world poverty fell only by around 10 % (Shah, 2009).

The problem of poverty and approaches to reduce it remain the most pressing dilemma in the international development debate. However, many programs have been undertaken so far at macro and micro level to eradicate poverty. Some programs are taken globally by the United Nations, World Bank and IMF; some are in regional level by the regional financial institutions like the Asian Development Bank (ADB), Islamic Development Bank (IDB). In addition, every country suffering from poverty has also taken initiatives at the national level to alleviate poverty by the respective national governments and non-government organisations (NGOs). The World Bank, IDB or ADB are seen to take programs for a period of time on a project basis, sectoral orientation or to tackle seasonal poverty sufferings. At the end of the period, projects are found to be shut down and the poverty alleviation programs get stopped as well. Poverty alleviation is a continuous process, and a long term program is inevitable for success in this regard. Microfinance institutions (MFIs), at the non-government level, are found to adopt such types of long term continuous process for poverty alleviation. For instance, Grameen Bank, BRAC, ASA, Proshika are some of NGOs of Bangladesh have been working last couple of decades with a view to eradicate poverty economically and socially.

The methodologies and programs of MFIs began to spread around the world as microfinance proved a viable method to alleviate poverty. "From 2004 to 2008 microfinance enjoyed unprecedented growth in emerging markets. According to data from the Microfinance Information Exchange (MIX), the sector expanded at historic rates, with average annual asset growth of 39 percent, accumulating total assets of over US\$60 billion by December 2008" (Chen, Stephen & Xavier, 2010). Currently 1000 to 2500 MFIs are serving some 67.6 million clients around the world (Sengupta & Aubuchon, 2008). So the global picture regarding the outreach of microcredit demonstrates the contributions made by the program to poverty alleviation (Ahmed, 2004).

There are good reasons to believe that microfinance makes the socio-economic conditions better for the poor. For instance, “the credit program of MFIs is highly successful, which is evidenced by the high repayment rate, awareness generated among the target group and beneficial developmental impact created on the receivers of the credit” (Reddy, 2000). However, some critics disagree that poverty cannot be eradicated with a tiny amount of money provided by MFIs; rather it implicates the poor in the long debt cycle. The answer to this criticism is found in a statement given by Adam Smith (1937; cited in Ahmed, 2004) in his *Wealth of Nations*. He said “when you have got a little, it is often easy to get more. The great difficulty is to get that little”. The economic condition of the destitute poor is so lamentable that they do not have that little amount as well. That little amount is the requirement at the doorsteps of the poor at the right time to help them facilitate and start feasible income generating activities (Ahmed, 2004). The question is “how do the destitute poor people get hold of that little amount”? Only MFIs provide that little amount of money and the poor will be able to make it bigger amount.

### *1.1 BRAC's Microfinance Programs*

BRAC (Bangladesh Rural Advancement Committee), as a non-government organisation (NGO) has emerged as one of the forerunners in the field of development cooperation after the liberation war of Bangladesh. It was founded in 1972 at Sulla village in Sylhet district of Bangladesh in response to the humanitarian needs of thousands of refugees returning to their homes after the war (Ahsan, 2005).

BRAC targets the landless people who are living below the poverty line, with particular focus on women, whose lives are dominated by illiteracy, disease and malnutrition. Their socio-economic empowerment is the primary focus of BRAC activities. With a view to this, collateral free loans, ranging from Tk. 1000-10,000, are disbursed to these members, which are repayable within one year. However, some loans such as house building loan are repayable in more than one year. During the initial period, BRAC arranges various training courses for village organisation (VO) members with a view to developing their skills. The VO members mostly engage, according to their own choice, in various income generating activities such as poultry, livestock, vegetable cultivation, fish culture, plantation, sericulture, small trade including grocery shops and restaurants (Islam, 1996).

BRAC's development efforts are conducted in six main sectors: Economic Development Program, Health Program, Education Program, Social Development Program, Human Rights and Legal services and Disaster Management, Environment & Climate Change (BRAC at a glance, 2009). At present, BRAC's microfinance network covers all the districts of Bangladesh by as many as 293,016 village organisations (VOs) with 8.09 million VO members (ibid), 93 % of whom are women (BRAC net, n.d).

After successful starting out of BRAC microfinance operations in Bangladesh, it has crossed the national demarcation and established itself in the international level. At present, its activities have widened in Afghanistan, Sri Lanka, Tanzania, Uganda, Pakistan, and Southern Sudan. Moreover, BRAC plans to help the citizens of Sierra Leone and Liberia in rebuilding their lives after decades of disastrous civil wars (BRAC net, n.d). When the world will become free from hunger and poverty, BRAC's activities will get stopped. Until then, it will strive “to find practical and scalable approaches to eradicate poverty” wherever is found (ibid).

### *1.2 Objectives of the Study*

The overall purpose of the study is to measure the impact of BRAC microfinance operations on the livelihood of the borrowers. In order to gain an understanding about the efficacy of the microfinance operations, this study addresses a number of aims:

- (a) To what extent BRAC microcredit borrowers have been able to develop themselves economically. That is, to what extent their income, contribution to the family expenditure and savings has increased after being involved with BRAC microcredit operations.
- (b) To what extent BRAC microcredit operations have been able to improve borrowers' dwelling house condition, to make them diverted to high income generating activities and to create employment opportunities.

### *1.3 Limitations of the Study*

The study has been conducted with some limitations. Some of these are identified as follows:

- (a) BRAC is a specialized non-government financial institution whose poverty alleviation programs are spread across the country. But the study was limited to only one village named Jaheedpur under Kumarkhali thana in Kushtia district of Bangladesh. So, the impact analysis is partial in the sense that the investigation has been carried out on only a small area of microfinance networks, as a result the question of representativeness of the sample may arise while interpreting the results.

- (b) It was difficult to figure out borrowers' income, expenditure and savings as the members of the households did not record data regularly and they were reluctant to respond to the questionnaire for fear of different difficulties. As a result, respondents gave answers with cautions and most of the time they presumed the amount of income, expenditures and saving which could be deviated from actual figures.
- (c) The relative weight of data is not same as the length of attachment with BRAC of all borrowers are not alike. But the impact of microfinance has been measured on an average basis where the standard deviation of the results might be different for the groups of short and long year's attachment.
- (d) A few numbers of sample respondents were found to receive credit and other economic facilities from more than one MFI simultaneously. Similarly, many respondents had other income sources before joining BRAC and this was also continuing after joining BRAC. The sample respondents were unable to separate income figure generated from BRAC microfinance operations from other sources. Therefore, the mere measurement of the impact of BRAC microfinance operations has thwarted to some extent because of overlapping.

## 2. Literature Review

Microcredit is being considered as an effective means of poverty alleviation. Though, there are considerable debates about the effectiveness of it and the characteristics of the beneficiaries who are benefited by it (Chowdhury, Mosley & Simanowitz, 2004). The available literature concluded that microfinance has varied impacts on the livelihood of poor people. Argument in favor of microfinance is that microcredit have brought millions - especially women - out of poverty and prompted economic sustainability (Glazer, 2010). Their arguments are supported by independent studies which advocate that "microcredit has a host of positive impacts on families that receive it" (Yunus, 2004). Microfinance clients have been able to increase their household income, decreased economic vulnerability and in some cases, wipe out poverty completely. In addition, they have been enjoying better nutrition, health facilities and greater empowerment as result of microfinance operations (Swope, 2005). Murdock and Haley (2002) conducted an extensive research on microfinance and its impact where they found a plenty of positive impact of microfinance on poverty reduction "as it relates to (the first six of the seven) Millennium Development Goals". These observations were supported by the findings of an evaluation study commissioned by the ADB (2007) on the effect of microfinance operations on rural households and the status of women of Bangladesh, Philippines, and Uzbekistan. The study concluded that the microfinance projects had positive impacts on the status of women by generating higher volume of cash in the household, greater involvement in making major expenditure decisions and making savings, "ability to generate more income on their own and greater role in business decision making, acquisition of more skills and expanding their network of friends and support system, and increased acquisition of assets".

Some countries such as Nepal, Bangladesh, India, Vietnam, China and the Philippines have commissioned an industry assessment of MFIs. These assessments identified benefits of MFIs such as "better food security and nutrition, housing and health, school enrolments for children, women empowerment and mobility, higher average household income and/or a more secure and consistent cash flow over the year, higher levels of literacy, building of human capital and assets and community participation, self-employment and employment of family member, employment creation-employment of nonfamily labor" (Bedson, 2009). In a study conducted by Panjaitan-Drioadisuryo & Cloud (1999) in Lombok, Indonesia, found that 90 % of sample clients of Bank Rakyat Indonesia (BRI) increased their income by 112 % and these families exceeded the poverty line. Only 10 % respondents' income did not increase because of misusing the money by their husbands. Similarly, Ghalib, Malki & Imai (2011) in their research attempted to examine whether microfinance reduced poverty and to what extent and which dimensions of poverty eased. Their study confirmed that microfinance programs improved significantly in household income, expenditure on healthcare, clothing, water supply and building a quality of dwelling house.

However, recent studies cast doubt on microcredit's effectiveness. Many studies suggest that the veracity of microfinance efficacy may be less attractive than the promise (Adams & Bartholomew, 2010). Borrowers have been burdened with multiple loans at exorbitant rates of interest, often having to borrow from more than one MFI to make their microcredit payments (Glazer, 2010). Noreen (2010) however, found in her study a varied impact of microfinance on poverty alleviation where significant positive impact noticed on children education and enterprise financial performance, but mixed evidence on food security, household expenditures and household assets and less significant impact has been observed on housing and income smoothening of enterprise. On the other hand, Adams and Bartholomew (2010) examined the impact of microfinance from the perspectives of maize farmers in Nkoranza in the Brong Ahafo Region of Ghana and concluded that the impact of microfinance programs on both social and economic wellbeing was trivial. On the other hand, Okpara (2010), in a study on Microfinance Bank and Poverty Alleviation in Nigeria suggested that that microcredit "in recent times picked up momentum in the drastic reduction of poverty. Ten years after the introduction of microcredit in Nigeria, poverty was still increasing though at a

decreasing rate with the increase of microcredit". However, continual increase of microcredit leads to radical reduction of poverty. Reasons which posed obstacles in the efficacy of microfinance program are identified as lack of entrepreneurial skills and adequate market of their products (Noreen, 2010) and misuse of loan by the male members-especially husband of the participants (Panjaitan-Drioadisuryo & Cloud, 1999).

Many researchers have compared poverty scenario between clients and non-clients of microfinance and scenarios before and after joining microfinance interventions.

Bansal (2011) carried out a comparative study (participant vs. non-participant of microfinance) in Punjab, India that showed microfinance programs were successful to diversify the economic activities in rural areas and made participants engaged in economic activities which increased income of individual and household and reduced income inequalities, as a result of which they managed to extricate themselves from financial vulnerability and reduce level of poverty. The study also showed that microfinance programs empowered women economically, socially, psychologically and politically. These findings are supported by the results of other study carried out by Jegede, Kehinde and Akinlabi (2011) which discovered that there is a significant difference in terms of income between participants and non-participants of microfinance program. The participants' income significantly increased which changed their economic status compare to non-participants. The study also summed up that "microfinance institution is indeed a potent strategy of poverty reduction and a viable tool for supplying credit to the poor". Similarly, Setboonsarng and Parpiev (2008) carried out a research on microfinance and Millennium Development Goals in Pakistan. They drew a comparative impact assessment of microfinance between borrowers' households of Khushhali Bank (KB) and non-borrowers. They found strong positive impacts of KB borrowing on agricultural production, especially in animal raising activities and agricultural farming. KB clients possessed on average higher value of livestock, farm equipment and rental income from farm equipment than that of non-borrowers. However, they did not find any significant impact on non-agricultural enterprise, durable assets, consumption, education, health care and empowerment. On the other hand, Rahman et al. (2001) found in his study that average working day of the respondents before joining Grameen Bank microfinance operations was 136 man days in a year and after joining the Grameen Bank they worked average 298 man days in a year which referred to changing working days 199 % higher than that of before joining.

The destitute people of villages suffer from hunger acutely, which is another dimension of poverty and they become happy if they are able to enjoy foods two or three times in a day. Several researches showed that microfinance operations freed them from hunger. Mina and Alam (1995) in a study suggested that 82 % of respondents had self-sufficiency of food for 2-6 months and only 18 % had for 6-7 months in a year before joining microfinance operation, while after joining the credit programs, the figures were just reverse to before joining the program. Rahman et al. (2001), however, revealed different statistics in their study that clients of microfinance operations spent a lesser portion of income to their family basic food items after joining credit program. They found that though the amount of expenses on food increased remarkably accounting for 274.41 % higher than before joining operations, but after joining credit program, they were spending only 66.75 % portion of income for their family basic food items, which was 18.84 % lower than before joining credit program while significant portion (85.59 %) of income would spend for that. The study also pointed study that no clients of microfinance had saving before joining Grameen Bank, but a remarkable advancement in saving was found after joining microcredit program. Moreover they found in their research that the value of all tangible resources of the clients went up by 955.9 % at the survey year after joining Grameen Bank microfinance program. Though an insignificant change (only 13 %) was taken place in land ownership. But drastic change was observed in livestock and poultry after joining credit program, which was 1606.05 % higher than before joining followed by house and modern amenities (265.43 %).

To sum up, most of the researchers found that microfinance has had a significant effect on the livelihood of the participants. Some critic researchers, however, argue that it is not a silver bullet or panacea of poverty alleviation. Indeed, the critics have raised a question if microfinance alleviates poverty at all (Swope, 2005) and if so, to what extent and which aspect of poverty has been eased.

### **3. Methodology of the Study**

"The industry has yet to standardize the framework used for such assessments. Parameters and frameworks vary depending on who commissions the assessment - the government, donors, internal industry stakeholders or investors" (Bedson, 2009). Different methods were applied in different researches to measure the impact of microfinance operations. In the early 1980s, Hossain (1984; cited in Develtere & Huybrechts, 2002) used a method known as "before and after" scenarios analysis of the borrowers. The same author (1998; cited in Develtere & Huybrechts, 2002) used another method to measure the impact by using member perception. More recently, some authors have used income and consumption as dependent variable for the measurement of the impact of microfinance operations

(Develtere & Huybrechts, 2002). In this study, the earlier method, “before and after”, mentioned above, has been used to assess the impact of microfinance operations of BRAC on the livelihood of the beneficiaries.

In this study, both primary and secondary data were used. Primary data were used to assess the impact of microfinance operations. With a view to collect primary data, a village (sample unit) named Jaheedpur under Kumerkhali police station in Kushtia district of Bangladesh was selected using probability sampling procedures. More than 200 clients having minimum 3 years experience of BRAC microfinance operations were brought under the field survey by using stratified sample technique. Participants of microfinance operations of BRAC were interviewed with a semi-structured questionnaire, which included two sections; the first section consisted of general information about the respondents such as name, age, educational back ground, marital status, years of attachment with BRAC microfinance operations, amount of loan taken etc. In the second section, they were asked about the routine information regarding microcredit and its economic return to measure the impact. Including these, changes of occupation, dwelling house, income and expenditure, attitude to saving etc. were remarkable.

In this study, several secondary data were also used for describing and demonstrating current profile of BRAC microfinance interventions. The secondary data were collected from different books of microfinance, journal articles, and official publications of different microfinance institutions, website, magazines, newspapers, published thesis papers of the scholars, published dissertation papers of the graduates etc.

After collecting primary data, they were tabulated using a data matrix sheet and all data was recorded using numerical codes. Various statistical measures such as tally, frequency distribution, and mean were used in describing the variables. Moreover, charts and data table were used to illustrate the analysis of findings.

#### **4. Analysis of Findings**

Microfinance programs, first and foremost, concentrate to economic development followed by social development of the borrowers. Because it is unanimously recognized that social development will not be effective without economic development by easing poverty. “Traditionally, development initiatives have been synonymous with raising people’s income and employment opportunities, increasing their consumption and helping them build assets and accumulate savings” (Galib, 2007). Poverty reduction programs are considered to deal primarily with aiding borrowers for tangible, material gains (ibid).

