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PERCEIVED SERVICE QUALITY IN RESTAURANT SERVICES: EVIDENCE FROM MAURITIUS

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ABSTRACT

The purpose of this study is to investigate service quality dimensions in retsuarant services. The study examines the influence of the service dimensions on customer satisfaction and behavioral intentions within the restaurant context in an island economy, Mauritius. Factor analysis was performed to determine dimensions that are likely to influence customers' restaurant service evaluations. Based on the analyses, three distinct dimensions were identified by the customers, "Food Quality-Reliability", "Responsiveness-Assurance-Empathy" and "Tangibles". Multiple regression analyses were then employed to examine the relative importance of the three service dimensions in determining satisfaction judgments and customers' behavioral intentions. The results support the links between service quality dimensions, satisfaction and behavioral intentions respectively. The findings are expected to help the owners of restaurants in Mauritius to address the gaps and improve satisfaction level of their customers, thereby bringing about repeat business and improving profits.

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KEYWORDS: Service Quality, Customer Satisfaction, Behavioral Intentions, Restaurant

INTRODUCTION

Delivering high quality service is important for the success of organisations so that they can survive and strengthen their competiveness. The restaurant industry has not been exempted from either increased competition or customer demand for high service quality. Nowadays, customers have a wide range of restaurant services to choose from and service quality conditions indeed influence a restaurant competitive advantage (Bojanic & Rosen, 1994; Soriano, 2002; Yüksel & Yüksel, 2002; Sulek & Hensley, 2004; Chow *et al.*, 2007). Since service quality is an important factor for restaurants, research related to service quality, customer satisfaction and behavioral intentions in the restaurant industry has been growing. However, most of the research studies were focused on the United States (US), Hong Kong, China, Korea and Europe (Stevens, Knutson & Patton, 1995; Oh, 2000; Kivela, Inbakaran & Reece, 1999, 2000; Soriano, 2002; Yüksel & Yüksel, 2002; Sulek & Hensley, 2004; Chow *et al.*, 2007; Kim *et al*, 2009) and very few, if any research has been undertaken to measure service quality of restaurants in an island. Therefore, an understanding of the factors that influence service quality ought to be useful in guiding restaurant owners and managers to design and deliver the right offering to the customers.

The trend of globalization has fostered the introduction of a number of foreign chain restaurants into the Mauritian market place, a small developing island in the Indian Ocean. The restaurant industry is one of the fastest growing industries within the island and is likely to continue its development into the future. This growth is also attributed to the development of the tourism sector as well as socio-cultural and economic changes which are influencing the eating habits of local consumers. Consequently there is an increase in the frequency of Mauritians dining outside the home. Changes in local eating behaviour, increased product knowledge and competition have forced the restaurants to improve their product offerings as well as their level of service. Therefore, it is deemed important to explore this industry in terms of service delivery as well as food quality. The aim of this study is to identify the key service quality dimensions that affect customer satisfaction and behavioral intentions in restaurant services in Mauritius.

The paper is organized as follows. The following section provides the theoretical background of service quality, satisfaction and behavioral intentions. The research methodology and the empirical analysis are presented next, followed by conclusions and managerial implications. In the final section, limitations and directions for future research are provided.

LITERATURE REVIEW

The fundamental factors that contribute to customer satisfaction in restaurants include food quality (hygiene, balance, and healthiness), service quality, physical provision (layout, furnishing, and cleanliness), atmosphere (feeling and comfort), and service received (speed, friendliness, and care) during the dining experience (Jones, 1983; Johns & Pine, 2002), which in turn determines customers behavioral intentions toward the restaurants. Therefore it is important to identify the factors that affect dining experiences.

<u>Service Quality</u>

The service literature has demonstrated that customers are becoming increasingly sensitive to service elements and the overall quality of service offered by an organization (Parasuraman, Zeithaml & Berry, 1988). Various researchers have developed alternative concepts for service quality, like the Nordics (Grönroos, 1984, 1988; Lehtinen & Lehtinen, 1991) and the American schools of thought (Parasuraman *et al.*, 1988). The work of Parasuraman *et al.* (1988) has led to the identification of a service quality measurement tool, SERVQUAL. It is one of the most widely used instruments as it aims to help service managers diagnose and improve the quality of services under their control. The model on which SERVQUAL is based proposes that customers evaluate the quality of a service across five distinct dimensions as follows: Reliability – ability to perform the promised service dependably and accurately; Responsiveness – willingness to help customers and provide prompt service; Assurance – knowledge and courtesy of employees and their ability to inspire trust and confidence; Empathy – caring, individualized attention the firm provides to its customers; Tangibles – appearance of physical facilities, equipment, appearance of personnel, and communication materials. The SERVQUAL scales comprises of 22 questions measuring expectations and 22 questions measuring perceptions. Customers evaluate the quality of services provided by organisations based on the discripancy among expectations and perceptions (Grönroos, 1984; Parasuraman *et al.*, 1988).

Although the SERVQUAL instrument has been widely used in various settings (Fick & Ritchie, 1991; Saleh & Ryan, 1992; Jabnoun & Al-Tamimi, 2003; Tan & Kek, 2004; Arasli *et al.*, 2008), it has been subjected to a number of criticisms regarding its operationalisation of expectations, the reliability and validity of the gap score formulation and the difficulty in replicating its dimensions (Carman, 1990; Cronin & Taylor, 1992; Teas, 1993; Baker & Crompton, 2000; Sureshchandar, Rajendran & Kamalanabhan, 2001). Babakus & Boller (1992) suggest that the dimensionality of service quality may vary depending on the type of service sector under investigation. Similarly, Becker *et al.* (1999) contend that the five-dimensional model does not adequately identify the characteristics most critical to successful service delivery in the hospitality setting. Cronin & Taylor (1994) argue that there is no real evidence to support the concept of performance minus expectations gap as a basis for measuring service quality. In addition, the use of expectation and performance statements may be too time consuming to administer (Carman, 1990; Babakus & Boller, 1992). It has also been argued that the performance-only measure (SERVPERF) explains more of the variance in an overall measure of service quality than the SERVQUAL instrument (Bolton & Drew, 1991; Cronin & Taylor, 1994; Yüksel & Rimmington, 1998). SERVPERF maintains the original 22 items of SERVQUAL but measures perceptions of performance only instead of measuring both expectations and performance and has been empirically validated in banking, pest control, dry cleaning, fast food, advertising and dental service (Cronin & Taylor, 1992, 1994; Quester & Romaniuk, 1997).

Customer Satisfaction and Behavioral Intentions

Customer satisfaction has been of great interest in services marketing because satisfaction links purchase/consumption to post-purchase phenomena such as attitude change, repeat purchase, positive word-of-mouth, and loyalty (Oliver, 1994; Fornell *et al.*, 1996; Oliver, 1997). Customer satisfaction is defined as a judgment made on the basis of a specific service encounter (Cronin & Taylor, 1992). Several major questions have emerged in the literature such as the relationship between service quality and satisfaction (Parasuraman *et al.*, 1988; Cronin & Taylor, 1992) and the relationship between satisfaction and future intentions of customers (McDougall & Levesque, 2000). Thus satisfaction judgments are seen as moderating the quality attitude and purchase intention relationship (Taylor & Baker, 1994; Mattila, 2000), indicating the need to investigate satisfaction and perceived service quality as two separate constructs.

Behavioral intentions are one of the important goals in the service marketing community as it is a key component for an organization's long-term viability or sustainability. According to Zeithaml *et al.* (1996), favorable behavioral intentions are associated with a service provider's ability to get its customers to say positive things about them, recommend them to other customers, remain loyal to them, spend more with the company and pay price premiums. Previous studies have used one or more of these five proposed constructs to examine the outcomes of quality (Oh, 1999; Baker & Crompton, 2000; Kim *et al.*, 2008; Han *et al.*, 2009) and satisfaction (Spreng & Mackoy, 1996).

FACTORS INFLUENCING RESTAURANT SERVICES

According to Susskind and Chan (2000), three components contribute to overall customer satisfaction with the restaurant: good food, good service and a pleasant setting. Kalra (2001) explains that dinning out has become an integral part of customers' lifestyle, thus experienced customers have raised their expectations with regard to quality, good service, well-cooked food and no dirty interiors, while seeking a better value for their money. Several researchers have attempted to test the SERVQUAL framework in measuring customer satisfaction in the restaurant industry. Bojanic & Rosen (1994) used the SERVQUAL instrument in a chain restaurant with a diverse clientele in Columbia, South Carolina and a varied menu that included international items. Six dimensions were used as "Empathy" was divided into two dimensions: knowing the customer and access to services. The results identified dimensions similar to those in Parasuraman *et al.*'s (1988) SERVQUAL instrument, "Knowing the customer", "Reliability", and "Assurance" were the most significant in predicting overall restaurant quality; the other three dimensions were not important predictors of overall quality. Lee & Hing (1995) assessed the usefulness and apllicability of the SERVQUAL instrument in the restaurant industry to measure and compare patrons' perceived service quality at a French and a Chinese restaurant in Australia. The results revealed that the customers' highest expectations of service quality involved "Assurance" and "Reliability", while their lowest expectations were related to "Tangibles". Oubre & Brown (2009) examined the relationship between customer, wait staff and manager perceptions in fine dining restaurants and "Reliability" was found to be the most important dimension, followed by "Tangibles", "Assurance", "Responsiveness", and "Empathy". In an effort to adapt SERVQUAL to the restaurant industry, Stevens *et al. (*1995) developed the DINESERV instrument. The final version of DINESERV consisted of 29 items that captured the five dimensions of SERVQUAL. Kim *et al.* (2003) conducted a study to validate five dimensions of the DINESERV instrument in Korean casual dining restaurants and explored any possible differences in perceived service quality of those restaurants.

Other studies on customer expectations and service quality perceptions in the restaurant industry have revealed certain important attributes, such as low price, food quality (food taste and nutrition properties), value for money, service, location, brand name, and image (Pettijohn *et al*., 1997; Johns & Howard, 1998). Sulek & Hensley (2004) investigated the relative importance of food, physical setting, and service

in a full-service restaurant and food quality was found to be the most important factor influencing satisfaction and the only factor predicting behavioral intention. Namkung & Jang (2007) evaluated the relationships of individual attributes that constitute food quality (e.g. food presentation, menu variety, healthy options, taste, food freshness and temperature) with customer satisfaction and behavioral intentions. The findings revealed that food presentation, taste and temperature were significantly related to customer satisfaction whereas food presentation, taste and healthy options (instead of temperature) were significant predictors of behavioral intention.

The tangibles represent the restaurant's physical attributes, which are usually noticed first by customers when they enter the restaurant. Yüksel & Yüksel (2002) examined tourist satisfaction with restaurant services and their study revealed that "service environment" such as seating arrangements, music decoration, is the critical determinant in shaping customers' behavior. A recent study undertaken by Chow et al. (2007) investigating restaurant services in the Chinese context reveals that interaction with staff and the physical environment are the more important than the outcome quality in predicting service quality for restaurant customers. Similarly, Ryu & Jang (2007) explored the combined effect of atmospheric variables on behavioral intentions in upscale restaurants. Their findings revealed that ambience (e.g. music, aroma and temperature) and employee appearance had the most important influence on customers' emotional responses, which in turn affected customers' post-dining behavioral intentions. In their investigation, Han & Ryu (2009) findings suggest that a restaurant firm should carefully design the physical environment to improve the customer's perceived reasonableness of the price. The authors further indicated that creative use of physical design in a restaurant operation would be essential in enhancing specific marketing objectives such as positive customer perception of quality, positive evaluation of experience, and positive attitudes.

Service Quality, Customer Satisfaction and Behavioral Intentions

In the restaurant industry, service quality has been found to be important in influencing both customer satisfaction and return intention (Qu, 1997; Pettijohn et al., 1997; Oh, 2000; Ladhari et al., 2008; Kim et al., 2009). While there is no guarantee that a satisfied customer will be a repeat customer, it is most likely that a dissatisfied customer will not return (Soriano, 2002). Therefore customer satisfaction is imperative for service organizations because of the positive correlation it has with future attitudes, intentions and behaviors of customers (Taylor & Baker, 1994; Mattila, 2000). Even though behavioral intentions and customer satisfaction are not the same, they are related because the outcome of satisfaction may reinforce a customer's decision to use a particular brand of service on a given occasion (Oliver, 1980; Cronin & Taylor, 1992). According to Zeithaml et al. (1996), behavioral intentions can be measured by repurchase intentions, word-of-mouth, loyalty, complaining behavior and price sensitivity. Studies have also shown that when customers perceive poor service quality and when dissatisfaction is felt, the customers are likely to complain about the service and engage in negative word-of-mouth (Richins, 1983; Singh, 1990). Thus customer satisfaction is often used to predict the likelihood of customers returning to a service organization.

Previous studies have shown that customer satisfaction is important to food service managers because it leads to repeat patronage, brand loyalty, and new customers through word-of-mouth promotion (Oh, 2000; Yüksel & Yüksel, 2002). According to Gupta et al. (2007), the link between customer satisfaction and repeat buying is an important contributor to a restaurant's profits. Hence studies investigating these links have been numerous and the literature reveals evidence of strong relationships between customer satisfaction with various restaurant attributes and repeat-purchase intentions (Stevens et al., 1995; Pettijohn et al., 1997; Kivela et al., 1999; Sulek & Hensley, 2004; Söderlund & Öhman, 2005; Cheng, 2005). Other studies have established the relationships between service quality, customer satisfaction and behavioral intentions, namely intention to return and to recommend. Qu (1997) found that food quality in Chinese restaurants was the most important determinants of customer's decision to return, followed by

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cleanliness, value, price and convenience, which ranked second, third, fourth and fifth, respectively. Namkung & Jang (2008) also investigated how food quality is perceived in relation to satisfaction and behavioral intentions in mid-to upscale restaurants. Their study showed that overall food quality significantly affected customer satisfaction and behavioral intentions and also revealed that the relationship between food quality and customer behavioral intentions was mediated by satisfaction. Ladhari *et al.* (2008) investigated determinants of dining satisfaction and post-dining behavioral intentions, and concluded that perceived service quality influenced customer satisfaction through both positive and negative emotions.

Based on the literature review, this study investigated customers' perceptions of restaurants in an island economy terms of food related attributes, service-related attributes and atmosphere-related attributes, and identified the key attributes affecting customer satisfaction and behavioral intentions. Hence, the following hypotheses have been developed:

H_1: A positive relationship exists between perceived service quality dimensions and satisfaction.
H_2: Customer satisfaction and perceived service quality positively influence intention to revisit.
H_3: Customer satisfaction and perceived service quality positively influence intention to recommend.

RESEARCH METHODOLOGY

Based on a thorough literature review, a self-administered questionnaire was developed to collect data from restaurants in Mauritius. The survey instrument composed of three sections measuring service quality perceptions, customer satisfaction and behavioral intentions, and demographic variables. The first section measured customers' perceptions of restaurant service quality. This section adopted statements from the SERVPERF model (Cronin & Taylor, 1992) and on previous research findings in the food service sector (Stevens *et al.*, 1995; Kivela *et al.*, 1999; Raajpoot, 2002). Some modifications were made to the SERVPERF items in order to suit the context of restaurant with added items related to food quality. These added items were thought to be important to customers' dining experience, namely availability of fresh food, well-presented food and taste of food. The modified SERVPERF instrument thus consisted of 6 dimensions and 25 statements instead of 22 statements. The 25 service quality statements were measured on a 5-point Likert-type scale ranging from "1 = strongly disagree" to "5 = strongly agree". The second section of the survey instrument assessed customers' overall satisfaction and behavioral intentions. Overall customer satisfaction is measured using two items: Overall, how satisfied are you with the restaurant? (from "1 = very dissatisfied" to "5 = very satisfied") and I am happy about my decision to use this restaurant services (from "1 = strongly disagree" to 5 = strongly agree"). This study focused on revisit intentions and willingness to recommend as specific forms of behavioral intentions. Two items, which were taken from Zeithaml *et al.* (1996), were measured using a 5-point Likert-type scale (1 = strongly disagree and 5 = strongly agree). In the third section, respondents' socio-demographic characteristics, such as age and gender, were gathered.

Using convenience sampling technique, customers willing to participate in the survey were approached after they had finished their dinner and were waiting to pay the bill in three restaurants in Port-Louis, the capital of Mauritius. The restaurants characterised in this study comprised of a dining experience which provides a wide range of items from appetizers to deserts with a themed setting. The restaurants further provide professional service, distinctive presentations, elegant décor, exceptional food, and generates the average check of above US$15 per person. The survey was carried out over a 7-day period throughout four weeks. A total of 350 questionnaires were given to the customers in the restaurants, requesting them to evaluate their dining experience by filling in the survey. Of these, 318 questionnaires were returned and in all, 296 questionnaires were found usable for the study, which represents a 85% response rate from the original sample of 350.

SPSS 16.0 for windows was employed in order to access the particular results required for the scale measurement. Descriptive analysis such as means, standard deviation and frequencies are calculated. Reliability of the scale is tested and dimensionality of the scale is confirmed through an exploratory factor analysis. Multiple regression analyses were employed to measure the influence of the service quality dimensions on customer satisfaction and behavioral intentions.

RESULTS

Table 1 reflects the demographic profile of the respondents. The results of descriptive analysis for demographic information indicated that among the analyzed samples (n = 296), 52% of the respondents were female, with 48% being male. In terms of age group, the ages of the respondents ranged from 20 - above 60 years old, with the majority of respondents falling between the age group of "30-39" (45%), followed by the age group "40-49" (23%), "20-29" (14.5%), "> 60" (13.5%) and "50-59" (3.7%). About 78% of the respondents were working people, followed by 13% were students and 9% were retired. On the frequency of their patronage to the restaurant at which they were surveyed, 2.5% ate at the restaurant at least once in 15 days, 84.6% ate at the restaurant at least once per month and only 12.9% visited the restaurant for the first time.

Table 1: Respondent Demographics (n = 296)

Demographics	Frequency	%
Gender		
Male	142	48.0
Female	154	52.0
Age		
20 – 29	43	14.5
30 – 39	134	45.0
40 – 49	68	23.0
50 – 59	11	3.7
More than 60	40	13.5
Status		
Student	38	13.0
Working	231	78.0
Retired	27	9.0
Patronage		
At least once in 15 days	8	2.5
At least once per month	250	84.6
First time	38	12.9

Reliability and Dimensionality of the Scale

A factor analysis using varimax rotation was employed on the 25 items to explore the dimensionality in the data set. The Bartlett test of sphericity was significant (Chi-square = 1201.772, p < 0.000). The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was computed to quantify the degree of intercorrelations among the variables, and the results indicate an index of 0.788. A factor loading cut-off of 0.5 for retaining items in the factor analysis is used and only factors with an eigenvalue equal to or greater than 1 were retained (Hair *et al*., 1995). After analyzing the data, 18 items were reduced under three factors, which explained 67.7% of the total variance. The average communality of the variables was above 0.5, which indicates that the variance of the original values was captured fairly well by three factors (Table 2).

The results failed to identify Parasuraman *et al.* (1988) five service quality dimensions. "Tangibles" (1 to 4) was the only SERVQUAL dimension that remained unchanged in this confirmatory analysis. The "Food Quality" and "Reliability" items loaded onto the same dimension and items that represented SERVQUAL's "Responsiveness", "Assurance" and "Empathy" dimensions were grouped together as one

dimension. This indicates that the customers view "Food Quality and Reliability" as one dimension and "Responsiveness-Assurance-Empathy" as a single dimension and not three separate ones.

The items for each subscale were subjected to reliability analysis and the alpha coefficient for the total scale was 0.77 and 0.66, 0.62 and 0.6 respectively for the dimensions "Tangibles", "Food Quality-Reliability" and "Responsiveness-Assurance-Empathy". According to Nunnally (1994) reliability coefficients greater than or equal to 0.50 are considered sufficient for exploratory studies. Given the increasing importance of the restaurant market, restaurant operators need to know how customers perceive restaurant service quality. In this study, a modified SERVPERF instrument was used to investigate customers' perceptions of restaurant service quality and the results revealed three dimensions. Parasuraman *et al.* (1991) found a large interrelationship among SERVQUAL's five dimensions, especially "responsiveness, assurance, and empathy, implying that one factor is the antecedent for another. So for customers, Responsiveness might be an antecedent of Assurance and Empathy suggesting that staff in the restaurants need to provide prompt service to customers (Responsiveness) for staff knowledge to be appreciated (Assurance) and thus demonstrating that they care for their customers (Empathy).

Table 2: Results of Factor Analysis

Factor and items	F1	F2	F3	Communality
Tangibles				
Comfort and cleanliness of the dining area	0.73			0.638
Visual attractiveness of the building and dining areas	0.60			0.677
Neat and well groomed staff	0.62			0.551
Attractive and readable menu	0.65			0.506
Food Quality				
The food are fresh and well presented		0.72		0.669
Taste of food		0.73		0.622
The restaurant offers a variety of menu items		0.70		0.557
Reliability				
Sincere interest in correcting anything that is wrong		0.67		0.790
Provide accurate bills to customers		0.53		0.623
Serve customers in the time promised		0.66		0.667
Serve customer's food exactly as it was ordered		0.63		0.684
Responsiveness				
Provide prompt and quick service			0.61	0.605
Give extra effort to handle customer's special requests			0.77	0.735
Assurance				
Consistently courteous with customers			0.81	0.724
Have the knowledge to answer customers' questions such as menu items, their ingredients, and methods of preparations			0.70	0.563
Make customers feel safe with the service and food			0.64	0.667
Empathy				
Have customer's best interests at heart			0.79	0.664
Give customers personal attention			0.61	0.629
Understand customer's specific needs and wants			0.77	0.638
Total variance explained				
% of variance explained	30.4	19.5	17.8	67.7
Eigenvalue	6.7	4.49	1.34	
Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO-MSA): 0.788; Bartlett's Test of Sphericity = 1201.772; p < 0.01				

Table 2 displays the factor loadings, eigenvalues, Cronbach's alpha and descriptive statistics for the items under evaluation. The three-factor solution is presented and the variance extracted in each is given.

The Restaurant Dimensions

Table 3 shows the mean scores and t-tests for the three restaurant dimensions found in the study. This result indicates that customers are generally unhappy with the overall service quality and the dimensions of the instrument. The findings show that among the 3 factors, customers are most satisfied with

"Tangibles" while they are less satisfied with "Food Quality-Reliability" and "Responsiveness-Assurance-Empathy dimensions.

Table 3: Mean Scores and T-Test Results for the Restaurant Dimensions

Dimension	Mean	Std. Deviation	t-value
Tangibles	3.66	0.77	81.51**
Food Quality-Reliability	3.32	0.75	76.03***
Responsiveness-Assurance-Empathy	3.29	0.65	87.47***
Overall service	3.09	1.21	44.02***
Note: Significant at p < 1%			

*Table 3 shows the overall mean scores for the restaurant service quality. *** Significant at p < 0.01; ** Significant at p < 0.05*

REGRESSION ANALYSES

The aim of this study is to identify the key service quality dimensions that affect customer satisfaction and behavioral intentions in restaurant services in Mauritius. Therefore, based on the new factors derived from the factor analysis, multiple regression analyses were used to determine the relative importance of service quality characteristics in predicting overall customer satisfaction and behavioral intentions. Equation 1 included the direct effect of the three independent variables on customer satisfaction.

$$Customer\ Satisfaction = \alpha + \beta_1\ (Tangibles) + \beta_2\ (Food\ Quality - \mathrm{Re}\ liability) \\ + \beta_3\ (\mathrm{Re}\ sponsiveness - Assurance - Empathy) \tag{1}$$

In identifying those significant variables accounting for customers' satisfaction, it is found that three service quality dimensions have a significant influence on satisfaction. The adjusted R^2 of this model is 0.57, which indicates that 57% of the variation in customer satisfaction was explained by the three dimensions. The significant F-ratio (F = 85.68, p = 0.001) indicates that the results of the regression model could hardly have occurred by chance. Thus, the goodness-of-fit of the model is satisfactory. Only two of the three dimensions (food quality-reliability and responsiveness-assurance-empathy) significantly and positively influenced satisfaction among the restaurant customers. Based on the beta coefficient of each independent variable, it is possible to assess the impact of each variable on the dependent variable, satisfaction. According to Table 4, the variable "food quality-reliability" was the most important determinant of customers' satisfaction; it had the highest standardized coefficient value, 0.39, and the highest t-value, 6.85, followed by Responsiveness-assurance-empathy with beta = 0.19. Thus H1 is partially supported.

Separate regression analysis was conducted to investigate the influence of the service quality dimensions and overall satisfaction on revisit intention of the restaurant customers and willingness to recommend the restaurant to others (Equation 2 and Equation 3). Equation 2 contained the direct effects of the three independent variables and customer satisfaction on behavioral intentions, namely intention to revisit. Table 4 provides the results of the regression analysis with intention to revisit as the dependent variable. Approximately 30% of the revisit intention depends on customer satisfaction and food quality-reliability. Tangibles and responsiveness-assurance-empathy were not statistically significant in predicting revisit intention. Food quality – reliability was found to be more important and exerted a greater influence on intention to revisit than on customer satisfaction. Thus, H2 is partially supported.

$$Intention\ to\ revisit = \alpha + \beta_1\ (Customer\ Satisfaction) + \beta_2\ (Tangibles) + \beta_3\ (Food\ Quality - \mathrm{Re}\ liability) \\ + \beta_4\ (\mathrm{Re}\ sponsiveness - Assurance - Empathy) \tag{2}$$

Equation included the direct effect of the three independent variables and customer satisfaction on behavioral intentions, namely intention to recommend. The results show that two of the service quality dimensions and customer satisfaction explained 48% of the variability with the exception of responsiveness-Assurance-Empathy which was not statistically significant (Table 4). Thus, customer satisfaction, tangibles and food quality-reliability dimensions were significantly and positively related to intention to recommend. The dimension "Food Quality-Reliability" was once more the most critical dimension in predicting customer behavioral intentions because it had the largest beta values and is consistent with the previous finding when customer satisfaction was used as criterion variable. Therefore, H3 is partially supported.

$$Intention\ to\ recommend = \alpha + \beta_1\ (Customer\ Satisfaction) + \beta_2\ (Tangibles) + \beta_3\ (Food\ Quality - Reliability) \quad (3)$$
$$+ \beta_4\ (Responsiveness - Assurance - Empathy)$$

Customer satisfaction had a positive influence on behavioral intentions. This finding suggests that satisfied customers will result in customers dining at the restaurant again in the future and recommending the restaurant to others.

Table 4: Predicting Customer Satisfaction and behavioral Intentions

Dependent	Independent	b-value	Beta	t-value
Customer Satisfaction	Tangibles	0.11	0.12	2.33**
	Food Quality-Reliability	0.52	0.39	6.85*
	Responsiveness-Assurance-Empathy	0.26	0.19	3.34*
R2 = 0.57; F = 85.68, p = 0.000, **p < 0.001; * p < 0.01				
Behavioural Intentions:				
	Customer Satisfaction	0.332	0.176	2.645*
Intention to revisit	Tangibles	0.114	0.075	1.271
	Food Quality-Reliability	0.271	0.267	4.453**
	Responsiveness-Assurance-Empathy	-0.038	-0.021	-0.341
R2 = 0.30; F = 43.77, p = 0.000; * p < 0.001; ** p < 0.05				
Intention to recommend	Customer Satisfaction	0.376	0.152	2.388*
	Tangibles	0.285	0.176	3.097**
	Food Quality-Reliability	0.253	0.281	4.883**
	Responsiveness-Assurance-Empathy	0.076	0.039	0.652
R2 = 0.48; F = 68.74, p = 0.000; * p < 0.001; ** p < 0.05				

Table 4 shows the regression results measuring the dependent variable "customer satisfaction",, "intention to return" and "intention to recommend" on the restaurant services

DISCUSSION AND CONCLUSIONS

The main objective of this study was to identify the key service quality dimensions that affect customer satisfaction and behavioral intentions in restaurant services in Mauritius. The current study used a modified SERVPERF instrument to investigate customers' perceptions of restaurant service quality and three dimensions for the customers' restaurant market were found in Mauritian restaurant services. Among Parasuraman *et al.*'s (1988) five dimensions, only "Tangibles" remained in the new model; "Food quality" and "Reliability" were merged into a second dimension, and "Responsiveness", "Assurance" and "Empathy" were grouped into a third dimension. It seems that customers perceive "Food quality and reliability", which are related to the speed and accuracy of service, as one dimension and "Responsiveness, assurance and empathy", which concern how individuals' needs are perceived, as one dimension. The results of this study further suggest that the "Food quality-reliability" dimension was the strongest predictor of customer satisfaction as well as repeat purchase intention and willingness to

recommend. These aspects of quality are judged to be more important in the minds of the Mauritian customers, and thus will be the key determinants of customer satisfaction and behavioral intentions. This result partially is consistent with the previous findings of Pettijohn *et al.* (1997), Sulek & Hensley (2004) and Kim *et al.* (2009) that food quality dimension positively influences satisfaction and behavioral intentions. When analyzing customer satisfaction with likelihood of repeat patronage and intention to recommend, the results showed that customer satisfaction is positive and significantly related to both. The findings are in line with the previous results of Ranaweera & Prabhu (2003). The success of restaurant businesses relies on providing superior service quality, value, and customer satisfaction, which in turn enhances customer behavioral intentions. The customer's post-dining decision whether to return or not to return to the restaurant is the moment of final truth for the restaurant manager.

This study has been the first attempt to gauge the importance of quality dimensions that influence service quality in restaurant services in Mauritius. Theoretically, this study has confirmed the importance of some established dimensions like tangibles (Parasuraman *et al.*, 1985, 1988, 1991; LeBlanc, 1992), and intangibles (reliability, responsiveness, assurance, empathy, food quality) of the service experience (Parasuraman *et al.*, 1985, 1988, 1991; Andaleeb and Conway, 2006). This study contributes to the existing literature by confirming the importance of some key attributes in a different cultural setting. The understanding of restaurant operators that "tangibles", "food quality-reliability" and "responsiveness-assurance-empathy" are not just important to diners in West but are important to diners everywhere.

It is important for restaurant operators in Mauritius to pay more attention to providing friendly services that makes customers feel valued and cared for. Improvement of visual appeal, food taste, freshness and provision of accurate and reliable service might help restaurant operators meet or exceed customer expectations and improve repeat patronage and willingness to recommend. Improving service quality will not only strengthen customer loyalty, but also improve the restaurant's reputation, and result in more sales and greater revenue in the long term.

Limitations and Future Research

This study has several limitations. First, the results of this study cannot be applied conclusively to the whole restaurant sector in Mauritius because it was conducted in only one region of the island. To be able to generalize the findings for the restaurant sector, a study that would include more restaurants in different geographic locations could be conducted. Secondly, most of the dimensions employed in this study were adapted from the existing scales created in the context of the United States; the minor modification might not be enough when applying them to a different culture like small island state. Therefore, more exploratory analysis is necessary in this area. In addition, omission of other factors such as price, perceived value and waiting time, related to the service quality in restaurant service could be considered in future research.

REFERENCES

Arasli, H., Ekiz, E.H. & Katircioglu, S.T. (2008). Gearing service quality into public and private hospitals in small islands: Empirical evidence from Cyprus. *International Journal of Health Care Quality Assurance*, 21(1), 8-23.

Babakus, E. & Boller, G.W. (1992). An empirical assessment of the SERVQUAL scale. *Journal of Business Research*, 24(2), 253-268.

Baker, D.A. & Crompton, J.L. (2000). Quality, satisfaction and behavioral intentions. *Annals of Tourism Research*, 27(3), 785–804.

Becker, C., Murrmann, S.K, Murrmann, K.F. & Cheung, G.W. (1999). A pan-cultural study of restaurant service expectations in the United States and Hong Kong. *Journal of Hospitality and Tourism Research*, 23(3), 235-255.

Bitner, M.J. (1992). Servicesscapes: The Impact of Physical Surroundings on Customers and Employees. *Journal of Marketing*, 56, 57-71.

Bojanic, D.C. & Rosen, L.D. (1994). Measuring service quality in restaurants: An application of the SERVQUAL instrument. *Hospitality Research Journal*, 18(1), 4-14.

Bolton, R.N. & Drew, J. H. (1991). A longitudinal analysis of the impact of service changes on customer attitudes. *Journal of Marketing*, 55(1), 1-9.

Boulding, W., Kalra, A., Staelin, R. & Zeithaml, V.A. (1993). A dynamic process model of service quality: From expectations to behavioral intentions. *Journal of Marketing Research*, 30(1), 7-27.

Carman, J.M. (1990). Consumer Perceptions of Service Quality: An Assessment of the SERVQUAL Dimension. *Journal of Retailing*, 66(1), 33-55.

Cheng, K. (2005). A research on the determinants of consumers' repurchase toward different classes of restaurants in Taiwan. *Business Review,* 4(2), 99-105.

Chow, I.H., Lau, V.P., Lo, T.W., Sha, Z. & Yun, H. (2007). Service quality in restaurant operations in China: decision- and experiential-oriented perspectives. *International Journal of Hospitality Management*, 26(3), 698–710.

Cronin, J.J. & Taylor, S.A. (1992). Measuring service quality: a re-examination and extension. *Journal of Marketing*, 56(3), 55-68.

Cronin, J.J. & Taylor, S.A. (1994). SERVPERF versus SERVQUAL: reconciling performance based and perceptions minus expectations measurement of service quality. *Journal of Marketing*, 58, 125-131.

Fornell, C., Johnson, M.D., Anderson, E.W., Cha, J. & Bryant, B.E. (1996). The American customer satisfaction index: Nature, purpose and findings. *Journal of Marketing*, 60, 7–18.

Fick, G.R. & Ritchie, J.R.B. (1991). Measuring service quality in the travel and tourism industry. *Journal of Travel Research*, 30(2), 2-9.

Gupta, S., McLaughlin, E. & Gomez, M. (2007). Guest satisfaction and restaurant performance. *Cornell Hotel and Restaurant Administration Quaterly*, 48(3), 284-298.

Grönroos, C. (1984). A service quality model and its marketing implications. *European Journal of Marketing*, 18(4), 36-44.

Grönroos, C. (1988). Service quality: The six criteria of good perceived service quality. *Review of Business*, 9(3), 10-13.

Hair, J.F., Anderson, R. & Black, W.C. (1995). *Multivate data analysis with reading*. Prentice-Hall, New Jersey.

Han, H. & Ryu, K. (2009). The roles of the physical environment, price perception, and customer satisfaction in determining customer loyalty in the restaurant industry. *Journal of Hospitality & Tourism Research*, 33(4), 487-510

Jabnoun, N. & Al-Tamimi, H.A.H. (2003). Assuring perceived service quality at UAE commercial banks. *International Journal of Quality & Reliability Management*, 20(4), 458-472.

Jones P.A. (1983). The restaurant, a place for quality control and product maintenance. *International Journal of Hospitality Management*, 2(2), 93-100.

Johns, N. & Howard, A. (1998). Customer expectations versus perceptions of service performance in the foodservice industry. *International Journal of Service Industry Management*, 9(3), 248-265.

Johns, N. & Pine, R. (2002). Consumer behavior in the food service industry: a review. *International Journal of Hospitality Management*, 21(2), 119–134.

Kalra, R. (2001). Please please me. *Restaurant Business*, 100(4), 22.

Kim H-J., McCahon, C. & Miller, J. (2003). Assessing service quality in Korean casual-dining restaurants using DINESERV. *Journal of Foodservice Business Research*, 6, 67–86.