However, “impact assessments are plagued with methodological issues” (Bedson, 2009) as it is difficult to measure absolute impact of microfinance operations on the livelihood of the destitute people because of having different measurement processes and lack of unanimity about the definition of poverty, “difficulty of obtaining a comparable control group, disentangling credit benefits from the benefits of complementary development inputs of social programs, and limiting the number of attributes that define an assessment are but a few of the constraints” (ibid). There are some common variables to measure the impact of a typical microfinance programs “includes income, diversity of income sources, volatility of income, employment generation, assets acquisition, volatility of household consumption, education for children, poverty reduction, women empowerment and reduction in social exclusion of women” (Choudhury, 2001). In this study, some of the common variables mentioned above have been used to measure the impact of BRAC microfinance operations.

##### *4.1 Impact on Occupation*

Three major constraints that prevent the disadvantaged poor people from improving their lives are lack of access to formal financial services, “absence of self-employment opportunities and lack of skills” (Shamsuddoha, 2005). “BRAC realized that if different employment opportunities can be created, along with sufficient training and refreshers for capacity development, the poor could be linked to the mainstream economy which would ultimately bring them out of poverty” (ibid). With a view to employment generation, BRAC provides micro financial services and renders training and skills development services.

Table 1 presents overall employment and occupation scenario of the sample respondents before and after joining BRAC microfinance operations. Data shows that before joining microcredit scheme a significant number (32 %) of respondents were unemployed. While no one was seen as an unemployed after joining microcredit scheme, which can be considered to be worth mentioning and drastic transition in employment scenario. On the other hand, before being involved with BRAC’s microcredit, around 31 % of respondents were involved in low paid works. However, the number plummeted (about 77 % decreased compare to before joining) after joining BRAC, though still there were 7 % borrowers employed in low paid works in the survey year. While only around 37 % of respondents were self-employed before joining BRAC. The number increased sharply after participating credit scheme which accounted for around 93 % (161 % greater than before joining). Therefore, it is observed that participants have

diverted significantly to self-employed activities after joining BRAC microcredit programs which lead them to be self-reliant and good means of livelihood.

#### *4.2 Impact on Income*

“Poverty reduction takes place when the poor people are able to generate income” (Subrahmanyam, 2000). The income of the rural poor people is not sustainable as their income depends heavily on seasons. Especially “at the harvesting time, their income reaches peak, while in other periods, they have almost nothing” (Develtere & Huybrechts, 2002). On the other hand, women workers suffer from gender inequality in getting jobs and wages compared to men. They are not offered jobs equally and/or if offered, they are not paid as much as is paid to male workers despite doing the same or similar works, which brings household average income level down. Therefore, poverty is strongly associated with income inequality (Deolalikar, 2002).

BRAC emphasizes on sustainable income generation which is a pre-condition of getting rid of poverty. Table 2 shows the changes of average per capita monthly income of the sample respondents before and after joining BRAC. Data reveals that the average per capita monthly income before joining BRAC microfinance operations was Tk. 1116.67. While after joining BRAC micro loan scheme, a tremendous change is observed in the income scenario, where average per capita monthly income has sharply raised to Tk. 3923.56 which is almost 254 % higher than before joining BRAC. It is apparent in the data table that on an average 100 % of sample respondents’ income has increased. Field survey reveals that the more years’ members are attached with BRAC microfinance operations, the more amount of loan they have taken and their income level have increased accordingly. Data relating to income, amount of loan taken and length of attachment with BRAC operations (Table 7) suggest a significant positive impact on income with cumulative loan size and length of association with BRAC.

The World Bank (2008; cited in Bauer et al., 2008) defines extreme poverty as living on less than US \$1.25 (PPP) per day, and moderate poverty as less than \$2 a day. Accordingly, a person is thought of extreme poor who earns less than Tk 2587 ( $Tk.69 \times \$1.25 \times 30days$ ) and moderate poor whose earning is less than Tk 4140 ( $Tk 69 \times \$2 \times 30 days$ ) in a month (Note 1). Table 2 shows that the average income level before joining BRAC lies underneath of the income level indicating extreme poverty while after joining BRAC, the average income level lies above the income level indicating extreme poverty but underneath of the income level indicating moderate poverty. The statistics categorically demonstrates that the sample borrowers had been suffering from extreme poverty before joining BRAC. While they have been able to cross the extreme poverty line but failed to exceed the moderate poverty line after joining BRAC.

#### *4.3 Impact on Expenditure*

The daily family expenditure depends heavily on household income capacity. Usually the more income leads to more expenditure. The income and expenditure scenario of the poor household is hand to mouth. Households consists of 3 to 5 or 6 members depend only on one or two members’ income by which need for basic foods, clothing, health care, education etc. of all members are to be fulfilled. They always prioritize in meeting basic needs, such as eating 2 or 3 times in a day, and if anything is left thereafter they consider for meeting other demands.

Table 3 shows contributions to the family expenditure of the sample respondents before and after joining BRAC microfinance operations. Data revealed that average monthly contributions to family expenditure of the sample respondents before joining BRAC was Tk. 1019.30, out of which most of the expenditure were (88 %) incurred in meeting basic food. Only a minor portion of expenditure was made for clothing (5 %) and a trivial portion for children’s education and other purposes. The contribution to their family expenditure has gone up to Tk 3769.30 after joining microcredit programs, which is 270 % higher than before joining BRAC. An insignificant portion of expenditure was made in the health care (5 %) and entertainment purposes (3 %) after joining microcredit program where there was no allocation before joining which can be thought of a positive transition of their lives.

Data illustrated an important fact that though the amount of expenditure on basic food items increased, but the percentage of expenditure to that purpose reduced by 25 % with the borrower’s increased contribution to their family expenditure and expenditure on clothing; children’s education and other purpose increased remarkably. Another important thing was found in this study that the contribution to the family expenditure went up with the increase of respondents’ income. Average contribution to the family expenditure of the sample respondents increased about Tk.2750 per month with the increase of monthly income on an average of Tk.2807 (Table 2) after joining BRAC.

#### *4.4 Impact on Savings*

Savings play a vital role in building confidence of the rural people. It can be used as the substitute of insurance where social safety nets are hardly ever existent for the poor of the developing countries (Morduch, 1999; cited in Hudon, 2006). MFIs emphasize on savings with a view to accumulate capital for further investment to “ensure

security and sustainability when the members leave” (Hossain, 2008) MFI and to tackle unexpected event(s) like cyclone, physical accident etc or different risks such as life-cycle risks, business risks, and emergency risks etc (Bedson, 2009). Because, poor people are the most defenseless to risks and “yet the least protected against” the consequences of different kind of risks. “These risks are compounded when they aren’t adequately prepared with a savings cushion to mitigate them” (ibid). The poor people have the desire to save and the demands for secure and convenient savings services are often even stronger among them than are credit services (Wright, 1999). However, “most poor people have little savings and even less discretionary income” (Bedson, 2009) as the reality is that their current consumption often exceeds current income.

The study made an attempt to ascertain attitude of the borrowers towards savings and data in this regard was presented in Table 4. The study revealed that the average monthly savings of the sample respondents were only Tk. 9.14 before joining BRAC. The number of respondents having monthly savings was negligible figure where the largest portion (79 %) was net dis-savings position. While after joining BRAC microcredit programs, 100 % respondents are under savings bracket and in the survey year the monthly average savings has gone up to Tk. 52.27 which is 471.88 % higher than before joining microcredit scheme. One thing is visible in this study that though the volume of savings has not increased significantly, however, the attitude of the borrowers towards savings has improved with heartening rate.

#### *4.5 Impact on Employment Generation*

In Lesser Developed Countries (LDCs) like Bangladesh, most of the household’s income depends only upon one income earner. MFIs contribute directly or indirectly to increase their income bracket by creating new employment opportunities. “Microcredit delivery to women assists to generate employment for the able bodied male members who may not have access to the credit facility” (Choudhury, 2001).

Table 5 exhibits the statistics of employment generation upon participated in the BRAC microfinance operations by the sample respondents. The study found that there were only 276 income earners in the households of the sample respondents before joining BRAC microcredit programs, where most of the households (68 %) were depended only upon one income earner. The numbers of households having 2 or 3 income earners were 24 % and 8 % respectively. The scenario of employment generation has turned out to be better after joining BRAC. Data shows that as many as 148 new employment positions have created which is 54 % more than the number of employment before joining BRAC. A high increase (5 % of households) of employment generation is observed where there are 4 income earners of 10 households in the survey year whilst there was no household having 4 income earners before joining BRAC. On the other hand, number of households having only one earner has reduced by 62 % and number of households earning 2 or 3 members has increased sharply. These statistics therefore, categorically illustrate positive impact of microcredit programs in the creation of employment opportunity.

#### *4.6 Impact on Dwelling House*

Housing condition is an important determinant to judge people’s living standard and accumulated wealth position. The out looking of houses built in urban is quite different from that of rural areas of Bangladesh. Generally, rural houses are seen to build with thatch, bamboo, clay and tin. Residents of these kinds of house persistently remain in danger caused by natural (storms or cyclone etc) or unnatural (robbery or theft etc) turbulence. Moreover, they suffer recurrently from normal rainfall as most of these houses usually have several holes and remain all the time warm and dark as there is no proper ventilation system (Khondkar, 1999). While urban houses are built with bricks permanently that protect residents from dangers.

Table 6 presents housing condition of the sample respondents before and after joining BRAC microfinance operations. Table shows that most of the respondents’ (87 %) houses, before joining microcredit programs, are fully made by clay and thatch which are risky for living. This number has reduced by 36 % after joining BRAC which cannot be said significant improvement. On the other hand, 13 % houses were made with clay wall and tin roof before joining BRAC while this figure went up by 162 % after joining BRAC which could refer outstanding development. Only 11 % of sample respondents have been able to make their houses by fully tin after joining BRAC where there was no respondent possessed this kind of house before joining BRAC which can be measured a slight improvement in the dwelling house though they are not still free from dangers.

### **5. Conclusion and Recommendations**

The study has illustrated the impact of BRAC microfinance operations on the livelihood of the borrowers. The above analysis shows that the overall impact of BRAC microfinance operations on the livelihood of the borrowers is positive. Though, in some cases the impact is limited or not significant. In the case of changes of employment (occupation) pattern, the sample respondents have been able moderately to employ themselves into higher income



generating activities. The study found that as many as 119 (161 %) sample borrowers have diverted themselves to self-employed activities which generates higher income, and there were 15 (7 %) of respondents still employed in low paid works after joining BRAC. Borrower's income and their contribution to the family expenditures have increased significantly after joining BRAC. The average contribution to the family expenditure of the sample respondents gets increased by the amount of Tk. 2750 (270 %) per month with the increased of monthly income on an average by Tk. 2807 (254 %) per month after joining BRAC. Borrowers having long periods of attachment with BRAC microfinance program show high volume of income compared to borrowers having short period of attachment. However, this income increase is not good enough to meet all their basic needs. The income increase shows that the borrowers have crossed only the extreme poverty line though the moderate poverty line is yet to be exceeded. On the other hand, there is a moderate impact observed in the creation of employment opportunity. As many as 148 income earners increased i.e. 54 % new employment opportunity has created after joining BRAC microfinance programs, while a number of households (22 %) have failed to create new income earner (still depend on one income earner) despite involving themselves into BRAC microcredit programs.

The cases where the impact of BRAC microfinance program finds less significant are savings and improvement of borrowers' dwelling house condition. Volume of savings has increased with insignificant rate (Tk. 43.13 per month); however, the attitude of all borrowers towards savings has improved after joining BRAC. On the other hand, a trivial change noticed in the improvement of the condition of dwelling house where most of the borrowers still remain in danger of natural and unnatural turbulence.

The plan, however, aiming for poverty alleviation designed by BRAC suffers from many limitations, such as providing very tiny amount of loan by which eliminating extreme poverty is possible while moderate poverty is not. Therefore, the following recommendations could be considered which could bring robust success in alleviating poverty by BRAC operations.

1. Observation indicates that BRAC lends money to low income generating sectors by which complete poverty alleviation is quite impossible. Realising this fact borrower becomes reluctant to involve themselves into microfinance programs rigorously even after taking loan. BRAC therefore, could look into moderate and high income generating employment sectors to divert borrowers to self-employed occupations.
2. Data shows that daily income of each borrower is less than \$2 after being involved with microfinance and poverty alleviation by this amount of income of a household having 2-3 members is quite difficult and unrealistic as well. Considering this fact, MFIs could emphasise on household poverty alleviation by incorporating all members of the household rather than only women member (usually wives). In that case, volume of income of the household may be improved.
3. To enlarge the volume of savings, MFIs could concentrate on attitudinal change of the borrowers towards large volume of savings and try to make them realise that large amount of savings reduces vulnerability in the livelihood.
4. To build a durable and permanent house, a large amount of money is required which is not affordable by marginal income of the borrowers. BRAC therefore, could provide housing loan to the borrowers on flexible terms and interest and technical assistance to the clients on how to build a durable and permanent house at a minimum costs.

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## Notes

Note 1. As of 15<sup>th</sup> April 2009, \$1 ~ Tk. 69, source: The Daily Star, Bangladesh, 14th April, 2009.

Table 1. Changes of Occupation Pattern of the Respondents

Pattern of Occupation	Before Joining BRAC				After Joining BRAC				% of Changes
	No. of Respondents		%		No. of Respondents		%		
Unemployed	68		32 %		0		0		100 (-)
Daily Labour	40		19		11		5		72 (-)
Maid Serving	15		7		2		1		87 (-)
Rice Husking	11		5		2		1		82 (-)
Agriculture (Share Cropping)	12		6		25		12		108 (+)
Handicrafts and Artisan	16		8		32		15		100 (+)
Poultry Farming	5		2		16		8		220 (+)
Petty Business	25		13		33		15		32 (+)
Livestock Rearing and Fattening	8		4		25		12		212 (+)
Fishery	0		0		10		5		High Increase
Nursery	4		2		22		11		450 (+)
Bee Keeping	2		1		6		3		200 (+)
Tailoring (Sewing)	2		1		20		10		900 (+)
Small Cottage (Weaving)	0		0		4		2		High Increase
<b>Total</b>	<b>208</b>		<b>100</b>		<b>208</b>		<b>100</b>		

Occupations in the table are categorized into three; Unemployed, Low paid wages works, Self-employment works.

Source: Field Survey, 2009.

Note: Figures are rounded to the nearest whole number.

Table 2. Changes of Monthly Income

Length of Attachment (Year)	No. of Respondents <i>n</i> =208	Average per capita Income (Tk)		Changes of Per Capita Income (Tk.)	% of Changes
		Before Joining BRAC	After Joining BRAC		
3	45	1211	3500	2289	189 (+)
4	32	1210	3890	2680	221 (+)
5	53	1200	3920	2720	227 (+)
6	32	1050	4000	2950	281 (+)
7	24	958	4200	3242	338 (+)
8	16	860	4410	3550	413 (+)
9 and above	6	850	4500	3650	429 (+)
Combined average monthly income		Tk. 1116.67	Tk. 3923.56	Tk. 2806.89	254 (+)

**N.B.** Respondents having long attachment with BRAC operations show less income bracket before joining microcredit scheme. It is because, the inflation rate and minimum wages bracket were lower as many years back compare to survey year.

Source: Field Survey, 2009.

Note: Figures are rounded to the nearest whole number.

Table 3. Contributions to Family Expenditure (Monthly)

Heads of Expenditure	Expenditure Contributed (Tk.)		Average changes (Tk.)	Average changes in %
	Before Joining BRAC (average per month)	After Joining BRAC (average per month)		
Basic Food	901.24 (88 %)	2374.66 (63 %)	1473.42 (+)	163 (+)
Clothing	48.94 (5 %)	382.58 (10 %)	333.64 (+)	682 (+)
Health Care	-	145.12 (5 %)	145.12 (+)	High increase
Entertainment	-	115.98 (3 %)	115.98 (+)	High increase
Children's Education	6.12 (1 %)	304.45 (8 %)	298.33 (+)	4875 (+)
Others	63.20 (6 %)	420.28 (11 %)	357.08 (+)	565 (+)
<b>Total</b>	<b>Tk. 1019.30 (100 %)</b>	<b>Tk. 3769.30 (100 %)</b>	<b>Tk. 2750</b>	<b>270 %</b>

Source: Field Survey, 2009.

Note: Figures are rounded to the nearest whole number.