Kim, W.G., Ng, C.Y.N. & Kim, Y-S. (2009). Influence of institutional DINESERV on customer satisfaction, return intention, and word-of-mouth. *International Journal of Hospitality Management*, 28(1), 10-17

Kivela, J., Inbakaran, R. & Reece, J. (1999). Consumer research in the restaurant environment, Part 1: A conceptual model of dining satisfaction and return patronage. *International Journal of Contemporary Hospitality Management*, 11(5), 205-222.

Kivela, J., Inbakaran, R. & Reece, J. (2000). Consumer research in the restaurant environment, Part 3: Analysis, findings and conclusions. *International Journal of Contemporary Hospitality Management*, 12(1), 13-30.

Ladhari, R., Brun, I. & Morales, M. (2008). Determinants of dining satisfaction and post-dining behavioral intentions. *International Journal of Hospitality Management*, 27(4), 568-573.

Lee, Y.L. & Hing, N. (1995). Measuring quality in restaurant operations: An application of the SERVQUAL instrument. *International Journal of Hospitality Management*, 14(3/4), 293-310.

Lehtinen, U. & Lehtinen, J.R. (1991). Two approaches to service quality dimensions. *The Service Industries Journal*, 11(3), 287-303.

McDougall, G.H. & Levesque, T. (2000). Customer satisfaction with service: Putting perceived value into the equation. *Journal of Services Marketing,* 14(5), 392–410.

Mangold, W.G. & Babakus, E. (1990). Monitoring service quality. *Review of Business*, 11(4), 21-31.

Mattila, A.S. (2000). When does mood matter? An examination of two types of hospitality service encounters. *Journal of Hospitality and Leisure Marketing*, 7(3), 55 – 65.

Namkung, Y. & Jang, S.C. (2008). Are highly satisfied restaurant customers really different? A quality perception perspective. *International Journal of Cointemporary Hospitality Management*, 20(2), 142-155.

Nunnally, J.C. (1994). *Psychometric theory*. New York: McGraw-Hill

Oh, H. (2000). Diners' perception of quality, value, and satisfaction: a practical viewpoint. *Cornell Hotel and Restaurant Administration Quarterly*, 41(3), 58–66.

Oliver, R.L. (1980). A cognitive model for the antecedents and consequences of satisfaction decisions. *Journal of Marketing Research*, 27(4), 460-469.

Oliver, R.L. (1994). Conceptual issues in the structural analysis of consumption emotion, satisfaction and quality: Evidence in a service setting. *Advances in Consumer Research*, 21, 16-22.

Oliver, R.L. (1997). *A Behavioral Perspective on the Consumer*. McGraw-Hill, New York, N.Y

Oubre, J.J. & Brown, D.M. (2009). Stakeholder service perspectives: A triadic analysisof service quality in South Mississippi fine-dining restaurants. *Journal of Hospitality and Tourism Research*, 3(2), 193-210.

Parasuraman, A., Zeithaml, V.A. & Berry, L.L. (1988). SERVQUAL: a multiple item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64(5), 21- 40.

Parasuraman, A., Berry, L.L. & Zeithaml, V.A. (1991). Refinement and reassessment of the SERVQUAL scale. *Journal of Retailing*, 67(4), 420-450.

Pettijohn, L.S., Pettijohn, C.E. & Luke, R. (1997). An evaluation of fast food restaurant satisfaction: determinants, competitive comparisons and impact on future patronage. *Journal of Restaurant and Foodservice Marketing,* 2(3), 3–20.

Qu, H. (1997). Determinant factors and choice intention for Chinese restaurant dining: a multivariate approach. *Journal of Restaurant and Foodservice Marketing*, 2(2), 35-49.

Quester, P. & Romaniuk, S. (1997). Service quality in the Australian advertising industry: a methodological study. *Journal of Services Marketing*, 11, 180–92.

Raajpoot, N.A. (2002). TANGSERV: A multiple item scale for measuring tangible quality in foodservice industry. *Journal of Foodservice Business Research*, 5(2), 109-127.

Richins, M. (1983). Negative word-of-mouth by dissatisfied customers: A pilot study. *Journal of Marketing*, 47 (Winter), 68-78.

Rust, R.T. & Oliver, R.L. (1994). Service quality: insights and managerial implications from the frontier. In Rust, R.T., Oliver, R.L. (Eds), *Service Quality: New Directions in Theory and Practice*. Sage, London, 1–20.

Saleh, F. & Ryan, C. (1992). Analyzing service quality in the hospitality industry using SERVQUAL model. *The Service Industries Journal*, 11(3), 324-343.

Singh, J. (1990). Voice, exit and negative word-of-mouth behaviors: an investigation across three service categories. *Academy of Marketing Service*, 18(1), 1-15.

Söderlund, M. & Öhman, N. (2005). Assessing behavior before it becomes behavior: An examination of the role of intentions as a link between satisfaction and repatronizing behavior. *International Journal Service Industry Management*, 16(2), 169-85.

Soriano, D.R. (2002). Customers' expectations factors in restaurants: The situation in Spain. *International Journal of Quality & Reliability Management*, 19(8/9), 1055-1067.

Spreng, R. & Mackoy, R.D. (1996). An empirical examination of a model of perceived service quality and satisfaction. *Journal of Retailing*, 72(2), 201 – 214.

Stevens, P., Knutson, B. & Patton, M. (1995). DINESERV: A tool for measuring service quality in restaurants. *Cornell Hotel and Restaurant Administration Quarterly*, 36(2), 56-60.

Sulek, J.M. & Hensley, R.L. (2004). The relative importance of food, atmosphere and fairness of wait. *Cornell Hotel and Restaurant Administration Quarterly*, 45(3), 235-247.

Sureshchandar, G.S., Rajendran, C. & Kamalanabhan, T.J. (2001). Customer perceptions of service quality: a critique. *Total Quality Management*, 12(1), 111-124.

Susskind, A.M. & Chan, E.K. (2000). How restaurant features affect check averages. *Cornell Hotel and Restaurant Administration Quarterly,* 42(6), 56–63.

Tan, K.C. & Kek, S.W. (2004). Service Quality in Higher Education using an enhanced SERVQUAL approach. *Quality in Higher Education*, 10(1), 17-24.

Taylor, S.A. & Baker, T.L. (1994). An assessment of the relationships between service quality and customer satisfaction in the formation of consumers' purchase intentions. *Journal of Retailing*, 72(2), 163-178.

Teas, R.K. (1993). Expectations, performance evaluation and customer's perceptions of quality. *Journal of Marketing*, 57(4), 18-34.

Yüksel, A. & Rimmington, M. (1998). Customer-satisfaction measurement. *Cornell Hotel and Restaurant Administration Quarterly*, 39(6), 60-71.

Yüksel, A. & Yuksel, F. (2002). Measurement of tourist satisfaction with restaurant services: a segment-based approach. *Journal of Vacation Marketing*, 9(1), 52-68.

Zeithaml, V.A., Berry, L.L. & Parasuraman, A. (1996). The behavioural consequences of service quality. *Journal of Marketing*, 60(2), 31-46.

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INBOUND INTERNATIONAL TOURISM TO THE UNITED STATES: A PANEL DATA ANALYSIS

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ABSTRACT

The objective of this paper is to analyze the demand for tourist arrivals to the United States, using the panel cointegration technique. The study attempts to identify and measure the impact of the main determinants of inbound international tourism flows to the United States. The study uses annual data from 1986 to 2011 for tourist arrivals from 50 major countries of tourist origin. The specified model includes several country-specific determinants. The panel unit root tests indicate all the variables are integrated of order one. The panel cointegration tests show that all seven test statistics reject the null hypothesis of no cointegration at the 1% significance level, indicating that the five variables are cointegrated. The results suggest that tourism demand to the United States must be considered as a luxury good and is highly dependent on the evolution of relative prices and cost of travel between origin and destination country. The results also show that tourism demand is elastic with respect to income but inelastic with respect to tourism price, real exchange rate, and travel costs.

INTRODUCTION

The Tourism industry has emerged as one of the leading service industries in the global economy, as well as in the United States economy in recent decades. Economic flows, generated by international tourism, have become vital factors in economic growth and international economic relations in many countries. Tourism, is now one of the largest foreign exchange earners in the United States, generating $434.4 billion or 2.9% of GDP in 2011(World Travel and Tourism Council, 2012). indeed, a major source of economic and employment growth. For example, according to the U.S. Bureau of Economic Analysis, direct tourism employment in the United States was 5.41 million and a total tourism-related employment of 7.63 million in 2011, accounting for about 5.5% of total employment. According to the U.S. Department of Commerce, Office of Travel and Tourism Industries, between 1986 and 2011, international tourist arrivals to the United States increased from 25.7 million to 63.2 million, growing an annual average growth rate of 3.5% (see Table 1). Based on the latest forecast by the U.S. Department of Commerce, the United States is expected to see a 5% annual growth rate in visitor volume between 2012 and 2016, producing 81.5 million visitors by 2016.

Given the importance of the travel and tourism industry to the United States, Congress introduced the Travel Promotion Act of 2009 (TPA) authorizing the creation of a public-private partnership, and the establishment of a new non-profit Corporation for Travel Promotion (CTP) to further promote tourism. The CTP's main goal is to promote the United States as a premier travel destination to international travelers. According to the U.S. Department of Commerce press release on President Obama's signing the TPA Act into law, in March 2010, each year "oversees visitors spend an average of $4,500 per person." The Department forecasts that the TPA will "generate $4 billion in new visitor spending and 4,000 new jobs. However, the impacts are expected to be minimal in 2012 and increase as a proportion of normal expected growth through 2014 and then decline through 2016.

Table 1: International Visitors to the United States, 1986-2011

Year	Visitor Arrivals (Thousands)	Year	Visitor Arrivals (Thousands)
1986	25,716	1999	47,870
1987	27,634	2000	51,200
1988	33,717	2001	46,900
1989	36,062	2002	43,600
1990	39,030	2003	41,200
1991	42,338	2004	46,100
1992	46,943	2005	49,200
1993	45,390	2006	51,000
1994	44,696	2007	56,000
1995	43,061	2008	57,900
1996	46,067	2009	55,000
1997	47,295	2010	59,700
1998	45,751	2011	62,300

Note: This table shows the international tourist arrivals to the United States. Source: The U.S. Department of Commerce, ITA, Office of Travel and Tourism Industries.

North America has been the largest source of tourist arrivals to the United States during the period 1990-2011, although its share dropped from 61.7% in 1990 to 49.3% in 2000 (see Table 2). The three largest regions of tourist arrivals, North America, Western Europe, and Asia, account for more than 85% of total tourist arrivals to the United States. Regions such as Eastern Europe and Africa record the lowest number of tourists to the United States between 1990 and 2011. Canada, Mexico, and the United Kingdom are the three largest sources of tourists to the United States, accounting for more than 61% of total international visitors in 2011 (see Table 3). The remainder of the paper is organized as follows: Section 2 provides a brief literature review. Section 3, the empirical framework of the current study, specifies the model and the econometric methodology. Section 4 discusses the variable definitions and outlines the data sources. Section 5 presents empirical results of panel unit root tests, panel cointegration tests, and panel OLS estimates. The last section, Section 6, presents a summary and a brief conclusion on the obtained results.

REVIEW OF LITERATURE

There is a large number of studies exploring tourism demand. Much of the literature in international travel research tends to rely on demand-side theories and models to explain international tourism flows. In its majority, tourism demand research has dealt with demand at the national level, although several studies have addressed demand at the regional and local levels focusing on amenities, attractions, events, accommodations, seasonality, ecological concerns, etc. Demand-side studies have dealt with both outbound and inbound tourism demand, with the overwhelming majority of studies focusing on the latter. The main criticism of much of the demand-side literature is that it is excessive in its use of aggregate concepts as well as aggregate measurements, masking the many particularities of complementary destinations (Marcouiller et al., 2004 and Cortés-Jiménez and Blake, 2011).

Table 2: International Visitors to the United States by Region of Residency, 1990-2011

	1990		2000		2011	
Region of Residence	Number of Visitors	Share (%)	Number of Visitors	Share (%)	Number of Visitors	Share (%)
North America	24,303,659	61.7	25,262,000	49.3	34,442,000	55.3
Western Europe	6,460,065	16.4	11,175,161	21.8	11,986,795	19.2
Asia	4,359,609	11.1	7,554,444	14.7	7,246,776	11.6
South America	1,327,609	3.4	2,941,471	5.7	3,756,689	6.0
Oceania	661,696	1.7	731,263	1.4	1,243,433	2.0
Caribbean	1,136,673	2.9	1,331,297	2.6	1,091,419	1.8
Middle East	365,150	0.9	702,105	1.4	810,688	1.3
Central America	412,337	1.0	821,614	1.6	747,168	1.2
Eastern Europe	198,731	0.5	421,959	0.8	673,105	1.1
Africa	137,140	0.3	295,387	0.6	327,084	0.5
Total Arrivals	**39,362,669**	**100.0**	**51,236,701**	**100.0**	**62,325,157**	**100.0**

Note: This table shows the trend in tourism arrivals to the United States from the major regions of residence. Source: The U.S. Department of Commerce, ITA, Office of Travel and Tourism Industries.

Table 3: Top 10 Sources of Visitor Arrivals to the United States, 2003-2011

Country	2003	2004	2005	2006	2007	2008	2009	2010	2011
Canada	12,666	13,856	14,862	15,992	17,759	18,915	17,977	19,964	21,028
Mexico	10,526	11,907	12,665	13,317	14,327	13,686	13,229	13,469	13,414
United Kingdom	3,936	4,303	4,345	4,176	4,498	4,565	3,899	3,851	3,835
Japan	3,170	3,748	3,884	3,673	3,531	3,250	2,918	3,386	3,250
Germany	1,180	1,320	1,416	1,386	1,524	1,782	1,687	1,726	1,824
Brazil	349	385	485	525	639	769	893	1,198	1,508
France	689	775	879	790	998	1,244	1,204	1,342	1,504
South Korea	618	627	705	758	806	759	744	1,108	1,145
China	157	203	270	320	397	493	525	802	1,089
Australia	406	520	582	603	670	690	724	904	1,038

Note: This table shows the trend in tourism arrivals to the United States from top 10 countries. Source: The U.S. Department of Commerce, ITA, Office of Travel and Tourism Industries.

Efforts at tourism demand forecasting have used both qualitative and quantitative methods, with the majority of studies favoring quantitative approaches (Song and Turner, 2006). Researchers modeling demand have mostly used non-causal longitudinal analysis, causal econometric models, and gravitational techniques. Each of these techniques has merits. The degree to which they lend themselves to accurate demand forecasting, and therefore policy decision making, depends on their ability to accurately measure economic theory tenets. As expected, there is no single technique that is confirmed to be best on all counts over all others (Song and Li, 2008).

The majority of studies tend to analyze flow demand in terms of departures and arrivals, and tourism expenditures and receipts by destination and country of origin. Historically, demand studies tend to use number of tourists as the dependent variable (Crouch and Shaw, 1992). Demand-side research, although with limitations (Papatheodorou, 2001; Trauer and Ryan, 2005; Yoon and Uysal, 2005; Crouch and Ritchie, 1999), has been widely used by destination marketers to create short-term tourism forecasts by measuring elasticities. Researchers have used various economic variables in their studies. Some of these variables include income, population, cost of living differences, transportation cost, currency exchange rate and other price factors (Zhang and Jensen, 2007), distance (Yan, 2011; Becken and Lennox, 2012), destination attractiveness (Enright and Newton, 2004), seasonality patterns (Alegre and Pou, 2005), length of stay (Roselló, Riera, and Sansó, 2004; Alegre and Pou, 2011), purpose of visit (Cortés-Jiménez and Blake, 2011), loyalty for a destination (Garín-Muñoz and Montero-Martín 2007; Brida and Risso, 2009), and socioeconomic and other constraints to vacation (Alegre, Mateo, and Pou, 2010).

Song and Li (2008), in their exceptionally comprehensive study of the tourism demand forecasting literature, report that since the 1970s, time-series models have been widely used in the field. Time-series frameworks have used either single equations or systems of equations, with several researchers preferring

multivariate regressions. Single equation models, used in earlier studies, tended to use ad hoc approximations to explain flows of bilateral tourism demand, and therefore, resulted in simplistic, yet, dissimilar findings, only partly accounting for economic theory. Critics suggest that single equation models fail to yield consistent parameter estimates and fail to address demand for complementary and competing destinations (O'Hagan and Harrison, 1984).

Cointegration techniques along with other econometric methods have been used to determine short-term and long-term relationships. "However, the identification of structural relationships is often problematic" (Bonham, Gangnes and Zhou, 2009). While models using systems of equations are more comprehensive than single equation models, they too have limitations. Some studies fail to account for the single most important cost for international tourism, namely, the cost of international travel. Studies that account for cost differences driving tourist demand by destination, tend to use Consumer Price Indices, although the 'baskets of goods and services' differ from country to country, are not consumed in similar proportions by locals and tourists alike, and lack measurement uniformity (Divisekera, 2003).

Econometric models have also been widely used, utilizing various techniques such as ordinary least squares, autoregressive distributed lag models, error-correction models, vector autoregressive models, Baysian VAR, time varying parameter models, and variations (Song and Witt, 2006) and most of them are single equation models. System-of-equations models such as the almost ideal demand system (AIDS), good at forecasting demand for destinations within a region from a source market or a group of source markets, is a much stronger modeling approach. More recent variations of the original AIDS model have not only improved on the variables used but most importantly have taken into account the dynamic nature of the tourism industry by combining several techniques. AIDS models are well fitting in exploring substitution effects and destination competitiveness (Song and Li, 2008). The structural equation model has been used by Turner and Witt (2001) to analyze causal relationships between holidays, business visits and visiting friends and relatives. It appears that time-series models are better for short-term forecasting but rely on historical patterns instead of dynamic structural relationships, while more structural models tend to poorly forecast short-term. According to Cortés-Jiménez and Blake (2011), time varying parameter models and panel data models are better at estimating inbound demand and AIDS models tend to be better in analyzing outbound demand.

Panel data analysis, by incorporating structural econometric models that include both cross-sectional and time-series techniques, has distinct benefits over other models. However, as its forecasting ability has yet to be confirmed, it has not been widely used in tourism demand research. Song and Li (2008), in their comprehensive literature review, have found a handful of studies that have used panel data analysis between 2000 and 2007. Among them, Ledesma-Rodríguez, Navarro-Ibáñez, and Pérez-Rodríguez (2001) modeled demand for Tenerife tourism through both static and dynamic panel data analysis. They found that in the long-term inbound demand is elastic with respect to income and inelastic when it came to prices and travel costs. Garín-Muños (2006) studied the factors affecting inbound demand for the Canary Islands, and found that in the short-term demand was inelastic, but in the long-term, income and price elasticity were greater than one, while changes in travel costs were important, in both the short and long term. Roget and Gonzalez (2006) panel data analysis examined rural tourism demand in Galicia, Spain, and found that the number of overnight stays depends on economic determinants like tourist income, transportation costs to the destination, and the cost of services at the destination, with tourist income being most elastic. Garín-Muñoz and Montero-Martín (2007) who measured the impact of main determinants on inbound tourism demand to the Balearics, Spain, found that there is a strong repeat loyal visitor base driving demand, and recommended for tourism suppliers to increase the quality of their products and services to sustain that demand. Brida and Risso (2009) studying German tourism demand for South Tyrol, Italy, found that loyalty is a significant factor driving demand, while the cost of travel and the prices at the destination have significant negative effects on demand. Seetaram (2010), studying Australian inbound tourism, found that demand is inelastic with respect to income, real-exchange rates,

and airfares in both the short and long term. In this paper we employ recently developed panel data techniques to test the influence of various factors that determine inbound tourism to the United States. Our panel data set includes 50 countries and 26 years, spanning the period from 1986 to 2011.

METHODOLOGY

Model Specification

This section discusses the model specification to identify the determinants of tourist arrivals to the United States. The study uses annual data from 1986 to 2011 for tourist arrivals from 50 major countries of origin. Tourist arrivals from these 50 countries account for more than 95% of total tourist arrivals to the United States. In the usual notation, the tourism demand function can be written as follows:

$$TA = f(PCI, PT, RER, TRC, VS) \tag{1}$$

where, TA is the number of visitors, PCI is the real GDP per capita, PT is the tourism price, RER is the real exchange rate, TRC is the travel cost, and VS is a dummy variable, representing visa requirements.

The data is compiled within a panel data framework, in light of the relatively short time span of the data. Assuming (1) to be linear in logs, the estimated model can be written as:

$$lnTA_{it} = \mu_i + \delta_i t + \beta_1 lnPCI_{it} + \beta_2 lnPT_{it} + \beta_3 lnRER_{it} + \beta_4 lnTRC_{it} + \beta_5 VS_{it} + \epsilon_{it} \tag{2}$$

where, TA_{it} is the natural log of number of visitors from country i to the U.S. in period t, PCI_{it} is the natural log of real GDP per capita of country i in period t, PT_{it} is the natural log of tourism price of country i in period t, RER_{it} is the real exchange rate between the U.S. and country i in period t, TRC_{it} is the travel cost from country i to the U.S. in period t, VS_{it} is a dummy variable, representing whether or not nationals of country i, are required to have a visa to enter the United States, i = 1, 2, 3, .., N for each country in the panel and t = 1, 2, 3, ..., T refers to the time period. Our panel data set includes 50 countries and covers 26 years from 1986 to 2011. According to economic theory, the expected sign of the coefficient β_1 is positive, while the other four parameters, β_2, β_3, β_4, and β_5 are expected to have negative signs. The parameters μ_i and δ_i allow for country-specific fixed effects and deterministic trends, respectively, while ε_{it} denote the estimated residuals which represent deviations from the long-run relationship.

Panel Unit Root Tests

Before proceeding to cointegration techniques, we need to verify that all of the variables are integrated to the same order. In doing so, we have used panel unit roots tests due to Im, Pesaran, and Shin (2003) (hereafter, IPS). These tests are less restrictive and more powerful than the tests developed by Levin and Lin (1993) and Levin, Lin, and Chu (2002), which do not allow for heterogeneity in the autoregressive coefficient. The tests proposed by IPS permit to solve Levin and Lin's serial correlation problem by assuming heterogeneity between units in a dynamic panel framework. The IPS test will be considered more important because it is appropriate for a heterogeneous regressive root under an alternative hypothesis. The basic equation for the panel unit root tests for IPS is as follows:

$$\Delta y_{i,t} = \alpha_i + \beta_i y_{i,t-1} + \sum_{j=1}^{p} \rho_{ij} \Delta y_{i,t-j} + \varepsilon_{i,t} \qquad i = 1,2,3,....,N \qquad t = 1,2,3,....,T \tag{3}$$

where $y_{i,t}$ stands for each variable under consideration in our model, α_i is the individual fixed effect, and p is selected to make the residuals uncorrelated over time. The null hypothesis is that $\beta_i = 0$ for all i versus the alternative hypothesis that $\beta_i < 0$ for some i. The IPS statistic is based on averaging individual Augmented Dickey-Fuller (ADF) statistics and can be written as follows:

$$\bar{t} = \frac{1}{N} \sum_{i=1}^{N} t_{iT} \tag{4}$$

where t_{iT} is the ADF t-statistic for country i based on the country specific ADF regression, as in Eq. (3). IPS show that under the null hypothesis of non-stationary in panel data framework, the t statistic follows the standard normal distribution asymptotically. The standardized statistic t_{IPS} is expressed as:

$$t_{IPS} = \frac{\sqrt{n}\left(\bar{t} - \frac{1}{N}\sum_{i=1}^{N} E[t_{iT}|\rho_i = 0]\right)}{\sqrt{\frac{1}{N}\sum_{i=1}^{N} Var[t_{iT}|\rho_i = 0]}} \tag{5}$$

Panel cointegration tests

We investigate the existence of cointegrating relationship using the standard panel tests for no cointegration proposed by Pedroni (1999, 2004). These tests allow for heterogeneity in the intercepts and slopes of the cointegrating equation. Pedroni's tests provide seven test statistics: Within dimension (panel tests): (1) Panel ν-statistic; (2) Panel Phillips–Perron type ρ-statistics; (3) Panel Phillips–Perron type t-statistic; and (4) Panel augmented Dickey–Fuller (ADF) type t-statistic. Between dimension (group tests): (5) Group Phillips–Perron type ρ-statistics; (6) Group Phillips–Perron type t-statistic; and (7) Group ADF type t-statistic. These statistics are based on averages of the individual autoregressive coefficients associated with the unit root tests of the residuals for each country in the panel. All seven tests are distributed asymptotically as standard normal. Of the seven test statistics, except for the panel ν-statistic, the other six Pedroni test statistics are left-tailed tests. In order to find evidence for long-run relationship between the variables, the null hypothesis of no cointegration for these tests should be rejected. If the null hypothesis cannot be rejected, there is no long-run relationship between the variables.

DATA SOURCES AND VARIABLES

The study uses annual data from 1986 to 2011 for tourist arrivals from 50 major countries of origin of tourists. The list of the countries is presented in the Appendix. Annual data on tourist arrivals to the United States were collected from the U.S. Department of Commerce, International Trade Administration, *Office of the Travel and Tourism Industries*. Data on real per capita income (real GDP per capita at 2005 constant dollars) were collected from the United Nations Conference on Trade and Development, *UNCTADSTAT Database* at http://unctadstat.unctad.org. Tourism prices, which represent the cost of goods and services purchased by tourists at the destination, are measured by relative prices. The relative price variable is given by the ratio of the tourism price index of the United States and the consumer price indices (CPI) of the origin countries. The information on the tourism price index of the United States was obtained from the U.S. Department of Labor, *Bureau of Labor Statistics* while the data on consumer price indices (CPI) of the origin countries were obtained from the International Monetary Fund, *World Economic Outlook Database* (September 2011).

Following Lim and Macleer (2001), the real exchange rate, RER_{it}, was constructed as,

$$RER_{it} = \frac{CPI_{US,t}}{CPI_{it}} \times \frac{1}{ER_{it}} \qquad (6)$$

where RER_{it} is the real exchange rate between country i and the U.S. in time t, ER_{it} is the bilateral nominal exchange rate (measured as the number of foreign currency units per U.S. dollar) with country i at time t, $CPI_{US,t}$ is the consumer price index (2005=100) of the U.S. and CPI_{it} is the consumer price index of ith country at time t. The data on nominal exchange rates and consumer price indexes were taken from the International Monetary Fund, *International Financial Statistics database*. The cost of travel variable was calculated combining the distance between a given country and the U.S. and the price of oil. Though some studies have used price of oil as a proxy for cost of travel (for example, see Garin-Munoza and Montero-Martin, 2007), this study estimates the cost of travel by multiplying distance between the two countries by the price of a barrel of oil. The data on oil prices were taken from the International Monetary Fund, *International Financial Statistics database*. The final variable, VS, takes the value of 1 if an entry visa is required for nationals from a country i to enter the United States or takes the value of zero (0), otherwise.

EMPIRICAL RESULTS

In this section, we discuss the study's findings and empirical results. Table 4 presents the summary statistics of the variables used in the analysis—the summary statistics, calculated for the common sample.

Panel Unit Root Tests

The starting point of our econometric analysis is to check whether the variables included in Equation (2) contain panel unit roots. In other words, in Equation (2), we need to check whether [TA, RPCI, PT, RER, TRC] contains a unit root. While there are several panel unit root tests available, this study uses the Im, Pesaran, and Shin (IPS) unit root tests. Table 5 reports the results of these panel unit root tests that include individual effects. None of the five variables are stationary at the levels. However, IPS statistic is statistically significant at the 1% level of significance for all variables indicating that they are stationary at the first difference. Thus, the panel unit root tests indicate that all the variables are integrated of order one. Having tested for the unit roots of each variable, the next step is to test whether the variables included in Equation (2) are cointegrated.

Table 4: Basic Summary Statistics

Measure	*ln*TA	*ln*PCI	*ln*PT	*ln*RER	*ln*TRC
Mean	12.549	9.302	0.258	-0.039	7.816
Median	12.670	9.805	0.095	0.182	7.535
Maximum	13.188	11.170	5.151	8.014	9.163
Minimum	11.704	5.821	-2.303	-2.303	7.088
Standard Deviation	0.483	1.256	0.856	1.534	0.622
Skewness	-0.273	-0.719	1.540	1.185	0.922
Kurtosis	1.609	2.492	12.032	7.112	2.433

Note: This table shows the summary statistics of the main variables for the common sample.

Table 5: Panel Unit Root Tests Results

Variable	IPS (Level)	IPS (First Difference)
lnTA	2.485	-6.383***
	(0.06)	(0.00)
lnPCI	2.487	-19.746***
	(0.99)	(0.00)
lnPT	2.075	-13.798***
	(0.98)	(0.00)
lnRER	1.401	-13.049***
	(0.92)	(0.00)
lnTRC	4.254	-21.414***
	(0.99)	(0.00)

Notes: This table presents the results of the IPS panel unit root and stationary tests as proposed by Im, Pesaran and Shin (2003), using the Equations (3)-(5). IPS is the Im, Pesaran and Shin (2003) panel unit root test statistic. Panel unit root test includes intercept and trend. The null hypothesis of unit root (non-stationary) is used. Figures in parentheses are the p-values and *** indicates the statistical significance at the 1 percent level of significance.

Panel Cointegration Tests

With the respective variables integrated of order one, we performed the heterogeneous panel cointegration test advanced by Pedroni (1999, 2000, 2004), which allows for cross-section interdependence with different individual effects. The results are presented in Table 6. The results for both within and between dimension panel cointegration test statistics are given in the table. All of the seven tests reject the null hypothesis of no cointegration at the 1% level of significance. It is concluded that either there exists a long-run relationship among the variables, or that the five variables in our panel are cointegrated.

Table 6: Heterogeneous Panel Cointegration Test Results (Full Sample)

Panel Cointegration Statistics (within-Dimension)	Test Statistic
Panel v-statistic	5.310 (0.0000)***
Panel ρ-statistic	-6.147 (0.0000)***
Panel t-statistic	-16.354 (0.0000)***
Panel t-statistic	-15.825 (0.0000)***
Panel Cointegration Statistics (within-Dimension)	
Group PP type ρ-statistic	-3.397 (0.0000)***
Group PP type t-statistic	-18.156 (0.0000)***
Group ADF type t-statistic	-15.919 (0.0000)***

Notes: This table presents the results of the heterogeneous panel cointegration tests as proposed by Pedroni (1999, 2000, 2004). Of the seven tests, the panel v-statistic is a one-sided test where large positive values reject the null hypothesis of no cointegration whereas large negative values for the remaining test statistics reject the null hypothesis of no cointegration. The number of lag length was selected automatically based on SIC with a maximum lag of 15. The figures in the parentheses are p-values. *** indicates the statistical significance at the 1 percent level of significance.

After having established consistent evidence of cointegration, we use the panel OLS technique for heterogeneous cointegrated panels to estimate the model. In order to identify the impact of relatively restrictive tourist visa policy after September 2001, two separate models have also been estimated for pre- and post-2001 periods. The results of this analysis are presented in Table 7. Let us first, discuss the results of the full sample covering the period from 1986 to 2011. All the coefficients have the expected signs and are statistically significant either at the 1% or 5% significance level. Given that the variables are expressed in natural logarithms, the coefficients can be interpreted as elasticity estimates. The results indicate that, for the full sample, a 1% increase in foreign income increases tourism arrivals by 1.27%; a 1% increase in tourism price decreases tourism arrivals by 0.01%; a 1% increase in real exchange rate decreases tourism arrivals by 0.01%; and a 1% increase in travel cost decreases tourism arrivals by 0.16%. The results suggest that tourism demand to the United States must be considered a luxury good. When the models are estimated to the 1986-2001 and 2002-2011 periods, two of the variables, i.e., tourism price and real exchange rate, become statistically insignificant, though they still maintain the expected signs.Next the model was estimated including a dummy variable representing the visa

requirements. The results of this analysis are presented in Table 8. The inclusion of the visa variable has not made any significant change in the results presented in Table 7. However, this variable has the expected negative sign, although, it is not statistically significant.

SUMMARY AND CONCLUSIONS

The objective of this paper is to analyze the demand for tourist arrivals to the United States, using the panel cointegration technique. The study attempts to identify and measure the impact of the main determinants of inbound international tourism flows to the United States. The study uses annual data from 1986 to 2011 for tourist arrivals from 50 major countries of origin. These 50 countries account for more than 95% of the tourist arrivals to the United States. The multivariate framework includes the tourism arrivals, real GDP per capita in constant 2005 U.S. dollars, the tourism price, the real exchange rate, and the cost of travel.

Table 7: Empirical Results: Panel Least Squares Estimates (Dependent variable: TA ; Excluding VS variable)

Variable	1986-2011	1986-2001	2002-2011
Constant	3.334***	0.343	4.414***
	(9.41)	(1.31)	(8.40)
lnPCI	1.208***	1.275***	1.548***
	(9.22)	(7.42)	(7.79)
lnPT	-0.018***	-0.011	-0.001
	(2.60)	(1.34)	(1.07)
lnRER	-0.007*	-0.003	-0.002
	(1.85)	(0.75)	(1.34)
lnTRC	-0.158***	-0.165***	-0.603***
	(9.41)	(5.07)	(9.59)
Adjusted R^2	0.8949	0.9045	0.8949
Number of Observations	1,055	688	367

Notes: This table shows the panel regression estimates of the equation:

$$lnTA_{it} = \mu_i + \delta_i t + \beta_1 lnPCI_{it} + \beta_2 lnPT_{it} + \beta_3 lnRER_{it} + \beta_4 lnTRC_{it} + \epsilon_{it}$$

The figures in parentheses are the absolute values of t-statistics. *** and * indicate the statistical significance at the 1 and 10 percent level, respectively.

Table 8: Empirical Results: Panel Least Squares Estimates (Dependent Variable: TA ; Including VS variable)

Variable	1986-2011	1986-2001	2002-2011
Constant	3.338***	0.344	4.195***
	(9.32)	(1.31)	(9.83)
lnPCI	1.208***	1.275***	1.548***
	(9.21)	(7.41)	(7.73)
lnPT	-0.017**	-0.011	-0.001
	(2.49)	(1.27)	(1.09)
lnRER	-0.008*	-0.004	-0.002
	(1.91)	(0.76)	(1.36)
lnTRC	-0.158***	-0.165***	-0.603***
	(9.40)	(5.06)	(9.88)
VS	-0.004	-0.002	-0.001
	(1.42)	(1.17)	(1.13)
Adjusted R^2	0.8947	0.9044	0.9444
Number of Observations	1,055	688	367

Notes: This table shows the panel regression estimates of the equation:

$$lnTA_{it} = \mu_i + \delta_i t + \beta_1 lnPCI_{it} + \beta_2 lnPT_{it} + \beta_3 lnRER_{it} + \beta_4 lnTRC_{it} + \beta_5 VS_{it} + \epsilon_{it}$$

The figures in parentheses are the absolute values of t-statistics. ***, ** and * indicate the statistical significance at the 1, 5 and 10 percent level, respectively.

The panel unit root tests indicate all the variables are integrated of order one. The panel cointegrations tests show that all seven test statistics reject the null hypothesis of no cointegration at the 1% significance level, indicating that the five variables are cointegrated. All the coefficients have the expected signs and are statistically significant either at the 1% or 5% significance level. Given that the variables are expressed in natural logarithms, the coefficients can be interpreted as elasticity estimates. The results indicate that, for the full sample, a 1% increase in foreign income increases tourism arrivals by 1.27%; a 1% increase in tourism price decreases tourism arrivals by 0.01%; a 1% increase in real exchange rate decreases tourism arrivals by 0.01%; and a 1% increase in travel cost decreases tourism arrivals by 0.16%. The results suggest that tourism demand to the United States must be considered a luxury good. When the models are estimated to the 1986-2001 and 2002-2011 periods, two of the variables, i.e., tourism price and real exchange rate, become statistically insignificant though they still maintain the expected signs. The findings of the study could have been different if we had used a longer time period. Future research could concentrate in expanding the time period as well as the coverage of countries, or alternatively, could focus on a few selected countries for which more relevant and extensive data exist, for a longer time period. This could expose additional variables that determine tourist arrivals to the United States.