Table 4. Changes of Monthly Savings Status

Amount of Savings (Tk.) per Month	Before Joining BRAC		After Joining BRAC		% of Changes
	No. of Respondents	%	No. of Respondents	%	
No Savings	164	79	0	0	100 (-) High Decrease
Below 50	31	15	142	68	358 (+)
50 – 100	10	5	35	17	250 (+)
100 – 150	3	1	20	10	567 (+)
150 – 200	0	0	8	4	High Increase
200 and above	0	0	3	1	High Increase
<b>Total</b>	<b>208</b>	<b>100</b>	<b>208</b>	<b>100</b>	

Average monthly savings before joining BRAC= Tk. 9.14 and after joining BRAC Tk.52.27.  
Average savings increased after being involved with BRAC = Tk. 43.13 (472 %) per month.

Source: Field Survey, 2009.

Note: Figures are rounded to the nearest whole number.

Table 5. Creation of New Employment Opportunity

No. of Income Earners	Before Joining BRAC		After Joining BRAC		% of Changes
	No. of Respondents	%	No. of Respondents	%	
Only 1	141	68	47	22	62 (-)
Only 2	50	24	116	56	132 (+)
Only 3	17	8	35	17	106 (+)
Only 4	0	0	10	5	High Increase
<b>Total</b>	<b>208</b>	<b>100</b>	<b>208</b>	<b>100</b>	

Total number of employment before joining BRAC was 276 and after joining it is 424.  
New employment created as many as 148 (54 % more than before joining).

Source: Field Survey, 2009.

Note: Figures are rounded to the nearest whole number.

Table 6. Changes of Dwelling House Condition

Nature of Houses	Before Joining BRAC		After Joining BRAC		% of Changes
	No. of Respondents	%	No. of Respondents	%	
House made by Clay and Thatch	75	36	60	29	20 (-)
House made by Thatch fully	107	51	56	27	48 (-)
House made by clay and Tin	26	13	68	33	162 (+)
House made by fully Tin	0	0	24	11	High Increase
<b>Total</b>	<b>208</b>	<b>100</b>	<b>208</b>	<b>100</b>	

Source: Field Survey, 2009.

Note: Figures are rounded to the nearest whole number.

Table 7. Years of Attachment with BRAC and Amount of Loan Taken by the Respondents

Year of Attachment (Years)	Loan Amount Taken (per head) Tk.	No. of Respondents	Average Loan Taken (per head) Tk.
3	Less than 30 000	32 (15 %)	15 000
4	30 000 – 40 000	63 (30 %)	35 000
5	40 000 – 50 000	47 (23 %)	45 000
6	50 000 – 60 000	21 (10 %)	55 000
7	60 000 – 70 000	16 (8 %)	65 000
8	70 000 – 80 000	23 (11 %)	75 000
9 and above	80 000 – 100 000	6 (3 %)	90 000
<b>Total</b>		<b>208 (100 %)</b>	

Average loan Taken per head Tk. 44 520.00

Source: Field Survey, 2009.

Note: Figures are rounded to the nearest whole number.

# Effects of Strategic Performance Appraisal, Career Planning and Employee Participation on Organizational Commitment: An Empirical Study

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## Abstract

Despite the recent research efforts into the antecedents of organizational commitment most especially in the developed economies, little empirical work has been conducted examining the effect of some human resource management practices such as performance appraisal system, career planning system and employee participation on organizational commitment. In this article, we examined the effect of these human resource management practices in explaining employee job commitment in the Nigerian banking sector. Based on a survey of 14 banks in Nigeria, the study applies regression analysis, correlation analysis and G-test in testing the hypotheses. Results indicate that performance appraisal system, career planning system and employee participation significantly influence employee job commitment and that the level of organizational commitment of employees in the Nigerian banking sector is low. The study therefore, recommends that for employees to be genuinely committed to their jobs, organizations should make conscious efforts at strategically managing performance appraisal, career planning and employee participation with a view to ensuring effective implementation and achieving desired results.

**Keywords:** Performance appraisal, Career planning, Employee participation, Organizational commitment

## 1. Introduction

One of the most important success factors in today's turbulent and competitive business environment is an energetic, competent, motivated, productive and highly committed and innovative human resource. With the realization that Human Resource (HR) is indeed an organization's valuable asset and hence, a source of competitive advantage, there is a need for organizations to address the effectiveness of their employee participation in decision making, performance appraisal and career planning systems as well as how responsive these practices are in enhancing job commitment of employees. The success, survival and competing power of organizations depend on the commitment of their members, and this may to a large extent depend on how satisfied the employees are in respect of the organization's appraisal mechanism, extent of participation in decision making as well as career planning strategies. The concept of organizational commitment therefore, plays an important role in HRM philosophy. As Guest (1987) puts it, HRM policies are designed to 'maximize organizational integration, employee commitment, flexibility and quality of work'.

There is a need to understand the linkage between individuals and organizations in terms of conceptual framework of organizational commitment. Organizational commitment has been widely described in the management and behavioural sciences literature as a key factor in the relationship between individuals and organizations. For

example, it has been described as the factor that promotes the attachment of the individual to the organization (Raju & Srivastava, 1994). Employees who willingly continue their association with the organization and devote considerable effort to achieving organizational goals could therefore, be regarded as being committed to the organization.

The issue of organizational commitment takes on increased importance due to its link with propensity to leave and turnover (Brown & Peterson, 1993). While there have been many proposed antecedents to organizational commitment, human resource management practices such as: employee participation, performance appraisal and career planning systems have received little or no attention in determining the precursors of organizational commitment. Hence, the broad objective of this study is to examine the effect of strategic performance appraisal, career planning systems and employee participation on organizational commitment of banks' employees in Nigeria. Other specific objectives of the study are to: (i) examine the extent of job commitment of banks' employees in Nigeria and (ii) examine the degree of relationships between organizational commitment and employee participation, performance appraisal and career planning systems in the Nigerian banking sector.

## **2. Literature Review**

### *2.1 Theoretical Framework*

#### 2.1.1 Organizational Commitment

Organizational commitment is the relative strength of the individual's identification with, and involvement in, a particular organization. It consists of three factors as highlighted by Armstrong (2006):

- i. a strong desire to remain a member of the organization;
- ii. a strong belief in, and acceptance of, the values and goals of the organization; and
- iii. a readiness to exert considerable effort on behalf of the organization.

An alternative definition of organizational commitment emphasizes the importance of emotions, costs and personal values in creating commitment. Meyer and Allen (1993) identified and defined three components of organizational commitment as follows:

- i. Affective Commitment
- ii. Continuance Commitment
- iii. Normative Commitment

These three components of commitment are alternatively described by Brief (1998) as the product of (i) emotional attachments (affective commitment), (ii) the costs of leaving, such as losing attractive benefits or seniority (continuance commitment) and (iii) the individual personal values (normative commitment).

According to Meyer and Allen (1993), affective commitment is concerned with employees' attachment to, identification with and involvement in the organization. It therefore, follows that; affective commitment to the organization could be characterized by a sharing the values, a desire to maintain membership and working without any expectations for the benefit of the organization. In consequence of the affective commitment, employees want to maintain their memberships in the organization (Dawley et al., 2005). Affective commitment refers to feelings of belonging and sense of attachment to the organization and it has been related to personal characteristics, organizational structures, and work experiences, for example; pay, supervision, role clarity and skill variety (Hartmann, 2000).

Continuance commitment on the other hand refers to employees' assessment of whether the costs of leaving the organization are greater than the costs of staying. Employees who perceive that the costs of leaving the organization are greater than the costs of staying remain because they need to. In other words, individuals do not leave a company for fear of losing their benefits, taking a pay cut, and not being able to find another job (Murray et al., 1991).

Normative commitment refers to an employee's feelings of obligation to remain with the organization. According to Meyer and Allen's (1991), the individual commits to and remains with an organization because of feelings of obligation. These feelings may be derived from many sources. For example, the organization may have invested resources in training an employee who then feels a 'moral' obligation to put forth effort on the job and stay with the organization to 'repay the debt.' It may also reflect an internalized norm, developed before the person joins the organization through family or other socialization processes, that one should be loyal to one's organization.

#### 2.1.2 Performance Appraisal System

Virtually all organizations have some formal or informal means of appraising their employees' performance. Dessler (2008) defined performance appraisal as any procedure that involves (i) setting work standards, (ii) assessing the

employee's actual performance relative to those standards, and (iii) providing feedback to the employee with the aim of motivating him or her to eliminate performance deficiencies or to continue to perform above par.

Organizations can therefore, monitor the development of desired employee attitudes and behaviours through the use of the appraisal mechanisms. This appraisal-based information could be used for changing the selection and training practices to select and develop employees with the desired behaviours and attitudes. However, the effectiveness of skilled employees will be limited unless they are motivated to perform their jobs.

### 2.1.3 Career Planning System

Career planning is the deliberate process through which someone becomes aware of his or her personal skills, interests, knowledge, motivations, and other characteristics; acquires information about opportunities and choices; identifies career-related goals; and establishes action plans to attain specific goals (Dessler, 2008). A well-functioning career planning system may encourage employees to take more responsibility for their own development, including the development of the skills viewed as critical in the company (Doyle, 1997). A well-planned career development system along with internal advancement opportunities based on merit, results in high motivation among employees, which has an impact on firm performance (Milkovich & Boudreau, 1998).

### 2.1.4 Employee Participation

Participation is about employees playing a greater role in the decision making process. It is an arrangement that ensure that employees are given the opportunity to influence management decisions and to contribute to the improvement of organizational performance (Armstrong, 2006). The degree of participation by non-managerial employees in decision making varies from one organization to another. Studies have however shown that employee participation is positively related to performance, satisfaction, and productivity of an employee (Pfeffer, 1994; Verma, 1995). The purposes of employee participation have been defined by Marchington et al. (2001) as:

- a. articulation of individual dissatisfaction - to rectify a problem with management or prevent deterioration of relations;
- b. expression of collective organization - to provide a countervailing source of power to management;
- c. contribution to management decision making - to seek improvements in work organization, quality and productivity; and
- d. demonstration of mutuality and cooperative relations - to achieve long term viability for the organization and its employees.

## 2.2 Previous Research

Studies linking performance appraisal, career planning and employee participation with organizational commitment are relatively too scanty. Hence, in this study, we presented some empirical findings linking organizational commitment with some related constructs or concepts such as leadership styles, intention to leave and job satisfaction.

Human resources management practices, leadership styles and trust within the organization are some of the organizational factors that have been associated with organizational commitment (Meyer & Allen, 1997).

In nine studies involving 2 734 persons, Dunham et al. (1994) examined how participatory management and supervisory feedback influenced employee levels of affective, continuance, and normative commitment. The researchers found that when supervisors provided feedback about performance and allowed employees to participate in decision-making, employee levels of affective commitment was stronger than both continuance and normative. That is, employees indicated staying with the organization was more related to wanting to, rather than needing to or feeling they ought to.

In a study of 238 nurses, Cohen (1996) investigated the relationship between affective, continuance, and normative commitment and the following other types of commitment: work involvement, job involvement, and career commitment. Findings revealed that affective commitment was more highly correlated with all the other types of commitment. In other words, employees who remained with the organization because they wanted to were more likely to exhibit higher levels of commitment to their work, their job, and their career.

Importance of training in developing committed employees cannot be ignored. Training generates a feeling of belongingness among employees. Likewise executive development programme also seems to be a platform of producing committed employees. Lam and Zhang (2003) conducted a study and found that expectations are normally unmet, and job characteristics, training and development, and compensation and fairness are related to



satisfaction and commitment. Loui (1995) also found that commitment was significantly related to trust, job involvement, and job satisfaction.

Blau (1985) examined the relationship between leadership style and commitment and found that a consideration leadership style was found to have a greater influence than task-oriented style on commitment. Organizational commitment provides a platform to employees in terms of staying in the organization. Mueller et al. (1994) found that organizational commitment is a better predictor of intention to stay and thus turnover intentions than job satisfaction.

Taunton et al. (1997) reported an indirect relationship between organizational commitment and turnover intentions and stated that organizational commitment was a stronger predictor of turnover intentions than job satisfaction in their causal model.

Moynihan et al. (2000) hypothesized that job satisfaction and affective commitment would positive association with general performance and leadership while continuance commitment would exhibit a negative association. As predicted, job satisfaction associated positively with performance, though not with leadership. Continuance commitment negatively associated with both performance and leadership. Increased organizational commitment has also been positively associated with valuable organizational outcomes, including job performance ratings, decreased intention to search for new jobs and reduced turnover intentions (Bergmann et al., 2000).

Few behavioral scientists believe that for generating commitment organizational support is also a key factor. Yoona (2002) proposed a new dual-process model of organizational commitment. The model stipulates that overall job satisfaction and perceptions of organizational support are key emotional and cognitive processes that mobilize commitment in the workplace. The model also suggests that the feelings of job satisfaction and perceptions of organizational support operate through independent channels to mediate the impact of work experiences on organizational commitment.

Irving et al. (1997) investigated the relationship between affective, continuance, and normative commitment and the outcome measures of job satisfaction and turnover intentions. Total participants for the study included 232 employees. Results revealed that job satisfaction was positively related to both affective and normative commitment. However, job satisfaction was negatively related to continuance commitment. All three types of commitment were negatively related to turnover intentions, with continuance commitment having the strongest negative relationship.

Cohen and Kirchmeyer (1995) undertook a study to investigate the relationship between affective, continuance, and normative commitment and the non-work measure of resource enrichment. Their participants included 227 nurses from two hospitals. The researchers found positive relationships between resource enrichment and both affective and normative commitment. However, the relationship between continuance commitment and resource enrichment was negative. In effect, employees who were staying with the organization because they wanted to or felt they ought to, indicated higher involvement and enjoyment with work activities. Whereas, employees who were staying with the organization because they felt they needed to indicated less involvement and dissatisfaction with work activities.

### **3. Conceptual Framework and Hypotheses Development**

Based on the above literature on performance appraisal, career planning, employee participation and organizational commitment, the following model was developed. The cornerstone of the model is tied around the fact that effective performance appraisal, career planning, employee participation would lead to an increased level of employee job commitment. The model is presented in Figure 1.

In order to achieve the objectives designed for this study, the following research hypotheses are stated in their null form based on the revelations in the review of literature concerning performance appraisal, career planning, employee participation and organizational commitment:

#### *Hypothesis One:*

Performance appraisal, career planning and employee participation have no significant effect on organizational commitment.

#### *Hypothesis Two:*

The level of organizational commitment in the Nigerian banking sector is low.

#### *Hypothesis Three:*

There is no significant relationship between organizational commitment and performance appraisal, career planning and employee participation.

## 4. Methodology

### 4.1 Population and Sampling Technique

The population of the study is made up of the 24 mega banks in Nigeria. The study specifically made use of a sampling frame consisting of 21 banks that were quoted on the Nigerian Stock Exchange (NSE) as at 1<sup>st</sup> May, 2011. The sample size of the study was computed to be 19 banks using the formula as suggested by Guilford and Flruchter (1973) for estimating sample size. Using simple random sampling technique, data was collected through the use of a structured questionnaire.

The unit of analysis in this study was the firm and multi-rater response approach was adopted. Three questionnaires were therefore sent to each company and address to the head of HR department who was required to be one of the respondents. Since the unit of analysis is the firm, the scores for each variable were aggregated and average over the three respondents for each company. For companies where the number of expected respondents is less than three, the average scores of the actual respondents were taken for each variable.

### 4.2 Analytical Techniques

Data collected was subjected to descriptive statistics, correlational analysis and multiple regression analysis. In order to gain perspectives into the socio-economic and demographic characteristics of respondents, frequency distribution of responses was calculated. G-test was used in ascertaining whether or not there is a significant difference between the observed level of organizational commitment and their expected values. While regression analysis was used to determine the predictor powers of performance appraisal, career planning and employee participation on organizational commitment, correlation analysis on the hand was used to show the relationship between the dependent and independent variables.

### 4.3 Measures

In this study, items used to operationalize performance appraisal, career planning, employee participation and organizational commitment were from previous validated measures and refined by the author to suit the purpose of this study.

Organizational commitment was measured using Meyer and Allen's (1997) Organizational Commitment Questionnaire (OCQ). It was modified by the author to suit the present study. Overall, organizational commitment was measured by an instrument having 15 items, each rated on a 5-point scale.

Performance appraisal, career planning and employee participation were all measured using previously validated scales (Singh, 2004; Som, 2008; Abdulkadir, 2012).

Performance appraisal was measured through an 8-item scale. The respondents were asked to indicate the extent to which performance is evaluated on the basis of quantifiable results and usage of performance appraisal data. In other words, they were to indicate on a scale of 1 'strongly disagree' to 5 'strongly agree' their agreement with some performance appraisal system practices in their organizations. A sample item was '*performance of the employees is measured on the basis of objective quantifiable results*'.

Career planning system variable was measured by an instrument having 7 items, each rated on a 5-point scale. The respondents were asked to indicate on a scale of 1 'strongly disagree' to 5 'strongly agree' the clarity and usage of career planning system in their organizations. A sample item is '*our company provides clear career path information to employees*'.

Employee participation was measured through a 3-item scale. The respondents were asked to indicate on a scale of 1 'strongly disagree' to 5 'strongly agree' the extent to which superiors allow employees to participate in operations decisions as well as the opportunity given to suggest improvements in the way things are done. A sample item is '*employees in this company are provided opportunity to suggest improvements in the ways things are done*'.

### 4.4 The Study Model

The study model which was based on the study's conceptual framework is presented below:

$$\text{Organizational Commitment} = f(\text{Performance Appraisal, Career Planning, Employee Participation}) \quad (1)$$

$$OC = f(PA, CP, EP) \quad (2)$$

$$OC = \beta_0 + PAS\beta_1 + CPS\beta_2 + EP\beta_3 + e \quad (3)$$

Where, *OC* = Organizational Commitment; *PAS* = Performance Appraisal System; *CPS* = Career Planning System; *EP* = Employee Participation;  $\beta_0$  = constant term;  $\beta_1$ ,  $\beta_2$  and  $\beta_3$  = coefficients of performance appraisal, career planning and employee participation respectively, and *e* = error term.

## 5. Results

### 5.1 Demographic Characteristics of the Respondents

Out of a set of fifty seven (57) questionnaires that were administered to nineteen (19) companies, 34 copies of questionnaire from 14 companies were dully completed and returned. This represented about 60 % response rate.

The analysis is therefore, based on a set of thirty four (34) copies of questionnaire that were returned and found suitable for analysis. The detailed analysis of the demographic characteristics of the respondents is therefore, presented in Table 1 below:

The table shows that of the 34 respondents 22 (65 %) are within the rank of Assistant Managers and above while 35 % are below the managerial position. This gives an indication that the respondents are highly rated employees. 35 % of the respondents are based in the Human Resource Department s of their respective organizations. Those working in the Marketing and Operations departments represent about 24 % and 30 % respectively. Four (4) respondents representing 11 % are working in other departments such as risk management, legal and other supporting units of their respective organizations.

Majority of the respondents 25 (75 %) had put in at least four (4) years of service. This is an indication that the respondents have actually spent enough time in the service to know how the subject matter of this study could affect them. 58 % of the respondents are male, while 14 % are females. Thirty two (32) respondents representing about (84 %) are over 35 years old. The mean age of the respondents is 46.4 years.

### 5.2 Reliability and Validity

Cronbach alpha reliability test and item-to-total correlation were computed in order to address issues of common method variance and to assess the internal consistency of the multiple scales. Items having low item-to-total correlation may signal that the items do not reflect the particular construct or might have tapped into another dimension of the construct.

From our computations in Table 2 above, the Cronbach alpha of 0.92 is above the minimum threshold of 0.70 as suggested by Nunally and Bernstein (1994), while item-to-total correlations were well above the recommended value of 0.5 (Hair et al., 2005). The result therefore, indicates high internal consistency of the scales.

### 5.3 Test of Hypotheses

Of the 57 questionnaires distributed to nineteen (19) banks, we received a total of 34 completed and usable questionnaires representing a response rate of about 60 %.

#### *Hypothesis One:*

Performance appraisal, career planning and employee participation have no significant effect on organizational commitment.

Results indicate that performance appraisal, career planning and employee participation have significant effect on organizational commitment with a multiple correlation (R) of 0.84 and an adjusted R<sup>2</sup> of 0.63. This implies that about 63 % of the variation in organizational commitment is adequately explained by the independent variables i.e. performance appraisal, career planning and employee participation. The standardized coefficients of performance appraisal, career planning and employee participation are presented in Table 3 below. This result has thus, provided support for alternative hypotheses one.

#### *Hypothesis Two:*

The level of organizational commitment in the Nigerian banking sector is low.

The mean score of organizational commitment was 41.21 out of a possible maximum score of 75 thus, indicating a moderate (54.9 %) extent of employee job commitment in the Nigerian banking sector.

To test the significance of the extent of employee job commitment in the Nigerian banking sector, we computed a G-test with objective of ascertaining whether the extent of organizational commitment as given above significantly differ from the expected extent of commitment. We assert that for strategic HRM to be said to be at least moderately practice in the Nigerian banking sector, the extent of organizational commitment should not be less than 55 % hence; expected values used in the computation of G-test is 55 %.

The critical value of X<sup>2</sup> for degree of freedom of 13 (N-1) at 95 % level of confidence is 22.36. Since the empirical value (i.e. the computed value of G) is 9.039 and it is less than the critical value of 22.36, then the result is statistically insignificant. We therefore, accept the null hypothesis (H<sub>0</sub>) which states the level of organizational commitment in the Nigerian banking sector is low.

### *Hypothesis Three:*

There is no significant relationship between organizational commitment and performance appraisal, career planning and employee participation.

As shown in Table 4 above, there is a significant positive relationship between performance appraisal system and organizational commitment with a zero-order correlation of 0.57. Similarly, career planning system and employee participation were also found to have a significant positive relationship with organizational commitment with correlations of 0.59 and 0.63 respectively.

Overall, the above results provide support for the alternative hypothesis which asserts that there is a significant positive relationship between performance appraisal system, career planning system, employee participation and organizational commitment.

## **6. Discussion of Findings**

The main objective of this study is to examine the effect of performance appraisal, career planning and employee participation on organizational commitment among other key specific objectives. The results of this study have confirmed to some extent that performance appraisal, career planning and employee participation are major antecedents of organizational commitment. The results indicate that performance appraisal, career planning and employee participation all have significant positive effects on organizational commitment. This implies that the higher the levels of these HR practices, the higher the level of employee job commitment and hence, organizational commitment.

Our results also show that the level of organizational commitment in the Nigerian banking sector is low. This has to some extent confirmed our hypothesis that asserted that employees in the Nigerian banking sector are not fully committed to their jobs vis-à-vis their organizations.

Results also indicated that organizational commitment is positively related to employee performance appraisal, career planning and employee participation. It therefore, implies that the higher the level of performance appraisal, career planning and employee participation, the higher the level of organizational commitment.

## **7. Conclusions and Recommendations**

The results of this study have indicated that performance appraisal, career planning and employee participation have positive effect on organizational commitment and that the level of organizational commitment in the Nigerian banking sector is low. The results have, to a large extent, provided evidence for the value added by performance appraisal, career planning and employee participation in enhancing organizational commitment. Be that as it may, questions still need to be asked about the low level of employee job commitment in the Nigerian banking sector. Can this be pass-off as a problem of data specification or even procedure? Or can it be attributed to factors other than performance appraisal, career planning and employee participation? These, I believed, are questions that can be resolved under different settings.

However, for employees to be genuinely committed to their organizations, the study recommends that organizations should make conscious efforts at strategically managing performance appraisal, career planning and employee participation with a view to ensuring effective implementation. This can be achieved through ensuring that:

- a. employees have faith in the performance appraisal system;
- b. appraisal system has a strong influence on individual and team behaviour;
- c. the organization provides a clear career path information to employees;
- d. the organization plans for the career and development of employees;
- e. that employees are provided opportunity to suggest improvement in the ways things are done.

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Table 1. Demographic Characteristics of the Respondents (N = 34)

Characteristics	Frequency	Percentage (%)
<b>Job Title</b>		
Senior Managers & Above	8	25
Asst. Managers/Managers	14	40
Others	12	35
<b>Total</b>	<b>34</b>	<b>100</b>
<b>Departments</b>		
Human Resource	12	35
Marketing	8	24
Operations	10	30
Others	4	11
<b>Total</b>	<b>34</b>	<b>100</b>
<b>Length of Service</b>		
Less than 1 Year	2	5
1-3 Years	7	20
4-5 Years	14	43
5 Years & Above	11	32
<b>Total</b>	<b>34</b>	<b>100</b>
<b>Sex</b>		
Male	20	58
Female	14	42
<b>Total</b>	<b>34</b>	<b>100</b>
<b>Age</b>		
30-35 Years	2	6
36-45 Years	14	42
46-55 Years	13	37
56 Years & Above	5	15
<b>Total</b>	<b>34</b>	<b>100</b>

Source: Author's Computations, 2012.

Table 2. Descriptive Statistics and Item-to-Total Correlations

	Mean	Std. Deviation	Item-to total Correlations
Performance Appraisal System	28.43	2.74	.885
Career Planning System	26.14	2.63	.906
Employee Participation	10.71	0.91	.707
Organizational Commitment	41.21	5.95	.830

Source: Author's Computations Using SPSS, 2012.

Table 3. Results of Standardized Regression Model

	Standardized Coefficients	t-values
Performance Appraisal System	0.463	0.434
Career Planning System	0.131	0.116
Employee Participation	0.339	1.414
R	0.844	
R <sup>2</sup>	0.627	
F - value	8.288*	

Note: \* Significant at the 0.05 level.

Source: Author's Computations Using SPSS, 2012.

Table 4. Correlation Matrix of the Measurement Variables

Variables	1	2	3	4
Performance Appraisal System	1.00	.96**	.48*	.57**
Career Planning System		1.00	.54*	.59**
Employee Participation			1.00	.63**
Organizational Commitment				1.00

Note: \*\* significant at the 0.01 level; \* significant at the 0.05 level.

Source: Author's Conceptualization, 2012.

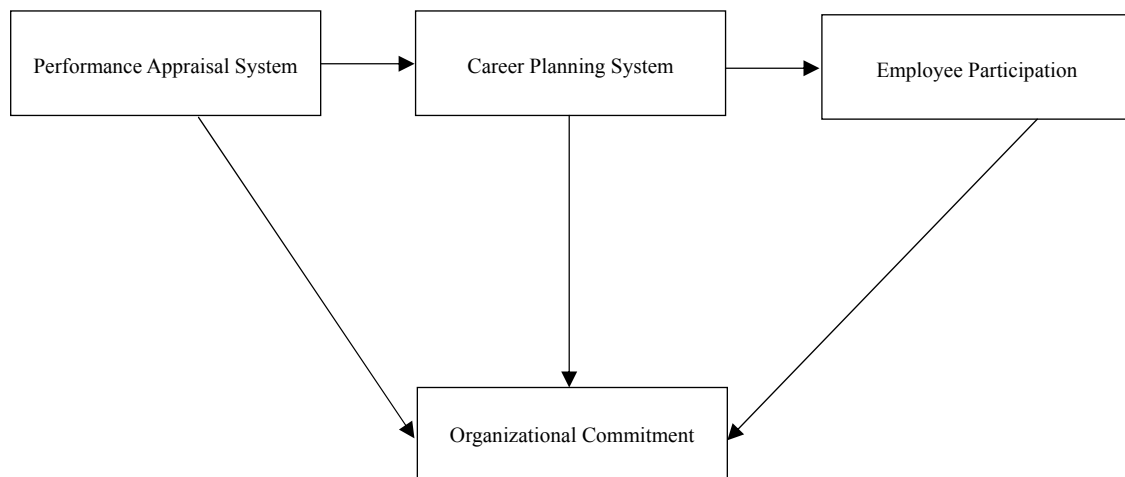


Figure 1. Conceptual Framework

Source: Author's Conceptualization, 2012.

# Improving Customer Service in the Banking Industry-Case of Ghana Commercial Bank (GCB)-Ghana

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## Abstract

Customer service has become so vital and significant to consider especially in the financial business sector whether locally or globally. As banks continue to provide an increasing number of financial services and products, they face the challenge of integrating these disparate systems into a coherent, efficient infrastructure, while delivering the highest level of customer service and convenience without exposing their customers to the bank's internal system integration problems. However, banks in Ghana especially Ghana Commercial Bank (GCB) needed to improve and formalize its customer service and public relations programs. A descriptive research method was used to gather data from the respective target population. Customer service at GCB from the customers' perspective is not satisfactory but has led to the increase in number of new customers, maintenance of existing customer and increase in profitability among others.

**Keywords:** Customer service, Improving, GCB, Banking

## 1. Introduction

During the past decade, the financial sector in Ghana has undergone major changes mainly through the financial sector structural adjustment programme as part of the economic recovery programme. Moreover, globalisation, mergers and acquisitions, and the emergence of new technologies have contributed dramatically to stiffer competition and pressures on profitability. In such a competitive marketplace, attracting profitable customers is a priority of all the financial institutions' (FI) managers especially banks. Banks are profit-seeking institutions that must provide acceptable returns to shareholders (Agyapong, Agyapong & Darfor, 2011).

The banking industry in Ghana has come under intense competition in the past ten years. This is due partly to new entrants into the industry both local and foreign and enforcement of Bank of Ghana regulations. High service quality is therefore required to differentiate offerings in the market place. Good customer service will only be defined by the experience of the bank customers. The question is what is required to attract, maintain and excite customers in the banking sector in Ghana.

Customers are the heart of every successful business and therefore businesses need to more concentrate on customers more than ever. Except those who donate blood voluntarily, one is either selling a service or a product for a living. Politicians, bankers, clerks, messengers, bus conductors, mortuary attendant, ticket agents, market women and everyone who provides a trade or service has a customer. According to Scott (2002), Customer service is a series of activities designed to enhance the level of customer satisfaction, that is, the feeling that a product or service has met the customer expectation. The level of satisfaction can also vary depending on other options the customer may have and other products against which the customer can compare the organization's products.

### 1.1 Industry in Ghana

Some of the main challenges in customer service in banking includes poor data base management of customers, illiteracy level of majority of customers, lack of adequate infrastructure and technology on which customer satisfaction depends on like electricity (for ATM operations), low level of internet penetration. The importance of technology in banking became obvious when developed countries that had involved IT in its banking operations managed to reduce their costs of operations (Daily Graphic, 2008). Banks in Ghana gradually introduced technology into its operations in the late 1980s to enhance their operations and to help clients enjoy their services with much convenience. Various researches have indicated that technology influences banking in a positive way in terms of productivity, cashiers' work, banking transactions, bank patronage, bank services delivery, customers' services and



bank services (Balachandher et al., 2001; Idowu et al., 2002; Hunter, 1991; Yasuharu, 2003). Owusu-Frimpong (1999), other factors that customers are looking for in a high customer service can be divided into two broad groups as tangible and intangible factors. The tangible factors may concern performance, quality, reliability, cost of services and convenience. The intangible factors may be reputation, sense of caring, courtesy, willingness to help, problem solving ability of staff, etc. The tangible and the intangible factors primarily drive home the point about customer's perception about how he/she is being treated by a bank. Is the bank being fair to him/her in matters of interest rates, penalties, service charges and that he/she has not to fear any hidden costs and charges at a later date. Further, the customer also draws comfort from the fact that he or she is not being discriminated against vis-à-vis a new customer.

Lack of data integration in the industry does not encourage industry growth. In fact, customer service is a challenging issue in any service industry as there are many intangibles that define a customer's satisfaction or otherwise with a particular bank / branch / product or process. The advertisement and marketing campaigns that seem to evoke heightened customer response would come to zero if the service standards do not match the perceived quality aspirations of the customers.

From the point of view of an overall sales process engineering effort, customer service plays an important role in an organization's ability to generate income and revenue (Don & Rogers, 2008). The benefits of the current customer-centric banking industry are phenomenal. The banks are able to differentiate themselves from the competition and improve their image in the eyes of the customer.

From the above perspective, customer service should be included as part of an overall approach to systematic improvement in banking activities because the customers decide whether the survival of banks in Ghana thus the researchers quest to investigate how the customer service can be improved in the Ghanaian banking industry with reference to Ghana Commercial Bank. The objectives of the research were as follows:

- a) To examine the awareness of GCB in the banking industry.
- b) To find out if the target market is aware of the offerings of GCB.
- c) To examine the attitudes of the target market towards GCB in relations to its image and reputation alongside that of its competitors.
- d) To identify areas where GCB needs to improve on its image in the industry.