Appendix Table 1: List of Countries

Argentina	Costa Rica	Hong Kong	Nigeria	South Korea
Australia	Denmark	India	Norway	South Africa
Austria	Dominican Republic	Ireland	Panama	Spain
Bahamas	Ecuador	Israel	Peru	Sweden
Belgium	El Salvador	Italy	Philippines	Switzerland
Brazil	Finland	Jamaica	Poland	Taiwan
Canada	France	Japan	Portugal	Trinidad & Tobago
Chile	Germany	Mexico	Russia	Turkey
China, PRC	Guatemala	Netherlands	Saudi Arabia	United Kingdom
Colombia	Honduras	New Zealand	Singapore	Venezuela

REFERENCES

Alegre, J., Mateo, S., and Pou, L. (2010). An Analysis of Households' Appraisal of Their Budget Constraints for Potential Participation in Tourism. *Tourism Management*, 31(1), 45-56.

Alegre, J. and Pou, L. (2005). The Length of the Stay in the Demand for Tourism. *Tourism Management*, 27(6), 1343-1355.

Alegre, J. and Pou, L. (2011). A Latent Class Approach to Tourists' Length of Stay. *Tourism Management*, 32(3), 555-563.

Algieri, B. (2006). An Econometric Estimation of the Demand for Tourism: The Case of Russia. *Tourism Economics*, 12(1), 5-20.

Baltagi, B. H. (2008). *Econometric Analysis of Panel Data*. 4th Edition. Chichester: Wiley.

Becken, S. and Lennox, J. (2012). Implications of a Long-Term Increase in Oil Prices for Tourism. *Tourism Management*, 33(1), 133-142.

Bonham, C., Gangnes, B., and Zhou, T. (2009). Modeling Tourism: A Fully Identified VECM Approach. *International Journal of Forecasting*, 25(3), 531-549.

Brida, J. G. and Risso, W.A. (2009). A Dynamic Panel Data Study of the German Demand for Tourism in Sotu Tyrol. *Journal of Hospitality Research*, 9(4), 305-313.

Cortés-Jiménez, I. and Blake, A. (2011). Tourism Demand Modeling by Purpose of Visit and Nationality. *Journal of Travel Research*, 50(4), 408-416.

Crouch, G. and Ritchie, B. (1999). Tourism, Competitiveness, and Societal Prosperity. *Journal of Business Research*, 44, 137–152.

Crouch, G. I. and Shaw, R. N. (1992). 'International Tourism Demand: a Meta-Analytical Integration of Research Findings' in Johnson, P. and Thomas, B. (eds.) *Choice and Demand in Tourism*, Mansell: London, 175–207.

Divisekera, S. (2003). A model of demand for international tourism. *Annals of Tourism Research*, 30(1). 31-49.

Enright, M. J. and Newton, J. (2004). Tourism Destination Competitiveness: A Quantitative Approach. *Tourism Management*, 25, 777-788.

Garín-Muñoz, T. and Montero-Martín, L. F. (2007). Tourism in the Balearic Islands: A Dynamic Model for International Demand using Panel Data. *Tourism Management*, 28, 1224-1235.

Garín-Muñoz, T. and Perez-Amaral, T. (2000). An Econometric Model for International Tourism Flows to Spain. *Applied Economics Letters*, 7, 525–529.

Garín-Muñoz, T. (2004). Madrid as a Tourist Destination: Analysis and Modelization of Inbound Tourism. *International Journal of Tourism Research*, 6, 289–302.

Garín-Muñoz, T. (2006). Inbound International Tourist to Canary Islands: A Dynamic Panel Data Model. *Tourism Management*, 27, 281–291.

Hsiao, C. (2003). *Analysis of panel data* (2nd ed). Cambridge: Cambridge University Press.

Im, K. S., Pesaran, M. H., and Shin, Y. (2003). Testing for Unit Roots in Heterogenous Panels. *Journal of Econometrics*, 115, 53–74.

Levin, A., Lin, C. F., and Chu, C. S. (2002). Unit Root Tests in Panel Data: Asymptotic and Finite-Sample Properties. *Journal of Econometrics*, 108(1), 1–24.

Ledesma-Rodríguez, F. J., Navarro-Ibáñez, M., and Pérez-Rodríguez, J. V., (2001). Panel Data and Tourism: A Case Study of Tenerife. *Tourism Economics*, 7, 75–88.

Li, G., Song, H., and Witt, S. F. (2005). Recent Developments in Econometric Modeling and Forecasting. *Journal of Travel Research*, 44, 82–99.

Lim, C. and McAleer, M. (2001). Cointegration Analysis of Quarterly Tourism Demand by Hong Kong and Singapore for Australia. *Applied Economics*, 33, 1599-1619.

Marcouiller, D. W., Kim, K., and Deller, S. C. (2004). Natural Amenities Tourism and Income Distribution. *Annals of Tourism Research*, 31(4), 1031-1050.

O'Hagan, J., Harrison, M. (1984). Market Shares of US Tourist Expenditure in Europe: An Econometric Analysis. *Applied Economics*, 16, 919–931.

Papatheodorou, A. (2001). Why People Travel to Different Places. *Annals of Tourism Research*, 28, 164–179.

Pedroni, P. (1999). Critical Values for Cointegration Tests in Heterogeneous Panels with Multiple Regressors. *Oxford Bulletin of Economics and Statistics*, 61, 653–670.

Pedroni, P. (2000). Fully Modified OLS for Heterogeneous Cointegrated Panels. In *Advances in Econometrics: Vol. 15. Nonstationary Panels, Panel Cointegration and Dynamic Panels*, 93–130. JAI Press.

Pedroni, P. (2004). Panel Cointegration: Asymptotic and Finite Sample Properties of Pooled Time Series Tests with an Application to the PPP Hypothesis. *Econometric Theory*, 20(3), 597–625.

Roget, F. M. and González, X. A. R. (2006). Rural Tourism Demand in Galicia, Spain. *Tourism Economics*, 12(1), 21-31.

Roselló , J., Riera, A. and Sansó , A. (2004). The Economic Determinants of Seasonal Tourism Patterns. *Annals of Tourism Research*, 31(3), 697–711.

Seetaram, N. (2010). Use of Dynamic Panel Cointegration Approach to Model International Arrivals to Australia. *Journal of Travel Research*, 49(4), 414-421.

Song, H. and Li, G. (2008). Tourism Demand Modeling and Forecasting - A Review of Recent Research. *Tourism Management*, 29, 203–220.

Song, H., & Turner, L. (2006). Tourism Demand Forecasting. In Dwyer, L. and Forsyth, P. (eds.), *International Handbook on the Economics of Tourism*. Cheltenham: Edward Elgar.

Song, H. and Witt, S. F. (2006). Forecasting International Tourist Flows to Macau. *Tourism Management*, 27, 214–224.

The United Nations Conference on Trade and Development database at http://unctadstat.unctad.org.

The U.S. Department of Commerce. International Trade Administration, *Office of Travel and Tourism Industries*.

The U.S. Department of Commerce, The Office of Public Affairs. President Obama Signs the Travel Promotion Act of 2009 Into Law, *Press Release*, Thursday, March 4, 2010, (accessed March 10, 2012). http://www.commerce.gov/news/press-releases/2010/03/04/president-obama-signs-travel-promotion-act-2009-law

The World Tourism Organization (2010), *Yearbook of Tourism Statistics*. Madrid: WTO.

The World Travel and Tourism Council (2011), *Travel & Tourism Economic Impact 2011*.

The World Travel and Tourism Council (2012), *United States: Travel and Tourism Impact 2012*.

Trauer, B. and Ryan, C. (2005). Destination Image, Romance and Place Experience: An Application of Intimacy Theory in Tourism. *Tourism Management*, 26, 481–491.

Turner, L. W. and Witt, S. F. (2001). Forecasting Tourism Using Univariate and Multivariate Structural Time-Series Models. *Tourism Economics*, 7, 481–491.

Yan, L. (2011). Uneven Distance Decay: A Study of the Tourism Market Segments of Hong Kong. *International Journal of Tourism Sciences*, 11(1), 95-112.

Yoon, Y. and Uysal, M. (2005). An Examination of the Effects of Motivation and Satisfaction on Destination Loyalty: A Structural Model. *Tourism Management*, 26, 45–56.

Zhang, J. and Jensen, C. (2007). Comparative Advantage, Explaining Tourism Flows. *Annals of Tourism Research*, 34(1), 223-243.

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AN EMPIRICAL INVESTIGATION OF THE IMPACT OF LUCK ON SMALL BUSINESS PERFORMANCE: DYNAMIC PANEL DATA EVIDENCE

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ABSTRACT

Luck is a critical variable in small business strategy. However, there is little empirical evidence about the role of luck. This study responded to calls for empirical research using nonstandard statistical techniques to probe the dynamic trajectory of luck on firm performance. We analyze six-year annual panel data, elicited from eleven small business owner/managers. We use the Generalized Method of Moments, GMM-Systems, econometric technique. The results provide statistically significant empirical evidence suggesting that Luck was a determinant of small business economic performance. In previous research, luck was not found to be a significant determinant of firm performance. However, previous performance was found to be a significant determinant of the current level of small business performance.

JEL: MOO, M1, M2.

KEYWORDS: Luck, Resource-based View, GMM, AR1, AR2

INTRODUCTION

The primary objective of strategic management research is to identify why some organizations outperform others. In turn managers can use this information to improve the performance of their organizations (e.g., Rumelt, 1974; Barney, 1991, 1997). In this respect, it is known that luck explains why some organizations outperform others. A solid literature has emerged, starting from economics (Alchian, 1950; Demsetz, 1973; Mancke, 1974; 1977) to contemporary strategic management (Barney, 1986; 1991;Caves, Gale & Porter, 1977; Lippman & Rumelt, 1982; Lieberman & Montgomery, 1988; Reed & DiFillippi, 1990; Rumelt & Wensley, 1981; Makadok & Barney, 2001; Cockburn, Henderson & Stern, 2000; Denrell, 2004). This literature provides a strong theoretical grounding that luck is a major factor explaining inter-firm performance differences.

While in theory we know significant amounts about luck, empirical knowledge of strategic luck is meager (Barney, 1997). Strategy researchers have estimated the amount of variance in inter-firm performance attributable to firm-effects and industry-effects (see, e.g., Snow, Miles & Miles, 2005:431). In contrast, the amount of variance in firm performance attributable to luck or the luck-effect remains largely unknown (Barney, 1997:16). Yet, luck is a major strategy variable in determining firm performance (Rumelt & Wensley, 1981; Barney, 1986; Dierickx & Cool, 1989; Makadok & Barney, 2001). Interestingly, Barney (1997) explained the lack of empirical research focusing on luck: *"The major challenge facing researchers is to develop rigorous methods for rejecting the luck alternative in favor of some other alternative explanation of these [inter-firm performance] differences (1997:17)."*

Commenting further on this empirical challenge, Barney (1997) suggested that "standard statistical techniques" would be woefully inappropriate in probing the theorized role of luck in strategy, and suggested the use of panel data to investigate the dynamic trajectory of the effects of luck on firm performance (p. 17).

A humble beginning is to start with the following empirical research questions: 1) Are managers aware of luck as a strategic asset? 2) If they aware of it, do they call it luck or some thing else? 3) What ever they call it, do managers believe that luck determines their firm performance? 4) If they do, how then can managers acquire luck as a strategic asset?

The primary purpose of the present paper is three-pronged albeit related. First, the paper investigated whether luck was a determinant of firm performance. If luck was a determinant of firm performance, then the paper investigated whether previously accumulated luck determines current level of firm performance? Third, conditional on luck predicting firm performance, the paper investigated whether previous levels of firm performance can determine current levels of firm performance. In other words, the paper posed the question: given that luck is a predictor of firm performance, is there state dependence in firm performance?

Answers to these questions will be useful to managers seeking information on the role luck plays on firm performance. Academically, answers to these empirical questions will contribute to theory development in strategic management. On a related note, this study contributes to theory development in the resource-based view (RBV) of the firm. In this realm it has been explicitly established that luck is the epicenter of the RBV of the firm (Cockburn, Henderson and Stern, 2000), and that luck is a strategic resource that may confer sustainable performance advantages (c.f., Barney, 1997:18).

We organize the reminder of the paper as follows. The literature review section continues the discussion of the interdisciplinary academic genesis of the concept of luck. It highlights rebuttal and counter-rebuttal contributions of scholars on the concept of luck. Drawing on these works, we specify the hypotheses to be tested. The methodology section discusses the study sample, construct measurements, and the analytical techniques used. Finally, the paper concludes with a discussion and implication section underscoring the academic and managerial significance of the study.

LITERATURE REVIEW

The social construct called *luck* was first explicitly mentioned by Alchian (1950) in an attempt to explain his scientific argument that the outcome of any random process is governed by a stochastic distribution unknown a priori. Alchian (1950) argued that, conditional on foresight being ruled out, the outcome of any event governed by a stochastic process is called luck, or equivalently, the outcome of such an event can only be explained by luck. Following Alchian's postulations, because uncertainty results from lack of foresight, economic investments by managers without foresight can only result in superior performance if and only if, such managers are lucky. Superior performance under uncertainty, zero foresight, is attributed to luck, and nothing but luck! Strikingly, this is the prescription of the resource-based view of strategic management (e.g., see: Cockburn, Henderson and Stern (2000:1128) as well as most evolutionary theories in economics (Nelson & Winter, 1982) and organization studies (Hannan & Freeman, 1977). Then, one may ask: does it follow that, if the concept of luck is falsified the entire scholarly edifice built around the resource-based view of strategic management, will collapse? Could this be true?

Consequently, luck became a critical variable in the equation for market share and profit linkages. The argument runs as follows. To establish a product/market position with a superior market share and hence a superior profit margin, the manager must first ensure the existence of economy of large scale production that allows fixed cost to be spread over large amount of product units. This way, assuming that elasticity of demand is favorable, the drop in average costs of production may translate into a lower price passed over to consumers to sustain the superior market share position. However, this is only the beginning of the problem in the market share-profit debate because other important variables enter the equation. Of all these other variables, luck is chief (Mancke, 1974). For example, Barney (1997:15) paraphrased Mancke

(1974) as saying that: *"…luck may be a more parsimonious explanation of differences in firm performance than any of the then popular industrial-organization explanations."*

As the reader understands, this excerpt overturns the massive conceptual and empirical literature on industrial organization (I/O) economics. As may be expected, however, Mancke's postulations about the role of luck in explaining firm performance differences were challenged both conceptually and empirically. In particular, Caves, Gale and Porter (1977) fit an empirical model using the PIMS secondary data set. They found that luck is only one among other factors explaining differences in firm performance. They showed the amount of firm performance differences explained by luck and non-luck effects could be separately estimated to permit the conclusion that luck is a partial determinant of firm performance. However, Mancke (1977) insisted that the model fit by Caves, Gale and Porter (1977) was questionable.

Rumelt and Wensley (1981) designed and executed a simultaneous equation model whose efficiency was enhanced by a seemingly unrelated regression (SUR) for the sole objective of uncovering "the causal structure underlying the association between market share and business profitability." Strikingly, all in all, their finding appeared to support Mancke's (1974, 1977) work. Rumelt and Wensley (1981:6) wrote: *"Having found instead strong stochastic effects and virtually no evidence of direct effects, we must conclude that market share is not, in and of itself, a factor of production…Ceterus parabus, the business with a larger market share has had a larger portion of luck and/or unexpected management talent revealed."*

Clearly then, the empirical results by Rumelt and Wensley (1981) suggest that market share-profitability link is seemingly strong, but once the stochastic factor or exogenous luck enters the equation the share-profitability link varnishes. Their research also has a strong theoretical merit to back the results. They argued that there is an exogenous variable impacting simultaneously on market share and on business profit, and that exogenous factor could be christened *luck.* Therefore, conditional on the presence of exogenous luck (or stochastic randomness), the direct relationship between market share and business profit is nothing more than spuriousness.

Barney (1986) was another landmark work that brought the concept of luck eloquently into the strategic management focus. He argues, luck is the positive value of the difference between the ex post value of implemented strategy and the ex ante value of the resource used to implement that strategy. Barney (1986) would say, consider a situation where there are two separate entities in a transaction: the strategist and the controller of the resource to implement the strategy. In time t, the strategist buys the resource from the controller to implement the strategy. At this time t, both the strategist and the controller lack information about the future (ex post) economic value of the strategy in time t +1(i.e., post-strategy implementation). Then, Barney defined luck as the positive economic value of the strategy in time t + 1 in excess of the economic value of the resource in time t. In this setting, the strategist appropriates luck, not the controller who sold the resource below the future (ex post) economic value of the strategy. In sum, Barney's (1986) conceptual analyses on luck suggest that: (a) luck is exogenous to managerial control, and (b) luck is a determinant of superior firm performance.

Barney (2003) convincingly established that the resource-based view of the firm is a derivative of the evolutionary theories wherein the latter has more eloquently recognized the role of luck in explaining firm performance differences or superior performance. In that conceptual setting, Barney (2003) concluded that even though "luck can have important managerial implications" based on the *evolutionary roots* of the resource-based view (RBV), the RBV never proactively positioned luck as a strategic variable. This is chiefly because the RBV has exclusively concerned itself with empirical understanding of strategy variables within managerial control, and luck does not belong to managerial control. It is noteworthy here that Barney (2003) eloquently reiterated that researchers in the RBV framework sidetracked luck as a strategy variable for firm performance because luck is considered to be beyond managerial manipulation.

Is this really true? Interestingly, however, Barney (2003) argued to encourage RBV researchers and theorists not to be afraid of luck. They should do more work on luck as a determinant of superior firm performance (Cockburn, Henderson and Stern, 2000:1128).

From a managerial perspective, since luck is at the core of the RBV (Cockburn et al., 2000), the paucity of research on it should not be surprising given that managers need guidance on how they can acquire information on luck to form their expectations on the expected returns of their strategies before they acquire the resources to implement them (Barney, 1986). More importantly, because luck cannot be traded in the factor market (Barney, 1986), and its accumulation process is assumed to be unknown (Makadok & Barney 2001; Dierickx & Cool, 1989). Then, an exploratory beginning could be the use of primary data to investigate the extent of small business managers' perception of luck as a determinant of firm performance. Such an exploratory research question is anchored theoretically on the preceding literature reviewed here. In addition, given this literature, if luck should positively impact firm performance, the link between luck and firm performance must be positive. Hence, we hypothesize as follows

Hypothesis 1: There is a direct positive relationship between luck and small business performance.

Likewise, beyond there being a direct and positive relationship between luck and small business performance, luck should independently determine variations in small business performance, other variables held constant. Thus, we hypothesize as follows

Hypothesis 2: Controlling other factors affecting firm performance, luck is a determinant of firm performance.

Drawing theoretical anchor from the capital assets accumulation theory and research (Dierickx & Cool, 1989), it is to be expected that the dynamic impact of luck on current levels of firm performance should be positive and significant. That is, conceptually, we expect that previous stocks (Dierickx & Cool, 1989) of luck should positively impact current levels of firm performance. Nonetheless, we still tested the following hypothesis:

Hypothesis 3: Previous stock of luck is a determinant of current level of small business performance.

Finally, the dynamic effect of past firm performance on the current levels of firm performance should be investigated for a number of reasons (Godfrey & Hill, 1995; Coleman, 1968; Spanos et al., 2004), including to capture idiosyncratic firm competencies (Godfrey & Hill, 1995), to capture omitted factors that may influence firm performance (Coleman, 1968), to capture other unobservable firm effects (Jacobson, 1988, 1990; Jacobson & Aaker, 1985; Szymanski, 1993) as well as dynamic adjustment process if there is persistence in performance (Maddala, 1977) as one should expect because performance is inherently a growth variable (Spanos, 2004). Hence, we hypothesize as follows

Hypothesis 4: Conditional on luck as a predictor of firm performance, lagged (previous) firm performance is a determinant of the current level of firm performance.

DATA AND METHODOLOGY

Over the period 2002 to 2007, completed annual questionnaire responses were elicited from fifteen small business owner/managers who were members of a Christian organization located in the State of Alabama, USA. Because two firms went out of business and another two relocated to another state, we had complete information on eleven firms used in this study (the base year (2000) was routinely excluded by

Stata techniques used for data analysis). Respondents were assured of absolute confidentiality, and thus, they guaranteed us their honest and accurate information about their business operations.

Acknowledging that firm performance especially for small businesses is multidimensional with metric and non-metric indicators, we conducted a preliminary pilot survey on a select five of the owner-managers about firm performance. The result indicated that while the literature is replete with the use of growth as a proxy for small business performance (e.g., Wiklund & Shepherd, 2005:80 and citation therein), some respondents for this study indicated that while growth of their business is a good strategy, there are other "life style" (Beaver, 2002) strategies more important to them than business growth. When we asked them to sincerely mention those strategies they would pursue beyond business growth, they mentioned things like: 1) Serve others to serve Lord Jesus Christ, 2) Serve humanity, 3) Serve the USA 4) Autonomy being my own boss, and 5) Fulfill life dream, and so on.

Despite this, we still included "Business Growth" in the three items five-point Like scale we used to elicit perceptual data for this study on small business performance. Notably, because of the sensitivity of eliciting business performance information from owner/managers, the yearly data on small business performance included two methodological considerations. First, owner/managers' responses on business performance were elicited using structured interviews on simple questionnaires on a different time period (Sunday service) than the rest of the data from these respondents. Second, because of the business performance sensitivity issues, owner/managers were asked to compare their business performance with those of their competitors in the most recent time they can clearly recall. The three scale items ranged from (1) much worse than our competitors" to "much better than our competitors" Consequently, a factor analysis of the responses yielded surprisingly a single factor solution, presented below.

Measurement of Variables

Our reason to measure luck with a single item was dual. First, we had no previous measurement of luck relevant to business operations to borrow from. Second, we reasoned that a single item measure may be sufficient for the exploratory study we conducted. Future studies may want to develop a psychometrically sound measure of what we shall call "strategic luck." To the best of our knowledge, none exists at this time**.** Therefore, drawing conceptual clue from Barney (1986), the item read: "Strategic Luck improves my business performance". Responses ranged from (1): Never to (5): Absolutely.

Our respondents repeatedly mentioned that they do not believe in what they called "the World View of luck"**.** We first asked the respondents whether they believed in luck, and whether they believe that luck is a determinant of their small business performance. Almost all respondents echoed verbally that the word "luck" is nonexistent to them as Christians. In fact, some cited some cited Deuteronomy 8 which says that "God gives power to make wealth". Then, if this is true, as they argued, luck or chance is ruled out. Therefore, their own luck comes from their God, Jesus Christ, especially when they pray for to Him, and so on.

The following control variables were used in the analysis. Firm Age entered directly in the statistical analyses to control for its effect on luck. Firm Age was computed as the linear difference between the founding year and the current year. Firm Size, measured as the two consecutive year mean of the number of employees reported by the owner/managers. State-Level Disposable Personal Income was entered into the model to control for the effects of yearly changes in customer buying power on luck. Some of the data were thankfully donated by Annette Jones Waters, Center for Business and Economic Research, The University of Alabama, USA.

Analytical Techniques

Following the call by Barney (1997: 17) to use "nonstandard statistical techniques" to probe the trajectory effect of luck on firm performance, the GMM-SYSTEM technique was used (Arellano & Bond, 1991; Arellano & Bover, 1995; Blundell & Bond, 1998). The goal is to answer our research questions even if the regressors are correlated with the individual effects. This may be the case with our Model 1, technical details are provided elsewhere (Roodman, 2005; Bond 2002). Thus, for this study, some of the attractive capabilities of GMM-SYS are briefly summarized as follows.

GMM-SYS is robust and efficient with variables' measurement errors and simultaneity bias induced by endogenous regressors (c.f.,Hempell, 2004:441) as well as some regresssors having poor variability (Blundell & Bond, 1988; Rodriguez, 2006). Second, GMM-SYS efficiently exploits the panel structure of data by imposing a set of restrictions on the moments for the equations in differences and similarly for the equations in level form. It then simultaneously estimates the two sets of equations without loss of information due to differencing (Blundell & Bond, 1988, 2000). Specifically, obviating the need for "outside" instruments, the GMM-SYS (as in ordinary GMM) allows the equations in differences to be instrumented by suitably lagged differences. Likewise, the equations in level form are instrumented by suitably lagged differences. Third and important for this study, Blundell and Bond (1988, 2000) established how the GMM-SYS estimator is more efficient than its first difference counterpart if: (a) the panel is short in times as in this study, and (b) if the panel has persistent time series. Finally, assumptions of whether each instruments used is endogenous, predetermined, or exogenous is critical for the validity the instrument used. Hence, the validity of instrument assumption should be tested using the Sargan test of over-identifying restriction.

In this study, the following assumptions were made. First, if owner/managers experienced a decline (shock) in their performance, and then responded to it by praying to their God for luck, then luck would be correlated with the disturbances from the dependent variable (firm performance). When this happened, as some of the managers indicated that they prayed for luck, then this action by them would render luck endogenous. Hence, in our model for this study, luck was assumed to be an endogenous variable. Second, like the first reason above, if management's decision to increase sales (recruiting more sales persons) occurs as a reaction to a shock in business performance, then firm size (measured as the mean of two consecutive years' of the number of employees) is determined prior to firm performance. That is, firm size is a predetermined variable (roughly stated, it is a vehicle for firm performance). Then, firm size would be endogenous as is the case for the first reason stated above. Third, once a firm is founded, its age is beyond the control of management. Hence, firm age is predetermined or exogenous. Finally, the state-level personal disposable income is assumed strictly exogenous to managerial control.

Finally, the following steps were used in the estimation. First, we used Stata's xtabond2 (Roodman, 2005) to fit the GMM- SYS with the assumptions discussed above. Second, we fit the GMM Difference by simply entering the *noleveleq* option which automatically turns the GMM-SYS to GMM-DIFF (Baum, 2006:234-236; Roodman, 2005). Both results are supposed to be similar but not identical (Baum, 2006:234-236; Roodman, 2005). Then, the GMM-DIFF was estimated with robust standard errors for both one-step and two-step types. To ensure clarity and understanding, we report GMM-DIFF first and then we report GMM-SYS.

EMPIRICAL RESULTS

In this study, David Roodman's Stata program called xtabond2 was used (Roodman, 2005). Descriptive statistics and simple correlations among the study variables are reported in Table 1. Table 1 suggests that all the variables are positively correlated with the sole independent variable and some, including firm performance, are significantly so. Therefore, hypothesis 1 is supported.

To statistically evaluate the validity of the internal instrument (IV) used, the Sargan's test statistic suggested that the instruments used were valid. In contrast, the Arellano-Bond test of first order autocorrelation (AR1) that was supposed to be significant, was indeed not significant. Even though luck was significant, lagged performance was insignificant and negatively related to current performance.

Table 1: Descriptive Statistics and Correlation among All Study Variables

	Mean	SD	(L)	(A)	(S)	(N)	(Y)
Independent Variables							
Luck (Jesus Blessing (L)	2.166	0.119	1				
Control Variables							
Firm Age (A)	2.17	0.80	0.25**				
Firm Size (S)	1.42	0.48	0.03	-0.05	1		
Income (N)	0.29	0.14	0.03	-0.08	-0.08	1	
Dependent Variable							
Firm Performance	1.09	1.8	0.22**	0.21**	-0.29***	-0.33***	1

Table 1 above reports the descriptive statistics and simple correlation between the study variables, the mean and the standard deviation of variables appear in the first and second columns, respectively. The rest of the columns are simple correlations among the study variables, ***, **, * indicate significance at 1, 5 and 10 levels, respectively.

Table 2 shows the dynamic panel data estimation using one-step difference GMM. The Sargan's test result suggested that internal instruments (IV) used, were valid. In contrast, however, the Arellano-Bond test of first order autocorrelation (AR1) that was supposed to be significant, was indeed not significant. Even though luck was significant as the sole independent variable, lagged performance was insignificant and negatively related to current performance.

Table 2 Dynamic Panel Data Estimation: One-step Difference GMM

Dependent Variable: First Difference of Firm Performance			
Variable	**Coefficient**	**t**	**P>|t|**
Lagged (y) (Performance)	-0.14(0.17)	-0.81	0.43
Luck: Independent Variable	0.46(0.15)	3.09	0.00***
Lagged Luck:	0.24(0.15)	1.63	0.13
Firm Age	-0.00(1.7)	-0.22	-0.00
Firm Size	-0.03(1.4)	-0.02	0.98
Disposable Income	-12.86(7.32)	-1.75	0.10
	Prob. Values		
Sargan's Test of Overidentifying restrictions	1.00		
Arellano-Bond Tests			
1st order autocorrelation (AR1)	0.089		
2nd order autocorrelation (AR2)	0.96		

Table 2 above reports GMM-DIFF one-step estimation results, ***, **, * indicate significance at 1, 5 and 10 levels, respectively.

Because of the mixed results reported in Table 2, we fit dynamic GMM-DIFF. two-step approach, as reported in Tables 3. Our additional motivation for this two-step approach was that it allowed the use of Windmerjer (2005) finite-sample correction to the covariance matrix. However, like the one-step results, the two-step results suggested that the instruments used were valid but first order autocorrelation (AR1) was not significant when, in fact, it is supposed to be significant. Additionally, the lagged performance was significant at the 10% level (0.063) yet it was negatively related to current performance. The sole independent variable of interest, luck, was not significant. We deliberately preferred not to report the significance or lack thereof of the control variables because they are not of immediate interest.

With these results in mind, we fit dynamic one-step GMM-SYS, as stated earlier all models incorporate the assumptions we made about each variable as discussed earlier in this paper. The results of the

dynamic one-step GMM-SYS are reported in Table 4. Notice that heteroskedastic-robust t-values (Stata's z-values) are reported in Tables 3 to 4, such that (.) reported next to each coefficient is Stata's "Corrected Std. Error).

Table 3 Dynamic Panel Data Estimation: Two-step Difference GMM

Dependent Variable: First Difference of Firm Performance			
Variable	Coefficient	z	P>|z|
Lagged (y) (Performance)	-0.5(0.32)	-1.86	0.063
Luck: Independent Variable	0.14(1.33)	0.11	0.911
Lagged Luck:	1.10(0.71)	1.57	0.11
Firm Age	15.9(6.7)	2.37	0.018***
Firm Size	4.43(5.14)	0.86	0.38
Disposable Income	-34.87(11.36)	-3.07	0.002***
	Prob. Values		
Sargan's Test of Overidentifying restrictions	1.00		
Arellano-Bond Tests			
1st order autocorrelation (AR1)	0.128		
2nd order autocorrelation (AR2)	0.103		

*In Table 3 above, ***, **, * indicate significance at 1, 5 and 10 levels, respectively.*

Table 4 Dynamic Panel Data Estimation: One-step System GMM

Dependent Variable: Firm Performance			
Variable	Coefficient	t	P>|t|
Lagged (y) (Performance)	0.42(0.17)	2.38	0.03**
Luck: Independent Variable	0.55(0.12)	4.53	0.00***
Lagged Luck:	-0.11(0.14)	-0.79	0.44
Firm Age	-0.05(0.23)	-0.22	0.83
Firm Size	-0.57(0.39)	-1.46	0.17
Disposable Income	-13.0(8.84)	-1.48	0.17
	Prob. Values		
Sargan's Test of Overidentifying restrictions	0.99		
Arellano-Bond Tests			
1st order autocorrelation (AR1)	0.006***		
2nd order autocorrelation (AR2)	0.413		

*In Table 4 above, ***, **, * indicate significance at 1, 5 and 10 levels, respectively.*

Unlike the results of the dynamic GMM-DIFF discussed thus far, the results of the dynamic one-step GMM-SYS appeared to be the best fit to the data. First, the validity of the instrument is supported by the Sargan's test statistics, indicating that conditional on a correctly specified model and on one of the instruments being a valid instrument, evidence to reject the validity of these IV is ruled out. Second and additionally, Arellano-Bond tests for first (AR1) and second order (AR2) serial correlation in the first-differenced residuals, was performed. Notice that, only in the Table 4 case does this test statistic suggested that we should reject the null hypothesis of no first order serial correlation (see, 0.006) but we should not reject the null of no second order serial correlation (see, 0.413).

Luck was a highly statistically significant predictor of small business performance (see, 0.000). This result holds conditional on the control variables of the study and on the robust estimation framework we used. Hence, Hypothesis 2 was supported indicating that luck was a determinant of firm performance in this study. However, previous (lagged) luck was not a statistically significant determinant of small business performance. In fact, the coefficient on this variable is negative, suggesting that previous luck diminish current firm performance (Table 4). Accordingly, Hypothesis 3 is not supported. We shall return to this presently because this result reflects the Christian belief expressed by the respondents about what luck means to them or their own understanding of what luck means to them, as indicated earlier in this paper.

Finally, previous (lagged) performance is a statistically significant (0.03) determinant of the current level of firm performance. In statistical lexicon, firm performance has state dependence or has autoregressive nature (AR1) that is non-explosive in that the coefficient is less than unity in absolute terms. Past studies on firm performance appears to suggest some similarity with the present study (e.g., see: Spanos et al, 2004). Accordingly, Hypothesis 4 was supported.

DISCUSSION AND IMPLICATIONS

Conceptually, it is established that the social construct christened luck may be a primary determinant of organizational economic performance, in economics studies (e.g., Alchian, 1950; Mancke, 1974, 1977), entrepreneurship studies (e.g., Demsetze, 1983), strategic management studies (e.g., Rumelt & Wensley, 1981; Barney, 1986, 2003, Cockburn, Henderson, & Stern, 2000; Makadok & Barney, 2001), organizational studies (e.g., Hannan & Freeman, 1977), evolutionary studies of organizations (e.g., Nelson & Winter, 1982), and so on.

In contrast, empirically research on luck is a Herculean task that dwarfs standard statistical techniques. Barney (1997) called on strategic management researchers to conduct empirical studies using sophisticated statistical techniques capable of unearthing the trajectory of the impact of luck on firm performance. In response to this call, our uses previously ignored primary data to answer our research questions on the influence of luck on small business performance.

We found that when other variables that may impact luck are controlled, luck directly positively impacts small business performance in the sense of causing variations in small business performance. Second, we found strong evidence that previous levels of small performance can determine current levels of small business performance. That is, economic performance of small businesses is autoregressive in nature, indicating it lingers on for some time. Finally, in sharp contrast, we did not find evidence suggesting that previous levels luck determine current levels of small business economic performance. Instead we found evidence suggesting that current levels of luck positively impact small business performance.

This study's result suggests that luck is a determinant of small business performance. This finding corroborates the impact of luck on firm performance conducted by Rumelt and Wensley (1981) using PIMs secondary data on aggregate industries. In contrast, however, our study used primary data obtained from small business owner/managers. As a consequence of the primary data framework, we were able to address the question: Can managers proactively influence luck or accumulate it?

Mainstream evolutionary economics and RBV scholars compellingly argue that luck is beyond managerial control Barney (2003). However, most of the participant owner/managers in our study indicated they acquire luck by praying to their God called "Lord Jesus Christ." Undoubtedly then, once the Christians' perspective of luck enters the analyses luck becomes an endogenous variable within managerial control. This is contrary to the exogenous view of luck entertained by the mainstream academic business strategists (e.g., see: Barney, 1986, 1997, 2003; Makadok & Barney, 2001; Rumelt & Wensley, 1981; Rumelt, 1984; Cockburn, Henderson, & Stern, 2000; Nelson & Winter, 1982; Denrell, 2004).

Academically, our study contributes to theory development in strategic management as it explored the Christians' perspective of luck as a blessing from their God "Lord Jesus Christ", and thus, luck is an endogenous variable within managerial manipulation. This is a major result of this study which has far-reaching academic and managerial implications. Managerially, small business managers should be informed of this result because the primary reason strategic management research is conducted is to

identify why some small businesses outperform others. Managers can use it to improve the performance of their organizations (Barney, 1991, 1997; Rumelt, 1974).

The inverse relationship between current levels of small business performance and previous stock of luck has solid support in Christian Commandments attested to by our owner/mangers respondents who insisted that Christians are commanded to expect and receive fresh blessings daily in all areas of their life and never to be chained backwards to past luck. One respondent said, "Lord Jesus Christ gives us fresh blessings daily. To be hung-up on past blessing is a sin because it questions the self-sufficiency of Jesus Christ to His people." However, academically, this view departs from the widely cited work by Dierickx and Cool (1989) suggesting that in strategic management, every flow variable must be accompanied by a stock. Our study provides evidence of a flow without a stock. Thus, our study makes yet another contribution to theory development. Managerially, this information is important to small business managers grappling with the issue of how to acquire and deploy strategic luck to boost their organizational performance. It is our duty to relay this information to managers (see, e.g., Rumelt, 1974), especially with the exploding industry and academic interests in spirituality and religion in the workplace (see Journal of Management Spirituality, & Religion now institutionalized by the Academy of Management).

Finally, to the best of our knowledge, this study is the first to find that small business performance is autoregressive, or that it has a state dependence. By way of managerial implication, when strategic investments to leverage small business performance lead to improved performance, then previous performance boosts subsequent levels of performance beyond the immediate period. Again, this is a contribution to theory development in small business strategy. Managers of small business firms should be informed that when strategic investments to improve performance is realized, the positive effects to subsequent performance lingers.

Of course, like any other empirical research, this study has a limitation that its results cannot be generalized to the population of all small business organizations. This limitation calls for a replication of this study to small business firms owned and managed by non-Christians. Likely, the objective of such a replication will be to investigate whether their findings will corroborate the results of this study or not. If they do, then cumulative evidence as the hallmark of scientific enquiry---will be emerging.

REFERENCES

Alchian, A. (1950), Uncertainty, evolution, and economic theory, Journal of Political Economy, 58, 211-221.

Anderson, T. and Hsiao, C. (1981), Estimation of dynamic models with error components, Journal of the American Statistical Association, 76, 598-606

Arellano, M. (2003). *Panel Data Econometrics*, Oxford University Press, Oxford.

Arellano, M. and Bond, S. (1991), Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations, *Review of Economic Studies,* 58, 277-297.

Arellano, M. and Bond, S (1998), Dynamic panel data estimation using DPD98 for GAUSS: A guide for users. ftp.cemfi.es/pdf/paper/ma/dpd98.pdf

Arellano, M. and Bover, O. (1995), Another look at instrumental variable estimation of error components model, *Journal of Econometrics*, 58, 29-51.

Barney, Jay B. (1986), Strategic factor market: Expectations, luck, and business strategy, *Management Science*, 32, 1231-1241.

Barney, Jay B (1997), On flipping coins and making technology choices: luck as an explanation of technological foresight and oversight. In Technological Innovation,

Barney, Jay B. (2003), The evolutionary roots of the resource-based theory, In *The SMS Blackwell Handbook of organizational Capabilities*, Constance E. Helfat (ed.), 269-271.

Barney, Jay B. (1991), Firm resources and sustained competitive advantage, *Journal of Management,* 17 (1), 99-120.

Beaver, G. (2002), *Small Business, Entrepreneurship and Enterprise Development:* New York, Pearson

Baum, Christopher F (2006), *An Introduction to Modern Econometrics Using Stata*, Stata Corp. Texas, USA.

Blundell, R. and Bond, S. (1998), Initial conditions and moment restrictions in dynamic panel data models, *Journal of Econometrics*, 18, 115-143.

Blundell, R. and Bond, S. (2000), GMM estimation with persistent panel data: An application to production function, Econometric Reviews, 19 (3), 321-340.

Caves, R.E., Gale, B. T. and Porter, M. E. (1977), Interfirm profitability and differences: Comment. *Quarterly Journal of Economics*, 91, 667-676.

Cockburn, I. M., Henderson, M., Stern, S (2000), Untangling the origins of competitive advantage, Strategic Management Journal, 21, 1125-1145.

Coleman, J. S. (1968), The mathematical study of change, in Methodology in Social Science Research, Blalock, H & Blalock, A. (eds). McGraw-Hill: New York, 428-   478.

Demsetz, H. (1973), Industry structure, market rivalry, and public policy, *Journal of Law and Economics*, 16, 1-9.

Demsetz, H. (1983), The neglect of the entrepreneur, In J. Ronen (ed.), Entrepreneurship, Lexington Books, Lexington, MA.

Denrell, Jerker (2004), Random walks and sustained competitive advantage, *Management Science*, 50 (7, July), 922-934.

Dierickx, I. and Cool, Karel (1989), Asset stock accumulation and sustainability of competitive advantage, Management Science, 35 (12), 1504-1511.

Garud, R. , P.R.Nayyar and Z.B. Shapira (eds), Cambridge University Press, 13-19.

Godfrey, P., and Hill, C.W.L. (1995), The problem of unobservables in strategic management research, Strategic Management Journal, 16, 519-533.

Helfat, C. (1994), Evolutionary trajectory in petroleum firm R&D. Management Science, 40: 1720-1747.

Hannan, M. T. and Freeman, J (1977), The population ecology of organizations, *American Journal of Sociology*, 82, 929-964.

Hempell, Thomas (2005), What's spurious, and what's real? Measuring the productivity impacts of ICT at the firm-level, Empirical Economics, 30, 427-464.

Jacobson, R. (1988), Distinguishing among competing theories of market share effect, Journal of Marketing, 52, 68-80.

Jacobson, R. (1990), Unobservable effects and business performance, Marketing Science, 9: 74-85

Jacobson, R. and Aaker, D.A. (1985), Is market share all that it's cranked up to be? Journal of Marketing, 49 (Fall), 11-22.

Lieberman, M. and Montgomery, D. B. (1988), First mover advantages, *Strategic Management Journal*, 9, Special Issue, 41-58.

Lippman, S. and Rumelt, R. (1982), Uncertain imitability: An analysis of interfirm differences in efficiency under competition, *Bell Journal of Economics*, 13, 418-438.

Maddala, G.S. (1977). Econometrics: McGraw-Hill, New York

Mancke, R. B. (1974), Causes of interfirm profitability differences: A new interpretation of evidence, Quarterly Journal of Economics, 88, 181-193.

Mancke, R. B. (1977), Interfirm profitability difference: Replay, *Quarterly Journal of Economics*, 95, 677-680.

Makadok, Richard and Barney, Jay B. (2001), Strategic factor market intelligence: An application of information economics to strategy formulation and competitor   intelligence, Management Science, 47, 12 (December), 1621-1638.

Mintzberg, H. (1978), Patterns in strategy formation, *Management Science*, 24 (9), 937-948.

Nelson, R. and Winter, S. (1982). *An Evolutionary Theory of Economic Behavior*, Cambridge, MA: Harvard University.

Reed, R. and DiFillippi, R. (1990), Causal ambiguity, barriers to imitation, and sustainability of competitive advantage, *Academy of Management Review*, 15, 88-102.

Rodriguez, Olga Maria (2006), Trade credit in small and medium size firms: An application of the system estimator with panel data, *Small Business Economics*, 27, 103-126.

Roodman, David (2005), xtabond2: Stata module to extend xtabond dynamic panel data estimator, Center for Global Development, Washington, USA http://econpapers.repec.org/software/bocbocode/s435901.htm

Rumelt, R. (1974), Strategy, Structure, and Economic Performance, Cambridge, MA: Harvard University Press.

Rumelt, R. and Wensley, R. (1981), , In search of the market share effect. Proceedings of the American Academy of Management Meetings, 1981, 2-6.

Rumelt, R. (1984), Towards a strategic theory of the firm. In R. lamb (ed.) *Competitive Strategic Management*, Englewood Cliffs, NJ: Prentice-Hall.

Snow, Charles C, Raymond E. Miles, and Grant Miles (2005), A configurational approach to the integration of strategy and organization research, Strategic Organization, 3, 431-439.

Spanos, Y. Zaralis, G. and Lioukas, S. (2004), Strategy and industry effects on profitability: evidence from Greece, Strategic Management Journal, 25(2), 139-165.

Szymanski, D. M. Bharadwaj and Varadarajan, P. R. (1993, An analysis of market share-profitability relationship, Journal of Marketing, 57(July), 1-18.

Weber, M. (1930), The Protestant Ethic and the Spirit of Capitalism, New York: Parson.

Wernerfelt, B. (1984), A resource-based view of the firm, Strategic Management Journal, 5 (2): 171-180.

Windmeijer, Frank (2005), A finite sample correction for the variance of linear efficient   two-step GMM estimator, *Journal of Econometrics*, 126, 25-51.

Wiklund, Johan and Shepherd, Dean (2005), Entrepreneurial orientation and small business performance: A configurational approach, *Journal of Business Venturing*, 20,   71-91.

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LEVELS OF FACEBOOK USE: EVIDENCE FROM EGYPT

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ABSTRACT

This study aims to explore the factors which discriminate between the use at different levels of the social media in Egypt. Facebook will be the focused of this research, as a particular application of the social media. The study will divide Facebook users on the basis of three groups of factors, namely, Internet experience, psychographics and satisfaction and will relate these factors to three levels of Facebook use: heavy, moderate and light. A sample of 384 users was drawn from the Facebook users in Egypt. Data were analyzed using Structural Equation modelling; the findings indicate that Internet experience, Internet lifestyle and satisfaction are the significant determinants of one's level of Facebook use.

INTRODUCTION

Social network sites (SNSs) are quickly becoming the most popular tools for social communication (Ross et al., 2009). In such applications as Facebook, more than 400 million active users visit it frequently and use it as their main communication tool (Alarco´n-del-Amo et al., 2011). However, the success of any social network application does not depend merely on how many members use it, but on the extent to which they do so (Jin et al., 2009). The adoption of a specific SNS platform does not necessarily imply continued and increasing use of the platform. Moreover, the literature on information technology acceptance indicates that complex innovations such as the Internet and its products, notably the SNSs, are considered to be "multi-level phenomena" and their adoption and use involve more levels than the simple indications of "do use" and "do not use" (Huizingh and Brand, 2009).

Nevertheless, the levels of use of SNS and the factors which motivate or hinder the heavy use of SNSs are still unknown. Previous studies about the adoption of SNSs have focused on the factors which motivate people to adopt them (Richter et al., 2011) and on the way in which people use them. For example, Ross et al. (2009) discuss the way in which personality factors and competence may lead to the use of more features of Facebook, such as commenting on or sharing, than other attributes do. The current heterogeneity in users of SNSs is not reflected in the literature. Specifically, when a new technology-based product or process is still in the early stages of diffusion as Facebook use is in the Middle East, it may be inaccurate and inappropriate to treat all users as a homogeneous population. Therefore, it may be helpful to explore the levels of adoption of SNSs and to discriminate more clearly the factors which distinguish these levels. In addition, the existing literature seems to have looked into SNS use only among university students; thus the knowledge about the adoption and use among other age groups remains limited (Richter et al., 2011). Moreover, research so far has concentrated on users in a Western context, while some preliminary results in other contexts suggest that the culture of a different country may cause different patterns of adoption (Choi, 2006; Fogg and Lizawa, 2008; Vom Brocke et al., 2009).

Against this background, the existing literature cannot discriminate well enough between levels of adoption and/or use, or to link these with user population and geographical context. This limitation may limit the identification of more general patterns across different contexts or the specifics of SNS in a certain context. Therefore, this study will attempt to address these gaps through developing and testing a

theoretical model which identifies the factors differentiating between levels of use of Facebook and relate these factors to the three different levels of use named above, as depicted in Figure 1. This paper is organized as follows: first, a synthesis is presented of the available literature about the adoption of innovation and levels of use of innovation. Then, the research method is discussed. Finally, the results, discussion and suggestions for future research are presented.

LITERATURE REVIEW AND HYPOTHESES

This research uses Roger's model of innovation adoption (Rogers, 2003) as the basic theoretical framework guiding the model's development. The research model of this study is a synthesis of Roger's framework along with previous literature on social media adoption and also its induction. Rogers's model is based on the innovation-decision process which is "the process through which an individual (or other decision-making unit) passes from first knowledge of an innovation, to forming an attitude toward the innovation, to a decision to adopt or reject, to implementation of the new idea and to confirmation of this decision" (Rogers, 2003, p. 170). According to Rogers (2003), consumer characteristics, attitude and personality affect the rate of adoption of innovations. In addition to Roger's model of innovation adoption, factors such as satisfaction and motivations are included in the model since they have proven in the previous literature to be significant factors affecting the levels of web and social media adoption.

Unlike Roger's model, the proposed conceptual framework will not only study the adoption/non-adoption dichotomy but will also gauge the level of adoption. Thus, the model studies the five main factors under three key themes, namely, Internet experience, psychographics and satisfaction as the key factors affecting the level of Facebook use, at three possible levels: low, medium and high level use.

Lifestyle

Most studies which use psychographics to describe Internet use have focused on different types of web shopper. Few studies have used psychographics to profile Internet users in a non-shopping context. Assael's (2005) study represents one of these few; it attempts to examine and provide a detailed description of both the lifestyle of heavy web users and the types of web use. He finds that lifestyle variables helped to determine the type and level of web use. Heavy users were found to have a more favourable opinion of the Internet, were more likely to engage in various Internet activities and were more likely to buy items listed on the web. They also had more liberal social views, had optimistic views of the future and were self improvers. In this study, the lifestyle variables chosen were tailored from a scale previously used and tested by Swinyard and Smith (2003) which looks extensively into the lifestyle attributes distinguishing online shoppers and clusters them into four groups according to these lifestyle variables. These scales, however, are tailored to fit the specific purpose of determining the typology of social media users and to relate this typology to the level of use of the social media use. It is expected that:

H1 Lifestyle variables can help distinguish the different levels of Facebook use

Personal Characteristics

Personal characteristics have commonly been studied as part of psychographics in the previous research on social media. Few studies have focused on the effect of personality factors on specifically social media use (Ross et al., 2009). In the present research it was seen as important to study personal characteristics separately, since it was thought that these factors, which are different from lifestyle and benefits acquired, the other elements of psychographics, would help greatly in segmenting Facebook users. Thus it was seen as important to measure their effect separately. This research relied on a framework adopted by Schutz (1966), who proposed a three-dimensional theory of interpersonal behaviour which he called FIRO

(fundamental interpersonal relations orientation). He proposed that people engage in interpersonal communications because they are interested to express one of three interpersonal needs: inclusion (the need to be part of a group/need for attention), appreciation (the wish to show affection/concern for others) and control (the need to exert power in one's social environment).

Figure 1: Research Framework
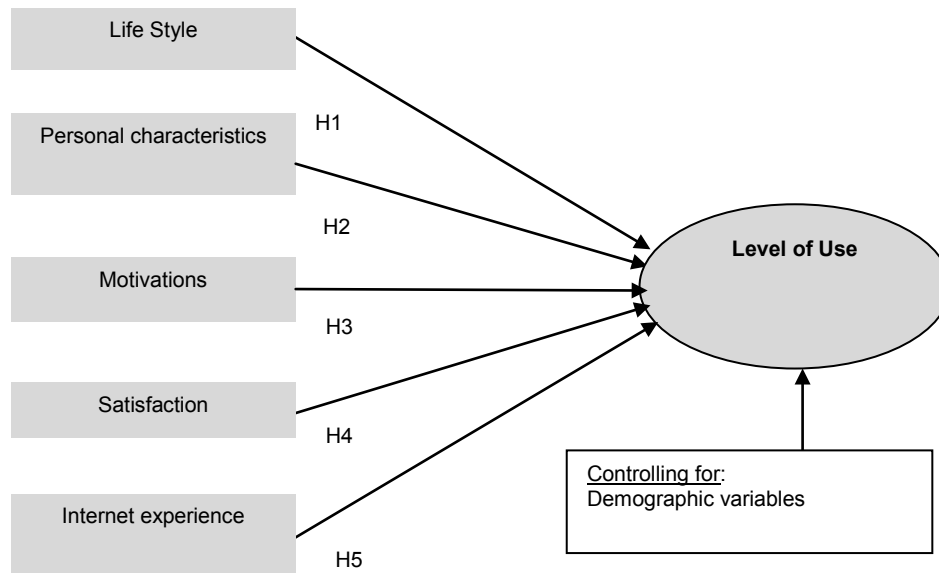
This figure shows the research framework that identifies the proposed independent variables that discriminates between levels of Facebook use

Five personal characteristics were tailored from this FIRO theory, namely; need to belong, personal growth, individuation, curiosity and exploration and helpfulness.According to Bausmeister and Leary (1995), human beings feel "a need to form and maintain at least a minimum quantity of interpersonal relationships". Krasnova et al. (2008), by applying human needs theory, find that both the need for belongingness, through connection with others and for esteem, through self-presentation, are two important drivers for SNS usage. Chan and Misra (1990) introduce the concept of individuation to the opinion leadership literature and propose that the act of forwarding online content to others in the same network allows people to differentiate themselves. Shutz (1966) proposes that people who have an intense need for personal growth want to make a difference in their social environment and also to have a say in making this difference. Whiting and de Janasz (2004) provides evidence that students were able to successfully use email for networking and for building and nurturing business relationships to aid them in their future career and personal success. Curiosity is defined as the desire to know or learn (Kashdan et al., 2004). It is thought that people with higher levels of curiosity are more likely to consume online content (Ho and Dumsey, 2011). Finally, in respect of helpfulness it is proposed that some people share information with others as a means of expressing love or friendship (Dichter, 1966).

Additionally, evidence from the word of mouth literature provides support for the notion that people are driven by altruistic reasons in both offline and online environments (Phelps et al., 2004). Moreover, Ross et al. (2009) find that people who are highly extroverted are more likely to use Facebook as a social tool but not as an alternative to social activities. Personal characteristics were measured using previously available scales (Leary et al., 2001; Maslach et al., 1985; Robitscheck, 1998; Price et al., 1995 and Kashdan et al., 2004). It was expected that personal characteristics would help us better understand the typology of Facebook users, as well as the level of Facebook use. Thus:

H2 *The variable of personal characteristics can help distinguish the different levels of Facebook use*

Motives

Uses and gratifications (UG) theory attempts to explain how people use the media to gratify their wants and needs, what motivates their behaviour and what the consequences are of their uses of the media. With the advent of the Internet, this perspective seems even more relevant. Audiences undoubtedly play an active role in the messages which they receive from the Internet because, in order to find information, they must actively seek it out (Bumgarner, 2007). People have different reasons for using the social media, derived from the benefits they seek to gain. Most of the research tackling motives has focused on the benefits sought from the use of the social media and studied these as part of psychographics. Bumgarner (2007) points out that Facebook is used by students to stay in contact with old friends, to make contact with co-students, romantic partners or similar, but that Facebook is most prominent as a medium designed for the exchange of gossip. Other studies show that the maintenance of contacts with old friends and intensification of links with co-students were the two main motives behind using SNSs (Lampe et al. 2006; Raacke and Bonds-Raacke 2008; vom Brocke et al. 2009a). Lampe et al. (2006) discusses the need for social searching as an important SNS pattern in students' use. Social searching involves using SNS to find out more about newly made offline contacts, such as fellow-students whom one has met in class (Lampe et al. 2006).

Most of the studies on motives for the use of the social media have focused on students as the target of analysis. Limited research has examined the motives of other user groups. Schaefer (2008) has studied the motives of professional users and identified three major motives in this context, staying in contact, reactivating contacts and, most importantly, managing one's existing contact-network. In their study of the motives behind participation in online communities, Richter et al. (2011) find that connecting with each other turned out to be the most significant of all the factors studied. In his study on the motives behind blog use, Hollenbaugh (2011) finds that social connectedness, helping/informing and getting feedback turned out to be among the most important motives. Passing the time and reducing boredom were also found as motives in the use of other media, including the Internet (Ebersole, 2000; Papacharissi and Rubin, 2000). The scale used in this research was newly developed by drawing on the multiple factors present in the previous Internet literature. It was expected that the motives behind Facebook use could help determine the typology of Facebook users and could help distinguish the different levels of their use of it. Thus:

H3 *Motives can help distinguish the different levels of Facebook use*

Customer Satisfaction

Satisfaction is an important construct in the information system literature. End user satisfaction is critical to the successful implementation of information systems (Ong and Day, 2010). Satisfaction in a given situation is the sum of a person's feelings or attitudes toward a variety of factors affecting that situation (Olson and Baroudi, 1983). User satisfaction is defined as the extent to which users believe that the information system available to them meets their information requirements (Olson and Baroudi, 1983). Ong and Day (2010) define satisfaction with the social media as "a user's overall emotional feelings about his use of social media." Thus, satisfaction refers to the extent to which respondents have a positive attitude towards what they have achieved by using e-commerce. Satisfaction is often defined as what you have achieved compared to some yardstick, where the yardstick can be anything from expectations, competitors, best practice companies, to investments and the like. Research results indicate that individuals will continue to use the information in a computer-supported social network when they are satisfied with their previous use of it and when they perceive that the information in the network is useful (Jin et al., 2009). In the present study satisfaction was measured on scales which were already available

scales to indicate whether a user likes or dislikes the idea of using Facebook and whether he/she feels that his/her objectives in using the social media were met. It was also thought that users who were more satisfied with Facebook use were more likely to engage in higher levels of use. Thus,

H4 *Satisfaction can distinguish the different levels of Facebook use*

Internet Experience

Internet experience has been commonly used to indicate the length of time that users have been using the Internet (Cheema and Papata, 2010). It has been demonstrated that Internet users who have been using the Web for a longer time are more likely than others to use it for more task-oriented activities, such as shopping (Hammond et al., 1997; Novak et al., 2000). In this study Internet experience refers to a person's length of experience of using the Internet, the frequency of this use, the time spent in online sessions and also the kinds of activity carried out on the Internet. It was expected that Internet experience would help distinguish the different levels of Facebook use, whereby more experienced users were expected to reveal higher levels of Facebook use. Thus:

H5 the length of Internet experience helps distinguish the different levels of Facebook use.

Demographic Variables

Demographic variables, such as age, gender, income, education, occupation and the like have been commonly used in research as a main segmentation basis of customers, since these variables represent data which is easy to collect and readily available. Demographic variables have been used in particular to segment online shoppers from non-shoppers (Swinyard and Smith, 2003). Research also focused on discriminating between users and non-users of the Internet, on the basis of these demographic variables (Hindman, 2000). Research results, however, were not consistent in terms of the findings related to the significance of these variables with regard to segmenting online users from non-users and whether these were the most important factors to consider when segmenting online users. In this research we controlled for the effect of these variables, as we wanted to examine whether other factors such as Internet experience, personality characteristics, satisfaction and lifestyle could help us better understand the differences between social media users and whether they could help us to distinguish the different levels of use which users exhibit.

METHODOLOGY

This research used a mixed methods approach to test the proposed model. The study is primarily quantitative, but contains a qualitative element in the form of in-depth interviews, which were conducted at the outset in order to gain a better understanding of the phenomenon under study. The study began with 21 in-depth interviews with an unstructured format, conducted to understand the motives of Egyptians in using SNSs (e.g., Facebook, Twitter).Specifically, the interviews focused on identifying the motives behind the heavy or light use of Facebook. The findings from these interviews helped determine the research constructs and their relationships. Next, a large-scale survey was conducted.

There were 6,484,700 users of Facebook in Egypt in 2011 between 16 and 64 years old (Facebook, 2011). The research focused only on the Cairo area because 43% (2,892,620 million users) of the Facebook users live in Cairo. The sample size was 384 users. Sample size was determined from the statistical tables developed by Krejcie & Morgan (1970) in view of the following criteria: population size, 2,921,460 (CAPMAS, 2011)*,* confidence interval of ±5%, confidence level of ±95%, ratio of population characteristics available in the sample, 50%.

Data were collected via an online field survey of Facebook users over a period of three months from September through December 2011. To collect the data, we used search engines provided by Facebook. Search engines usually allow users to be searched by location, high school, college or employer. Although the data collected would probably have some selection bias, it was impossible to select a random sample of users given that a complete directory of Facebook users does not exist. Previous similar studies have also conducted online surveys through convenient samples (Li, 2011). Invitation messages, which contained the URL of the online questionnaire, were sent to the selected respondents through the messaging function of Facebook. Over the three-month period of the survey, 279 usable questionnaires were generated.The measurement items used to operationalize the constructs were derived from previous studies and the wording of the items was adjusted to match the present context. New items were added when necessary. All items were measured on a five-point Likert scale, from 1: "strongly agree" to 5: "strongly disagree". Table 1 provides a description of the sample. The items were originally written in English but were then translated to Arabic to suit the context of study. To obtain a good level of translation, a back-translation was conducted. The Arabic and English versions of the questionnaire were reviewed by three linguists to ensure that both versions were comparable at a high degree of accuracy. Table 1 provides the sample distribution.

Table 1: Sample Description

Measures	Items	Frequency	Percentage (%)
Age	16-24	120	43.2
	25-29	97	34.6
	30-34	52	18.8
	35 or more	10	3.4
Gender	Female	140	50.1
	Male	139	48.9
Education	High school or equivalent	156	70.6
	Undergraduate	23	10.5
	Postgraduate	42	19.0
Marital Status	Single	187	55.9
	Married with no children	39	13.9
	Married with children	52	18.6
	Single parent family	1	0.00
Employment	Not employed	43	15.4
	Academic	23	0.08
	Professional	41	14.6
	Administrative	86	30.8
	Self employed	17	0.06
	Student	71	25.4
Internet Experience	≤ 1 year	12	0.04
	≤ 5 years	53	18.9
	6 to 10 years	122	43.7
	> 10 years	92	32.9
Experience in using Facebook	Rarely	19	0.06
	Once every couple of months	21	0.07
	At least once a week	21	0.07
	Several times a week	176	63.0
	At least once a day	25	0.08
	Several times a day	7	0.02

This table shows the characteristics of the sample; the 279 Facebook users in Egypt. All numbers indicate frequency and percentages.

RESULTS

Level of Facebook Use

Two variables were used to describe the level of Facebook use, that is, frequency of Facebook usage (i.e., rarely, once every couple of months, at least once a week, several times a week, at least once a day, several times a day) and type of Facebook activities conducted (i.e., the frequency with which an

individual engages in Facebook activities such as sharing, commenting, or uploading photos/videos which ranges from 1 = "rarely" to 5 = "often"). An index to show the level of use of Facebook was developed accordingly, by multiplying the frequency of Facebook use by the relative frequency of Facebook activities (calculated by dividing the average frequency of Facebook activities per respondent by the total sum of the listed frequencies). Accordingly, the respondents were divided into three groups based on their index scores: light, moderate and heavy Facebook users. Specifically, if respondents scored less than 2 on the index, they were rated light Facebook users; if they scored between 2 or more and below 4, they were rated moderate Facebook users; and if they scored 4 or more, they were rated heavy Facebook users. Table 2 describes these different groups of Facebook users. The Kruskal-Wallis test was used to measure if the three groups significantly differed and the results (χ^2 (2) = 188.963, p < 0.01) indicate that the difference between the groups is statistically significant.

Table 2: Level of use of Facebook Groups

Groups of Facebook Users	Level of Use of Facebook Index∗	
	Frequency	%
Light	72	25.8
Moderate	102	36.5
Heavy	105	37.7

This table describes the three groups of Facebook users, grouped according to their level of use of Facebook into: light; moderate and high. .∗ Indicate that the groups are significantly different at 0.01 levels

The Measurement Model

Structural equation modelling was used to test the research model using LISREL 8.7. A confirmatory factor analysis (CFA) was first conducted. The model fit is assessed in terms of four indices: comparative fit index (CFI), goodness-of-fit index (GFI), root mean square error of approximation (RMSEA) and the consistent AKaike information criterion (CAIC). A model is considered to be satisfactory if CFI > 0.95, GFI > 0.90 and RMSEA < 0.06 (Hair et al., 2010). CAIC has no cut-off values; instead, a smaller value implies better fit.The results of CFA indicated that the initial measurement model did not fit the data well [χ^2 (623) = 1.735; CFI = 0.91; GFI = 0.84; RMSEA= 0.056; CAIC = 2.656.20]. A careful inspection of the LISREL output revealed that some items did not load on the designated latent factors (completely standardized loading < 0.60). To refine the measurement model, some items were dropped from ILS, NDBG, CUR and HLP. With the remaining items, another CFA was conducted. Compared with the initial model, the new measurement model exhibited improved model fit [χ^2 (382) = 1.049.40; CFI = 0.94; GFI = 0.87; RMSEA= 0.051; CAIC = 1.852.49]. Table 3 describes the new measurement model.

In addition to the model fit, the reliability convergent validity and discriminant validity of the scale were all tested. Reliability was examined on the basis of CR and AVE. A scale is said to be reliable if CR > 0.70 and AVE > 0.50 (Hair et al., 2010). As indicated in Table 3, the CRs and AVEs are more than the cut-off values. Convergent validity is met if all item loadings are equal to or above the recommended cut-off value of 0.60 (Hair et al., 2010). It was found that the loadings range between 0.60 and 0.92, suggesting the convergent validity of the scale. Discriminant validity is the extent to which an item does not relate to the measures of other constructs. Discriminant validity is achieved if the square root of the AVE is greater than the correlation coefficients (Hair et al., 2010). It was found that all the correlation estimates met the criterion. Overall, the evidence of a good model fit, reliability, convergent validity and discriminant validity indicates that the measurement model was appropriate for testing the structural model at a subsequent stage.

Table 3: Estimated Factor Correlation Matrix from the Revised Measurement Model

| | Mean | SD | CR | AVE | Correlation Matrix | | | | | | | | | | | | |
					1	2	3	4	5	6	7	8	9	10	11	12	13
1. WEB1	4.2	1.7	0.81	0.55	0.87												
2. WEB2	2.5	1.4	0.86	0.57	0.17	0.83											
3. ILS1	2.3	1.0	0.95	0.64	0.28	0.18	0.78										
4. ILS 2	4.2	0.9	0.80	0.58	0.46	0.28	0.27	0.76									
5. ILS 3	3.1	1.2	0.90	0.66	0.38	0.26	0.28	0.29	0.83								
6. ILS 4	2.2	1.1	0.81	0.59	0.31	0.36	0.46	0.28	0.43	0.82							
7. ILS 5	3.6	1.3	0.85	0.61	0.41	0.31	0.30	0.22	0.33	0.36	0.90						
8. PG	2.1	0.7	0.82	0.60	0.11	0.21	0.32	0.41	0.21	0.44	0.20	0.91					
9. NDBG	3.5	1.1	0.75	0.54	0.22	0.11	0.40	0.21	0.25	0.20	0.24	0.36	0.88				
10. INDV	3.2	0.8	0.80	0.65	0.13	0.22	0.11	0.21	0.33	0.29	0.24	0.34	0.21	0.92			
11. CUR	2.2	1.0	0.89	0.71	0.14	0.13	0.20	0.32	0.40	0.24	0.13	0.23	0.13	0.24	0.71		
12. HLP	4.1	0.9	0.80	0.81	0.30	0.14	0.23	0.41	0.43	0.33	0.17	0.25	0.16	0.13	0.20	0.76	
13. SAT	3.6	1.2	0.76	0.63	0.23	0.31	0.14	0.19	0.23	0.30	0.29	0.24	0.25	0.10	0.24	0.43	0.73

This tables shows the means, standard deviation (SD), composite reliability (CR) and Average Variance extracted (AVE) of the estimated factors. WEB = Internet experience; ILS = Internet Life Style; PG = Personal Growth; NDBG = Need to Belong; INDV = Individuation; CUR = Curiosity; HLP = Help; SAT = Satisfaction; Value on Diagonal is the square root of AVE

Structural Model and Research Hypotheses

Logit regression using LISREL 8.7 was used because the dependent variable – the level of use of Facebook – is a categorical variable which covers three categories; light (1), moderate (2) and heavy (3). The final model included 13 factors which represented the four independent variables in the research model. The factors were represented in the model, with their latent scores. As shown in Table 3, the results reveal that Internet experience includes two factors: the first one reflects experience of Internet browsing and emails, while the other factor reflects experience of Internet searching. Moreover, the results reveal that there are five Internet lifestyle factors; i.e., entertainers (those who use the Internet to satisfy their hobbies and cultural interests), socialisers (those who use the Internet to stay in contact with family and friends); doers (those who use the Internet to promote ideas and causes); tech-experts (those who surf the Internet to get information about technological gadgets and Internet technologies) and non-tech (those who find it hard to work out how to use Internet technology). Moreover, individuation, the need to belong, personal growth, curiosity, helpfulness and satisfaction were each represented by one factor. Finally, the model included the three motives highly ranked by respondents along with some demographic variables (age, gender, employment and marital status) as ordinal variables. Accordingly, the following logit regression equation was estimated, to identify the determinants of the level of Facebook use; the results are shown in Table 4.

INDEX = 0.752*ILS2 + 0.612*ILS5 + 0.525*SAT + 0.534*WEB2- 0.342*AGE + Error, R^2 = 0.623

Fit indices indicate that the model is a good fit of the data [χ^2 (290) = 574.75; CFI = 0.95; GFI= 0.92; RMSEA= 0.047; CAIC = 1.399.16]. Furthermore, the model explained a fair amount of the variance in the outcome variable; that is, it explained 62.3% of the variance in the level of use of Facebook. We found that only hypotheses 1, 4 and 5 were supported. In support of H5, Internet-related experiences have a significant positive effect on the level of Facebook use (β = 0.534, p< 0.01). In addition, there is a significant positive relationship between the level of use and only two Internet lifestyles; i.e., "keeping in contact with family and friends" (β = 0.752, p< 0.01) and "being a tech expert" (β = 0.612, p< 0.01) (this, H1 is supported). Furthermore, there is a significant positive relationship between satisfaction and the level of use of Facebook (β = 0.525, p< 0.05) (H4 is supported). Finally, we found an effect exerted by some of the control variables on the level of use of Facebook. Specifically, age (β = 0.34, p< 0.05) was negatively related with the level of use of Facebook.

Table 4: Adjusted t-statistics and Standardized Path Coefficients for Hypothesized Paths in the Logit Regression Model

Hypothesis	Path coefficient (t-value)	Supported
H1: Lifestyle to level of use		
ILS1 ⟶ level of use	0.124	--
ILS 2 ⟶ level of use	0.752**	√
ILS 3 ⟶ level of use	0.201	--
ILS 4 ⟶ level of use	0.121	--
ILS 5 ⟶ level of use	0.612**	√
H2: Personal characteristics to level of use		
PG ⟶ level of use	0.234	--
NDBG ⟶ level of use	0.152	--
INDV ⟶ level of use	0.021	--
CUR ⟶ level of use	0.011	--
HLP ⟶ level of use	0.014	--
H3: Motives to level of use		
MOT1 ⟶ level of use	0.146	--
MOT2 ⟶ level of use	0.103	--
MOT3 ⟶ level of use	0.210	--
H4: satisfaction to level of use		
SAT ⟶ level of use	0.525*	√
H5: Internet experience to level of use		
WEB1 ⟶ level of use	0.023	--
WEB2 ⟶ level of use	0.534**	√
H6: Demographic Variables		
AGE ⟶ level of use	0.342*	√

*This table shows the adjusted t-statistics and standardized path coefficients for hypothesized paths in the logit regression model. **, indicates significance at the 0.01, 0.05 levels respectively, √ indicates that hypothesis is supported and – indicates that hypothesis is not supported WEB = Internet experience; ILS = Internet Life Style; PG = Personal Growth; NDBG = Need to Belong; INDV = Individuation; CUR = Curiosity; HLP = Help; SAT = Satisfaction, MOT = Motivation*

DISCUSSION

This study proposed a model to understand and explain the level of use of social networks. The findings suggest that Internet experience, Internet lifestyle and satisfaction are the significant determinants of the level of use of Facebook. With regard to Internet life style, only two factors, namely, being a socializer and being a non-tech, out of the five factors studied, turned out to be significant in distinguishing between the different levels of Facebook use. One possible explanation is that, since the main purpose of Facebook use is to interact with others, users who believe that the Internet in general and Facebook in particular are effective media for communicating and interacting with others, for example, their family members and friends, will be active in using Facebook compared to those who do not use the Internet nor believe that it is an effective medium for interaction and socializing. This result is consistent with other studies (e.g., Bumgarner, 2007), which find that staying in contact with family and friends is the main motive for using Facebook. Another important result here is that Internet experience and the Internet lifestyle of being a "non-tech" discriminate between levels of Facebook use.