## **2. Literature Review**

A service is any act or performance that one party can offer to another that is essentially intangible and does not result in the ownership of anything (Kotler & Keller, 2006). The insight of service marketing focuses on selling the services in the best interest of sers/customers. It is fretful with a scientific and planned management of services which makes possible a fair management of the interests of providers as well as the users. Services are vital segment of all economies and they become increasingly more everyday life as economies develop. The size of service sector is increasing day-by day generally in all types of economies in the World and in particular developing economies. This is an exhilarating time for services development, since new technologies are transforming the services worldwide. These elementary and speedy changes being practiced by services markets throughout the world are brought about among other factors primarily by the technological improvements and by competition oriented reform policies. This creates different anticipation on customers' awareness towards the product or service of the company. In the era of globalization and borderless market, responsiveness, quality and productivity are essential for the survival and growth of any organization (Potluri & Mangnale, 2011). Despite this huge transformation and improvement in the service sector and particularly banking sector in Ghana, it still remains a fact that less than 20 % of Ghanaians form the banking population as opposed to the 80 % unbanked population (Fanawopo, 2007). Gronroos (2000) defined service as, "A service is a process consisting of a series of more or less intangible activities that normally, but not necessarily always, take place in interactions between the customer and service employees and/or physical resources or goods and/or systems of service provider, which are provided as solutions to customer problems". Fogli (2006) defined term service quality as "a global judgment or attitude relating to particular service; the customer's overall impression of the relative inferiority or superiority of the organization and its services".

### *2.1 Service Interaction*

Interactions between customers and employees are a decisive component of service quality. This is principally factual for services exemplified by a high degree of person-to-person interaction and by the absence of an exchange of tangible goods. The client comes away from service interaction with feelings of contentment or annoyance. Service encounter is an interpersonal association between the firm's staff and customers (Potluri & Mangnale, 2011). Research has indicated that service quality has been increasingly recognized as a critical factor in the success of any business (Parasuraman et al., 1988), and the banking industry in this case in not exceptional (Hossain & Leo, 2009).

Service quality has been widely used to evaluate the performance of banking services (Cowling & Newman, 1995). The banks understand that customers will be loyal if they provide greater value (quality services) than their competitors (Dawes & Swailes, 1999), and on other hand, banks can only earn high profits if they are able to position themselves better than competitor within specific market (Davies et al., 1995). Consequently, banks need to focus on service quality as a core competitive strategy (Chaoprasert & Elsey, 2004).

## 2.2 Service Quality

Service Quality involves a comparison of expectations with performance. According to Lewis and Booms (1983) service quality is a measure of how well a delivered service matches the customers' expectations. Generally, the customer is requesting a service at the service interface where the service encounter is being realized; then the service is being provided by the provider and in the same time delivered to or consumed by the customer.

The main reason to focus on quality is to meet customer needs while remaining economically competitive in the same time. This means satisfying customer needs is very important for the enterprises to survive. The outcome of using quality practices is:

- Understanding and improving of operational processes.
- Identifying problems quickly and systematically.
- Establishing valid and reliable service performance measures.
- Measuring customer satisfaction and other performance outcomes.

Organizations are increasingly interested in retaining existing customers while targeting non-customers and customers of competitors; measuring customer satisfaction provides an indication of how successful the organization is at providing products and/or services to the marketplace. According to Rose and Hudgins (2008), a bank is a financial intermediary that offers the widest range of financial services especially credit, savings, and payment services and performs the widest range of financial functions of any business firm in the economy. The functions of a bank according to Reed and Gill (1989), include Creating Money, Payments Mechanism, Pooling of Savings, Extension of Credit, Facilities for the Financing of Foreign Trade, Trust Services, Safe keeping of Valuables and Brokerage Services. Universal banks offer the full range of banking services, together with non banking financial services, under one legal entity. In addition, the banks have direct links between banking and commerce through cross shareholders and shared directorships. Their financial activities normally include intermediation and liquidity via deposits and loans as well as trading of financial instruments (e.g., bond, equity, currency) and associated derivative, Stock broking, Corporate advisory services, including mergers and acquisitions, Investment management and Insurance (Heffernan, 2005). GCB provides a wide range of products and services for the benefit of its customers. From the traditional products of the Current/Savings Accounts, GCB now offers specialized products and services including Link2Home for Ghanaians resident abroad, doorstep cash collection, loans and overdrafts. There are also investments products like treasury bills as well as fixed and call deposits. These are cut to suit the individual needs of customers. In addition, GCB has taken advantage of an enhanced information technology system, to introduce Internet Banking (Commernet Plus), Royal Banking, Smart Pay (Fee Payments), Kudi Nkosuo, GCB Inland Express Money Transfer, International Money Remittance Payments, GCB Kidistar Account and MasterCard (Note 1).

However, a bank like GCB recognize that customer satisfaction (CS) plays a key role in a successful business strategy. What is unclear is the exact nature of that role, how precisely satisfaction should be managed, and whether managerial efforts aimed at increasing satisfaction lead to higher score in sales. Today, managers in the banking sector especially at Ghana Commercial Bank (GCB) undertake substantial efforts to conduct CS surveys. Yet it appears that in most cases the data are used to simply monitor specific attributes, and especially overall satisfaction, over time. Unless the impact of customer satisfaction on revenues is assessed, managers have little basis for allocation of resources.

The concept of customer care is concern with customer satisfaction putting the customer first, anticipating needs and problems, tailoring the product and services to meet needs and being nice to customers it also includes service to the customer, delivery operation, employee relationship with customer and internal relationship between employee and management. In improving customer care strategies and programs, financial services organizations are managing products and services, delivery systems, environment and people so as to provide an efficient and caring service, getting things right the first time and maintaining standards (Naveed, 2009). In services industries, the subject of service quality globally remains a critical one as service providers strive to maintain a comparative advantage in marketplace. Financial services in general, particularly banks; compete in marketplace with generally undifferentiated services and products, thereby service quality becomes a key competitive weapon (Stafford, 1996). A banking organization like GCB can only differentiate itself from competitors by providing high quality services. It is true that structural changes have resulted in banks to perform a greater range of activities, and enabling them to become more

competitive with non-bank financial institutions (Angur et al., 1999). Presently, technological advancements are causing banks to revise their strategies for services offered to both individual and commercial customers.

### 2.3 Quality Measurement

Quality measurement is separated in subjective and objective processes, at which mostly the customers' satisfaction is being measured. Measuring the customers' satisfaction is an indirect way to measure quality.

Objective processes are being subdivided into primary and secondary processes:

- During primary processes, test buyings from silent shoppers are being made or normal customers are being watched.
- During secondary processes quantifiable enterprise numbers like amount of complaints or the amount of given back goods are being analyzed, and with this information conclusions to quality can be drawn.
- Subjective processes are being subdivided into characteristic orientated, incident orientated and problem orientated processes.
- To the characteristic focused processes counts the SERVQUAL method.
- To the incident focused processes counts the Critical Incident Theory.
- To the problem focused processes counts the Frequenz Relevanz Analyse (German).

The most important and most used process to measure service quality is the SERVQUAL method.

In the early 1990s, the banking system included the central bank (the Bank of Ghana), three large commercial banks (Ghana Commercial Bank, Barclays Bank of Ghana, and Standard Chartered Bank of Ghana), and seven secondary banks. These and the commercial banks placed short-term deposits with two discount houses set up to enhance the development of Ghana's domestic money market: Consolidated Discount House and Securities Discount House, established in November 1987 and June 1991, respectively. At the bottom of the tier were 100 rural banks, which accounted for only 5 percent of the banking system's total assets. Loans rose, with banks' claims on the private sector up by 24.1 percent, to €117.4 billion (Note 2).

However, the Ghanaian Banking Industry has witnessed many developments in terms of innovative products and services. This current state of affairs has brought tremendous transformation in the way business is done in the banking industry. The deregulation of the sector and subsequent introduction of a universal banking license for banks to engage in all banking transactions ranging from merchant banking, commercial and investment banking to development activities has been a catalyst in this direction. The 21st century is considered as the service industry century. Service industry is growing at a rapid pace across developed and developing countries. Services are deeds, processes and performances (Zeithaml & Bitner, 2003). Broadly speaking, services include all economic activities whose output is not a physical product or construction is generally consumed at the time it is produced and provides added value in forms (convenience, amusement, timeliness, comfort or health) that are essentially intangible concerns of its first purchaser (Quinn & Paquette, 1987). Service has been entering every part of life from the most essential demands (such as eating, sleeping) to other entertainment needs such as banking, sport, traveling, cooking and telecommunication). Customer service improvement has led to the introduction of innovative products of banks as acknowledged by Koch and MacDonald (2006) can be financial or technical. For example, such emerging financial products as personal housing mortgage loans, personal consumption loans, sale and trusteeship of funds have not only satisfied people's diversified financial demands to some extent but also expanded banks' operational spaces and their profit-making channels. According to Koch (2006), financial innovation is the catalyst behind the evolving financial services industry and the restructuring of financial markets. Innovations take the form of new securities and financial markets, new products and services, new organizational forms and new delivery systems. Institutions may modify the means by which they offer products and services. Recent trends incorporate technological advances with development of cash management accounts, including the use of ATM, home banking via computer and the internet, and shared national and international electronic transfer systems.

Most of the service providers in Ghana behave as if they are doing their customers favors instead of rendering a service which is promised and paid for. Customer service has lost its impetus, for it is no longer an index measuring success of service providers. Customers have been pushed to the wall to accept the fact that as far as Ghana is concerned, the customer has no choice or voice other than to survive at the mercy of halfhearted service providers. Poor customer service is gradually becoming an accepted norm in our society (Adu-Gyamfi, 2008).

Customer expectations and needs for services have substantially increased (Wrennall, 2000). As customers become better educated, they demand new products, better and more reliable delivery as well as more responsive services. As a consequence, to improve competitiveness, banks have to understand customer needs and expectations (Parasuraman, 1991) and satisfy their customers by providing better products and services. In using the traditional Servqual model in

assessing service quality research done by (Khalid, Mahmood, Abbas & Hussain, 2011) in Pakistan indicated that in the assessment of service quality customer perceive highest satisfaction in the responsiveness area and lowest in the tangibles area. They found out that in order to achieve higher levels of service quality, the bank managers should redesign their strategies about customer satisfaction with respect to service quality.

According to Adu-Gyamfi (2008), the following are some of the causes of poor customer service in Ghana with regards to businesses:

- We do not teach it in our schools and business world.
- It is not respected by employers and co-workers to be customer service -oriented employee.
- One need to go extra mile in cultivating customer service, unfortunately most employers and employees are lazy.

The increased emphasis on quality improvement has led organizations to emphasize customer service. In almost any job especially the banking sector, customer service skills are important to achieving success and people skills form the foundation for good customer service. Such skills include interpersonal relation, problem solving, leadership and teamwork. People skills can foster a positive attitude, effective communication, courteous and respectful interaction and the ability to remain calm in control of difficult situations (Becker & Wellins, 1990).

Likewise, customer service training organization-wide can be a key component of a bank turnaround. As so many banks are striving to become increasingly customer-centric in order to survive and grow. Achieving this customer focus requires leveraging existing customer information to gain a deeper insight into the relationship a customer has with the institution, and improving customer service related processes so they are quick, error-free, and convenient for the customer. According to the American Bankers Association, the average cost to acquire a new customer in a bank in the United States is \$3,500. As a consequence of these high costs, retaining and growing the existing customer base becomes increasingly important. However, the realization of this in Ghana coupled mergers, acquisitions, and regulation changes has resulted in the banking industry increasing the number of services it provides to include more than just deposit and withdrawal to meet its customer-centric status (Microsoft in Financial Services, 2003).

In the same vein, banks cannot rule out the role of technology in customer service. Adoption of technology has changed the face of the banking sector which is manifest in the various transformational developments of the recent past. The benefits of technology are, however, not commensurate with the developments. The speed, cost, convenience and efficiency of banking services have not improved by factors that technology enables one to achieve. This, if banks can bring in cost-effective technology with appropriate delivery model, it would improve speed, efficiency and quality of banking services. It will also ensure that customers are treated fairly as technology has this unique characteristic of bringing in equity (BIS Review, 2010).

BIS Review 2010 outlined that banks must also resolve to reduce customer grievances by minimizing courtesy and behavioral standards, transparency, non-discriminatory policy, deliver what is promised and many. The function of service quality is competitiveness including customer satisfaction (maintain a customer base). It is not necessary that a firm applies all of the 5 main quality criteria as indicated in SERQUAL model. Instead the company can emphasize on the ones which are important for its strategy. The bottom line here is that the customer should be satisfied after encounter with the service. In summary, this study was designed to address how customer service is rendered in Ghanaian businesses, how poor these services are provided and how to reduce customer grievances effectively.

### **3. Research Methodology**

#### *3.1 Research Design*

A research design is the program that guides the researchers in the process of collecting, analyzing and interpreting the data. The researcher decided to use the descriptive form of research design to provide solutions to the research problems. Descriptive research involves gathering data that describe events and then organizes, tabulates, depicts, and describes the data collection. This research design is used because it often uses visual aids such as graphs and charts to aid the reader in understanding the data distribution. Because the human mind cannot extract the full import of a large mass of raw data, descriptive statistics are very important in reducing the data to manageable form. Likewise, descriptive research can be either quantitative or qualitative, thus the researchers' choice of research design (Glass & Hopkins, 1984).

#### *3.2 Study Population*

Considering the broad nature of the banking industry of Ghana, the complexities involved in customer service and time constraint, the study could not look at improving customer service within all banks in Ghana. As a result the researchers have selected management officials and customers of three Ghana Commercial Bank (GCB) offices within Accra including the head office as the population of the study. The branches are Head Office at Accra Central,

Kwame Nkrumah Circle Branch, and Kaneshie Branch. These branches were selected because they are very busy branches.

### *3.3 Sample Size and Sampling Technique*

The main instrument for data collection was the questionnaire that was administered through the help of some staff of the selected financial institutions.

Researchers normally determine their sample size and technique to validate their objectives of the study. The researchers used stratified sampling method to select respondents made up of management officials and customers of the GCB offices chosen for the study, making a sample of one hundred (100) respondents. The researchers made a clear indication of what the study set to achieve by providing respondents with the objectives of the study, this is to get them informed on hand before attempting to answer questions. However, the stratified sampling method is the process of dividing members of the population thus officials and customers of Ghana Commercial Bank into homogeneous subgroups before sampling was done.

### *3.4 Sources of Data*

The research was based on both secondary and primary data collection. The primary sources of data were used purposefully in the analysis stage of the study. This data was gathered through sources such as questionnaires and interview questions designed to solicit information from management officials and customers of Ghana Commercial Bank, Ghana (GCB). Also, the secondary sources of data were gathered from relevant reading materials obtained from the internet, books in journals, articles, magazines, annual report of GCB, newspapers and the internet on issues relating to customer service.

### *3.5 Research Instrument*

The researcher used questionnaires as the basic research instrument, which is the collection of questions put together based on the objectives of the study to gather data on the objectives of the study and customer service issues relevant to the study.

### *3.6 Analysis of Data*

The researchers used simple Microsoft office excel, with graphical and table presentation for the analyses. In addition, researchers analysed the data by using both qualitative and quantitative data.

### *3.7 Research Limitations and Potential Problems in the Industry*

Due to financial and general resource limitation the study was conducted using only one bank (GCB) and also only three branches out of 157 branches and agencies. Also, the sample size and number of actual respondents are limited. The researcher or other researchers may use a bigger sample size to find out more about customer satisfaction and service quality. Finally, a more robust analysis involving other factors is needed in financial service industry to reach at a strong conclusion on customer satisfaction in customer service. The potential problem is that the industry keeps growing and customers' interest and needs keeps increasing in complexity making research into customer needs and wants more complex.

## **4. Results**

In analyzing the feedback from respondents, it was evidenced that GCB provides products and services such as loan financing, mortgage financing and many. This is because GCB is the bank in Ghana with the highest capital base because it is owned by the government of Ghana and provides services for a wide range of customers across the country. Again, as to whether officials of GCB give instant feedback to customers on transactions, majority of the respondents view is an indication that customers of GCB are given instant feedback on banking transactions undertaken despite the fact that there are some delays sometimes preventing prompt feedback.