This indicates that having adequate Internet experience and skills is necessary to be active on Facebook, or, in other words, that users who have high computer skills and considerable Internet experience will use Facebook more than others who lack these experience and skills. This is perhaps because their experiences and skills enable them to find the material they want to share with family and friends or to express opinions. Furthermore, satisfaction was found to be a discriminating factor between the levels of Facebook use. This result supports the results of Lu and Hsiao (2007) and Jin et al. (2009). This is perhaps because when people are satisfied with the results of their behaviour of using a specific technology, they will continue to use it, whereas if they are not satisfied, they will either reduce their level

of use or in some cases stop using the technology altogether. This result is consistent with the results of Ong and Day (2010) and Jin et al. (2009). Finally, with regard to demographic variables, it has been found that age alone is the significant variable which discriminates between levels of Facebook use; younger users are more active than older users of Facebook. This result is consistent with the notion that social network sites tends to have a younger population in general (Li, 2011).

CONCLUSION

This research aimed to study the factors which discriminate between different levels of Facebook use in Egypt. The findings indicate that Internet experience, Internet lifestyle and satisfaction are the significant determinants of one's level of Facebook use. If this is so, it may be concluded that in order to increase the level of use of Facebook, the medium should strive to provide or enhance the features which support social ties with family and friends. For example, Facebook should allow users to customize the news feed when opening home (Engblom, 2010). It should also enhance group news feed (Constine, 2010) and enable users to create a new list or to search for friends in a geographical area and then select which ones should be added to their list of friends (Engblom, 2010). In addition, it is apparent from the findings that the level of Facebook use is related to people's level of satisfaction with their experience of using it. Thus, Facebook should focus on improving its features, as well as simplifying the navigation process, which includes strengthening the photo viewer applications (LeClair, 2011), enabling invitation to be sent to all friends at once without incurring a spam warning, including voice and video chat and enabling users to drag and drop files, photos and videos (Engblom, 2010).

All these features and others are expected to add more appeal, diversity and usability to Facebook, which could indeed be expected to enhance the level of its use.A limitation of this research is that it focuses on a specific context; thus possibly hindering the generalizability of the results. Future research could make a cross cultural analysis by applying the framework used here to another country allowing results of this research to be compared in terms of whether the same factors turn out equally significant and the framework to be generalized to different cultures. Additionally, having found that different factors affect the different levels of Facebook use, future studies could attempt to develop better ways of measuring levels of use by identifying the factors which affect the different levels of use and developing hypotheses to reflect these differences in determining the levels of social media use, thus resulting in a set of hypotheses for each of the different levels under study.

REFERENCES

Alarco´n-del-amo, M., lorenzo-romero, C., and Go´mez-borja, M. (2011) "Classifying and profiling social networking site users: a latent segmentation approach", *Cyberpsychology, behavior, and social networking*, vol. 14(9), p.547-53.

Assael, H. (2005). "A demographic and Psychographic Profile of Heavy Internet Users and Users by Type of Internet Usage." *Journal of Advertising Research*, March, p. 93-123.

Bausmeister, R. and Leary, M.(1995). "The Need to Belong: Desire for Interpersonal Attachments as a fundamental Human Innovation." *Psychology Bulletin*, vol. 117 (3), p. 497-529.

Bumgarner, B. (2007). "You have been poked: exploring the uses and gratifications of Facebook among emerging adults," *First Monday*, vol. 12(11)

CAPMAS, (2006/2007), Census Data 2006/2007 reports, Central Agency for Public Mobilization and Statistics (CAPMAS), http://www.capmas.gov.eg/pages_ar.aspx?pageid=544 (accessed at June 25th 2011)

Chan, K. and Misra, S. (1990). "Characteristics of the Opinion Leader: A New Dimension." *Journal of Advertising* 19 (3), p. 53-60.

Cheema, A. and Papata, P. (2010). "Relative Importance of online versus offline information for Internet Purchases: Product Category and Internet experience effects." *Journal of Business Research,* vol. 63, p. 979-985.

Choi, J. (2006). Living in CyWorld: Contextualising cy-ties in South Korea. In: Bruns A, Jacobs J (eds) Use of blogs (digital formation). Peter Lang, New York, p.173–186

Chung, C. and Darke, P. (2006). "The consumer as advocate: self reference, culture and word of mouth." *Marketing Letters,* vol.17 (4), p.269-279.

Constine, J. (2010). How Facebook Groups Integrates With Other Core Apps: News Feed, Events, Mobile, retrieved from http://www.insidefacebook.com/2010/10/06/groups-integrates-core-apps/ (last accessed at 12/12/2011)

Dichter, E. (1966). "How word-of-mouth advertising works." *Harvard Business Review,* vol. 44 (November-December).

Ebersole, S. (2000). "Uses and gratifications of the web among students." Journal of computer mediated communication 6. In Hollenbaugh, E. 2011. "Motives for maintaining personal journal blogs." *Cyberpsychology, Behavior and Social Networking,* vol. 14, p. 1-2: 13-20.

Engblom, G. (2010). 25 improvements suggested to Facebook, Retrieved from http://www.kolibriexpeditions.com/birdingperu/blog/index.php/25-improvements-suggested-to-facebook/ (last accessed at 12/1/2011)

Facebook (2011). Advertise on Facebook, https://www.facebook.com/ads/create/ (last accessed 12/10/2011)

Fogg, B., and Iizawa, D. (2008). "Online persuasion in Facebook and Mixi: a cross-cultural comparison," *Lecture Notes in Computer Science* 5033, p.35–46

Hair, J., Black, W., Babin, B. and Anderson, R. (2010). Multivariate Data Analysis, 7th edition, Prentice Hall, New Jersey.

Hindman, D. (2000) The rural-urban digital divide**,** *Journalism and Mass Communication Quarterly* vol. 77(3), p. 549

Ho, J. and Dumsey, M. (2011). "Viral Marketing: Motivation to forward online content." *Journal of Business Research* vol. 63, p. 1000-1006.

Hollenbaugh, E. (2011). "Motives for maintaining personal journal blogs." *Cyberpsychology, Behavior and Social Networking* vol. 14 (1-2), p. 13-20.

Huizingh, E. and Brand, M. (2009). "Stepwise innovation adoption: a neglected concept in innovation research." *International Journal of Technology Management,* vol. 45, (3/4), p. 267-281.

Jin, X., Cheung, C., Lee, M., Chen, H. (2009). "How to keep members using the information in a computer-supported social network", *Computers in Human Behavior,* vol. 25, p. 1172–1181

Kashdan, T., Rose, P., Fincham, FD. (2004). "Curiosity and Exploration: facilitating positive subjective experiences and personal growth opportunities." *Journal of personal Assessment,* vol. 82, p. 291-305.

Krejcie, R. and Morgan, D., (1970) Educational and Psychological Measurement, 30, 607-610.

Lampe, C., Ellison, N., Steinfield, C. (2006). A face(book) in the crowd: social searching vs. social browsing. In: Proc 2006 20th anniversary conference on computer supported cooperative work. Banff: 167–170

Leary, MR., Kelly, KM., Cottrel, CA. and Schreindorfer, L. (2001). "Individual differences in the need to belong: mapping the nomological network." Duke Univeristy, Department of Psychology, Unpublished Manuscript. In Ho, J. and Dumsey, M. (2011). "Viral Marketing: Motivation to forward online content*." Journal of Business Research*, vol. 63, p.1000-1006.

LeClair, D. (2011). Facebook Announces Great Improvements to Photo Viewer, Retrieved from http://www.makeuseof.com/tag/facebook-announces-great-improvements-photo-viewer-news/ (last accessed at 12/12/2011)

Li, D. 2011. "Online social network acceptance: a social perspective", *Internet Research*, vol. 21 (5), p. 562 – 580

Maslach, C., Stapp, J. and Santee, RT. 1985. "Individuation: conceptual analysis and assessment." *Journal of Personal Social Psychology,* vol. 49 (3), p.729-738.

Novak, T., Hoffman, D. and Yung, Y. (2000). "Measuring the customer experience in the online environments: a structural modeling approach." *Marketing Science,* vol. 19 (1), p. 22-42.

Olson, B. and Baroudi, J. (1983). "The Measurement of user information satisfaction." *Communications of the ACM*, vol. (26), p. 785-793.

Ong, C. and Day, M. (2010). "An Integrated Evaluation Model of User Satisfaction with Social Media Services." *IEEE*, August, p. 195-200.

Papacharissi, Z. and Rubin, AM. (2000). "Predictors of Internet use." *Journal of Broadcasting and Electronic Media*, vol. 44, p. 175-196.

Phelps, J E., Lewis, R., Perry, D. and Raman, N. (2004). "Viral Marketing or electronic word of mouth advertising: Examining consumer responses and motivations to pass along email." *Journal of Advertising Research,* vol., 44 (4), p. 333-348.

Price, L L., Feick, LF. Guskey, A. (1995). "Everyday Market Helping Behavior." *Journal of Public Policy Marketing,* vol. 14 (2), p. 255-266.

Raacke, J., Bonds-Raacke, J. (2008). MySpace and Facebook: applying the uses and gratifications theory to exploring friend networking sites. *Cyberpsychology & Behavior,* vol. 11(2), p.169–174

Richter, D., Riemer, K., and vom Brocke, J. (2011). Internet Social Networking: Research State of the Art and Implications for Enterprise 2.0, Business & Information Systems Engineering, 2: 89 - 101

Robitscheck, C. 1998. "Personal Growth Initiative: the construct and its measure." *Measures Evaluation couns Dev,* vol. 30 (4), p. 183-198.

Rogers, E.M. (2003). "Diffusion of Innovations." 5th Ed. New York: The Free Press

Ross, C., Orr, E., Sisic, M., Arseneault, J., Simmering, M., Orr, R. (2009) "Personality and motivations associated with Facebook use," *Computers in Human Behavior*, vol. 25, p. 578–586

Schaefer, C. (2008), Motivations and Usage Patterns On Social Network Sites, Retrived from http://is2.lse.ac.uk/asp/aspecis/20080180.pdf (last accessed at 18/02/2012)

Schutz, F. (1966). "A Thee Dimensional Theory of Interpersonal Behavior." New York: The Free Press.

Swinyard, W. and Smith, S. (2003). "Why People don't Shop Online: A lifestyle Study of the Internet Consumer." *Psychology and Marketing*, vol. 20 (7), p. 567-597.

VomBrocke, J., Richter D, and Riemer, K. (2009), Motives for using social network sites (SNSs) – an analysis of SNS adoption among students. In: Proc 22nd Bled eConference. Bled: 40–56

Whiting, VR. and de Janasz, SC. (2004). "Mentoring in the 21st Century: using the internet to build skills and networks." *Journal of Management Education*, vol. 28 (3), p. 275-293.

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A FRAMEWORK EXPLAINING HOW CONSUMERS PLAN AND BOOK TRAVEL ONLINE

Michael Conyette, Okanagan College

ABSTRACT

The dynamics of online searching and purchasing is becoming better known and understood as researchers study various products sold via the Web. Even though there is a prevalence of travel products purchased online, integrated frameworks that identify the various determinants of the decision process and how they interact is still sparse in travel literature. In this study, a Conceptual Framework was developed showing the connection between online searching, planning and booking of leisure travel products and the relationship between these variables is tested using logistic regression. It confirms that consumers plan then book travel and that beliefs and attitudes influence one's intention to book travel online. Furthermore, beliefs about travel agents affect beliefs and attitudes towards online searching. This study aims to make a contribution by testing for the first time the relevant variables of planning and booking in a proposed Framework. It uses data collected from an online questionnaire completed by 1,198 respondents. We could expect that more travel products will be booked online in the future as online intelligent agents become more user-friendly and powerful, and as portable devices such as smartphones and iPads become more prevalent and versatile.

JEL: M31, O32, D10, D81

KEYWORDS: Decision Process, iPhone, Leisure Travel, Mobile Devices, Online Travel Searching

INTRODUCTION

What is known about the consumer decision making process is that the consumer has a limited capacity for processing information (Bettman, 1979). When given a choice, the consumer rarely undertakes very complex analyses of available alternatives, but rather will use simple decision heuristics. This allows them to avoid the overly burdensome task of assessing all the information available about all the alternatives in order to arrive at a choice. The consumer undertakes an external search to the extent that information now available in memory is judged to be inadequate. Additional information will be acquired until the consumer perceives any additional exertion to be too costly in terms of time or effort expended. Consumers do not enjoy applying a great deal of effort on decision making. Equity theory demonstrated that as more effort is spent on decision-making, consumers' satisfaction with the decision process diminishes (Oliver & Swan, 1989).

More recently, consumers use the Internet for planning purposes as well as transactional ones. Motivation is the reason for this behavior. Consumers also search the Web for information of interest to them and thereby seek some form of gratification through this search process. This planning and searching behavior applies to the travel sector as well as many other areas. Information searching and planning often take place before purchases especially in the travel sector due to high levels of involvement with the product of travel and the large cost (Conyette, 2010). Motivational theory and uses and gratifications theory well explain why travel consumers use the Internet in planning or researching their travel before purchasing or booking a transaction. What is lacking in travel literature are frameworks that track components of the complex consumers decision process and confirm the relationships of variables in the framework.

In this research, a Conceptual Framework was developed showing the connection between the online searching component and booking of leisure travel products. In addition, the relationship between key

variables of searching and booking is tested through logistic regression. The importance of developing a framework is that it helps us understand how travelers acquire information and this gives marketers an opportunity to influence consumers' buying behavior. More information about a destination, for instance, will increase the likelihood of incidental and intentional learning by travelers (Gursoy and McCleary, 2003). The Framework builds on knowledge of tourist's information search behavior conducted by researchers such as Schmidt and Spreng (1996), Gursoy and McCleary (2003), and Hyde (2008).

The remainder of the paper is organized as follows. The next section describes the relevant literature. After this I discuss the data and methodology used in the study. The results are presented in the ensuing section. The paper closes with concluding remarks.

LITERATURE REVIEW

When buyers determine a greater likelihood of making a disappointing purchase, they seek additional information. For higher priced items, the cost of making a disappointing purchase is higher and as a result, so are the benefits from pre-purchase efforts to acquire information (Laband, 1991). Therefore, rationally, consumers' search should increase when the importance of the purchase increases. However, search activity for information itself costs consumers as well. Perceived cost of information search is defined as "the consumer's subjective assessment of monetary, time, physical effort, and psychological sacrifice that he or she expends searching for information" (Schmidt & Spreng, 1996, p. 253). When the outcome of the search is potentially more beneficial consumers are likely to spend more time and effort searching (Bettman, 1979).

The cost of information search for consumers is influenced in part by the accessibility of information. Accessibility is higher when consumers are aware of the availability of information and it is in a format that is easy to understand (Schmidt & Spreng, 1996). The role of online search tools for finding information, and XML in presenting the information is therefore important.

The search for information is clearly one of the stages of the consumer purchase decision process and it has been the subject of much empirical research (Punj & Staelin, 1983; Srinivavsan & Ratchford, 1991). Consumers stop their information search efforts short of being perfectly informed. Different factors affect when they stop, the most common of which are the cost of information search, the level of consumer product knowledge, the type of purchase, and the level of consumer involvement.

It has become critical for companies to determine the types of gratifications that impel consumer use of the Internet for information search. A study of Americans shows they like using the Web as a search tool and regard the Internet as a source of information for learning and research. People recognize the Internet as a useful communications medium, and derive personal gratification from using it as a socialization venue (Stafford & Gonier, 2004).

A large percentage of Internet users have a primary goal of simplifying their lives and saving time. Forsyth, Lavoie, and McGuire (2000) called these consumers simplifiers and discovered they comprise 29 percent of Internet consumers and over 50 percent of all online transactions.

Even though the Internet has given consumers a greater amount of information, online tools have reduced consumers' search costs. These tools assist consumers in decision-making, and improve the quality of their decisions (Haubl & Trifts, 2000). Humans have limited resources for information processing despite the assistance of online tools by virtue of their limited memory, attention, or motivation, for instance (Payne, Bettman & Johnson, 1993).

In explaining consumer attitudes about online shopping and predictors of online behavior, it was discovered that there are more than demographic factors that influence the amount of money people spend online, or whether or not they buy there. Bellman, Lohse & Johnson (1999) claimed the explanations are whether consumers like being online and whether the time they have for buying things elsewhere is limited. They also found the most significant predictor of online buying behavior is the desire to look for product information. Another predictor is what they called a wired lifestyle. A wired consumer has been on the Internet for years, uses it to send and receive email messages, likes to be the first to use the latest communication technologies, and uses the Internet at work as it improves their productivity. Because these consumers use the Internet for many activities it is natural to expect them to use it to search for product information and to buy products.

Discretionary time was also reported to influence a person's decision to shop online. As the total number of hours worked by members of a household increases consumers have less time to search for and buy products in a traditional store. This is especially the case for dual-income households. These consumers may have used catalogs in the past but now take advantage of E-commerce sites on the Web. Bellman, Lohse & Johnson (1999) believed consumers value the Web's ability to save them time over its cost savings capability. Thus, it appears the behavior of consumers in an online environment is different from traditional consumer behavior. In addition, consumers are motivated in different ways and may utilize online tools in various ways to derive diverse forms of gratification.

Numerous researchers including Joines, Scherer & Scheufele (2003), Korgaonkar and Wolin (1999) suggest motivations play a greater role in Web usage than do demographics, although demographics has been demonstrated to be influential (Conyette, 2011). A classification system developed by McGuire (1974) identified categories of motives. One category most related to the area of travel planning is what McGuire termed a cognitive preservation motive or the need to categorize. People have a need to organize the vast array of information and experiences they encounter in a meaningful yet manageable way.

Furthermore, uses and gratifications theory explains why people use the media and what gratifications they seek in media use. Ko, Cho & Roberts (2004) developed a model to explain the effects of motivations and interactivity in establishing consumers' attitudes and purchase intentions. Motivations are looked upon as the antecedent conditions and the consequent conditions are viewed as gratifications. In other words, gratifications sought by consumers (the motivations for media use) and gratifications obtained (the results of media consumption). Four motivations for using the Internet were identified in that study: information, convenience, entertainment, and social interaction.

Travelers want to visualize their vacation and see what they are getting into. This is consistent with the findings of Haubl & Trifts, (2000) who report online tools assist consumers in decision-making, and improve the quality of their decisions. Also, respondents will allow the online intelligent travel decision aids (ODA) to influence them or give them ideas. This makes sense as they are the types of people who really do not organize their vacation. An interesting insight came from those travelers who organize a vacation essentially around a travel agent's recommendations. The value they see and the expectations they have for an ODA is that it performs like a travel agent by making trip planning easier, providing suggestions, answering any question, providing one-stop shopping, etc. Bechwati and Xia (2003) found that the consumer considers an ODA an effort saver since they recognize if it were not for an ODA they would have to do the work themselves. Moreover, Haubl and Trifts (2000) described one of the key functions of electronic decision aids as that of making recommendations.

The implications for travel marketers are clear. Make navigating and searching on a website as inexpensive and time efficient as possible, and provide relevant information about a destination so that it

reduces search costs (Gursoy and McCleary, 2003). Moreover, travel websites should be engaging and helpful by providing powerful intelligent tools that assist in the decision process (Conyette, 2010).

Information search and plans often take place before purchases. This was confirmed during construction of the Conceptual Framework (Conyette, 2010). While creating this Framework, participants in focus groups, interviews and case studies often raised this topic of the desire to research. Other researchers such as Hyde (2008) uncovered a similar dynamic. Hyde tested a model of pre-vacation decision-making and demonstrated three interrelated but unique stages including information search, plans and bookings. Tourists search for travel and destination information, make a plan of the vacation, and then book components of the vacation. Hyde also makes the point that many tourism researchers use information search and vacation planning interchangeably but rarely has the relationships between the three stages been explored.

The Conceptual Framework developed in this research emerged in part from insights provided through literature and it also used qualitative research methods to refine these insights. The finding of the qualitative research is described in the following section. Thus, the Framework implies that a significant predictor of travel buying behavior is found in the search and planning behavior that often takes place before travel booking. Confirming the significance of the search and planning process through logistic regression is the aim of this research. Figure 1 shows the Framework and the three hypotheses tested.

Figure 1: Research Framework and Hypotheses
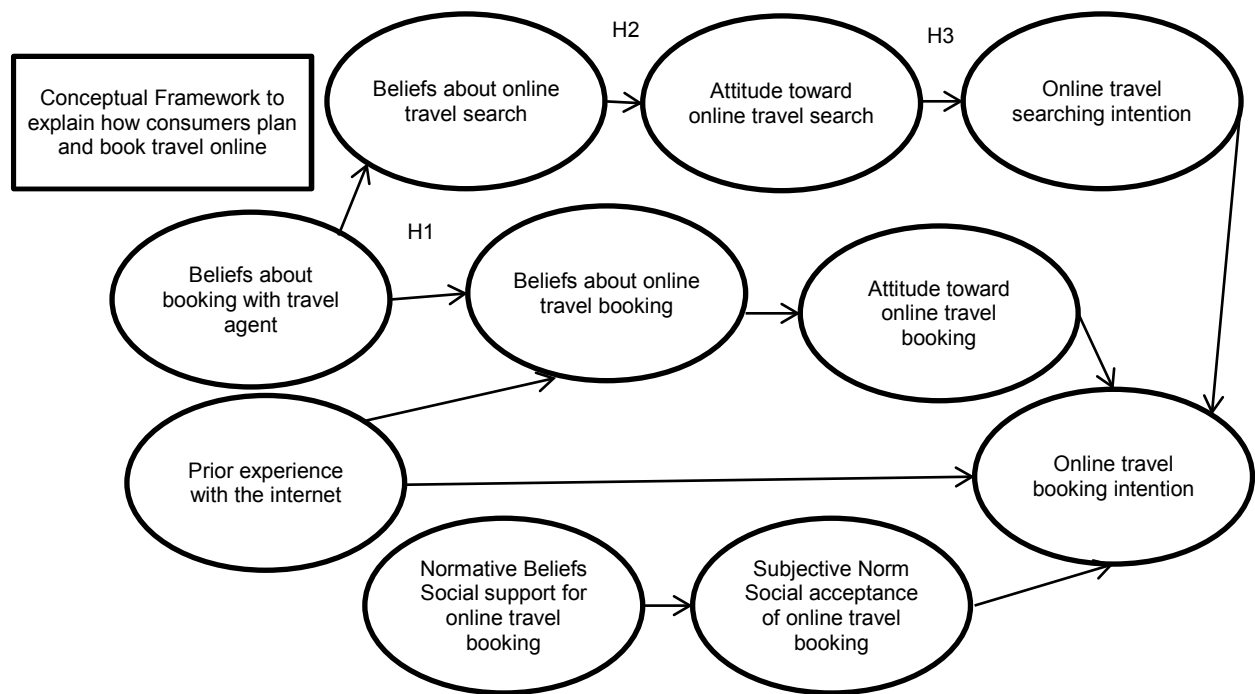
This figure shows the three hypotheses tested in the Conceptual Framework. Other components of this Framework were tested in an earlier work conducted by the researcher. Source - Determinants of Online Leisure Travel Planning Decision Processes: A Segmented Approach (2010).

DATA AND METHODOLOGY

Qualitative research conducted between 2007 and 2008 confirmed these explanations between researching, planning and booking travel. Focus groups revealed that participants consult the Internet, travel agents, friends and relatives for suggested destinations and then they search for good deals

primarily on airfare or hotels. Sometimes travelers also engage in an extensive research or planning process. It was even suggested that women spend more time searching the Internet than men. They compare prices and check details thoroughly and then discuss the travel specifics with their partner. Personal interviews undertaken also showed that an ODA could provide worry-free, planning assistance.

In case studies carried out by this researcher, respondents more likely to research and plan extensively with online and offline aids were those with a disdain for novelty and surprise. This appears to be older respondents. The opposite seems true for younger respondents. Hyde's (2008) tour planning research confirms this idea. Hyde's paper also supports the notion that the time tourists spend consulting travel guidebooks, friends and relatives, and word-of-mouth advice increases confidence, encourages the traveler to be more independent of a fixed tour itinerary, and reduces the need for pre-vacation accommodation booking.

Following the development of the Conceptual Framework, data was collected to test for the first time components of it that deal specifically with searching and booking. In an online survey conducted by this researcher in 2008, a total of 1198 completed surveys were collected for data analysis. Data analysis was performed using Stata 10 software.

For each of the three hypotheses, the Pearson chi-square test of independence with an alpha of 0.05 between variables was firstly used to assess if there was independence between each predictor and response variable. This was followed by univariate logistic regression tests, using a level of significance of 0.05 to determine whether the independent variable in the model is significantly related to the outcome variable. Finally, models were built for each hypothesis by selecting variables for the multivariable analysis using a stepwise method to explain the predictors for the response variable of each hypothesis.

Thus, I propose: H1:Consumers who have more negative beliefs about booking with a travel agent will have more positive beliefs about online travel searching than consumers who have less negative beliefs about travel booking with an agent. The predictor variable was "beliefs about booking with travel agent" and response variable was "beliefs about online travel searching". Beliefs of booking with travel agent included variables 'convenient', 'safe', 'expensive', 'easy', and 'enjoyable'. Beliefs of searching with the Internet included variables 'convenient', 'easy', and 'enjoyable'. Five 7-point semantic differential items (difficult/easy, enjoyable/unenjoyable, convenient/inconvenient, expensive/inexpensive, safe/risky for credit card use), were used to measure beliefs about booking with a travel agent. Beliefs about searching with a travel website used the first three items. These semantic differential items were used in an earlier study conducted by this researcher (Conyette, 2010).

RESULTS

Each belief of the predictor variable was tested for correlation with each belief of the response variable. Statistically significant associations between "beliefs about booking with travel agent" and "beliefs about online travel searching" were discovered with all variables except three. Table 1 summarizes Pearson tests where *p*-values of greater than 0.05 indicate no correlation between variables.

There was no correlation between ease of booking with a travel agent and ease of researching travel with the Internet. Likewise, there was no correlation between ease of booking with a travel agent and enjoyment of researching travel with the Internet. Also, there was no relationship between enjoyment of booking with a travel agent and ease of researching travel with the Internet. This implies respondents who did not enjoy researching with the Internet or found it difficult would book with a travel agent. Thus, the predictor variables having no association with the response variables were dropped from further analysis. Univariate logistic regression tests were then used. When the *p*-value associated with this test is less than

0.05, we reject the null hypothesis that $\beta_1 = 0$, and we conclude the independent variable contributes significantly in explaining variation in the response variable.

Table 1: Correlation Analysis Showing Dropped Variables

Variables	Keep/Drop	df	Pearson	p-value	n
Ease of booking with a Travel Agent Enjoyment researching travel with the Internet	Drop	36	40.8676	0.265**	1088
Ease of researching travel with the Internet Enjoyment booking with a travel agent	Drop	36	41.7736	0.234**	1094
Ease of booking with a Travel Agent Ease of researching travel with the Internet	Drop	36	45.2193	0.139**	1089

This table shows Pearson chi-square test of independence where p-values of greater than 0.05 indicate no correlation between predictor and response variables. As a result, these variables were deleted from univariate logistic regression and model building.

Predictor variables of 'difficult' and 'enjoyable' booking with a travel agent were already dropped. However, predictor variables of 'convenient', 'safe' and 'expensive' booking with a travel agent were significantly related to the response variables and therefore were kept. Finally models were built by selecting variables for the multivariable analysis using a stepwise method to explain the predictors for the response variables. The importance of each variable included in the models was verified through an examination of the Wald test statistic. Even though numerous models for each predictor were created, the best model appears to be found by using the response variable belief 'easy' online travel searching, and predictor variables 'safe' and 'expensive'. Table 2 displays response variables Belief Online Searching is 'easy', and predictors Beliefs booking with Agent is 'safe' &'expensive'. Most p-values of the predictor variables are below 0.05 indicating a good fit. Hypothesis H_1 is partially supported with these predictor variables since interpreting odds ratios among categories of predictor variables implies that when a respondent believes booking with a travel agent is 'expensive' there is a greater probability their belief would be that searching travel online is easy. This matches with the finding of Conyette in an earlier study where consumers who had more positive beliefs about travel agent booking were shown to have lesser intention to purchase travel online than do consumers who had less positive beliefs about travel agents (Conyette, 2010).

Table 2: Hypothesis 1 Best Fitting Model

Belief Online Searching Easy		Odds Ratio	Std. Err.	z	P>|z|	[95% Conf. Interval]**	
Belief Safe booking Agent_2		1.493	0.2181	2.75	0.006	1.121	1.988
Belief Safe booking Agent_3		1.536	0.3396	1.94	0.052	0.9961	2.369
Belief Safe booking Agent_4		1.549	0.3436	1.98	0.048	1.003	2.393
Belief Safe booking Agent_5		1.473	0.4373	1.31	0.191	0.8239	2.636
Belief Safe booking Agent_6		3.559	1.117	4.04	0	1.924	6.585
Belief Safe booking Agent_7		3.298	0.9044	4.35	0	1.927	5.645
Belief Expensive booking Agent_2		1.398	0.2673	1.75	0.079	0.9615	2.034
Belief Expensive booking Agent_3		1.669	0.3052	2.8	0.005	1.166	2.389
Belief Expensive booking Agent_4		1.678	0.3068	2.83	0.005	1.173	2.401
Belief Expensive booking Agent_5		1.810	0.3392	3.17	0.002	1.254	2.614
/cut1		0.0029	0.1469	-0.2851	0.2910		
/cut2		1.225	0.1520	0.9274	1.523		
/cut3		2.139	0.1610	1.823	2.454		
/cut4		2.984	0.1771	2.637	3.331		

This table shows response variables Belief Online Searching is 'easy' to predictors Beliefs booking with Agent is 'safe' &'expensive'. Most p-values of the predictor variables are below 0.05 indicating a good fit. The importance of each variable included in the model was verified through an examination of the Wald test statistic for each variable following ML, and a comparison of each estimated coefficient with the coefficient from the model containing only that variable. Ordered logistic regression Number of obs = 1091 LR chi2(10) = 56.31 Prob > chi2 = 0.0000 Log likelihood = -1585.608 Pseudo R2 = 0.0174

I propose H2: Consumers who have more positive beliefs about online travel searching will have a more positive attitude toward online travel searching than consumers who have less positive beliefs about

online travel searching. The response variable is "attitude toward online travel searching" as measured by the variables 'good', 'desirable', 'beneficial', and 'positive'. For a global measure of attitude, four 7-point semantic differential items (positive/negative, good/bad, desirable/undesirable, useless/beneficial) used in an earlier study (Conyette, 2010), were replicated here. Predictor variables are "beliefs about online travel searching" as measured by the same variables used in Hypothesis 1. Each belief of the predictor variable was firstly tested for correlation with each attitude of the response variable. All variables were significantly related and thus kept. Univariate logistic regression tests were then used. All predictor variables were useful predictors and hence were kept. Finally, models were built. For each attitude all the beliefs were kept. Hypothesis H_2 is supported with predictor variables for attitude 'beneficial', including beliefs 'convenient', 'enjoyable' and 'easy'. Internet searching is beneficial to respondents. Table 3 shows the response variable Attitude 'Beneficial', and Belief predictors. All p-values of predictor variables are less than 0.05 indicating a strong fit. The importance of each variable included in the model was verified through an examination of the Wald test statistic for each variable following ML, and a comparison of each estimated coefficient with the coefficient from the model containing only that variable.

I posit that H3: Consumers who have more positive attitude about online travel searching will have a greater intention to search travel products online than consumers who have a less positive attitude toward online travel searching. The response variable is intention to search online as operationalized by the survey question "How likely is it that you will research any travel product through the Internet within the next six months?" One 7-point highly likely/highly unlikely bi-polar scale was used to determine travel researching intention. An earlier study operationalized intention to book travel online in a similar manner (Conyette, 2010). The predictor, "attitude toward online travel searching", was measured by variables used in hypothesis 2 above. Hypothesis H_3 is supported with all predictor variables but one of the best fitting models is with attitude variables 'desirable' and 'beneficial' as can be seen in Table 4.

Table 3: Hypothesis 2 Best Fitting Model

Attitude beneficial	Odds Ratio	Std. Err.	z	P>|z|	[95% Conf. Interval]**	
Belief convenient_2	1.904	0.2887	4.25	0	1.415	2.563
Belief convenient_3	2.744	0.5679	4.88	0	1.829	4.117
Belief convenient_4	2.612	0.8224	3.05	0.002	1.409	4.841
Belief convenient_5	3.046	1.119	3.03	0.002	1.482	6.260
Belief convenient_6	4.165	1.714	3.47	0.001	1.859	9.330
Belief convenient_7	9.209	3.977	5.14	0	3.949	21.471
Belief enjoyable_2	2.145	0.3593	4.56	0	1.544	2.978
Belief enjoyable_3	2.548	0.4880	4.88	0	1.750	3.709
Belief enjoyable_4	4.020	0.9201	6.08	0	2.567	6.296
Belief enjoyable_5	2.783	0.8929	3.19	0.001	1.484	5.219
Belief enjoyable_6	6.981	2.534	5.35	0	3.427	14.221
Belief enjoyable_7	8.213	4.770	3.63	0	2.631	25.641
Belief easy_2		1.762	0.2789	3.58	0	1.292	2.403
Belief easy_3		1.941	0.3718	3.46	0.001	1.333	2.825
Belief easy_4		2.906	0.6843	4.53	0	1.831	4.610
Belief easy_5		4.200	1.192	5.05	0	2.407	7.326
Belief easy_6		4.770	2.052	3.63	0	2.053	11.084
Belief easy_7		11.454	5.681	4.92	0	4.333	30.279
/cut1		0.7738	0.1267	0.5254	1.022		
/cut2		2.581	0.1503	2.286	2.876		
/cut3		3.568	0.1652	3.244	3.892		
/cut4		4.443	0.1848	4.080	4.805		
/cut5		5.245	0.2121	4.830	5.661		
/cut6		6.355	0.2722	5.822	6.889		

This table shows the response variable Attitude 'Beneficial' to Belief predictors. All p-values of predictor variables are below 0.05 indicating a strong fit. The importance of each variable included in the model was verified through an examination of the Wald test statistic for each variable following ML, and a comparison of each estimated coefficient with the coefficient from the model containing only that variable. Ordered logistic regression Number of obs = 1105 LR chi2(18) = 452.89 Prob > chi2 = 0.0000 Log likelihood = -1514.267 Pseudo R2 = 0.1301

This table shows the response variable Online Searching Intention and Attitude predictors. Most p-values of the predictor variables are below 0.05 indicating a good fit. The importance of each variable included in the model was verified through an examination of the Wald test statistic for each variable following ML.

Table 4: Hypothesis 3 Best Fitting Model

Online Searching Intention	Odds Ratio	Std. Err.	z	P>|z|		[95% Conf. Interval]**
Attitude Desirable_2	1.590	0.4403	1.68	0.094	0.9246	2.736
Attitude Desirable_3	2.350	0.7073	2.84	0.005	1.302	4.239
Attitude Desirable_4	2.194	0.6488	2.66	0.008	1.228	3.917
Attitude Desirable_5	2.081	0.5553	2.75	0.006	1.234	3.511
Attitude Desirable_6	1.179	0.2976	0.66	0.512	0.7195	1.934
Attitude Desirable_7	0.7953	0.2048	-0.89	0.374	0.4800	1.317
Attitude Beneficial_2	1.550	0.2784	2.44	0.015	1.090	2.204
Attitude Beneficial_3	2.307	0.4934	3.91	0	1.517	3.508
Attitude Beneficial_4	1.968	0.5173	2.58	0.01	1.176	3.295
Attitude Beneficial_5	2.941	0.8822	3.6	0	1.634	5.295
Attitude Beneficial_6	3.540	1.167	3.84	0	1.855	6.756
Attitude Beneficial_7	2.028	0.8219	1.74	0.081	0.9164	4.488
/cut1		1.416	0.2189	0.9873	1.845	
/cut2		2.598	0.2298	2.148	3.049	

This table shows the response variable Online Searching Intention to Attitude predictors. Most p-values of the predictor variables are below 0.05 indicating a good fit. The importance of each variable included in the model was verified through an examination of the Wald test statistic for each variable following ML, and a comparison of each estimated coefficient with the coefficient from the model containing only that variable. Ordered logistic regression Number of obs = 1107 LR chi2(12) = 94.21 Prob > chi2 = 0.0000 Log likelihood = -924.442 Pseudo R2 = 0.0485

Support for all three hypotheses of the Framework implies that a significant predictor of travel buying behavior is dependent on search and planning behavior that often occurs before travel booking. Internet searching is perceived to be beneficial and desirable by respondents. Logistic regression confirms the significance of the search and planning process in this study as it did for other elements of the Framework that were tested in an earlier study (Conyette, 1010). All elements of the Framework seem to be well conceived. Beliefs about booking with travel agents, travel websites and searching travel on the Web, attitudes towards online travel searching and booking, social support, social acceptance, and prior experience are all determinants that ultimately affect online travel booking intention.

People who do not enjoy researching with the Internet or find it difficult would book with a travel agent. However, those with favourable beliefs and attitudes about online travel searching will more likely search for travel products online and in turn will probably book travel online. Furthermore, given the availability of numerous advanced tools, mobile software, databases, and apps for travelers such as Google Goggles, Wikitude's - Mobile Augmented Reality Guide, Poynt, Urbanspoon, and Yelp, we can expect that travelers will become more and more comfortable using technology and the Web, and the products will become more user-friendly. Consumers are aware of how the Internet can empower and engage them and they are not willing to give this up even if travel agents offer them good personal service. Consequently, one could predict that the inclination to depend on and use the Internet will grow. Consumers will also use their portable devices in greater numbers to search and book travel products using the Web.

Numerous AR applications built for smartphones are currently on the market using Google's Android operating system. A special browser app such as Wikitude World Browser runs on Android phones and iPhones. Wikitude.org has thousands of entries for frequently visited tourist locations in London, Paris and other major cities, points of interest (POI) and location-specific, hyperlinked media content which can be viewed on the Wikitude World Browser. Furthermore, companies like Sony are developing systems that a person can wear like sunglasses that will accomplish the same thing (Cascio, 2009). These devices will change sightseeing and touring activities of tourists. Pointing the device on a building can tell you what you are looking at. An image on the phone's screen becomes layered with things such as restaurant

reviews of restaurants shown on the street, or directions to the nearest subway stop since the device recognizes its location by combining GPS technology, the smartphone's internal compass and the camera viewfinder. Therefore, the device acts as a guidebook. Numerous researchers predicted this type of human interaction with smart devices, computers or robots (Drascic, Grodski, et al., 1993) and now we are entering an era where this interaction is becoming commonplace.

CONCLUSION

A Conceptual Framework was developed showing the connection between online planning and booking of leisure travel products. The main aim of this research was to test, using logistic regression, how beliefs and attitudes about online travel searching influence online travel searching intention. This conception of the decision process highlights the importance of the act of searching that sometimes precedes purchasing of leisure travel products. The Framework tracks components of the complex consumer decision process and primary findings ratify the significance of searching and planning before travel booking takes place. The methodology used involved Pearson chi-square test of independence between variables to assess if there was independence between each predictor and corresponding response variable. Univariate logistic regression tests determined whether the independent variable in the model was significantly related to the outcome variable. Finally, models were built for each hypothesis. Logistic regression of selected variables in the Framework confirms that consumers plan then book travel and that beliefs and attitudes influence intention to book travel online. Furthermore, beliefs about travel agents affect beliefs and attitudes about online searching. This is consistent with an earlier study that demonstrated beliefs about travel agents affect online booking intention (Conyette, 2011).

When people search the Internet, they use search engines to view specific areas of interest. In the process of searching for interesting information, a user may encounter certain stimuli that activate or create a need. They also use the Internet to help plan travel itineraries and expenditures. Furthermore, the Internet is often used to book or purchase various travel products. These activities take place before travel begins but also while travel is in progress. We could expect that as online intelligent agents become more user-friendly and powerful, and as portable devices such as smartphones, iPads, etc. become more popular, consumers of travel products would be more likely to use these devices during their travel. In fact, for travelers, having such a portable communications device is ideal since they incorporate access to the Web, high quality cameras, and enabling applications such as online computational photography.

Limitations in the study are that survey respondents expressed their intention to search travel online but these do not necessarily reflect enduring behavioral patterns of subjects. The survey instrument was administered on the Internet. Subjects were referred to the website which included the survey and appropriate instructions. Every respondent saw the same questionnaire and had the same instructions to guide them. Although the survey was pretested it is difficult to determine if participants fully understood the questions asked. In addition, consumers without much Internet experience most likely did not complete the survey. Future research could include examining how mobile devices will be used for searching and booking travel products as consumers grow more accustomed to the capabilities of these devices. Also, observing how marketers will interact with consumers during the search process in order to influence their buying behavior, and the ways in which organizations will integrate online intelligent tools with mobile devices to create competitive advantages.

REFERENCES

Bechwati, N. N., & Lan Xia, L. (2003). Do computers sweat? The impact of perceived effort of online decision aids on consumers' satisfaction with the decision process. *Journal of Consumer Psychology*, *13*(1 & 2), 139 – 148.

Bellman, S., Lohse, G. L., Johnson, E.J. (1999). Predictors of online buying behavior *Communications of the ACM, 42*(12), 32-38.

Bettman, J. R., (1979) *An information processing theory of consumer choice.* (Reading, MA: Addison-Wesley.

Cascio, J. (2009). Seeing too much**.** *Atlantic Monthly*, (November), 304(4), 34-34.

Conyette, M. (2010). "Determinants of Online Leisure Travel Planning Decision Processes: A Segmented Approach" Doctoral dissertation, University of Newcastle, Newcastle, UK).

Conyette, M. (2010). Segmenting the Online Leisure Travel Booker. *International Proceedings of Economics Development and Research,* Vol.3, Pages 262-266.

Conyette, M. (2011). Demographics for Segmentation in Online Travel. *International Journal of Trade, Economics and Finance* vol. 2, no. 1, pp. 93-98.

Conyette, M. (2011). Modeling Factors that Influence Online Travel Booking. Poster presentation at International Conference on e-Business, ICE-B, Seville, Spain, July 2011.

Drascic, D., Grodski, J. J., et al. (1993). *ARGOS: A display system for augmenting reality*. Retrieved March 28, 2010, from University of Toronto, Ergonomics in Teleoperation and Control Laboratory Web site: http://etclab.mie.utoronto.ca/people/david_dir/CHI93/CHI93.full.html

Forsyth, J. E., Lavoie, J., & McGuire, T. (2000). Segmenting the e-market. *McKinsey Quarterly, 4,* 1 – 4.

Gursoy, D. & McCleary K.W., (2003). An integrative model of tourists' information search behaviour. *Annals of Tourism Research*, 31 (2), 353-373.

Haubl, G. & Trifts, V. (2000). Consumer decision making in online shopping environments: The effects of interactive decision aids. *Marketing Science*, *19*(1), Winter, 4 – 21.

Hyde, K.F. (2008). Tourist information processing and touring planning theory. Unpublished manuscript.

Joines, J.L., Scherer, C.W., Scheufele, D.A., (2003). Exploring motivations for consumer Web use and their implications for e-commerce. *The Journal of Consumer Marketing* 20, (2/3), 90.

Ko, H. Cho, C & Roberts, M.S. (2004). Internet uses and gratifications. *Journal of Advertising,* 34 (2), 57-71.

Korgaonkar, P. K., & Wolin, L. D. (1999). A multivariate analysis of web usage. *Journal of Advertising Research, 39*(2), 53 – 68.

Laband, D. N. (1991). An objective measure of search versus experience goods," *Economic* Inquiry, 29(3), 497 – 509.

McGuire, W. J. (1974). Psychological motives and communication gratification. In J.G. Blumler and C. Katz (Eds.), *The Uses of Mass Communication*. Newbury Park, CA: Sage Publication.

Oliver, R. L., & Swan, J. E. (1989). Consumer perceptions of inter-personal equity and satisfaction in transaction: A field survey approach. *Journal of Marketing, 53*,   21 – 35.

Payne, J. W., Bettman, J. R., & Johnson, E. J. (1993). The adaptive decision maker. New York, NY: Cambridge University Press.

Punj, G., & Staelin, R. (1983). A model of consumer information search behavior for new automobiles. *Journal of Consumer Research*, *9*, 366 – 380.

Schmidt, J. B., & Spreng, R. A. (1996). A proposed model of external consumer information search. *Journal of the Academy of Marketing Science*, *24* (3), 246 – 256.

Srinivasan, N., & Ratchford, B. T. (1991). An empirical test of a model of external search for automobiles. *Journal of Consumer Research, 18*, (September), 233 – 242.

Stafford, T. F., & Gonier, D. (2004). What Americans like about being online. *Communications of the ACM, 47*(11), 107 – 113.

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AN EMPIRICAL STUDY OF THE RELATIONSHIP BETWEEN CORPORATE SOCIAL RESPONSIBILITY DISCLOSURE AND ORGANIZATIONAL PERFORMANCE: EVIDENCE FROM LIBYA

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ABSTRACT

This paper examines the relationship between corporate social responsibility disclosure (CSRD) and organizational performance in terms of financial performance, employee commitment and corporate reputation in Libyan companies through stakeholder's pressures. The researchers have chosen the Libyan context as one of the world's developing countries and it has undergone many changes over a short period of time in terms of economic, environmental and social changes. The empirical study was used to collect data relating to CSRD and organizational performance in Libyan companies, it was employed to analyse 110 annual reports of 40 firms that were gathered by using content analysis. This paper reveals that level of CSRD in the annual reports has a positive relationship with organizational performance in terms of financial performance and corporate reputation, while there is not significant relationship between level of CSRD and employee commitment. This paper contributes to the accounting literature by providing evidence from Libya that perceived the level of CSRD in annual reports can have an influence on level of both financial performance and corporate performance by stakeholder's pressure.

JEL: C33, C83, M14, M41, L2, L11, K21

KEYWORDS: Corporate Social Responsibility (CSR); Corporate Social Responsibility Disclosure (CSRD); Financial Performance; Employee Commitment; Corporate Reputation and Stakeholder Theory

INTRODUCTION

Major corporate ethical disasters impacting on the environment, human resources, and the community have heightened the demand for public firms to voluntarily disclose their corporate social responsibility (CSR) activities to stakeholders. A means of comprehension and tracking CSR impacts, through creating good dialogue with stakeholders of a company, effective CSRD is intended to improve stakeholder-related performance. In effect, CSRD allows companies to make internal decision; enabling companies to identify strengths and weaknesses points across the whole CSR reporting that in turn measure the value of long-term relationships and assets. In addition, using effective measuring through CSR reports enables companies to manage external relationships, attracting stakeholders who prefer to deal with socially responsible business and have the power to reward it (Waddock & Bodwell 2004). Indeed, CSRD definitely supports stakeholder dialogue by communicating what firms achieve in the area of stakeholder-related CSR. The business media often show instances where some firms resort to socially irresponsible practices in order to improve their performance at the expense of CSR activities.

Although there is a will of political actors in some developing countries experiencing fast economic growth such as Malaysia and the UAE to disclose corporate social responsibility activities in terms of health and safety, investors protection, and pollution, the levels of disclosure in some developing countries remain low compared with some developed countries (Al-Khater & Naser 2003; Rettab et al. 2009). Libya falls within this category, as it is also developing and growing economically. However, the

level of CSRD has increased since 2000 in Libya compared to previous years (Pratten & Mashat 2009) due to pressures from stakeholders, which in turn may influence organizational performance of companies in Libya. The purpose of this paper is to examine the relationship between CSRD and organizational performance in terms of financial performance, employee commitment and corporate reputation.

To empirically address the research question above, the researchers suggested the three hypotheses and reviewed the three-year CSR reporting experience of a sample of Libyan companies, relating the level of CSRD disclosure to performance. The researchers used a stakeholder theory to formalize and test a set of hypotheses, and we revealed that the mere level of CSRD have an influence on organizational performance in terms of financial performance and corporate reputation in Libya. The next section shows some details about the literature review and research framework about this topic, section 3 describes the research methods used which includes empirical study through quantitative methods and section 4 presents the findings and discussion. The final section contains a summary and conclusion.

LITERATURE REVIEW AND RESEARCH FRAMEWORK

Researchers' efforts have been made to understand the impact of CSR activities and disclosure on organizational performance which indicated positive, negative, mixed, or non-significant results (Branco & Rodrigues 2006; Husted & de Jesus Salazar 2006; Marom 2006; Orlitzky et al. 2003; Toms 2002).

CSRD and Financial Performance

Financial performance considers one of the most important studied indicators of the strategic value of CSR (Orlitzky et al. 2003). Researchers have started the empirical study of CSR and financial performance (FP) over three decades ago in western countries. Many firms have faced the pressure for corporate accountability which it is increasing from their stakeholders (managers, employees, customer, government, shareholders, and so on) (Waddock 2004). This pressure includes some aspects such as legal, social, moral, and financial aspects.

Some studies argue that CSR activities might be consistent with wealth maximization motives of the firm and provide appropriate information for corporate decision making (Pava & Krausz 1996). There are two types of empirical studies of the relationship between CSR and financial performance. The first set uses the event study methodology to measure the short-run financial impact when companies appoint in socially responsible or irresponsible acts (e.g. Margolis & Walsh 2003; McWilliams & Siegel 2000; Orlitzky et al. 2003). Market-based measure of financial performance was employed to achieve these studies such as the firms share price, share price appreciation. Market-Based measure reflects the concept that shareholders are the most important stakeholder group whose satisfaction determines the firms' fate.

Mixed results have been produced by studies on the effects of CSR activities on firm value. Some studies have concluded beneficial effects while others found that the effects are negative or no relationship. For example, Margolis and Walsh's found that 4% of the 160 studies examined considered a negative relationship between CSR and financial performance, 55% a positive relationship, 22% was no relationship, and 18% reported a mixed relationship. Furthermore, Orlitzky et al. (2003) achieved another meta- meta-analysis and revealed similar results. While other studies are not similarly stable concerning the relationship between CSR and short-run financial return (McWilliams & Siegel 2000). The examination of the nature of the relationship between measures the long-term financial performance and a measures of CSR is the second set that is used from accounting and financial measures of profitability (e.g. Aguilera et al. 2007; McWilliams & Siegel 2000; Simpson & Kohers 2002; Waddock & Graves 1997). Accounting returns such as return on equity, or return on investment, return on assets are used to identify managers' discretionary allocations of funds to different projects and policy choices. As consequently, these measures reflect internal decision-making capabilities and managerial performance

instead of external market responses to organizational (non-market) actions (Orlitzky et al. 2003). They also gained the same results in these studies that were mixed. Some studies (Aguilera et al. 2007; Simpson & Kohers 2002; Waddock & Graves 1997) found a significant positive relationship between CSR, disclosure and financial performance; McGuire, Sundgren and Schneeweis (1988) revealed that subsequent performance was less closely related to CSR than prior performance. In addition, McWilliams and Siegel (2000) reached that there was no link between a CSR and financial performance if the regression model is properly specified. Finally, Rettab, Brik & Mellahi (2009) in the UAE market as an emerging economy did the latest study of corporate social and financial performance. They found a strong positive relationship between CSR and financial performance. Therefore, this study attempts to contribute in this area and may facilitate more intensive research on CSRD and financial performance links outside of western countries and US markets in the future, especially in Libya as developing country and emerging country. Therefore, the researchers present the following hypothesis:

H_1: Higher levels of CSRD provided by firms are positively associated with its higher financial performance in Libya.

CSRD and Employee Commitment

Employees consider one of the most important factors in a firm; they affect an organisation. Therefore, "the effective delivery of corporate social and environmental responsibility initiatives is dependent on employee responsiveness" (Collier et al. 2007, p. 22). Carroll (1979) notices that CSR and community contributions and reflects the way in which the firm interacts with the physical environment and its ethical stance towards consumers and other external stakeholders.

External CSR on internal and external information sources including the media and their personal experience within the company may be expected to base their employee opinions about these activities. Employees and managers have a greater stake in the success of the corporation than investor, owners, because their jobs and economic livelihood are at stake. Branco and Rodrigues (2006) discussed that CSRD leads to important results on the creation or deletion of other fundamental intangible resources, and may help build a positive image with employees and managers. Some studies expected that there is a positive relationship between CSR and disclosure with employee commitment (Backhaus et al. 2002; Brammer et al. 2007; Maignan & Ferrell 2004). At the same time, relationship between procedural justice and affective commitment may be expected a positive because employees may be expected to identify with ethical organizations (Brammer & Millington 2005). The existing literature provides compelling empirical support for these arguments; a strong relationship has been found between the ethical climate of organizations and job satisfaction (Koh & Boo 2001) and studies of the relationship between organizational commitment and procedural justice suggest that they are positively and significantly related (Albinger & Freeman 2000; Backhaus et al.

2002; Peterson 2004) illustrated that a firms social responsibility deals with matter to its employee and expect to have a positive impact on employees commitment. In addition, Maignan et al (1999) expected that firms that disclose in CSR activities and disclosure might enjoy enhanced levels of employee commitment for two reasons: they have devoted to ensuring the quality of workplace experience, and they inform their stakeholders about social issues such as the welfare of the community or the protection of the environment. Rupp et al (2006) noticed that employees' perceptions of their firms CSR activities lead their perceptions of the firm. Thus, it can be seen that firms that engage in CSR activities will appear a positive relationship with their employee commitment because they might earn employees commitment compared with firms that do not engage in CSR activities (Aguilera et al. 2007). Exploring a positive relationship between CSR and disclosure with financial performance is more likely to lead a positive relationship between CSR and disclosure with employee commitment. Rettab et al. (2009) explored that there is a positive relationship between CSR and employee commitment in the UAE market. One the

other hand, Turker (2009) found that there is no link between CSR to government and the commitment level of employee by using social identity theory. Based on the above, the researchers advance the following hypothesis:

H$_2$: Higher levels of CSRD provided by firms are positively associated with its higher employee commitment in Libya.

CSRD and Corporate Reputation

There is many research which provides evidence to define corporate reputation, as according to Siltaoja (2006, p. 91): "the most important competitive advantage that companies can have [by]… assessments about what the organisation is, how well it meets its commitments and conforms to stakeholders' expectations, how effectively its overall performance fits with its socio-political environments". Emerging CSR lead to enhancing corporate reputation whereas non-emerging CSR lead to destroyed corporate reputation for a firm. Some companies may employ CSRD as one of the informational signals upon that stakeholder's base their assessments of corporate reputation under conditions of incomplete information (Branco & Rodrigues 2006). Also, Branco and Rodrigues (2006) explain that enhancing the effects of CSR in corporate reputation has particularly importance by CSRD. In addition, Hooghiemstra (2000) argues that one of the most important communication instruments that is used by firms to enhance , create, and protect their images or reputations is CSRD. Moreover, it is not easy to create positive reputation without making associated disclosure for firms investing in CSR activities to realise the value of such reputation (Hasseldine et al. 2005; Toms 2002). Furthermore, Toms (2002) explain that disclosure in annual reports, disclosure of environmental policies, and the implementation were found to contribute explicitly in create a positive corporate reputation. Besides to that, Toms (2002) and Hasseldine et al.

(2005) results that qualitative nature of environmental disclosure is rather than quantity nature of environmental disclosure, as opposed to mere volume and has a strong effect on the creation, enhancement , and protection of corporate reputation. Thus, the relationship between CSRD and corporate reputation should be clear and positive. Number of studies revealed that CSR and CSRD have a positive or negative effect on corporate reputation. Peterson (2004) noted that recent corporate experience in the oil and pharmaceuticals industries have emphasized negative consequences for corporate reputation that is more likely to flow from inappropriate behaviour towards the environment or consumers. At the same time, Brammer and Millington (2005) have found positive relationships between corporate reputation and CSR activities and Also, Clarke and Gibson-Sweet (1999) note that the importance of the use of corporate disclosure considers an effective factor on the management of reputation and legitimacy. Finally, Rettab et al. (2009) found that there is appositive relationship between CSR and corporate reputation in the UAE market. Therefore, the researchers advance the following hypothesis:

H$_3$: Higher levels of CSRD provided by firms are positively associated with its higher corporate reputation in Libya.

RESEACH METHODS

Sample and Data Collection

The quantitative method was employed the annual reports of the period of 2007 and 2009 and the questionnaire survey. The population for the current paper included 135 Libyan organizations in different sectors. A final sample of 40 firms was collected (See Table 1). The annual reports of this study were collected through using the company web pages and/ or by visiting company office to measure level of CSRD and financial performance.

Table 1: Response Rate from (Content Analysis) and Questionnaire Survey (Managers and Employees)

Sector	Manufacturing	Mining	Banking and Insurance	Services	Total
Population (a)	32	8	20	75	135
Final sample (b)	12	1	13	14	40
Sample Rate (b/a) %	37.5%	12.5%	65%	19%	30%
Number of participants	128	32	80	300	540
From managers	32	8	20	75	135
From employees	96	24	60	225	405
Responses received (c)					
From managers	12	1	13	12	38
From employees	35	3	38	34	111
Response Rate (c/a) %					
From managers	37.5%	12.5%	65%	16%	28%
From employees	36.4%	12.5%	63.3%	15.1%	27.4%

Table 1 shows the sample and data collection from the annual reports of 2007 to 2009 about the level of CSR information and the relationship between CSR information and financial performance in Libya. This table also shows the responses rate from managers and employees about the relationship between CSR information and organizational performance in terms of employee commitment and corporate reputation in Libya.

Data on employee commitment and corporate reputation were collected by survey questionnaires. The final number of questionnaires was 149 questionnaires from a total population of 135 organizations of different sectors. As result of most studies have used managers and employees to collect data about employee commitment (Brammer & Millington 2005; Fombrun et al. 2000; Hasseldine et al. 2005; Rettab et al. 2009; Toms 2002), questionnaires were sent to one manager and three employees of each company by personal meeting (See Table 1). Random sampling was used to select three employees from each firm from different departments to respond to the questionnaires. Both employee commitment and corporate reputation were measured by using seven items (employee commitment) and six-main items (corporate reputation) on a 5-point Likert scale, with 1= strongly disagree to 5= strongly agree. The employee commitment items were developed by Yousef (2003), and provide a firm-level evaluation of employee commitment to a firm, while corporate reputation items were adapted from a scale derived from Fombrun et al. (2000) to measure corporate reputation.

Empirical Model

The purpose of multivariate regression was used to measure, explain and predict the degree of linkage among variables (Hair et al. 2006). Therefore, this paper used the following regression models through SPSS program to examine the relationship between CSRD and organizational performance in terms of financial performance, employee commitment and corporate reputation as being proposed by the following hypotheses.

$FP = \alpha + \beta_1 \text{ CSRD} + \beta_2 \text{ SIZE} + \beta_3 \text{ AGE} + \beta_4 \text{ INDTY} + \varepsilon$... (H$_1$).
$EC = \alpha + \beta_1 \text{ CSRD} + \beta_2 \text{ SIZE} + \beta_3 \text{ AGE} + \beta_4 \text{ INDTY} + \varepsilon$... (H$_2$).
$CR = \alpha + \beta_1 \text{ CSRD} + \beta_2 \text{ SIZE} + \beta_3 \text{ AGE} + \beta_4 \text{ INDTY} + \varepsilon$.. (H$_3$).

Where FP refers to financial performance measures (return on equity, return on assets and revenues); EC refers to employee commitment and CR refers to corporate reputation as dependent variables, CSRD represents the independent variables (Employee (EMP), Community involvement (COM), Consumers (CON), Environment (ENV)), and all of the control variables including the Age of the firm (AGE) that was measured by total of assets (Branco & Rodrigues 2008), the Industry type (INDTY) that was measured by a dummy variable that takes the value of "1" if a firm is in a manufacturing and mining sector, and the value of "0" if otherwise (Elsayed & Hoque 2010), and the Size of the firm (SIZE) that was measured by the number of years since establishment in Libya (Rettab et al. 2009); B is the coefficient of the independent variables.

RESULTS AND DISCUSSION

Descriptive Analysis

The data showed in Table 2 point out that respondents the perceived influence of CSRD on corporate reputation (3.782) can be ranked as (1), followed by the perceived influence of CSRD on employee commitment (3.484), whereas the data obtained from the annual reports can be ranked as (1) for return on equity, then (2) for return on asset. This table also presents descriptive statistics for all the variables of interest. The average indexes illustrate higher disclosure on consumer disclosure (mean = 0.382), employee disclosure (mean = 0.358), and community disclosure (mean = 0.255) and less disclosure on environmental information (mean = 0.216).

Table 2: Descriptive Statistics for all Variables

Variables	Minimum	Maximum	Median	Mean	Std. D	Skewness	Kurtosis
Return On Asset	0.0007	0.3702	0.0207	0.0592	0.0854	2.2600	5.0850
Return On Equity	0.0007	0.7800	0.1020	0.1409	0.1515	2.2950	7.5670
Revenue	34,007	1,303,053,328	39,898,228	185,047,352	318,842,952	2.3770	5.3090
Employee Commitment	2.8500	4.0000	3.4700	3.4840	0.3030	-0.1240-	-0.8380-
Corporate Reputation	2.7100	4.6300	3.8050	3.7820	0.4653	-0.2850-	-0.5440-
Environment Disclosure	0.0000	1.0000	0.1400	0.2168	0.2564	1.4350	1.3540
Consumer Disclosure	0.0000	1.0000	0.2500	0.3825	0.2034	0.8040	1.1530
Community Disclosure	0.0000	0.8000	0.2000	0.2550	0.2218	0.8430	0.1970
Employee Disclosure	0.1100	0.5600	0.3300	0.3583	0.1175	-0.4770-	-0.2170-
Size	554,309,4	17,287,053,953	275,901,301	2,191,544,745	4,012,904,300	2.7690	7.9350
Age	1.0000	52.0000	18.0000	21.7000	14.6760	0.2770	-1.1120-
Type Of Industry	0.0000	1.0000	0.0000	0.3300	0.4740	0.7770	-1.4730-

This table shows the statistics for all the variables of interest and the perceived influence of CSRD in terms of environmental disclosure, consumer disclosure, community disclosure and employee disclosure on organizational performance in terms of financial performance, employee commitment and corporate reputation.

Correlation Analysis

Across the whole dataset shown in Table 3 present a preliminary indication that some independent are associated with organizational performance indexes. The correlations are a significant and positive between some independent variables and the organizational performance indexes. The perceived influence of consumer disclosure and the perceived influence of employee disclosure have higher correlations with corporate reputation index (0.772, p-value < 0.05 and 0.690, p-value < 0.05 respectively), return on equity (0.661, p-value < 0.05 and 0.506, p-value < 0.05 respectively) and employee commitment (0.539, p-value < 0.05 and 0.499, p-value < 0.05 respectively) than the majority of independent variables.

In similar vein, four independent variables (consumer disclosure, community disclosure and employee disclosure) are significantly and positively correlated with both corporate reputation and return on equity indexes. As can be seen from Table 8, most dependent variables have more than one correlation with independent variables. However, only community disclosure has significantly and positively correlated with return on asset index (0.563, p-value < 0.05). Also, there is no correlation between all dependent variables indexes and environmental disclosure except revenues index (0.321, p-value < 0.05). The results pertaining to correlations between dependent variables and independent variables in both Pearson correlation and Spearman's Rho correlation tables are relatively similar.

Table 3: Pearson (above) and Spearman's Rho (below) Correlation Coefficients Between Levels of CSR Disclosure and Organizational performance

Variables	Financial Performance			Employee Commitment	Corporate Reputation	Size	Age	Type of Industry
	Return on Asset	Return on Equity	Revenues					
	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation
Environmental	0.181	0.282	0.321[*]	0.050	0.084	-0.199-	0.120	0.519[**]
Disclosure	0.365[*]	0.177	0.207	0.122	0.156	-0.009-	0.235	0.545[**]
Consumer	0.109	0.661[**]	0.489[**]	0.539[**]	0.772[**]	0.135	0.429[**]	-0.059-
Disclosure	0.160	0.455[**]	0.600[**]	0.564[**]	0.809[**]	0.392[*]	0.468[**]	-0.073-
Community	0.563[**]	0.356[*]	0.277	0.296	0.420[**]	0.041	0.160	0.264
Disclosure	0.424[**]	0.308	0.331[*]	0.363[*]	0.460[**]	0.240	0.284	0.292
Employee	0.089	0.506[**]	0.273	0.499[**]	0.690[**]	0.355[*]	0.443[**]	0.190
Disclosure	0.248	0.515[**]	0.547[**]	0.481[**]	0.613[**]	0.439[**]	0.465[**]	0.209
Size	-0.137-	0.129	0.220	0.355[*]	0.292	1.000	0.548[**]	-0.310-
	-0.045-	0.278	0.674[**]	0.343[*]	0.358[*]	1.000	0.601[**]	-0.279-
Age	-0.210-	0.149	0.234	0.385[*]	0.304	0.548[**]	1.000	-0.056-
	-0.233-	0.079	0.433[**]	0.408[**]	0.323[*]	0.601[**]	1.000	0.042
Type of	0.004	-0.198-	-0.262-	-0.115-	-0.085-	-0.310-	-0.056-	1.000
Industry	0.176	-0.227-	-0.274-	-0.125-	-0.090	-0.279-	0.042	1.000

**. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed).This table shows the Pearson and Spearman's Rho Correlation coefficients for the association between levels of CSRD in under four categories and organizational performance are reported.

Multivariate Regression Analysis

Standards tests on skewness and kurtosis test (table 2), as well as Kolmogorov-Smirnov normality test and Shapiro-Wilk normality test (table 4) indicate that most dependent variables are not found normally distributed except for employee commitment and corporate reputation. In this vein, all independent variables and control variables are not to be normally distributed. Therefore, van der Waerden's transformation is employed to transform the dependent and continuous independent variables (independent variables and control variables) to normal scores for the conducting the regression analysis (Haniffa & Cooke 2005). It can be seen that the transformation of the dependent variables is entirely successful, while the continuous independent variables is not entirely successful except for size and age.

Table 4: Tests of Normality

Variables	Untransformed data				Transformed data			
	Kolmogorov-Smirnov[a]		Shapiro-Wilk		Kolmogorov-Smirnov[a]		Shapiro-Wilk	
	Statistic	p-v	Statistic	p-v	Statistic	p-v	Statistic	p-v
Return On Asset	0.263	0.000	0.689	0.000	0.060	0.200[*]	0.989	0.965
Return On Equity	0.177	0.004	0.786	0.000	0.036	0.200[*]	0.995	1.000
Revenue	0.302	0.000	0.627	0.000	0.023	0.200[*]	0.995	1.000
Employee Commitment	0.110	0.200[*]	0.962	0.223	0.053	0.200[*]	0.993	0.997
Corporate Reputation	0.090	0.200[*]	0.982	0.780	0.057	0.200[*]	0.994	0.999
Environment Disclosure	0.311	0.000	0.778	0.000	0.229	0.000	0.810	0.000
Consumer Disclosure	0.266	0.000	0.846	0.000	0.319	0.000	0.816	0.000
Community Disclosure	0.269	0.000	0.867	0.000	0.221	0.000	0.884	0.001
Employee Disclosure	0.226	0.000	0.892	0.002	0.203	0.000	0.896	0.002
Size	0.293	0.000	0.591	0.000	0.023	0.200[*]	0.995	1.000
Age	0.144	0.045	0.942	0.048	0.050	0.200[*]	0.989	0.967
Type Of Industry	0.433	0.000	0.586	0.000	0.433	0.000	0.586	0.000

This is a lower bound of the true significance. This table shows the Kolmogorov-Smirnov (K-S Lilliefors) and the Shapiro-Wilk normality tests statistics for the untransformed and the transformed data (van der Waerden's transformation) regarding to the dependent variables and the continuous independent variables.

In addition to tests of normality, the table 5 of correlation matrix for the dependent and continuous independent variables (transformed data) and the table 6 of collinearity statistics and are used to check for

multicollinearity, homoscedasticity and linearity. The correlation matrix shows that the correlations between the continuous independent variables are low, that means; there is no serious multicollinearity. If the coefficients of correlation between continuous independent variables exceed 0.800, that indicates only indicative of serious collinearity (Guajarati 1995). In addition, the collinearity statistics illustrate that there is no problem with multicollinearity, because of the highest variance inflation factor (VIF) in the regressions are less than 3. Kennedy (1992) considers that based on the VIF, multicollinearity is a serious problem if continuous independent variables exceeds 10. In this regard, a residuals analysis is applied on the results, the problem of linearity and heteroscedasticity does not exist in the data. (Noruésis 1995, p. 447) defined Residuals as 'what are left over after the model is fit and they are also the difference between the observed value of the dependent variable and the value predicted by the regression line'.