The result on whether from the officials view customers of GCB have knowledge of products and services offered by the bank. 87 % respondents think customers have knowledge of products and services while 13 % think otherwise. The findings are an indication that, the bank thinks it has put in place factors that ensures that all customers of the bank are informed about products and service offered. Some of these factors mentioned by respondents (officials of GCB) are media publicity, website publicity, direct marketing and mail box advertisement among others. With the methods used by the bank to create awareness for the banks products and services, GCB rely massively on media advertisement as a form awareness creation for the bank's products and services. With research on classification of tangibles considered by GCB as way of improving customer service, responses made by officials of GCB therefore means that, though there are more tangibles that show the improvement of customer service by GCB, there is still room for improvement in customer service. With analysis of quality of services, majority of the respondent answered that GCB provides unsatisfactory quality services. In analyzing the courteous abilities of Customer Service Representative at

GCB, management of GCB are putting in a lot of measures to improve on their customer relations practices as a development agenda in this era of stiff competition in the banking sector.

With Knowledge about Products and Services provided by GCB, there was an indication that customers at GCB are aware of majority of products and services offered by GCB.

With Analysis of Whether the Relationship between Officials of GCB and Customers is Cordial, the result is an indication that, although GCB has improved on customer relations, there is more room for improvement as customers must be seen as part owners of the organization. With Reliability of GCB, the responses from respondents showed that all kinds of approaches are applied by employees of GCB to improve the customer relations at the bank to make the bank reliable but customers of the bank are still not satisfied since 60 % of the respondents did not respond to this question.

Again with evidence of customer service at GCB, majority said that officials have the knowledge to answer customer questions and that the customer service of the bank has improved. With Analysis of Perception about Customer Service at GCB, it was nothing to write home about since unsatisfactory weighed very high.

#### *4.1 Analysis of Respondents Understanding of Customer Service*

Over the last decade, banks have undergone many changes as mergers and acquisitions, and regulatory changes that have shaped the banking industry into one that provides more than just the traditional deposit and loan products. As banks continue to provide an increasing number of financial services and products, they face the challenge of integrating these disparate systems into a coherent, efficient infrastructure, while delivering the highest level of customer service and convenience without exposing their customers to some customer service problems. That is why management, investors and other stakeholders have to take proactive steps to protect the money they put into their banking business by improving customer service.

More so, it is very necessary to find out the understanding of customer service which forms the basis of providing optimum customer service. To receive the required result about the meaning of customer service, the researchers asked officials of Ghana Commercial Bank (GCB) what they know about customer service. The field survey revealed that customer service is a combination of business process and technology that seeks to understand a company's customers from the perspective of who they are, what they do, and what they are like. Other respondents say customer service is the ability to provide a service or product in the way that it has been promised.

Secondly, the field survey disclosed that customer service is about treating others as you would like to be treated yourself and bank's ability to supply their customers' wants and needs based on convenience and time of operation. For example, Commerce Bank, an American most convenient bank opens its branch offices seven days a week. Weekdays it opens at 7:30 a.m. and closes at 8 p.m. with shorter weekend hours. The bank always opens 10 minutes early and stays 10 minutes late. Commerce's astonishing service record has made them one of America's best-performing banks, with their stock increasing 2,000 percent in 10 years. Commerce Bank's positive results from its extreme customer service approach prove the importance of customer service in banking.

## **5. Conclusion**

This study investigated the ways that customer service can be improved in the banking sector of Ghana. Ghana Commercial Bank was chosen as a case study and the research concerned the administration of questionnaires to bank officials and customers of the bank in several branches. Various discussions indicated that customers' perceptions vary according to the nature of service at GCB. In this case, the highest customers' perceptions are demonstrated in the tangibles area such as infrastructure facilities of the bank, followed by the empathy area such as timing of the bank and returns on deposit. On the other hand, the lowest perceptions are in the competence area such as the method of imposing service charges followed by reliability.

All categories of respondents such as officials and customers of GCB understand clearly what customer service means. In their discussions, they claimed customer service is a combination of business process and technology that seeks to understand a company's customers from the perspective of who they are, what they do, and what they are like. Others say customer service is the ability to provide a service or product in the way that it has been promised and customer service is about treating others as you would like to be treated yourself and bank's ability to supply their customers' wants and needs based on convenience and time of operation.

The findings also revealed that though customer service at GCB from the customers perspective is not satisfactory, improving customer service at the bank has led to the increase in number of new customers, maintenance of existing customers, increase in loan disbursement, easy and safe payment, increase in profitability, increase in market share, increase in revenue and reduction in expenditure.

Looking at the results of the study, the researchers recommended some interventions that can be implemented to improve customer service at GCB. Based on the findings and other observation made, the researchers recommended that continuous improvement of the quality of human resources through on the job training is needed. Classify Customer Complaints: as individual complaints are recorded, the nature of the complaint, along with the product or service the complaint is about, requires classification. In the banking sector, complaints that violate federal laws, or internal bank policies and procedures, should be classified separately from other customer service issues. Ghana Commercial Bank should enhance its customer relations management practices to strengthen the cordial relationship between bank officials and customers to create a perception that bank officials are reliable. Ghana Commercial Bank must improve its physical infrastructure such as buildings, furniture, fittings, equipments, vehicles and many to appeal customers since some customers consider them to enhance customer satisfaction. Finally, bank officials in all departments of the Ghana Commercial Bank must be given customer service training to get the understanding of how important customers are to the bank and also an independent unit should be created to handle creation, implementation monitoring and control of customer service strategies of GCB.

## 6. Approaches to Improve Service Quality

Generally the service design or the service delivery can be improved to achieve a high quality service. The service design consists in: service product design, service facility design and service process designated.

The service delivery consists in service delivery process, service encounter environment and customer-Provider interaction.

Improvement of service quality therefore requires that GCB plan around improving the design and delivery of the offerings and thereby improving on quality of customer service.

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## Notes

Note 1. Posted: Wednesday, 11th March, 2009, <http://www.gcb.com.gh>.

Note 2. [www.countrystudy.us/ghana/74.htm](http://www.countrystudy.us/ghana/74.htm) source, US Library of Congress.

Table 1. Products and Services Provided by GCB

Products & Services	Frequency	Percent
Automated Teller Machines	40	100
Personal Computer Banking	40	100
Internet Banking	40	100
Telephone Banking	40	100
SME	40	100
Branch Networking	40	100
Corporate Services	40	100
Investment Services	40	100
E-zwich	40	100
TOTAL	40	100

Source: Field Survey (2011).



Table 2. Tangibles Considered by GCB as a Way of Improving Customer Service

Tangibles	Frequency	Percent
Modern equipment	10	25
Visually appealing facilities	10	25
Officials with neat and professional appearance	5	12.5
Visually appealing materials associated with the service convenience	5	12.5
Business hours	10	25
TOTAL	40	100

Source: Field Survey (2011).

Table 3. Knowledge about Products and Services Provided by GCB

Products & Services	Frequency	Percent
Automated Teller Machines	4	10
Personal Computer Banking	8	20
Internet Banking	2	5
Telephone Banking	0	0
SME	10	25
Branch Networking	5	12.5
Corporate Services	4	10
Investment Services	1	2.5
E-zwich	6	15
TOTAL	40	100

Source: Field Survey (2011).

Table 4. Reliability of GCB

Responses	Frequency	Percent
Providing service as promised	5	12.5
Dependability in handling customers' service problems	6	15
Performing services right the first time	3	7.5
Keeping customers informed about when services will be performed	2	5
TOTAL	16	40

Source: Field Survey (2011).

Table 5. Evidence of Customer Service at GCB

Responses	Frequency	Percent
Officials instill confidence in customers	8	20
Make customers feel safe in their transactions	7	17.5
Officials are consistently courteous	4	10
Officials have the knowledge to answer customer questions	21	52.5
TOTAL	40	100

Source: Field Survey (2011).

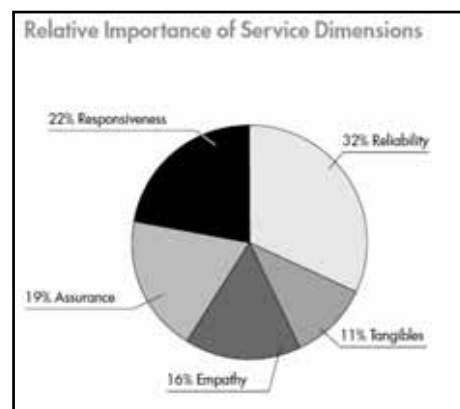


Figure 1. Servqual Model

Source: Bouwman, H (2003) State of the art business models.

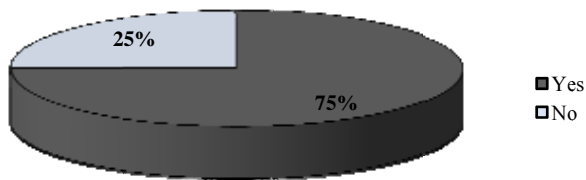


Figure 2. Analysis of Instant Feedback for Customers

Source: Field Survey (2011).

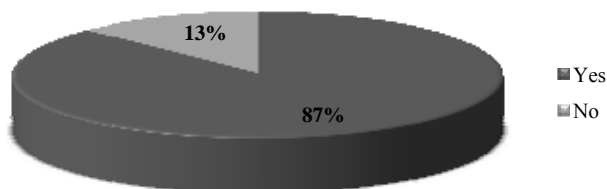


Figure 3. Analysis of Knowledge of the Products and Services of GCB

Source: Field Survey (2011).

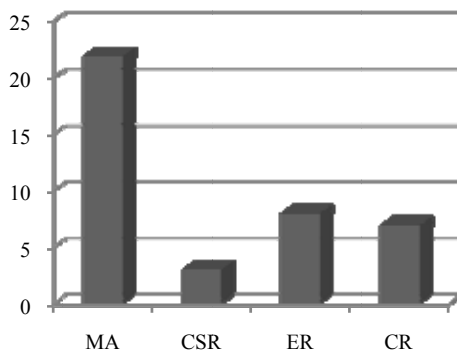


Figure 4. Analysis of Methods Used for Creating Awareness for GCB Products and Services

Source: Field Survey (2011).

Note: MA = Media Advertisement, CSR = Corporate Social Responsibility, ER = Employee Referrals, CR = Customer Referrals.

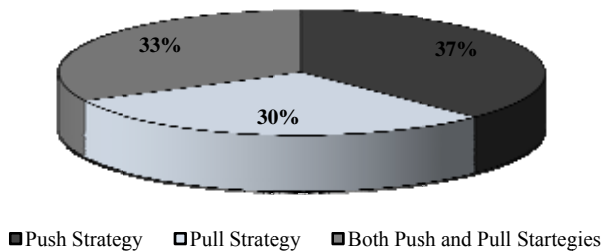


Figure 5. Marketing Strategy Employed by GCB

Source: Field Survey (2011).

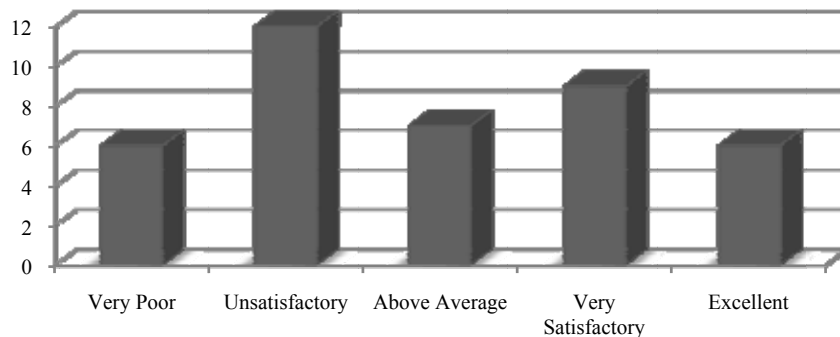


Figure 6. Analysis of the Quality of Service

Source: Field Survey (2011).

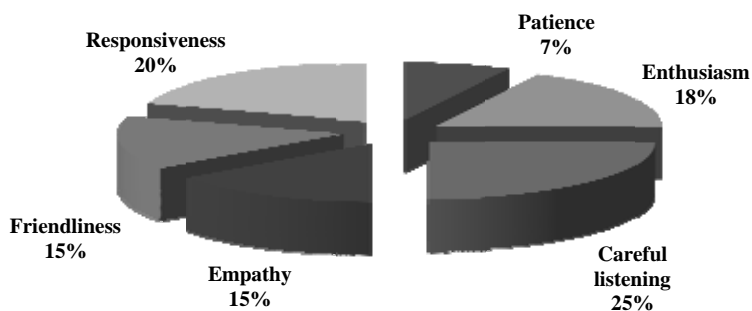


Figure 7. Analysis of Courteous Abilities of Customer Service Representative at GCB

Source: Field Survey (2011).

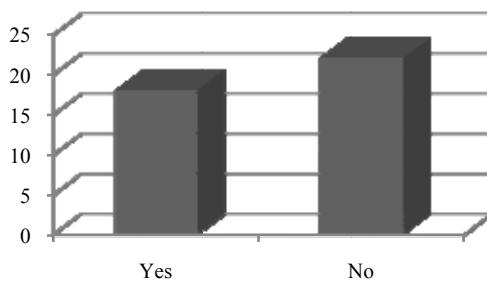


Figure 8. Analysis of Whether the Relationship between Officials of GCB and Customers is Cordial

Source: Field Survey (2011).

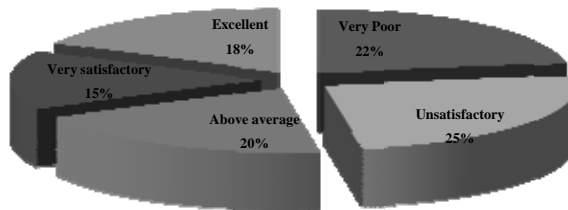


Figure 9. Analysis of Perception about Customer Service at GCB

Source: Field Survey (2011).

**Appendix A**  
**Central University College**  
**Customer Questionnaire**

The questionnaire is designed by final year students of the Central University College and as part of our course work we are to present a research paper on the topic **SERVICE QUALITY IN THE MARKETING OF FINANCIAL SERVICES (a case study of GCB Ltd)**. You are assured that any data provided would be treated with utmost confidentiality.

**Demographic Data**

Please tick (✓) the responses in the boxes provided.

1. Gender
  - Male
  - Female
2. Profession
  - Manager/Executive
  - Teacher
  - Security services
  - Trader/Businessman
  - Retired
  - Housewife
  - Other (specify).....
3. Age
  - 18 – 29
  - 30 – 39
  - 40 – 49
  - 50 – 59
  - 60 and above
4. Education
  - University
  - Training College
  - Polytechnic
  - Middle School
  - Uneducated
5. Income (Monthly)
  - Less than ₦500
  - ₦600 – ₦1,500
  - ₦1,600 – ₦2,600
  - ₦2,700 – ₦3,700
  - ₦3,800 – ₦4,800
  - ₦4,800 and above
6. Rank the following in order of importance representing your expectations of the service of the bank (1 = least important, 2 = less important, 3 = important, 4 = more important, 5 = most important)

**Dimension of Service Quality**

**Tangibles**

Bank has modern looking equipment

Least important  less important  important  more important   
 Most important

Bank facilities are visually appealing

Least important  less important  important  more important   
 Most important

**Reliability**

Bank performs service right the first time

Least important  less important  important  more important   
 Most important

**Assurance**

Employees recognise client on regular basis

Least important  less important  important  more important

Most important

Employees inspire confidence and trust

Least important  less important  important  more important

Most important

**Responsiveness**

Employees give client prompt service

Least important  less important  important  more important

Most important

Employees tell customers exactly when services will be performed

Least important  less important  important  more important

Most important

**Empathy**

Employees deal with customers in a caring fashion

Least important  less important  important  more important

Most important

Employees have the customers' best interest at heart

Least important  less important  important  more important

Most important

7. Which of the following represent your sources of expectation?

- Past experience [ ]
- Word-of-mouth [ ]
- Documents [ ]
- Price to be paid [ ]
- Personal needs [ ]
- Corporate image [ ]
- Others(specify).....

8. Are your expectations of service required met by your perceptions of service received?

- Yes [ ]
- No [ ]

9. If yes, then service received is of high quality.

strongly agree  agree  neutral  disagree  strongly disagree

10. If no, then service received is of poor quality.

strongly agree  agree  neutral  disagree  strongly disagree

11. The reason that I deal with this bank is that they provide quality services.

strongly agree  agree  neutral  disagree  strongly disagree

12. How would you rate your assessment of the quality of services received?

- Very satisfied [ ]
- Satisfied [ ]
- Not satisfied [ ]

13. Would you recommend the bank to same one who seeks your advice?

- Yes [ ]
- No [ ]

14. If no, why?

.....

15. Would you encourage friends and relatives to do business with the bank?  
Yes [ ]  
No [ ]
16. Would you do business with the bank in the next few years?  
Yes [ ]  
No [ ]
17. Would you say positive things about the bank to other people?  
Yes [ ]  
No [ ]
18. Would you consider the bank your first choice to buy services from?  
Yes [ ]  
No [ ]
19. Which of the following actions would you take if you become dissatisfied with the services of the bank?  
Complain to other consumers [ ]  
Complain to external agencies [ ]  
Complain to employees [ ]  
Switch to a competitor [ ]  
Others (specify).....
20. The following represent the portfolio of services I receive from the bank.  
General banking/savings [ ]  
Mortgages [ ]  
Loan products [ ]  
Insurance [ ]  
Investment products and services [ ]  
Others (specify).....
21. The range of services is consistent with the latest innovations in banking services.  
Strongly agree [ ]  
Agree [ ]  
Neutral [ ]  
Disagree [ ]  
Strongly disagree [ ]

# The Effects of Human Capital on Agricultural Productivity and Farmer's Income in Cameroon

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## Abstract

This study evaluates how human capital affects agricultural productivity and farmer's income in Cameroon. Precisely, this study adopts methodologies that evaluate agricultural productivity, establish the stochastic frontier model and specify the returns to human capital. The database used to produce the empirical results is the Third Cameroonian Household Survey conducted by the National Institute of Statistics. Results obtained indicate that an additional year of experience and levels of education increases agricultural productivity. However, an additional year of experience squared denotes that the producer reduced his level of inefficiency. While an additional unit of education reduces the level of inefficiency. In addition, an additional year of education and years of experience squared increases farmer's income. To provide a solution to the problem of food insecurity, the government should allow farmers to endow more in human capital.

**Keywords:** Human capital, Agricultural productivity, Farmer's income

## 1. Introduction

The classical economists have identified land, labor and physical capital as the three basic factors of economic growth. In the 1960s neoclassical economists such as Schultz (1961) and Becker (1964) introduced the concept of human capital. They argue that the endowment of an educated society, trained and healthy workers allows the efficient use of factors Orthodox. They are followed by Mincer (1974) who suggested a simplified method for evaluating education. However, the idea that any investment in education has economic and social benefits in the long run, for both the individual and society as a whole, date back to Adam Smith, if not further.

For individuals, investment in human capital provides an economic return by increasing both the employment rate and labor income. We can prove this result by examining the levels of education, or by direct measures of human capital such as the results obtained in the capacity assessments of reading, writing and arithmetic. In addition to the benefits enjoyed by individuals, investment in human capital can be beneficial for the economy as a whole. In principle, it should be possible to discern the overall economic impact in the economic growth rate, but in practice it is difficult to confirm and quantify. The 2001 publication by the OECD helped to clarify in this regard and have shown that human capital also has many non-economic benefits. Thus, education tends to improve health. An additional year of schooling reduced according to the estimations, the daily consumption of cigarettes, and appears to promote happiness and fosters the education of the next generation. Children whose parents have completed the second cycle of secondary education are themselves more likely to go beyond high school, and are likely to easily associate themselves with greater participation in civic and volunteer activities, among others, granting of donations to charities, and a lower risk of delinquency. In addition, Timmer (2002) reports that in countries where the share of agriculture in gross domestic product (GDP) remains high, agricultural productivity can have an impact on total economic growth through "diverted and indirect links" related to human capital. Increasing the intensity coefficient of human capital can

contribute directly to productivity gains at the farm level, facilitating the migration process by lowering costs and improving dietary energy intake that in turn promotes productivity.

The African continent is the only region of the developing world to continue experiencing difficulties after the green revolution of the 1970s and 1980s (Sanchez & Sachs, 2004). The situation of the continent is far from brilliant agriculturally. Since the 1970s, food production per capita on the continent has been declining by about 20 % (Ouedraogo, 2005). To reverse the decline of the agricultural sector on the continent, the Assembly of Heads of State and Government of the African Union ratified the Declaration on Agriculture and food security in Africa in Maputo in July 2003. This Declaration commits them to spend at least 10 % of their budget to agriculture. Agricultural country such as Cameroon needs a sustained growth of agricultural production to feed its population and increase its export earnings. However, like most African countries, Cameroon's agriculture remains extensive and un-mechanized, implying the need for huge financing. Agricultural production is weak and fails to meet the food needs of populations. In addition, 60 % of those in the agricultural sector and situated in rural areas are poor. This is due to low yields and difficulties in selling their products at remunerative prices. The isolation of the countryside induces high transaction costs that reduce the well-being. These people usually take a long time to attain basic infrastructures like tarred roads, markets, ware house facilities, etc. (INS, 2008). Building on the above observations, this study attempts to answer the following question: what is the effect of human capital on the mechanisms of production and income of agricultural producers in Cameroon? Specifically, what is the influence of human capital on agricultural productivity? How human capital affects farmer's income? To answer these questions the main objective of this study is to evaluate the impact of human capital on the mechanisms of production and income of farmers in Cameroon. We first present a literature review before proceeding to the methodology that will permit to generate results.

## 2. Literature Review

Human capital is the stock of competencies, knowledge and personality attributes embodied in the ability to perform labor so as to produce economic value. Human capital is vitally important for an organization's success (Crook et al., 2011); human capital increases through education and experience (Arthur & Sheffrin, 2003). Many early economic theories refer to it simply as workforce, one of three factors of production, and consider it to be a fungible resource homogeneous and easily interchangeable. Other conceptions of this labor dispense with these assumptions. The use of the term in the modern neoclassical economic literature dates back to Mincer's article in 1958. Then Schultz is also contributed to the development of the subject matter. The best-known application of the idea of "human capital" in economics is that of Mincer and Becker of the "Chicago School" of economics. Becker's book published in 1964 became a standard reference for many years. In this view, human capital is similar to "physical means of production", e.g., factories and machines: one can invest in human capital (via education, training) and one's outputs depend partly on the rate of return on the human capital one owns. Thus, human capital is a means of production, into which additional investment yields additional output. Human capital is substitutable, but not transferable like land, labor, or fixed capital. Modern growth theory sees human capital as an important growth factor. Further research shows its relevance for democracy or AIDS (Hanushek & Woessmann, 2008).

For over three centuries economists have been interested in valuing the productive capacity of the workers in an economy. This paper defines human capital as the stock of knowledge, skills, and abilities embodied in individuals that determines their level of productivity. In principle it includes innate abilities and skills acquired through education, training and experience. On a macro level, it is also common to measure the economy's human capital by the rates of enrolment in elementary and secondary schools and in post-secondary institutions. It is assumed that high enrolment rates in education and training institutions indicate that more people are accumulating human capital and that the workforce, as a whole, is becoming more productive. Indeed, countries with high enrollment rates in education and training institutions tend to enjoy higher productivity, higher living standards, and faster economic growth (Mankiw et al., 1992). Recent evidence, however, suggests that education does in fact increase productivity by improving individuals' skills. There is a strong and well-established positive relationship between educational attainment and labor earnings, which reflect productivity (Riddell, 2007). A simple correlation does not rule out the possibility that education captures the impact of an unobserved omitted variable, such as innate ability, but a large number of studies have used natural experiments to circumvent this problem (Note 1). These studies provide strong evidence that policy interventions that raised the educational attainment of certain groups in the past had large positive effects on the subsequent lifetime earnings of those individuals. This recent body of research gives rise to two key conclusions. First, rates of return to investments in education are high and possibly higher than what was implied by earlier research. Second, policy interventions that result in additional schooling being acquired by individuals from disadvantaged backgrounds, or those who face other barriers to acquiring human capital, may yield substantial returns in the form of enhanced productivity, in addition to contributing to equity objectives (Riddell, 2007).



The neo-classical Human Capital theory emerged from the Growth Theory by Solow (1956) who took labor as an input and assumed constant return to scales in the production function. Solow's model was later criticized on the bases of the inequality between the rate of returns from human capital and physical capital and hence, Romer (1986) introduced the concept of increasing return to scales in order to equate the returns from human capital and the physical capital. But this view of human capital as a factor influencing productivity does not consider the possibility that some workers may be technically inefficient. In this case, the role of human capital may be biased during the valuing the production function. This paper addresses the two approaches namely on the one hand, the productivity from a production function Cobb-Douglas, which includes the total factor productivity (TFP) and on the other hand, the technical efficiency. In order to avoid such bias, it is necessary to use frontier techniques that consider the possible existence of inefficient behavior. Such is the case of the papers by Färe et al. (1994) on the analysis of TFP growth in the countries of the OECD, and by Tashkin and Zain (1997) on the importance of efficiency gains as a source of labor productivity convergence at an international level during the period 1975-1990.

Technical efficiency is a measure of a farm's productive performance. In the context of rural Cameroon, it can be defined as the ability of an agricultural household to obtain maximal output from a given set of inputs. Technical inefficiency should be considered as a measure of management error rather than a measure of income or gross output; higher inefficiency does not correspond to lower yields or less income. Human capital inputs have been recognized as critical factors in achieving recent sustained growth in productivity in some African countries (Schultz, 2003). Education may enhance technical efficiency directly by improving the quality of labor, by increasing the ability of farmers to adjust to disequilibria, and through its effect on input utilization (Moock, 1981). Literature on efficiency of productive units, which has been shaped by the seminal work of Farrell (1957), can be classified according to whether the measurement technique used is nonparametric or parametric. The development envelopment analysis (DEA) and the stochastic frontier analysis (SFA) are the most commonly non-parametric and parametric methods, respectively, used to measure the relative efficiency on farm-level data at one point in time (Note 2). Both the DEA and the SFA approaches recognize the possibility of inefficiency in production. They do not assume that all farmers are technically efficient. Being both extensively used in measuring production efficiency in agricultural sector of developing countries, the advantages and limits associated with these two competing methods, DEA and SFA, are briefly discussed (Note 3). Developed in 1978 by Charnes et al., the DEA method consists of mathematical programming formulations, where inefficient producing units are compared with the most efficient (best) units within the sample. The initial assumption of constant returns to scale was relaxed by Banker et al. (1984) to allow for variable returns to scale. The advantage of nonparametric techniques, such as the DEA, is that they do not rely on assumptions about the functional form or about the distribution of the error terms. The main limitation of the DEA method comes from its deterministic nature, which assumes that any deviation from the production frontier is due to inefficiency. Therefore, any measurement error and/or random stochastic error in the data are confounded with farmer inefficiency. As a result, the DEA estimates are very sensitive to the sample data, and especially to outliers (Greene, 1993). The SFA approach, which estimates the parametric form of a production function and recognizes the presence of random errors terms in the data, was first introduced by Aigner et al. (1977) and by Meeusen and van den Broeck (1977). This regression-based method incorporates a composed error term. One component of the error term reflects the inefficiency in production while the other component represents the random effects outside producer control, including luck, (un)favorable climate conditions, measurement error and other statistical noise from the data. The production frontier itself is stochastic since it varies randomly across farms due to the presence of the random error component (Coelli et al., 1999). Unlike the DEA method that estimates the best observed practice, the SFA approach econometrically estimates the best theoretical practice. The main criticism of this econometric technique is that strong assumptions have to be made concerning the selection of a particular functional form and the distribution of the inefficiency component in the composed error term. Nevertheless, the SFA model has the advantages of being able to measure the individual inefficiency in the presence of statistical noise in the dataset and to estimate standard errors. Given that both have virtues and shortcomings, the choice of an approach to measure efficiency becomes almost philosophical. Empirical studies on technical efficiency for farmers have used either the DEA (e.g., Gul et al., 2009; Helfand & Levine, 2004; Audibert et al., 2003; Shafiq & Rehman, 2000) or the SFA (e.g., Thirtle et al., 2003; Bravo-Ureta & Evenson, 1994) or both (e.g., Chakraborty et al., 2002).

In this paper, the development of agricultural production functions takes into account the approach of Mincer's (1974) model of earnings. In other words, it integrates among the variables of agricultural production functions, those of education, experience level and training. This approach will allow us to see if a more productive agricultural producer also has a higher income level. Mincer's model of earnings (1974) is a cornerstone of empirical economics. It is the framework used to estimate returns to schooling (Ashenfelter & Krueger, 1994; Ashenfelter & Rouse, 1998), returns to schooling quality (Behrman & Birdsall, 1983; Card & Krueger, 1992) and to measure the impact of work experience on male-female wage gaps (Mincer & Polachek, 1974).

### 3. Methodology

#### 3.1 Data Source

The database used in this research is the Third Cameroonian Household Survey conducted by the National Institute of Statistics in 2007. This database is the most recent on households in Cameroon. The survey's main objective is to assess the living standards of households in Cameroon. It provides a range of variables necessary to carry out this work, because it covers the whole of Cameroon and also provides information on the situation of producers by sector and by place of residence. It should be noted that we are interested to agricultural producers in rural areas. In other words, these are the farmers' heads of household. It should also be noted that the study carries of farm households, not agricultural industries. The total surveyed heads of farm households is 4 275.

#### 3.2 The Model of Agricultural Productivity

Here we use the production function of the form Cobb-Douglas including human capital. This approach is borrowed from the Authors Bloom et al. (2001). These authors develop a production model that introduces the approach of Mincer (1974) of return of human capital and a factor called total factor productivity. However, the microeconomic and transversal context of this study requires the linear form of the production function as follows:

$$\ln y_i = a_j + \sum_{i=1}^n \beta_i \ln x_{ij} + \alpha_1 \text{nivins}_j + \alpha_2 \text{format}_j + \alpha_3 \text{exp}_j + \alpha_4 \text{exp}_j^2 \quad (1)$$

Where,  $\ln$  indicates the natural logarithm and the index  $i$  and  $j$ , respectively, represents the inputs  $i$  used by the farmer  $j$ . In fact,  $y$  is actual output in monetary terms,  $\alpha$  and  $\beta$  vectors of parameters to be estimated.  $a$  is the total factor productivity and appears as an error term in the equation. This is an efficiency parameter which measures the efficiency of the production process. In this form, technical progress is assumed neutral as suggested by Hicks. This implies that technical progress increases the level of production (Note 4) that can be achieved with a given combination of inputs without affecting the marginal rate of substitution. Human capital of the producer is consisted by:  $\text{nivins}$  the number of years of education, by  $\text{format}$  to have received training (1 = yes and 2 = no),  $\text{exp}$  level of experience (Note 5) and  $\text{exp}^2$  experience squared (Note 6). More:

$y$  = the value of agricultural production harvested on the farm given (in thousands of CFAF)

$x_1$  = the total area used (ha)

$x_2$  = the amount of work, which includes family and hired labor

$x_3$  = the value of chemical fertilizer used in plantations (in thousands of CFAF)

$x_4$  = the cost of pesticides used in production (in thousands of CFAF)

$x_5$  = the capital, i.e., the amount of depreciation of equipment used in agricultural production (in thousands of CFAF)

$x_6$  = the cost of labor employed (in thousands of CFAF)

$x_7$  = the value of other operating expenses (in thousands of CFAF)

$x_8$  = the cost of seed (in thousands of CFAF)

#### 3.3 The Model of Technical Efficiency

From equation (1) which considers the importance of human capital as an additional factor production, uses the technical of non-frontier that ignores inefficiency. The model (2) below seeks to solve the above problems by incorporating human capital as an additional input and analyze its importance through the frontier's techniques, as a factor determining the rate of technical change. This avoids the possibility of bias from the non-incorporation of efficiency, which is derived from the omission of a relevant input. The stochastic frontier model is specified as follows:

$$\ln y_i = \beta_0 + \sum_{i=1}^n \beta_i \ln x_{ij} + v_j - u_j \quad (2)$$

The error term  $v_j$  is independent and identically distributed, and the term  $u_j$  is distributed independently of  $v_j$ . The efficiency indicator obtained as the ratio of the optimal output and observed output is obtained from  $\exp(u_j)$ . The inefficiency can only reduce output below the frontier, it is necessary to specify the asymmetric distributions of the term inefficiency. Usually, we ensure that  $v_j$  is normally distributed given that:  $E(v_j) = 0$  and  $Var(v_j) = \sigma_v^2$ , and  $u_j$  is assumed independently and identically distributed among the observations, and is obtained by truncation at point zero of the normal distribution where the average is defined by the equation:

$$\mu_j = \delta_0 + \delta_1 \text{nivins}_j + \delta_2 \text{format}_j + \delta_3 \text{exp}_j + \delta_4 \text{exp}_j^2 + \varepsilon_j \quad (3)$$

Where  $\varepsilon_j$  represents the random variable with mean zero and for unknown variance  $\sigma^2$  and  $u_j$  the non-negative error term ( $u_j \geq 0, \forall j$ ), representing the technical inefficiency in the production of farmer  $j$ . Equations (2) and (3) are jointly estimated by maximum likelihood technique. Using the value of agricultural production as endogenous variable rather than the physical quantities of the products is justified by the fact that some farmers practice mixed cropping on the same piece of land. Given the problems associated with the aggregation of these physical quantities to obtain all the yielding of the plot of culture, it is necessary to use the CFA franc as currency to get the value of outputs harvested. Indeed, some exogenous variables are also expressed in terms of value. This does not cause any statistical problem, since the endogenous variable is expressed in terms of value. In fact, the approach used here is largely derived from studies of authors such as Coelli et al. (1998), Ajibefun and Daramola (2004) and Nchare (2007), who have used the same method of conversion in their respective studies in situations where farmers have practiced a mixed cropping system.