Table 5: Correlation Matrix for Independent, and the Continuous Independent Variables (Pearson above diagonal, Spearman below) and Collinearity Statistics

VARIABLES	ENVD	COND	COMD	EMPD	SIZE	AGE	INDUSTRY	ROA	ROE	REV	EC	CR
ENVD	1.000	0.278	0.261	0.464**	-0.009	0.235	0.545**	0.360*	0.239	0.259	0.122	0.184
COND	0.236	1.000	0.521**	0.575**	0.392*	0.468**	-0.073	0.143	0.504**	0.593**	0.608**	0.810**
COMD	0.256	0.476**	1.000	0.522**	0.240	0.284	0.292	0.445**	0.303	0.327*	0.354*	0.437**
EMPD	0.428**	0.620**	0.503**	1.000	0.439**	0.465**	0.209	0.240	0.554**	0.558**	0.520**	0.712**
SIZE	-0.006	0.357*	0.221	0.476**	1.000	0.601**	-0.279	-0.038-	0.245	0.636**	0.351*	0.364*
AGE	0.233	0.468**	0.339*	0.506**	0.568**	1.000	0.042	-0.188-	0.110	0.418**	0.399*	0.361*
INDUSTRY	0.546**	-0.107	0.297	0.168	-0.242	0.055	1.000	0.152	-0.216-	-0.256-	-0.130-	-0.102-
ROA	0.365*	0.160	0.424**	0.248	-0.045	-0.233	0.176	1.000	0.649**	0.382*	0.160	0.279
ROE	0.177	0.455**	0.308	0.515**	0.278	0.079	-0.227	0.608**	1.000	0.632**	0.440**	0.659**
REV	0.207	0.600**	0.331*	0.547**	0.674**	0.433**	-0.274	0.336*	0.638**	1.000	0.428**	0.597**
EC	0.122	0.564	0.363	0.481	0.343	0.408	-0.125-	0.153	0.425**	0.426**	1.000	0.682**
CR	0.156	0.809**	0.460**	0.613**	0.358**	0.323**	-0.090-	0.312	0.633**	0.602**	0.694**	1.000
TOLERANCE	0.563	0.400	0.596	0.388	0.503	0.528	0.536					
VIF	1.776	2.501	1.677	2.575	1.987	1.893	1.866					

*__**__. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed). This table shows the Correlation matrix and collinearity statistics for each of measures of organizational performance in terms of financial performance (return on asset (ROA), return on equity (ROE) and revenues (REVs)), employee commitment and corporate reputation on each of environmental disclosure (ENVD), consumer disclosure (COND), community disclosure (COMD) and employee commitment (EMPD).*

In this regard, the Durbin-Watson (DW) is utilized to test the independent of errors (autocorrelation), for a level of significance of 0.05. The result of the Durbin-Watson *d* value can be a range from 0 - 4. If *d* value of the Durbin-Watson is equal 2, this leads to the independent of error. For accuracy, the Durbin-Watson *d* value greater than 3 or less than 1 is definitely reason for concern (Field 2009).The Durbin-Watson *d* values in these data are close to 2 and they do not be greater than 3 or less than 1. Therefore, autocorrelation does not form any problem with the data. Multivariate regression models are applied for test the relationship between CSR disclosure in annual reports of the years of 2007-2009 using four sectors and organizational performance in terms of financial performance, employee commitment and corporate reputation in the next table and paragraphs. Related to the relationship between CSRD and financial performance, multivariate regression model (1) is employed to test the first hypothesis by using van der warden's transformation data regarding to dependent and continuous independent variables.

It can be seen from Table 7. Although, there are obviously stability between the results of this table and the majority of findings of the tables of Pearson correlation and Spearman's Rho (untransformed data and transformed data), the regression results reveals few differences with the tables of Pearson correlation and Spearman's Rho (untransformed data and transformed data).These few differences are likely to be related to a size of sample. Table 7 shows the results for return on asset, return on equity and revenues to measure financial performance from estimating equation (1) using normal scores. The overall regression model (1) is significant at 1% level (F = 3.732; 4.335 and 7.886 respectively). The adjusted R^2 for return on Asst is 0.341, for return on equity is 0.387 and for revenues is 0.566. The values of adjusted R^2 mean that return on asset, return on equity and revenues indexes included in this regression model explain approximately 34%, 39% and 57% from the variations that happen in the CSR scores.

Table 7: Results of the Regression Models for Each Measure of Organizational Performance

Variables	Financial Performance						Employee Commitment		Corporate Reputation	
	ROA Coefficient Estimate	p-v	ROE Coefficient Estimate	p-v	REVs Coefficient Estimate	p-v	Coefficient Estimate	p-v	Coefficient Estimate	p-v
ENVD	0.447*	0.018	0.246	0.161	0.279	0.113	-0.064	0.716	-0.105-	0.384
COND	-0.146-	0.493	0.154	0.454	0.325*	0.032	0.285	0.196	0.525**	0.001
COMD	0.529**	0.005	0.130	0.442	0.080	0.571	0.120	0.503	0.048	0.683
EMPD	0.136	0.531	0.486*	0.025	0.066	0.707	0.304	0.176	0.500**	0.001
Size	0.066	0.730	-0.004-	0.985	0.487**	0.003	-0.041-	0.833	-0.048-	0.703
Age	-0.499-*	0.011	-0.295-	0.106	-0.131-	0.388	0.146	0.442	-0.074-	0.548
Type of Industry	-0.220-	0.237	-0.422-*	0.023	-0.312-*	0.044	-0.149-	0.430	-0.073	0.552
R^2	0.465		0.503		0.648		0.442		0.762	
Adjusted R^2	0.341		0.387		0.566		0.312		0.707	
Durbin-Watson	1.964		2.158		1.441		2.516		2.346	
F-statistic and p-value	3.732; p = 0.005		4.335; p = 0.002		7.886; p = 0.000		3.401; p = 0.009		13.759; p = 0.000	
White heterosced test: p-value	0.470		0.849		0.784		0.570		0.013	
Sum of squares	33.672		31.881		31.994		33.315		33.331	

** Significant at the 0.01 level (2-tailed). * Significant at the 0.05 level (2-tailed). This table shows the results from a linear regression of each of measures of organizational performance in terms of financial performance (return on asset (ROA), return on equity (ROE) and revenues (REVs)), employee commitment and corporate reputation on each of environmental disclosure (ENVD), consumer disclosure (COND), community disclosure (COMD) and employee commitment (EMPD). The beta co-efficient and its p-value are presented.

The regression results find a positive, negative relationship and non relationship at the 1% and 5% significance level between dependent and continuous independent variables. Although the level of environmental disclosure is low in the sample, the results regression model (1) indicates that a significant positive relationship between environmental disclosure and return on asset (0.447, p-value < 0.05).The relationship between community disclosure and return on asset (0.529, p-value < 0.01) is also a positive and significant. Furthermore, the regression results model indicated a significantly positive relationship between employee disclosure (0.486, p-value < 0.05) and return on equity. Finally, the results of the regression model reveal that consumer disclosure has a significant and positive impact on revenues (0.325, p-value < 0.05 and). In summary, the results of the regression model (1) does emerge the supported the research hypothesis (1). The results reveal that there are a significant and positive relationship between level of CSRD and financial performance at the 1% and 5% significance level.

The explanatory power of the regression varies from approximately 34% for return on asset to approximately 57% for revenues. The results are consistent with a number of studies. The results of Shauki (2011) found that the relationship between CSR contents, format, public confidence, incentives, and effect on financial performance through investment decisions is directly and positively related. In addition, investment decisions via CSR contents, formats, and changes in public confidence are affected by incentives. Kang et al. (2010) examines the extent of different impacts of positive and negative CSRD on financial performance of some services companies, it based on positivity and negativity effects of previous results of some studies. They revealed that mixed results enable companies' to make appropriate strategic decision for CSR activities by providing more precise information regarding the effects of each type of CSR activities on financial performance. Inoue and Lee results (2010) revealed that each type of CSRD had a differential impact on both short-term and future profitability that varied across different industries. They indicated that providing information about types of CSR activities to stakeholders such as managers would improve their companies' financial performance.

Montabon et al. (2007) indicate that environmental management practices are associated with company performance. However, a wide range of studies have investigated the relationship between CSRD and financial outcomes. Gray et al. (2001) explored the relationship between CSRD and the financial performance of the UK's largest companies, and found no convincing relationship between share returns

and disclosure. In addition, Cheung and Mak (2010) reveal that high level of CSRD can improve a firm's credibility but it can also incur extra cost and reduce firm's profit.

Regarding the relationship between CSRD and employee commitment, multivariate regression model (2) is used to test the second hypothesis by using van der warden's transformation data regarding to dependent and continuous independent variables. Table 7 presents the regression results using normal scores for investigating the association between CSR disclosure and employee commitment. The overall regression model (2) is significant at 1% level (F = 3.401). The adjusted R^2 is about 31%. The value of adjusted R^2 indicates that almost 31% of the variation in the employee commitment scores between the firms can be explicated by categories of CSR scores included in the regression model. The regression results indicate that the non- significant relationship at the 1% and 5% significance level, as predicted, between CSR disclosure and employee commitment.

One conclusion does emerge the rejected second research hypothesis in the results of the regression model (2) that level of CSRD does not affect employee commitment, in spite of the findings that are revealed in the tables of Pearson correlation and Spearman's Rho (untransformed data and transformed data). Although the overall regression model (2) is significant at 1% level, none of the other main impacts are significant since the F-statistic is small. This result may refer to the size of sample. However, some prior studies have identified how CSR and CSRD can affect employees in terms of the commitment (Branco & Rodrigues 2009; Hsu 2006). These studies supported the notion that CSR and CSRD can increase its attractiveness as an employer.

Related to the relationship between CSRD and corporate reputation, multivariate regression model (3) is utilized to test the third hypothesis by using van der warden's transformation data regarding to dependent and continuous independent variables. The table 7 shows the regression results using normal scores for the CSRD and corporate reputation based on 'extent' of disclosure and reputation (scales). The overall regression model (1) is significant at 5% level (F = 13.759). The adjusted R^2 for the regression model (3) is 71.7%. As mentioned above, the value of the adjusted R^2 of the variation in the corporate reputation scores between the firms can be interpreted by categories of CSR scores included in the regression model, in other word the dependent variables (corporate reputation index) cannot explain 28.3% (100% - 71.7%) from the variations that happen in independent variables (level of CSR disclosure).

The regression model indicates a significant and positive relationship, as predicted, between consumer disclosure and corporate reputation (0.525, p-value < 1%). In addition, the results of the regression reveals a significant and a positive relationship between employee disclosure and corporate reputation (0.500, p-value < 1%). However, the non-significant relationship between environmental disclosure and community disclosure with corporate reputation is revealed.

Eventually, the results of the regression model (3) support the third research hypothesis. The results reveal that there are a significant and positive relationship between level of CSRD and corporate reputation at the 1% significance level. On the other hand, the non-significant relationship between both the levels of environmental disclosure and community disclosure with corporate reputation measures in the sample. Although some evidences in the literature review to date appear a mixed relationship between information disclosure and a company reputation using different methods, the results of this research hypothesis in this paper are consistent with the concept of stakeholder theory, which predicts a positive relation between high level of CSRD and a company reputation. The positive relationship appears due to the following reason. CSRD is particularly important in enhancing the impacts of CSR on a company reputation (Branco & Rodrigues 2006). CSRD is used to protect, enhance or create a competitive advantage and a company image or reputation, because CSRD is a communication instrument (Hooghiemstra 2000). In this regard, companies probably use CSRD to assess their reputation under conditions of incomplete information through their stakeholders group, because CSRD is considered as one of the informational signals (Teece et al. 1997). Besides the previous reason, "creating a positive image may imply that people are to a great extent prepared to do business with the firm and buy its products" (Branco & Rodrigues 2006, p. 125). Toms (2002) reveals that companies that implement

monitor and disclose environmental activities in their annual reports could create and contribute good environmental reputation.

SUMMARY AND CONCLUSION

This paper analyses the relationship between CSRD and organizational performance in terms of financial performance, employee commitment and corporate reputation by a sample of the Libyan companies in four sectors (manufacturing sector, banks and insurances sector, services sector and mining sector), using a theoretical framework which combines stakeholder theory. The results in this paper indicate that companies exhibit greater concern to improve financial performance and corporate reputation via an increase of CSR information in annual reports. In this regard, to improve financial performance in these sectors, there is greater concern for environmental disclosure, consumer disclosure, community involvement disclosure and employee disclosure, whereas there is greater concern for consumer disclosure and employee disclosure to improve corporate reputation. On the other hand, there is no concern for each categories of CSRD to improve employee commitment. Hence, the results of this paper provide a good support for the use of a combination of stakeholder theory with resource-based perspectives to explicate the impact of CSRD on some organizational performance by Libyan companies.

This paper contributes at least in two ways to research: first, it extends previous research that links level of CSRD with organizational performance using a combination of institutional and resource-based perspectives. Second, it reveals the nature of the relationship between level of CSRD and organizational performance in spite of a lack of CSR data in annual reports of developing countries comparing with developed countries. However, this paper has a number of limitations: first, this paper focuses on only CSRD in annual reports, although these companies use other mass communication mechanisms. Finally, it is probably content analysis issues related to the level of subjectivity that are entailed in the coding process. Therefore, future research should mange the limitations of this study.

REFERENCES

Aguilera, R. V., Rupp, D. E., Williams, C. A., & Ganapathi, J. (2007). Putting the S back in corporate social responsibility: A multi-level theory of social change in organizations. *Academy of Management Review, 32*, 836-863.

Al-Khater, K., & Naser, K. (2003). Users' perceptions of corporate social responsibility and accountability: evidence from an emerging economy. *Managerial Auditing Journal, 18*(6/7), 538-548.

Albinger, H. S., & Freeman, S. J. (2000). Corporate social performance and attractiveness as an employer to different job seeking populations. *Journal of Business Ethics, 28*(3), 243-253.

Backhaus, K. B., Stone, B. A., & Heiner, K. (2002a). Exploring the relationship between corporate social performance and employer attractiveness. *Business & Society, 41*(3), 292.

Brammer, S., & Millington, A. (2005). Corporate reputation and philanthropy: an empirical analysis. *Journal of Business Ethics, 61*(1), 29-44.

Brammer, S., Millington, A., & Rayton, B. (2007). The contribution of corporate social responsibility to organizational commitment. *The International Journal of Human Resource Management, 18*(10), 1701-1719.

Branco, M. C., & Rodrigues, L. L. (2006). Corporate social responsibility and resource-based perspectives. *Journal of Business Ethics, 69*(2), 111-132.

Branco, M. C., & Rodrigues, L. L. (2008). Factors influencing social responsibility disclosure by Portuguese companies. *Journal of Business Ethics, 83*(4), 685-701.

Branco, M. C., & Rodrigues, L. L. (2009). Exploring the importance of social responsibility disclosure for human resources. *Journal of Human Resource Costing & Accounting, 13(3), 85-102*.

Carroll, A. B. (1979). A three-dimensional conceptual model of corporate performance. *The Academy of Management Review, 4*(4), 497-505.

Cheung, P., & Mak, W. (2010). The relation between corporate social responsibility disclosure and financial performance: Evidence from the commercial banking industry. *Unpublished Master of Financial Risk Management thesis. Simon Fraser University*.

Clarke, J., & Gibson-Sweet, M. (1999). The use of corporate social disclosures in the management of reputation and legitimacy: a cross sectoral analysis of UK top 100 companies. *Business Ethics: A European Review, 8*(1), 5-13.

Collier, J., Esteban, R., & Street, T. (2007). Corporate social responsibility and employee commitment. *Business Ethics: A European Review, 16*(1), 19-33.

Elsayed, M. O., & Hoque, Z. (2010). Perceived international environmental factors and corporate voluntary disclosure practices: An empirical study. *The British Accounting Review*(42), 17-35.

Field, A. P. (2009). *Discovering statistics using SPSS*. London: SAGE publications Ltd.

Fombrun, C. J. (1998). Indices of corporate reputation: An analysis of media rankings and social monitors' ratings. *Corporate Reputation Review, 1*(4), 327-340.

Fombrun, C. J., Gardberg, N. A., & Sever, J. (2000). The Reputation Quotient: A multi-stakeholder measure of corporate reputation. *Journal of Brand Management, 7*(4), 241-255.

Gray, R., Javad, M., Power, D., & M.and Sinclair, C. (2001). Social and Environmental Disclosure and Corporate Characteristics: A Research Note and Extension. *Journal of Business Finance & Accounting, 28*(3 & 4), 327-356.

Guajarati, D. N. (1995). Basic econometrics. *New York: McGrawHill*.

Hannon, J. M., & Milkovich, G. T. (1996). The effect of human resource reputation signals on share prices: An event study. *Human Resource Management, 35*(3), 405-424.

Hasseldine, J., Salama, A. I., & Toms, J. S. (2005). Quantity versus quality: the impact of environmental disclosures on the reputations of UK Plcs. *The British Accounting Review, 37*(2), 231-248.

Hooghiemstra, R. (2000). Corporate communication and impression management–new perspectives why companies engage in corporate social reporting. *Journal of Business Ethics, 27*(1), 55-68.

Hsu, I. (2006). Enhancing employee tendencies to share knowledge--Case studies of nine companies in Taiwan. *International journal of information management, 26*(4), 326-338.

Husted, B. W., & de Jesus Salazar, J. (2006). Taking friedman seriously: Maximizing profits and social performance. *Journal of Management Studies-Oxford-, 43*(1), 75.

Inoue, Y., & Lee, S. (2010). Effects of different dimensions of corporate social responsibility on corporate financial performance in tourism-related industries. *Tourism Management, 32* 790-804.

Kang, K. H., Lee, S., & Huh, C. (2010). Impacts of positive and negative corporate social responsibility activities on company performance in the hospitality industry. *International Journal of Hospitality Management, 29*(1), 72-82.

Kennedy, P. (1992). A guide to econometric methods: Cambridge, MA: MIT Press.

Koh, H. C., & Boo, E. H. Y. (2001). The link between organizational ethics and job satisfaction: A study of managers in Singapore. *Journal of Business Ethics, 29*(4), 309-324.

Mahoney, L., & Roberts, R. W. (2007). *Corporate social performance, financial performance and institutional ownership in Canadian firms*.

Maignan, I., & Ferrell, O. C. (2004). Corporate social responsibility and marketing: an integrative framework. *Journal of the Academy of Marketing Science, 32*(1), 3-19.

Maignan, I., Ferrell, O. C., & Hult, G. T. M. (1999). Corporate citizenship: Cultural antecedents and business benefits. *Journal of the Academy of Marketing Science, 27*(4), 455-469.

Margolis, J. D., & Walsh, J. P. (2003). Misery loves companies: Rethinking social initiatives by business. *Administrative Science Quarterly, 48*(2), 268-305.

Marom, I. Y. (2006). Toward a unified theory of the CSP–CFP link. *Journal of Business Ethics, 67*(2), 191-200.

McGuire, J. B., Sundgren, A., & Schneeweis, T. (1988). Corporate social responsibility and firm financial performance. *Academy of Management Journal*, 854-872.

McWilliams, A., & Siegel, D. (2000). Corporate social responsibility and financial performance: correlation or misspecification? *Strategic Management Journal, 21*(5), 603-609.

Moneva, J. M., Rivera-Lirio, J. M., & Mu oz-Torres, M. (2007). The corporate stakeholder commitment and social and financial performance. *Industrial Management and Data Systems, 107*(1), 84.

Montabon, F., Sroufe, R., & Narasimhan, R. (2007). An examination of corporate reporting, environmental management practices and firm performance. *Journal of Operations Management, 25*(5), 998-1014.

Noruésis, M. (1995). *SPSS 6.1 guide to data analysis*: Englewood Cliffs, NJ: Prentice Hall.
Orlitzky, M., Schmidt, F. L., & Rynes, S. L. (2003). Corporate social and financial performance: A meta-analysis. *Organization Studies, 24*(3), 403-417.

Pava, M. L., & Krausz, J. (1996). The association between corporate social-responsibility and financial performance: The paradox of social cost. *Journal of Business Ethics, 15*(3), 321-357.

Peterson, D. K. (2004). The relationship between perceptions of corporate citizenship and organizational commitment. *Business & Society, 43*(3), 296.

Pratten, J. D., & Mashat, A. A. (2009). Corporate social disclosure in Libya. *Social Responsibility Journal, 5*(3), 311-327.

Rettab, B., Brik, A. B., & Mellahi, K. (2009). A study of management perceptions of the impact of corporate social responsibility on organizational performance in emerging economies: The case of Dubai. *Journal of Business Ethics, 89*(3), 371-390.

Rupp, D. E., Ganapathi, J., Aguilera, R. V., & Williams, C. A. (2006). Employee reactions to corporate social responsibility: An organizational justice framework. *Journal of Organizational Behavior, 27*(4), 537.

Siltaoja, M. E. (2006). Value priorities as combining core factors between CSR and reputation–a qualitative study. *Journal of Business Ethics, 68*(1), 91-111.

Simpson, W. G., & Kohers, T. (2002). The link between corporate social and financial performance: evidence from the banking industry. *Journal of Business Ethics, 35*(2), 97-109.

Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic Capabilities and Strategic Management. *Strategic Management Journal, 18*, 509-533.

Toms, J. S. (2002). Firm resources, quality signals and the determinants of corporate environmental reputation: some UK evidence. *The British Accounting Review, 34*(3), 257-282.

Turker, D. (2009). How corporate social responsibility influences organizational commitment. *Journal of Business Ethics, 89*(2), 189-204.

Waddock, S. (2004). Creating corporate accountability: Foundational principles to make corporate citizenship real. *Journal of Business Ethics, 50*(4), 313-327.

Waddock, S., & Bodwell, C. (2004). Managing responsibility: what can be learned from the quality movement? *California Management Review, 47*(1), 25-37.

Waddock, S. A., & Graves, S. B. (1997). The corporate social performance-financial performance link. *Strategic Management Journal, 18*(4), 303-319.

Wright, P., & Ferris, S. P. (1997). Agency conflict and corporate strategy: The effect of divestment on corporate value. *Strategic Management Journal, 18*(1), 77-83.

Yousef, D. A. (2003). Validating the dimensionality of Porter et al. s measurement of organizational commitment in a non-Western culture setting. *The International Journal of Human Resource Management, 14*(6), 1067-1079.

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THE INFLUENCE OF SUBORDINATE AFFECT AND SELF-MONITORING ON MULTIPLE DIMENSIONS OF LEADER-MEMBER EXCHANGE

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ABSTRACT

In this research we investigate possible differential effects of subordinate positive trait affect and negative trait affect upon four dimensions of supervisor-rated leader member exchange: affect, loyalty, contribution, and professional respect. In addition, self-monitoring is tested for its potential moderating effect upon these relationships. Data was collected from 267 subordinate/supervisor dyads in six different organizations. Results revealed that subordinates' negative trait affect is negatively related to the supervisor-rated dimensions of affect, loyalty, and respect, while subordinate positive affect is positively related to the dimensions of contribution and professional respect. Conversely, the hypothesized moderating effect of self-monitoring upon the relationships received no support, despite existing research to the contrary. We conclude with a discussion of the implications for theory, practice, and future research.

JEL: M12

KEYWORDS: LMX, Affect, Self-Monitoring

INTRODUCTION

T he fable "The Two Dogs," by Ivan Kriloff, ends with this exchange between Barbos, the yard dog, and Joujou, the housedog:

> "How did you, Joujou, who were so small and weak, get taken into favor, while I jump out of my skin to no purpose? What is it you do?" "'What is it you do?' A pretty question to ask!" replied Joujou, mockingly. "I walk upon my hind legs."

This excerpt illustrates an idea drawn from conventional wisdom - that those who are able to act in a manner pleasing to others will reap the rewards for doing so, even if they have to bear the cost of a certain degree of discomfort. Individuals who are adept at reading social cues and altering their behavior to please others are known as high self-monitors (Snyder, 1974; Gangestad & Snyder, 2000), and there is evidence that high self-monitors are more embedded in social relationships at work (Sasovova, 2006) and establish a greater number of mentoring relationships (Blickle, Schneider, Perrewé, Blass, & Ferris, 2008). Conversely, low self-monitors prefer congruency between their inward state and outward behavior, regardless of the social context (Gangestad & Snyder, 2000).

A number of studies have identified favorable outcomes associated with a positive exchange relationship between subordinate and supervisor, such as increased job satisfaction (Masterson, Lewis, Goldman, & Taylor, 2000) and higher performance ratings and level of delegation (Scandura & Schriesheim, 1994; Schriesheim, Neider, & Scandura, 1998). However, few studies have investigated the role of dispositional traits such as affect, or the tendency to experience positive or negative emotional states, upon this relationship (Day & Crain, 1992), and none have investigated the potential moderating impact of self-monitoring ability.

When managers are trained to provide resources to subordinates in an equal manner, subordinates who have low quality exchange relationships with their supervisors often show improvements in productivity

and job satisfaction (Scandura & Graen, 1984). Higher quality supervisor/subordinate relationships have also been found to ameliorate the inhibiting effects of introversion on job performance for new executives (Bauer, Erdogan, Liden, & Wayne, 2006). However, not all organizations may be willing or able to provide this type of relationship training to their supervisors. Therefore, it becomes the subordinate's responsibility to develop an awareness of how dispositional factors influence his/her relationship with the supervisor and then make the decision as to whether it would be more advantageous to modify his/her behavior or seek a new situation with a different supervisor. Our research answers calls for additional studies into the effects that the individual traits of affect and self-monitoring have on the leader-member exchange (LMX) relationship (Barsade & Gibson, 2007; Brower, Schoorman, & Tan, 2000; Engle & Lord, 1997) as well as to deconstruct these effects by LMX dimension.

In the remainder of this article we shall first review the literature and develop hypotheses pertaining to LMX, trait affect, and self-monitoring. We will then describe the methods used for gathering data and testing the hypotheses. For the final sections, we report our findings, discuss their implications in the context of extant research, and then conclude by noting the contributions to theory and practice as well as any limitations of our research.

LITERATURE REVIEW

Although leader-member exchange (LMX) theory has undergone a number of reviews, extensions, and critiques in the years since its first inception, the essence of the construct has remained the same in that it proposes that supervisors develop relationships of differential quality with their subordinates (Dienesch & Liden, 1986; Schriesheim, Castro, & Cogliser, 1999; Schyns & Day, 2010). High quality LMX relationships are characterized by such attributes as mutual trust, respect, liking each other, extra-role behavioral exchanges, and higher levels of emotional support. Low quality LMX is at the opposite end of the continuum and can be characterized as being transactional in nature, with the two parties engaging in a more strictly role-defined, top-down relationship (Graen & Schiemann, 1978).

Several research studies have linked LMX quality to a number of positive outcomes for both employees and organizations. Subordinates experiencing higher quality LMX have been found to be the beneficiaries of faster salary progression, a greater number of promotions, and higher career satisfaction (Gerstner & Day, 1997; Wayne, Liden, Kraimer, & Graf, 1999). They also have been found to hold favorable attitudes toward their jobs and their organizations (Connolly & Viswesvaran, 2000; Stringer, 2006; Suazo, Turnley, & Mai-Dalton, 2008). Conversely, those with lower quality LMX have been found to be more susceptible to perceptions of broken promises on the part of the organization (Restubog, Bordia, Tang, & Krebs, 2009), which can lead to negative work behaviors (Turnley & Feldman, 1999) and stifle innovativeness (Lee, 2008).

More recently, Liden and Maslyn (1998), drawing upon role theory and social exchange theory, proposed a multidimensional structure for LMX in which they postulated that there may be more than a single mechanism that contributes to the development of high-quality LMX, and that multiple dimensions may be differentially related to outcomes. These dimensions, which they did not propose to be exhaustive, are "contribution," or the in-role and extra-role tasks that the subordinate completes for the supervisor; "loyalty," which is exemplified by the degree to which the subordinate and supervisor are willing to publicly support one another; "affect" or the degree to which the subordinate and supervisor mutually like each other based on interpersonal attraction; and "professional respect" or the degree to which each member of the dyad perceives the other as excelling at his or her work. Based on this conceptualization, they constructed and validated a 12-item scale, the LMX-MDM, consisting of four, 3-item subscales that tap into each of the four dimensions. Greguras and Ford (2006) subsequently replicated the four-factor structure of the scale in a study that used a different sample and they found the different dimensions to be

differentially predictive of outcomes such as satisfaction with supervisor, organizational commitment, and in-role job performance, depending upon whether LMX was rated by the supervisor or by the subordinate.

While positive outcomes have been linked to high quality LMX, few studies have examined its antecedents. Some have reported a positive relationship between "supervisor liking" (of the subordinate) and LMX quality (Dockery & Steiner, 1990; Liden, Wayne, & Stilwell, 1993; Murphy & Ensher, 1999; Wayne & Ferris, 1990). Other studies have found positive relationships between subordinate characteristics such as conscientiousness (Lapierre & Hackett, 2007), internal locus of control (Harris, Harris, & Eplion, 2007), extraversion (Phillips & Bedeian, 1994), and LMX quality. However, in all of these studies, LMX was measured as a unidimensional construct. In this study, we investigate the relationship between the fundamental dispositional factors of positive and negative affect and the LMX sub-dimensions of affect, loyalty, contribution, and professional respect. We then examine the possibility that self-monitoring ability acts as a moderator with respect to the relationships between affect and supervisor-rated LMX.

Trait Positive and Trait Negative Affect

In their theory of dyad formation, Thibaut and Kelley (1959) proposed that exchanges between two individuals function as rewards and costs for each. Drive reductions and need fulfillments would represent rewards; exchanges in which mental effort is required or unpleasant feelings are aroused would represent costs. The finding that high quality LMX is partially a function of a supervisor's liking for a subordinate raises the possibility that subordinate characteristics that contribute to pleasing exchanges may play a role in a supervisor's liking of, or "affect" toward a subordinate. Likewise, since humans are predisposed to attend to negative information about others (Cacioppo & Gardner, 1999), subordinate characteristics that contribute to greater interpersonal exchange effort for the supervisor have the potential to influence negatively the supervisor's liking for the subordinate.

The terms "trait positive affect" (PA) and "trait negative affect" (NA) refer to a tendency to experience one of these mood states more often than the other. These traits are conceptualized as being unipolar and independent of each other; for example, an individual low in one of the affective traits does not necessarily exhibit more of the other (Cropanzano, Weiss, Hale, & Reb, 2003; Watson, 2000). Therefore, in each person's domain of possible behaviors, it can be expected that those high in either type of affect would exhibit a greater number of behaviors that would be reflective of their trait.

In the model of affective social competence, the expression and recognition of emotion is a fundamental determinant of successful social exchange (Halberstadt, Denham, & Dunsmore, 2001). Research has found that PA and NA influence their respective emotional reactions in the workplace (Grandey, Tam, & Brauburger, 2002). Naïve observers have also been found to be able to distinguish between individuals in which either PA or NA has been induced by merely observing the participants' behavior in relation to another individual (Forgas, 2002). Negative affect also predicts deterioration in relationship quality over time, while PA predicts improvements in relationship quality and these effects hold whether or not individuals remain in the same relationship or switch partners (Robins, Caspi, & Moffit 2002).

Wright and Staw (1999) found that dispositional PA predicted supervisory performance ratings of subordinates over a four-year period. They speculate that interactions with happy people are more pleasant and that this factor influenced the supervisors' performance evaluations. Supporting this assertion, displays of positive emotions by individuals have been found to elicit PA in others (Pugh, 2001; Wampler, Shi, Nelson, & Kimball, 2003). Conversely, those high in NA have been found to be more prone to negative interpersonal interactions and comments (Bolger & Schilling, 1991; Joiner Jr. & Metalsky, 2001; Robins, Caspi, & Moffitt, 2002).

Based on these theories and findings, we expect subordinate trait affect to influence supervisor LMX ratings in the following manner:

Hypothesis 1a: Subordinate PA is positively related to overall supervisor-rated LMX.
Hypothesis 1b: Subordinate NA is negatively related to overall supervisor-rated LMX.

Hypothesis 2a: Subordinate PA is positively related to the supervisor-rated affective dimension of LMX.
Hypothesis 2b: Subordinate NA is negatively related to the supervisor-rated affective dimension of LMX.

Hypothesis 3a: Subordinate PA is positively related to the supervisor-rated loyalty dimension of LMX.
Hypothesis 3b: Subordinate NA is negatively related to the supervisor-rated loyalty dimension of LMX.

While we have not generated hypotheses regarding the influence of subordinate affect on the supervisor-rated LMX dimensions of contribution and respect, we shall investigate them on an exploratory basis.

Self-Monitoring

As conceptualized by Snyder (1974), self-monitoring refers to the ability of some individuals to be sensitive to situational cues and to alter their expressive behavior deliberately in order to appear situation appropriate (high self-monitors). Individuals who can monitor their verbal, facial, and bodily expressions simultaneously for congruence with the desired image will be more successful in conveying that image. Other individuals (low self-monitors) are either relatively insensitive to social cues or simply unconcerned with expressing socially appropriate behavior; rather, they allow their internal state to be reflected by their external expressions.

In a subsequent refinement, Gangestad and Snyder (2000) made it clear that the construct excludes defensive expressions of behavior that communicate passivity and submission by the sender. While these behaviors could be considered an adaptive response to social cues, they are ineffective in eliciting a socially desirable response from other individuals. Thus, all individuals who are simply sensitive to social cues cannot be considered high self-monitors. High-self monitors are not only sensitive to social cues, but also actively engage in impression management intended to project a favorable image and "they seem to believe in the appearances they create and take stock in the fact that these social appearances can and do become social realities." (Gangestad & Snyder, 2000, p. 531).

In accordance with the construct, we might expect high self-monitors to be perceived by others as more likeable than low self-monitors. A laboratory study of non-verbal behavior bears this out: high self-monitors expressed more happiness, less negative emotions, and were judged by others as being more likeable and competent than low self-monitors (Levine and Feldman, 1997). High self-monitors are also perceived as more capable in the use of ingratiation tactics, while low self-monitors who attempt to engage in these tactics are perceived as "sycophants" (Turnley & Bolino, 2001). Furthermore, high self-monitors have been found to occupy advantageous positions in the organizational social network, receive more favorable performance reviews (Mehra, Kilduff, & Brass, 2001), and obtain more cross-company and internal promotions (Kilduff & Day, 1994).

Lennox and Wolfe (1984) argue that Snyder's (1974) Self-monitoring Scale is not congruent with the self-monitoring construct and that it taps theatrical acting ability rather than individuals' self-presentation ability in relation to a focal other. In response, they revised the Self-monitoring Scale to include only the dimensions of *ability to modify self-presentation* (ability) and *sensitivity to expressive behavior of others* (sensitivity). Extending this logic, it follows that while high self-monitors are sensitive to others' behavior, they are only able to exert their influence through the ability to modify their own behavior. Thus, while sensitivity to others would be a necessary condition for high-self monitors' socially

appropriate behavior, if they lack the ability to modify self-presentation they do not exert the desired effect.

Little (2011) proposed that self-monitoring is a mechanism used by those to conceal traits that might make them appear less socially adept. It is possible that in those who display socially engaging behavior will also be perceived as more capable by the supervisor. High self-monitors would be expected to be able to do this regardless of their inner state – they are reading and responding to cues from others. Those who are high in PA, regardless of self-monitoring ability, would also be expected to influence the supervisor's liking of him/her, because their behavior would be reflective of their positive inner state. High NA individuals who are able to mask their inner state could also be expected to influence the supervisor's liking for him/her. Therefore, we propose that self-monitoring ability will moderate the hypothesized relationship between subordinate affect and the supervisor-rated LMX dimensions of affect, contribution and loyalty in the following manner:

Hypothesis 4a: High self-monitoring ability moderates the impact of subordinate NA on the supervisor-rated LMX dimension of affect such that high self-monitors experience weaker negative relationships between NA and the supervisor-rated LMX dimensions of affect and loyalty.

Hypothesis 4b: High self-monitoring has no significant effect on the relationship between trait PA and the supervisor-rated LMX dimensions of affect and loyalty.

We will also explore the potential moderating effects of self-monitoring on subordinate affect as it relates to the supervisor-rated dimensions of contribution and respect.

DATA AND METHODOLOGY

Participants and Procedures

Survey data were collected during the period from June 2005 to October 2005. Respondents consisted of 267 employee/supervisor dyads from six different organizations: a fast-food restaurant, a chain of casual dining restaurants and their administrative headquarters, a recreation park, the nursing division of a county health department, the human resources department of a large hospital, and a records processing division of a state government. The number of participating subordinates per supervisor ranged from a low of 1 to a high of 10. Two of the dyads had missing data and were not used in the analyses.

The surveys were administered to both employees and their supervisors, with the supervisors completing surveys on each of their subordinates. Four of the organizations allowed on-site access, and surveys were administered and collected in the same visit. For the other organizations, the surveys were either mailed to the respondents with an accompanying recruitment letter or were distributed to their workplace mailboxes by an organizational representative. To guarantee anonymity in these cases, a self-addressed stamped return envelope was provided to the respondent.