### 3.4 The Return Model

As a reminder, several microeconomic studies of the effect of human capital on wages, based on the pioneering work of Mincer (1974), this empirical relationship appears under the transformed form as follows:

$$\ln Dep_j = \gamma_0 + \gamma_1 nivins_j + \gamma_2 format_j + \gamma_3 exp_j + \gamma_4 exp_j^2 + \vartheta_j \quad (4)$$

Where:  $Dep_j$  is consumption expenditure (a proxy of income) of producer  $j$ ,  $nivins$  his educational level,  $exp$  his experience and  $exp^2$  his experience squared which determines the number of years in the job and  $\vartheta_j$  the error term. Note that the semi-ln of the relationship (4) implies that the human capital variable introduces a multiplier effect that is better than the additive effect on wages. Accuracy relates to the salary. Studies in developing countries often use expenditure rather than measures based on the salary to capture access to resources because of the difficulty of collecting data of wages in economies where most of the labor working outside the formal labor market (Grootaert, 1999). In addition, income comes from agriculture and thus varies significantly within and through the years because of seasonality and weather shocks. The dependent variable in the equation (4) is the natural logarithm of consumption expenditure of the producer.

## 4. Results of the Study

Table 1 in annex indicates that on average, farmers use a plot of 2 hectares of land, employ on average 5 people for an average cost of 25 000 CFAF. This expresses that some farmers are owners of small enterprises with low capital. While others farmers practice self-sufficiency food with a capital not reaching 1 000 CFAF. This real fact is equally observed in the various costs, such as the cost of seed, the cost of pesticides, fertilizer costs and the cost of other operating expenses.

Also in Table 1 in annex, among the attributes of technical inefficiency, we denote the composite indexes of education and training. These composite indexes are obtained by the method of Multiple Correspondence Analysis (MCA). This method provides objective scores as opposed to subjective scores. This is a third variant of the factor analysis, namely the MCA as suggested, and presented by Asselin (2009). In addition, other attributes of technical inefficiency are experience and experience squared. That said there is years of experience up to 90 years and at minimum 0 years. The details of the setting of indexes are as follows: Level of education 1 = No schooling, 2 = Primary, 3 = Secondary 1st cycle, 4 = Secondary 2nd cycle, 5 = Superior. A technical training or professional 1 = Yes, 2 = No.

According to the Fisher test, the model is globally significant at 1 %. The significance of each parameter is indicated by the Student test. The results are contained in Table 2 in annex. The surface area of land used relates positively to production. The increase of a unit of the cultivated area leads to an increase in production of 1.957 %. It is the same for the total number of agricultural workers. An additional worker augments production by 1.845 %. The cost of labor has no significant effect on production. Given that the cost of labor is zero for some farm households suggests that for these households, the labor is constituted by family members. The results of correlation study between the number of workers and the labor cost reveals a very weak correlation between these two exogenous variables. This indicates that an increase in the number of workers does not automatically increase the labor cost. Maybe labor cost is not efficient because of misspecification of this variable or data collecting problem. Similarly the cost of seed is weakly significant on the production. Even more, the cost of seeds is negatively correlated with the production. An additional unit of this cost tends to reduce output. If the seed is of poor quality, increased cost leads to a decrease in revenue from the sale of production. For cons, the cost of pesticides is rather positively correlated with the production. The increase a unit of cost of pesticides boosts the production of 0.878 %. One additional unit of cost of chemical fertilizers increases the production of 0.098 %. In addition, following the unit increase of the cost of other operating expenses, the production rises by 0.296 %. While the variation of an additional unit of capital at replacement cost increases the production of 0.030 %. Moreover, an additional year of experience reduces the production of 2.418 %. An additional year of

experience squared increases the production of 2.296 %. In other words, experience squared reflects that at the long term, the producer becomes more productive. The composite index of the training has no impact on production. Moreover, the training cannot have an impact on production because the production depends on other factors such as the area of land cultivated, the type of seed, etc. It seems therefore appropriate to examine the impact of training on technical efficiency rather than production itself. Technical training received may be not consistent with the job that is exerted. Moreover, the results showed that the correlation between training and education is low. In addition, the regression method by successive elimination of variables allows us to find that the training had not significantly affect production. While the composite index of level of education indicates that additional endowment in education boosts the production of 11.078 %. Benhabib and Spiegel (1994) find the insignificant or negative coefficients for the variable of human capital in the production function. These authors conclude that human capital does not enter the production function as an input, but rather it influences growth through its effect on total factor productivity. The work of the OECD (2001) helped to clarify in this regard and have shown that in OECD countries, an additional year of education leads, on average and long-term, to an increase in per capita output.

If we materialize the total factor productivity by  $A$ , we deduce that  $A = \exp(3.637424) = 37.993838$  that is to say, the exponential of value of the constant. This result indicates that the increase of the production is determined by two components: the first are the factors of production and the second is a component  $A$  unexplained or residual that captures improvements of the technology.

The Table 3 in annex presents the results of the estimated parameters of the stochastic frontier model. Given that the Wald test follows a Chi-square with 8 degrees of freedom is significant at 1 % according to the probability greater than chi-square is 0.0000 the model is well specified. In Table 3, the results of the production model are similar to those in Table 2. In other words, the interpretation of results follows the same analogy. Moreover, the model of inefficiency also presents similar results except for some differences in the signs. The first few years of experience are still years of productive inefficiency. An additional year of experience leads to a higher level of technical inefficiency of 2.443 %. But experience squared indicates that in the long term, the producer reduced his level of inefficiency of 2.325 %. The composite index of the training is not significant on production. In other words, technical training received by the producer does not allow it to influence the level of inefficiency. While an additional unit of composite index of level of education reduces the level of inefficiency of 11.034 %. It is shown that literacy of the producer increases efficiency and agricultural production could increase at the same level if all farmers were literate (Zonon, 2003). By cons, Gurgand (1994, 1997) found that education at a zero or even negative returns in agriculture in Ivory Coast. While Tilak (1993) and Coltear (1990) cited by Bako (2011) made a review of several studies in Asia and Europe showing that education significantly increases productivity.

The parameter of the variance composed is significantly different from zero at the 1 % level. It is therefore necessary to analyze the standard deviation of inefficiency. The variance of the inefficiency is  $\sigma_u^2 = 0.0000103$  and its standard deviation is the square root of its variance is  $\sigma_u = 0.0032093$ . The low value of the standard deviation mentions that the dispersion of productive inefficiency around its mean is small. In other words, farmers in rural areas have the levels of inefficiency that are close.

The results of the return model are contained in Table 4 in Annex. The tests carry out on Fisher's statistic and the Student's statistic. The result of Fisher's test shows that the model is globally significant. While the Student's tests indicate that the parameters are significantly different from zero at the 1 %. Experience has a negative impact on income. If the producer accumulates one year of experience more his income reduces by 0.834 %. By cons, if the experience squared increases by one year, the income increases of 1.240 %. Note that the experience and experience squared have the opposite effect. As in the production models, experience squared has a positive effect in the return model. Indeed, given that the experience tends to decrease production, it will also tend to reduce income. Moreover, when the producer has one year of additional education, he increases his income of 25.863 %. For a producer who gets more training improves his income of 13.397 %. One notes thus the explanatory power of human capital on economic well-being. For UNDP (2001), the poverty rate in Sub-Saharan Africa is very high compared to other regions because of low adult literacy.

## 5. Conclusion

The objective of this paper was to evaluate the impact of human capital on the mechanisms of production and income of farmers in Cameroon. Results from the productivity model indicate that an additional year of experience reduces the production of 2.418 %. For an additional year of experience squared production increases by 2.296 %. In other words, experience squared reflects that in the long term, the producer becomes more productive. The variable training has no impact on the production. Technical training received by the farmer does not fit with his job. While an additional endowment in education boosts the production of 11.078 %. However, the conclusive results of technical efficiency

model indicate that the early years of experience are still years of productive inefficiency. But experience squared indicates that, the producer reduced his level of inefficiency of 2.325 %. Equally training is not significant on production. In other words, the producer who received technical training is not technically efficient. While an additional unit of educational level reduces the level of inefficiency of 11.034 %. In addition, the model returns to human capital shows that experience has a negative impact on the income. By cons, an increase in experience squared allows the producer to increase his income of 1.240 %. As in models of productivity and technical efficiency, experience squared has a positive effect in the returns model. Indeed, because experience reduces agricultural production, expressed in monetary value, it will also tend to reduce income. However, one should be noted that this result is only meaningful when compared to the result of the effect of experience squared on agricultural production and income. In addition, an additional year of education increases the income of 25.863 %. For a producer who gets more training improves his income of 13.397 %.

The agricultural problem in the food aspect was also the main concern of the recent 34th General Assembly of the FAO which focus on global food security and is committed to halving the number of people suffering from hunger, nearly one billion by 2015. To meet this challenge, it is necessary to improve productivity and agricultural production that can generate higher incomes for producers. Having reached the completion point for the initiative of heavily indebted poor countries and gaining thus a wide scope of its budget, Cameroon should choose agriculture as its main concerns. In fact, agriculture generates fiscal revenue and provides a wide range of raw materials to local manufacturers. In this prospect, ways to borrow for sustainable development of the agricultural sector are: First, government must place human capital before any other consideration. Because investment in human capital has future benefits evaluated in terms of greater productivity, efficient production process and yield more in terms of income level. Second, investment in agriculture is of great necessity, given that farming requires the use of chemical fertilizers, of pesticides, of seeds, of the land, of the labor, etc. The results of this study have shown that these investments boost agricultural production. Given this, to solve the problem of food insecurity in Cameroon which has worsened through the riots of the hungry in February 2008, it will important both improve productivity and agricultural production. However, the major action that should lead the government should be allowing farmers to be endow more in human capital: education, experience and training.

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## Notes

Note 1. A natural experiment exploits variation in educational attainment that is caused by some force unrelated to a person's individual characteristics. For example, interprovincial differences in compulsory schooling laws (i.e. the age at which one can drop out of high school) can affect educational attainment but are not related to individual students' characteristics (Oreopoulos, 2006). This allows for the use of statistical techniques that measure the impact of educational attainment without being biased by the unobservable individual characteristics.

Note 2. In addition to cross-sectional data, both the DEA and SF methods can also be used to measure efficiency on panel data.

Note 3. See Coelli et al. (2005) for a more comprehensive discussion on both methods.

Note 4. Shifts the production curve.

Note 5. Measured in number of years spent in agricultural production.

Note 6. Which captures the long term.

Table 1. Descriptive Statistics of the Exogenous Variables

<b>Exogenous variables</b>	<b>Valid N</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Minimum</b>	<b>Maximum</b>
Total area harvested	4 134	2.391081	3.577036	0	90
Total number of employees	4 143	4.641933	3.92388	0	60
Cost of labor	4 226	24.54146	226.677	0	14 200
Cost of seed	4 216	9.743039	92.18885	0	4 000
Cost of pesticides	4 219	9.18484	28.77979	0	610
Fertilizer costs	4 200	17.93365	70.34361	0	2 100
Cost of other expenses	4 106	9.691457	32.34727	0	836
Capital replacement cost	4 097	16.92161	112.2208	0	5 000
Years of Experience	4 220	36.67856	15.05384	0	90
Years of experience square/100	4 220	15.71924	12.30989	0	81
IC Technical Training	4 188	.4544914	.3473862	0	.72
IC education	4 275	1.565083	.5536479	0	2.18
<b>Endogenous variables</b>					
Logarithm of the production	4 275	3.646636	1.583652	0	11.51
Logarithm of per capita consumption expenditure	4 275	12.3518	.60222	11.19	14.83

Source: Results from the Study.

Table 2. Parameters Estimated of the Productivity Model

<b>Ln Production</b>	<b>Coef.</b>	<b>Robust Std. Error</b>	<b>t</b>	<b>P&gt;  t </b>
Total area harvested	.0195738	.007198	2.72	0.007
Total number of workers	.0184545	.0063996	2.88	0.004
Cost of labor	.0003377	.0003164	1.07	0.286
Cost of seed	-.0002939	.000226	-1.30	0.193
Cost of pesticides	.0087865	.0010754	8.17	0.000
Cost of chemical fertilizers	.0009836	.0004458	2.21	0.027
Cost of other expenses	.0029653	.0009972	2.97	0.003
Capital replacement cost	.0003079	.0001742	1.77	0.077
Experience	-.0241887	.0074222	-3.26	0.001
Experience squared	.0229694	.0090257	2.54	0.011
Composite index of training	.0200252	.0710621	0.28	0.778
Composite index of education	.110788	.0449546	2.46	0.014
Constant	3.637424	.160051	22.73	0.000
Linear regression			Number of observations = 4 097	
F(12, 4 084) = 23.01			Prob > F = 0.0000	
R-square= 0.0897			Root MSE = 1.4902	

Source: Results from the Study.



Table 3. Estimated Parameters of the Stochastic Model

Ln production	Coef.	Std. Error	z	P >  z
<b>Production model</b>				
Total area harvested	.0195732	.0053254	3.68	0.000
Total number of workers	.0184924	.0067379	2.74	0.006
Cost of labor	.0003376	.0002265	1.49	0.136
Cost of seed	-.0002939	.0004169	-0.70	0.481
Cost of pesticides	.0087869	.0007086	12.40	0.000
Cost of chemical fertilizers	.0009826	.000428	2.30	0.022
Cost of other expenses	.0029659	.0007847	3.78	0.000
Capital replacement cost	.0003077	.0001845	1.67	0.095
Constant	3.729433	.1945262	19.17	0.000
<b>Mu</b>				
Experience	.0244326	.0067961	3.60	0.000
Experience squared	-.0232521	.0081742	-2.84	0.004
Composite index of training	-.0211718	.0707032	-0.30	0.765
Composite index of education	-.1103451	.0452089	-2.44	0.015
Constant	.0874389	.1804336	0.48	0.628
<b>Variance parameters</b>				
$\ln\sigma^2$	.7946506	.0220937	35.97	0.000
$\ln\gamma$	-12.27775	29.00987	-0.42	0.672
$\sigma^2$	2.213667	.048908		
$\gamma = \frac{\sigma_u^2}{\sigma^2}$	4.65e-06	.000135		
$\sigma_u^2$	.0000103	.0002989		
$\sigma_v^2$	2.213657	.0489082		
Stochastic frontier normal/truncated-normal model			Number of observations = 4 097	
Wald chi2(8) = 367.16		Prob > chi2 = 0.0000	Log likelihood = -7 441.2774	

Source: Results from the Study.

Table 4. Estimated Parameters of the Return Model

Ln consumption expenditure	Coef.	Robust Std. Error	t	P >  t
Experience	-.0083415	.0017684	-4.72	0.000
Experience squared	.0124008	.0030731	4.04	0.000
Composite index of education	.258631	.0190673	13.56	0.000
Composite index of training	.133975	.0283176	4.73	0.000
Constant	12.9058	.0303598	425.10	0.000
Linear regression			Number of observations = 4 155	
F(4, 4 150) = 100.11			Prob > F = 0.0000	
R-square = 0.0895			Root MSE = .57524	

Source: Results from the Study.

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