Response rates varied across the organizations from a low of 17% of subordinates (mail in) to a high of 95% of subordinates (on-site collection). Subordinates were largely unaware as to whether or not their supervisor would complete and submit a survey, and those whose supervisors were unable to complete a supervisor survey were not included in the analyses.

The sample consisted of 164 males and 32 females with an average age of 35.8 years. The average length of time that they had been with their current supervisor was 2.26 years.

Measures

Leader-member exchange quality was measured from the supervisors' perspectives with a modified version of the 12-item LMX-MDM scale developed by Liden & Maslyn (1998). The instrument, as originally developed, was noted as one that has undergone reasonable psychometric testing (Schriesheim, Castro, & Cogliser, 1999). It also possesses the capability of measuring four LMX dimensions – affect (SLMXA), loyalty (SLMXL), contribution (SLMXC), and professional respect (SLMXR) (Liden & Maslyn, 1998; Greguras & Ford, 2006). The wording of the scale was changed to reflect the supervisor's perspective of the relationship with respect to the employee. For example, the item "My supervisor is the kind of person one would like to have as a friend," on the employee's survey was altered to read, "This employee is the kind of person one would like to have as a friend" on the supervisor survey. Reliability estimates for the dimensions of affect, loyalty, contribution, and respect were $\alpha = .89, .71, .93,$ and $.93$ respectively. A confirmatory factor analysis using LISREL 8.8 software indicated that the four factor model was the best fit when tested against both a one factor model and a two factor model in which items from the affect and loyalty dimensions were combined to form one factor and the contribution and professional respect dimensions were combined to form the second factor. A copy of the survey items appears in the appendix.

Trait positive and negative affect was measured with the Positive Affect Negative Affect Schedule (PANAS) (Watson, Clark, & Tellegen; 1988). The PANAS consists of two ten-item adjectival subscales: one for positive affect and the other for negative affect. The two subscales have been used extensively since their development (Schmukle, Egloff, & Burns, 2002; Thoresen, Kaplan, Barsky, Warren, & de Chermont, 2003) and have exhibited reasonable psychometric properties (Watson et al., 1988; Depaoli & Sweeney, 2000).

Respondents' self-monitoring "ability to modify self-presentation" was measured with 7 items from Lennox and Wolfe's (1984) revised Self-Monitoring scale. A 2002 meta-analysis (Day, Schleicher, Unckless, & Hiller) revealed that the Lennox and Wolfe version of the scale exhibits improved average reliability over other self-monitoring scales. Use of the 7 items comprising the "ability" dimension is supported by extant research into its dimensionality (O'Cass, 2000; Shuptrine, Bearden, & Teel, 1990). The scale includes items such as "I have the ability to control the way I come across to people, depending on the impression I wish to give them," and is scored on a 6 point Likert type scale with responses ranging from "generally false," to "certainly, always true."

Potential control variables such as age, gender, and organizational tenure were not included in the analysis due to their lack of effects on LMX, as demonstrated in other studies (Hochwarter, 2005; Phillips & Bedeian, 1994; Suazo et al., 2008). In the absence of a theoretical linkage between control variables and criterion variables, or evidence from research findings establishing such a linkage, including them in an analysis may result in masking relationships between the variables of interest (Spector & Brannick, 2010). While self-monitoring sensitivity has been shown to differ by gender, there is no significant difference in self-monitoring ability (O'Cass, 2000).

RESULTS

Means, standard deviations, scale reliabilities, and correlations for the variables are displayed in Table 1. Scores are reported as averages of the scale items. The first three variables in the "variable" column are the independent variables PA and NA and the proposed moderator SM. The next four in the column are the dimensions of SLMX: affect, loyalty, contribution, and (professional) respect. The last variable, SLMX, represents the summed and averaged value of the total scale.

Table 1: Means, Standard Deviations, Correlations, and Reliabilities of Study Variables

Variable	Mean	Std. Dev.	α	1	2	3	4	5	6	7	8
1 PA	3.70	0.82	.90	1.00							
2 NA	1.88	0.53	.82	0.25***	1.00						
3 SM	4.44	0.67	.70	0.24***	-0.09*	1.00					
4 SLMXA	5.52	1.13	.89	0.14*	-0.22***	0.08	1.00				
5 SLMXL	5.75	1.01	.71	0.15**	-0.17**	0.06	0.69***	1.00			
6 SLMXC	5.59	1.22	.93	0.20**	-0.14**	-0.00	0.57***	0.60***	1.00		
7 SLMXR	5.58	1.20	.93	0.20***	-0.22***	-0.01	0.61***	0.61***	0.75***	1.00	
8 SLMX	5.61	0.98	.94	0.20***	-0.22***	0.04	0.84***	0.83***	0.86***	0.89***	1.00

*N=265. The table above reports the means and standard deviations of the study variables, and the inter-correlations between each of the variables. All the variables are significantly correlated except for Self-Monitoring. The correlations that exceed a .60 benchmark (Cohen, Cohen, West, & Aiken, 2003) are those between each of the dimensions of SLMX and overall SLMX. Scale reliabilities are $\geq$ .70 (Cortina, 1993) Significance levels are indicated as follows: *p<0.1, **p< 0.05 level, ***p< 0.001.*

All variables were significantly correlated with each other except self-monitoring. Variables that were highly correlated (>.60) were the dimensions and overall measure of SLMX.

To test hypotheses 1a and 1b, supervisor-rated overall LMX (SLMX) was regressed on subordinate PA and NA. The same procedure was used to test hypotheses 2a through 3b, except that the SLMX dimensions of affect and loyalty were regressed on subordinate PA and NA in two separate calculations. The results the regression analysis are reported in Table 2. For each of the three regression equations represented in the table, we have reported the F statistic, the degrees of freedom, the adjusted R^2, and the standardized regression coefficients (β). The three dependent variables are reported at the top of each section of the table and the last column contains the standardized coefficients for each of the independent variables that appear in the first column of the table. For example, the first section of table 2 indicates that the dependent variable is SLMX and the two independent variables upon which it was regressed are PA and NA. The fact that the F statistic of 10.07 is significant at the $p = 0.001$ level demonstrates that the likelihood is quite low that the modeled relationship would occur by chance. The adjusted R^2 indicates the percentage of variance in the dependent variable of SLMX that is explained by PA and NA, while the standardized coefficients (β) of 0.16 and -0.18 indicate the number of standard deviations that the dependent variable of SLMX will change per unit change in PA and NA.

The results of this first set of regression equations suggest that both PA (β = .16, $p < 0.1$) and NA (β = -.18, p < 0.05) are significantly related to overall SLMX and to the SLMX dimension of SLMXL (for PA, β = .12, $p < 0.1$ and for NA, β = -.14, p < 0.05). Only NA (β = -19, $p < 0.05$) is significantly related to SLMXA.

$$SLMX = \beta_1(PA) + \beta_2(NA) \qquad (1)$$
$$SLMXA = \beta_1(PA) + \beta_2(NA) \qquad (2)$$
$$SLMXL = \beta_1(PA) + \beta_2(NA) \qquad (3)$$

Table 3 provides results for hypotheses 4a and b. Prior to testing, the focal independent variables were first converted to Z scores in order to reduce multicollinearity with the interaction terms (Frazier, Barron, & Tix, 2004) and these variables are represented by inclusion of the letter "Z" in the variable designation. Hierarchical moderated regression analysis was then used to test the hypotheses that self-monitoring functions as a moderator of the impact of NA on SLMXA, such that high self monitors experience weaker negative relationships between subordinate affect and the supervisor rated LMX dimensions of affect and

loyalty. All independent variables including the hypothesized moderator were entered in the first step, followed by the interaction terms in the second step.

Table 2: Regression Results for PA and NA on SMLX, SLMXA, and SLMXL

Step 1: Dependent Variable SLMX regressed on PA and NA				
Variable	**F**	**df**	**Adj. R²**	**β**
Dep. Var. SLMX	10.07***	2	0.06	
PA				0.16*
NA				-0.18**
Step 1: Dependent Variable SLMXA (Affect) regressed on PA and NA				
Dep. Var. SLMXA	7.57***	2	0.05	
PA				0.09
NA				-0.19**
Step 1: Dependent Variable SLMXL (Loyalty) regressed on PA and NA				
Dep. Var. SLMXL	5.62**	2	0.03	
PA				0.12
NA				-0.14**

N=265. The table shows PA and NA as regressed on SLMX, SLMXA (Affect) and SLMXL (Loyalty), respectively. The results suggest that both PA (p<0.1) and NA (p< 0.05) are significantly related to SLMX (Equation 1) and SLMXL (Equation 3), but only NA (p< 0.05) is significantly related to SLMXA. Significance levels are indicated as follows: *p<0.1, **p< 0.05 level, ***p< 0.001.

The table contains two sections with two steps for each section. In the first section, the dependent variable SLMXA is regressed in step 1 on PA, NA, and SM, and then the interaction terms between SM and the affect variables, PA and NA are entered into the equation in step 2. For each of the four regression equations represented in the table, we have reported the F statistic, the degrees of freedom, the adjusted R^2, and the standardized regression coefficients (β). Results showed that SM did not significantly moderate the relationship between affect and SLMXA or SLMXL, nor was there any interaction. For example, in the first set of equations where SLMXA is the dependent variable (step 1), the standardized regression coefficient (β) of .00 on SM indicates that it did not exert any influence upon SLMXA. In step 2, the coefficients of -.07 and .09 on ZSM x ZPA and ZSM x ZNA respectively, fail to reach significance, thus indicating no moderating effect of SM upon either PA or NA for ZSLMXA.

$$SLMXA = \beta_1(ZPA) + \beta_2(ZNA) + \beta_3(ZSM) \quad\quad (4)$$
$$SLMXA = \beta_1(ZPA) + \beta_2(ZNA) + \beta_3(ZSM) + \beta_4(ZSMxZPA) + \beta_5(ZSMxZNA) \quad\quad (5)$$
$$SLMXL = \beta_1(ZPA) + \beta_2(ZNA) + \beta_3(ZSM) \quad\quad (6)$$
$$SLMXL = \beta_1(ZPA) + \beta_2(ZNA) + \beta_3(ZSM) + \beta_4(ZSMxZPA) + \beta_5(ZSMxZNA) \quad\quad (7)$$

In addition to the stated hypotheses, regression analyses were conducted to test the potential moderating effects of SM on the other two dimensions of SLMX: SLMXC and SLMXL. The results, reported in Table 4, show that SM does not moderate these relationships either. For example, in the first set of hierarchical regression equations, where SLMXC is the dependent variable, the standardized regression coefficient (β) of -.07 on SM is statistically insignificant, indicating that it did not exert any influence upon SLMXC (step 1). In step 2, the coefficients of -.05 and .05 on ZSM x ZPA and ZSM x ZNA respectively, also fail to reach significance, thus indicating no moderating effect of SM upon either PA or NA for SLMXC.

Overall, these results indicate that both subordinate PA and NA are related to supervisor-rated LMX total, while only subordinate NA is significantly related to the LMX dimensions of affect and loyalty, thus fully supporting H1a, H1b, H2b, and H3b. While the regression coefficient for subordinate PA on the supervisor-rated dimension of loyalty did not reach significance at the p =.05 level, (β = .12, p = .06), it was in the hypothesized direction, thus lending partial support to H3a. Hypothesis 2a regarding the effect of PA on the affect dimension was not supported in that the standardized coefficient was quite small and

insignificant ($\beta = .09$, $p = .15$).   The interaction terms between subordinate self-monitoring and subordinate PA and NA were not significantly related to any of the supervisor-rated LMX dimensions of affect or loyalty, nor were the main effects for the moderator significant, thus supporting H4b but not H4a.

Table 3: Regression Results for SM as a Moderator on Subordinate Affect (PA and NA), and with Hypothesized Interaction Effects on Dependent SLMXA and SLMXL

Step 1: Dependent Variable SLMXA regressed on ZPA, ZNA, and ZSM				
Variable	**F**	**df**	**Adj. R^2**	**β**
Dep.Var. SLMXA	5.03**	3	0.04	
ZPA				0.09
ZNA				-0.19**
ZSM				0

Step 2: Dependent Variable SLMXA regressed on ZPA, ZNA, ZSM, and interactions				
Dep. Var. SLMXA	3.91**	5	0.05	
ZPA				0.1
ZNA				-0.18**
ZSM				0.01
ZSMxZPA				-0.07
ZSMxZNA				0.09

Step 1: Dependent Variable SLMXL regressed on ZPA, ZNA, and ZSM				
Dep. Var. SLMXL	3.74	3	0.03	
ZPA				0.12
ZNA				-0.14
ZSM				-0.01

Step 2: Dependent Variable SLMXL regressed on ZPA, ZNA, ZSM, and interactions				
Dep. Var. SLMXL	2.82	5	0.03	
ZPA				0.12
ZNA				-0.13
ZSM				0
ZSMxZPA				-0.06
ZSMxZNA				0.06

N=265. Step 1 shows PA, NA, and SM as regressed on SLMXA, and then SLMXL. Step 2 adds the interaction terms between SM and PA and between SM and NA. The results suggest that self-monitoring does not moderate the relationship between SLMXA or SLMXL and PA or NA. Additionally, there is no significant interaction effect from SMxPA or SMxNA in either model. Significance levels are indicated as follows: *p<0.1, **p< 0.05 level, ***p< 0.001.

In our exploratory analysis, the beta coefficients for subordinate PA on supervisor-rated dimensions of contribution and respect were significant and positive ($\beta = .18$, $p < .05$; $\beta = .17$, $p < .05$), and the beta coefficients for subordinate NA were significant and negative ($\beta = -.11$, $p < .10$; $\beta = -.19$, $p < .05$) for contribution and respect, respectively. When regressed on supervisor-rated dimensions of contribution and respect, there were no significant main or interaction effects for subordinate self-monitoring.

DISCUSSION

The purpose of this study was to first to investigate the potential effects of subordinate trait positive affect (PA) and trait negative affect (NA) upon four dimensions of supervisor-rated leader-member exchange (SLMX) and second, to determine whether subordinates self-monitoring ability acts as a moderator upon the hypothesized negative relationship between NA and the supervisor-rated LMX dimensions of affect and loyalty. Results indicate that PA and NA are differentially related to the four dimensions of supervisor-rated LMX; however, there was no support for the hypothesized moderating effect of subordinate self-monitoring ability upon the NA/LMX relationship. Specifically, we found subordinate

PA to be significantly and positively related to the supervisor-rated LMX dimensions of contribution and respect, with partial support for its relationship to loyalty, while subordinate NA was significantly and negatively related to the dimensions of affect, loyalty, and respect.

Table 4: Regression Results for Non-hypothesized SM as a Moderator on Subordinate Affect (PA and NA) on Dependent Variables SLMXC and SLMXR

Variable	F	df	Adj. R^2	β
Step 1: Dependent Variable SLMXC regressed on ZPA, ZNA, and ZSM				
Dep. Var. SLMXC		3	0.04	
	4.8**			
ZPA				0.18**
ZNA				-0.11*
ZSM				-0.07
Step 2: Dependent Variable SLMXC regressed on ZPA, ZNA, ZSM, and interactions SMxPA and SMxNA				
Dep. Var. SLMXC	3.18**	5	0.05	
ZPA				0.19**
ZNA				-0.1
ZSM				-0.07
ZSMxZPA				-0.05
ZSMxZNA				0.05
Step 1: Dependent Variable SLMXR regressed on ZPA, ZNA, and ZSM				
Dep. Var. SLMXR	7.4***	3	0.07	
ZPA				0.17**
ZNA				-0.19**
ZSM				-0.08
Step 2: Dependent Variable SLMXR regressed on ZPA, ZNA, ZSM, and interactions SMxPA and SMxNA				
Dep. Var. SLMXR	5.38***	5	0.08	
ZPA				0.18**
ZNA				-0.17**
ZSM				-0.07
ZSMxZPA				-0.07
ZSMxZNA				0.09

N=265. Step 1 shows PA, NA, and SM as regressed on SLMXC and SLMXR. Step 2 adds the interactions between SM and PA and SM and NA. The results suggest that self-monitoring does not moderate the relationship between either SLMXC or SLMXR and PA or NA. Additionally, there is no significant interaction effect from SMxPA or SMxNA. Significance levels are indicated as follows: *p<0.1, **p< 0.05 level, ***p< 0.001.

These results indicate that subordinate PA and NA exert differential influences upon supervisors' perceptions of the exchange relationship. The lack of a significant relationship of subordinate PA to the dimension of affect, while being significantly related to the contribution and respect dimensions, is probably the most intriguing result, since the survey items related to the latter dimensions essentially ask the supervisor to rate the employee in terms of in-role/extra-role job performance and perceived job competence. However, this finding is somewhat consistent with a recent meta-analysis in which PA and NA were related to supervisor-rated task performance as well as organizational citizenship behaviors (Kaplan, Bradley, Luchman, & Haynes, 2009). It is also consistent with the finding that supervisors tend to assign more weight to the subordinate's task performance when evaluating the exchange relationship (Zhou & Schriesheim, 2010). It is conceivable that supervisors find higher PA individuals more pleasant in initial interactions, and they begin to develop a higher quality exchange relationship with them at the expense of subordinates who find themselves in the "out-group" This is borne out by the fact higher PA individuals have been found to be more likely to have higher initial leader-member exchange quality (Day and Crain, 1992). Once the relationship is established, these initial effects may unconsciously influence the supervisor's evaluation of the subordinate's task performance.

The fact that we found no support for the hypothesized moderation of the NA/LMX relationship by self-monitoring is also interesting given that the proposed relationship is theoretically plausible in that someone high in self-monitoring ability would be able to present his or her "best" social self to others and thus mitigate the negative effects of NA upon social performance. In a recent study, self-monitoring was found to moderate the relationship between three of the "big five" personality traits - extraversion, openness to experience, and emotional stability - and supervisory ratings of interpersonal performance (Barrick, Parks, & Mount, 2005). In that particular study, those personality traits were positively associated with interpersonal performance for low self-monitors only; in other words, those specific traits represent the positive ends of their respective continuums and the absence of self-monitoring ability allowed these positive traits to predominate and influence supervisors' ratings. Conversely, they found that high self-monitoring compensated for low extraversion such that high self-monitors who were low on extraversion were rated more favorably than those low self-monitors who were also low on extraversion. Given the set of results from the Barrick et al. investigation, we would have expected high self-monitoring to ameliorate the negative effects of high NA on supervisors' impressions of the affective dimension of LMX.

Possible explanations for our findings regarding the proposed moderation of self-monitoring include the fact that Barrick et al. sampled a population for whom interpersonal performance is necessary for job performance, and/or that high NA acts as suppressor of either sensitivity to the emotional state of others or the ability to portray oneself in a socially facile manner. As a test of the former possibility, we conducted a post-hoc analysis by first extracting from the sample only the organizations where the surveyed employees were engaged in jobs where they would be expected to have extensive interactions with outside customers (N=120) and then regressing supervisor-rated LMX affect dimension on NA with self-monitoring as a moderator. This did not yield significant interactions either, even though the sample size was slightly greater than that used in the Barrick et al. study (N=102). Thus, the latter explanation may hold, or the results differ because of different measurement instruments – Snyder's SM scale vs. Lennox and Wolfe's revised SM scale - as noted in our methods section.

It has been proposed that high self-monitors primary motivation is to protect their positive self-affect by altering their behavior to elicit positive responses from a focal other rather than using self-monitoring as a tool specifically for instrumental gain (Ickes, Holloway, Stinson, & Hoodenpyle, 2006). It is possible that those high in NA do not have such a motivation since they do not have positive affect to protect, even though the constructs are theoretically independent of one another. This aspect of the self-monitoring construct will need to be investigated further.

Contributions

In terms of theory and research, this investigation fills a gap in the literature regarding LMX antecedents and their differential relationships to LMX dimensions from the supervisor's perspective. While the relationship between worker affect and job behaviors is well established (Kaplan et al., 2009), as is the relationship between LMX and positive work outcomes (Gerstner & Day, 1997), the examination of subordinate characteristics that contribute to high-quality LMX is only beginning to be explored (Schyns & Day, 2010), and investigations into their relationship to supervisor-rated dimensions are rare at this point in time (Greguras & Ford, 2006). By analyzing these relationships between the fundamental individual attributes of trait PA and NA, and the dimensions of LMX from the supervisor's perception, we have demonstrated that these subordinate characteristics contribute to the evaluation of LMX in a differential manner.

In terms of practice, it is our hope that this research can be a step in addressing the needs of both organizations and individuals within those organizations. By definition, there are always two parties involved in the LMX relationship – the member and the leader, i.e., the subordinate and the supervisor.

Supervisor-rated LMX has been found to predict subordinate salary progression and promotability, while subordinate-rated LMX predicts career satisfaction (Ang, Hwa, Jantan, & Ansari, 2008). As noted previously, higher-quality LMX contributes to a number of favorable outcomes for both parties. Taking the findings our study into account, organizations must grapple with the decision of whether or not to implement measures that might partially accomplish the enhancement of this relationship by assisting employees and supervisors to mitigate the negative effects of high NA, while increasing the positive effects of high PA. At the same time, employees may experience a desire to navigate the path between accruing the rewards of organizational progression and their own career satisfaction.

From an organizational standpoint, there are some relatively inexpensive methods for accomplishing these suggestions. For example, properly designed web-based exercises have been shown to reduce individuals' NA (Mongrain & Anselmo-Matthews, 2012), while engaging in kind acts increases individuals' PA (Alden & Trew, 2012). These techniques, while available to individuals, are probably not widely known about at this point, and participation in them outside of an unstructured situation may be low. However, these types of activities would certainly be available to career counselors and coaches who serve the public or act as organizational development consultants.

Limitations

The primary limitations of this study are the cross sectional design and the collection of data from a variety of organizations. With cross-sectional designs, temporal precedence of one variable over another is impossible to establish, therefore negating a requirement for the establishment of causality (Cook & Campbell, 1979). It is also difficult in cross sectional designs to investigate relationships that may be reciprocal rather than unidirectional. Repeated measurements over time would provide data that would shed more light on the nature of the relationships.

The pooling of data from different organizations also represents a limitation in the sense that group-specific variables may be operating in the samples from the different organizations (Byrne, Shavelson, & Muthen, 1989). Alternatively, combining data from different organizations may also reduce the chance that these same unique factors will restrict the findings to the conditions present in a single organization. Unfortunately, ideal situations for the collection of data do not always present themselves in field research.

CONCLUDING COMMENTS

The LMX literature has focused to a greater degree on outcomes of LMX rather than antecedents to the exchange relationship between subordinates and their supervisors (Engle & Lord, 1997), while the literature regarding dispositional constructs to work-related outcomes has been comparatively rich (Ng & Sorensen, 2009). In this study we contributed to the existing literature by first examining the degree that subordinate disposition differentially influences four dimensions of the supervisor's perceptions of LMX, and then determining whether self-monitoring acts as a moderator on these possible effects. The results indicate that while subordinate affect does exert an influence on LMX, it does not do so uniformly across dimensions. Contrary to our hypotheses, PA was not significantly related to the supervisors' affect for the subordinate, yet was related to the evaluation of the relationship based on in-role and extra-role behavior, while NA was related to supervisor affect as hypothesized. In contrast to other research into the moderating effects of self-monitoring, we obtained no significant results in our tests for the potential interaction effects with respect to PA and NA.

A primary direction for future research is the investigation of the effects of trait mood interventions upon supervisor and employee perceptions of LMX. While some employers will take advantage of the current economic climate and refuse to invest in their employees, others will want to create working conditions

that will foster a more committed workforce. While the positive psychology movement certainly has its supporters and detractors (Fernández-Ríos & Novo, 2012), it may offer some solutions to employers wishing to create climates in which employees are better able to relate to supervisors. However, these types of studies offer the challenge of data collection over multiple periods, both before and after interventions.

Finally, the lack of support for the self-monitoring hypotheses invites further research because it is supported by related findings and theory. It is quite possible that the limitations of this study prevented it from uncovering genuine effects or that the measurement instrument either fully captured the portion of the construct for which it was designed and the effect sized was insignificant, or that it is capturing either an unintended portion of the construct.

APPENDIX

Supervisor version of LMX-MDM survey items:

Affect Dimension
1   I like this employee very much as a person.
2   This employee is the kind of person one would like to have as a friend.
3   This employee is a lot of fun to work with
Loyalty Dimension
4   I would defend this employee's work actions to a superior, even without complete knowledge of the issue in question.
5   I would come to this employee's defense if he/she were "attacked" by others.
6   I would defend this employee to others in the organization if he/she made an honest   mistake.
Contribution Dimension
7   This employee does work for me that goes beyond what is specified in his/her job description.
8   This employee is willing to apply extra efforts, beyond those normally required to meet his/her   work goals.
9   This employee does not mind working his/her hardest for me.
Professional Respect Dimension
10   I am impressed with this employee's knowledge of his/her job.
11   I respect this employee's knowledge of and competence on the job.
12   I admire this employee's professional skills.

REFERENCES

Alden, L. E., & Trew, J. L. (2012). If It Makes You Happy: Engaging in Kind Acts Increases Positive Affect in Socially Anxious Individuals. *Emotion (Washington, D.C.)*. doi:10.1037/a0027761

Ang, M., Hwa, C., Jantan, M., & Ansari, M. A. (2008). An Investigation of the Differential Impact of Supervisor and Subordinate-Rated Leader-Member Exchange on Career Outcomes. *University Journal of Business*, 7–20.

Barrick, M. R., Parks, L., & Mount, M. K. (2005). Self-monitoring as a moderator of the relationships between personality traits and performance. *Personnel Psychology*, *58*, 745–767.

Barsade, S. G., & Gibson, D. E. (2007). Why Does Affect Matter in Organizations?, *Academy of Management Perspectives,* February, 36-59.

Bauer, T. N., Erdogan, B., Liden, R. C., & Wayne, S. J. (2006). A longitudinal study of the moderating role of extraversion: leader-member exchange, performance, and turnover during new executive development. *The Journal of applied psychology*, *91*(2), 298–310. doi:10.1037/0021-9010.91.2.298

Blickle, G., Schneider, P. B., Perrewé, P. L., Blass, F. R., & Ferris, G. R. (2008). The roles of self-disclosure, modesty, and self-monitoring in the mentoring relationship: A longitudinal multi-   source investigation. *Career Development International*, *13*(3), 224–240. doi:10.1108/13620430810870485

Bolger, N., & Schilling, E. A. (1991). Personality and the problems of everyday life: The role of neuroticism in exposure and reactivity to daily stressors. *Journal of Personality, 59*(3), 355-386.

Brower, H. H., Schoorman, F. D., & Tan, H. H. (2000). A model of relational leadership: The integration of trust and leader-member exchange. *Leadership Quarterly, 11*(2), 227-250.

Byrne, B., M., Shavelson, R. J., & Muthen, B. (1989). Testing for the equivalence of factor covariance and mean structures: The issue of partial measurement invariance. *Psychological Bulletin, 105*(3), 456-466.

Cacioppo, J. T., & Gardner, W. L. (Eds.). (1999). *Emotion.* (Vol. 50): Annual Reviews Inc.

Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). Applied multiple regression for the behavioral sciences (2nd ed). Mahwah, NJ: Lawrence Erlbaum.

Connolly, J. J., & Viswesvaran, C. (2000). The role of affectivity in job satisfaction: A meta-analysis. *Personality & Individual Differences, 29*(2), 265-281.

Cook, T. D., & Campbell, D. T. (1979). *Quasi-Experimentation: Design and Analysis Issues for Field Settings*. Boston: Houghton Mifflin Company.

Cortina, J. (1993). What is coefficient alpha? An examination of theory and applications. *Journal of Applied Psychology, 78*(1), 98-104.

Cropanzano, R., Weiss, H. M., Hale, J. M. S., & Reb, J. (2003). The structure of affect: Reconsidering the relationship between negative and positive affectivity. *Journal of Management, 29*(6), 831-857.

Day, D. V., & Crain, E. C. (1992). The Role of Affect and Ability in Initial Exchange Quality Perceptions. *Group & Organization Management, 17*(4), 380-397.

Day, D. V., Shleicher, D. J., Unckless, A. L., & Hiller, N. J. (2002). Self-monitoring personality at work: A meta-analytic investigation of construct validity. Journal of Applied Psychology, 87(2), 390–401. doi:10.1037//0021-9010.87.2.390

DePaoli, L. C., & Sweeney, D. C. (2000). Further validation of the positive and negative affect schedule. *Journal of Social Behavior & Personality, 15*(4), 561-568.

Dienesch, R. M., & Liden, R. C. (1986). Leader-Member exchange model of leadership: A critique and further development. *Academy of Management Review, 11*(3), 618-634.

Dockery, T. M., & Steiner, D. D. (1990). The role of the initial interaction in leader-member exchange. *Group & Organization Studies, 15*(4), 395-413.

Engle, E. M., & Lord, R. G. (1997). Implicit theories, self-schemas, and leader-member exchange. *Academy of Management Journal, 40*(4), 988-1010.

Fernández-Ríos, L., & Novo, M. (2012). Positive Pychology: Zeitgeist (or spirit of the times) or ignorance (or disinformation) of history? *International Journal of Clinical and Health Psychology*, *12*(2), 333–344.

Forgas, J. P. (2002). Feeling and Doing: Affective Influences on Interpersonal Behavior. *Psychological Inquiry, 13*(1), 1-28.

Frazier, P. A., Barron, K. E., & Tix, A. P. (2004). Testing moderator and mediator effects in counseling psychology. *Journal of Counseling Psychology, 51*(1), 115-134.

Gangestad, S. W., & Snyder, M. (2000). Self-monitoring: Appraisal and reappraisal. *Psychological Bulletin, 126*(4), 530-555.

Gerstner, C. R., & Day, D. V. (1997). Meta-analytic review of leader-member exchange theory: Correlates and construct issues. *Journal of Applied Psychology, 82*(6), 827-844.

Graen, G., & Schiemann, W. (1978). Leader-Member Agreement : A Vertical Dyad Linkage Approach. *Journal of Applied Psychology*, *63*(2), 206–212.

Grandey, A. A., Tam, A. P., & Brauburger, A. L. (2002). Affective States and Traits in the Workplace: Diary and Survey Data from Young Workers. *Motivation & Emotion, 26*(1), 31-55.

Greguras, G. J., & Ford, J. M. (2006). An examination of the multidimensionality of supervisor and subordinate perceptions of leader–member exchange. *Journal of Occupational and Organizational Psychology*, *79*(3), 433–465. doi:10.1348/096317905X53859

Halberstadt, A. G., Denham, S. A., & Dunsmore, J. C. (2001). Affective social competence. *Social Development, 10*(1), 79-119.

Harris, K. J., Harris, R. B., & Eplion, D. M. (2007). Personality, leader-member exchanges, and work outcomes. *Journal of Behavioral and Applied Management*, *8*(2), 92–107. Retrieved from http://ibam.com/pubs/jbam/articles/vol8/no2/JBAM_8_2_1.pdf

Hochwarter, W. (2005). Lmx and Job Tension: Linear and Non-Linear Effects and Affectivity. *Journal of Business and Psychology*, *19*(4), 505–520. doi:10.1007/s10869-005-4522-6

Ickes, W., Holloway, R., Stinson, L. L., & Hoodenpyle, T. G. (2006). Self-monitoring in social interaction: the centrality of self-affect. *Journal of personality*, *74*(3), 659–84. doi:10.1111/j.1467-6494.2006.00388.x

Joiner Jr., Thomas E., & Metalsky, G. I. (2001). Excessive reassurance seeking: Delineating a risk factor involved in the development of depressive symptoms. *Psychological Science, 12*(5), 371-378.

Kaplan, S., Bradley, J. C., Luchman, J. N., & Haynes, D. (2009). On the Role of Positive and Negative Affectivity in Job Performance : A Meta-Analytic Investigation. *Journal of Applied Psychology*, *94*(1), 162–176. doi:10.1037/a0013115

Kilduff, M., & Day, D. V. (1994). Do chameleons get ahead? The effects of self-monitoring on managerial careers. *Academy of Management Journal, 37*(4), 1047-1060.

Lapierre, L. M., & Hackett, R. D. (2007). Trait conscientiousness, leader-member exchange, job satisfaction and organizational citizenship behaviour: A test of an integrative model. *Journal of Occupational and Organizational Psychology*, *80*(3), 539–554. doi:10.1348/096317906X154892

Lee, J. (2008). Effects of leadership and leader-member exchange on innovativeness. *Journal of Managerial Psychology*, *23*(6), 670–687. doi:10.1108/02683940810894747

Lennox, R. D., & Wolfe, R. N. (1984). Revision of the Self-Monitoring Scale. *Journal of Personality & Social Psychology, 46*(6), 1349-1364.

Levine, S. P., & Feldman, R. S. (1997). Self-Presentational Goals, Self-Monitoring, and Nonverbal Behavior. *Basic & Applied Social Psychology, 19*(4), 505-518.

Liden, R. C., & Maslyn, J. M. (1998). Multidimensionality of leader-member exchange: An empirical assessment through scale development. *Journal of Management, 24*(1), 43-72.

Liden, R. C., Wayne, S. J., & Stilwell, D. (1993). A longitudinal study on the early development of leader-member exchanges. *Journal of Applied Psychology, 78*(4), 662-674.

Little, B. R., (11/24/2011) Personal projects and free traits: Personality and motivation reconsidered. Retrieved July 07, 2012, from http://www.brianrlittle.com/articles/personal-projects-and-free-traits/#more-196

Masterson, S. S., Lewis, K., Goldman, B. M., & Taylor, M. S. (2000). Integrating justice and social exchange: The differing effects of fair procedures and treatment on work relationships. *Academy of Management Journal, 43*(4), 738-748.

Mehra, A., Kilduff, M., & Brass, D. J. (2001). The social networks of high and low self-monitors: Implications for workplace performance. *Administrative Science Quarterly, 46*(1), 121-146.

Mongrain, M., & Anselmo-Matthews, T. (2012). Do Positive Psychology Exercises Work? A Replication of Seligman et al. (2005). *Journal of Clinical Psychology*, *68*(4), 382–389. doi:10.1002/jclp.21839

Murphy, S. E., & Ensher, E. A. (1999). The effects of leader and subordinate characteristics in the development of leader-member exchange quality. *Journal of Applied Social Psychology, 29*(7), 1371-1394.

Ng, T. W. H., & Sorensen, K. L. (2009). Dispositional Affectivity and Work-Related Outcomes : A Meta-Analysis, 1255–1287.

O'Cass, A. (2000). A psychometric evaluation of a revised version of the Lennox and Wolfe revised self-monitoring scale. *Psychology and Marketing*, *17*(5), 397–419. doi:10.1002/(SICI)1520-6793(200005)17:5<397::AID-MAR3>3.0.CO;2-D

Phillips, a S., & Bedeian, a G. (1994). Leader-follower exchange quality: the role of personal and interpersonal attributes. *Academy of Management journal. Academy of Management*, *37*(4), 990– 1001. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/10137271

Pugh, S. D. (2001). Service with a smile: Emotional contagion in the service encounter. *Academy of Management Journal, 44*(5), 1018-1027.

Restubog, S. L. D., Bordia, P., Tang, R. L., & Krebs, S. a. (2009). Investigating the Moderating Effects of Leader-Member Exchange in the Psychological Contract Breach-Employee Performance Relationship: A Test of Two Competing Perspectives. *British Journal of Management*, *21*, 422–437. doi:10.1111/j.1467-8551.2009.00673.x

Robins, R. W., Caspi, A., & Moffitt, T. E. (2002). It's not just who you're with, it's who you are: Personality and relationship experiences across multiple relationships. *Journal of Personality, 70*(6), 925-964.

Sasovova, Z. (2006). Academy of Management Best Conference Paper 2006 OB:J1, 1–7.

Scandura, T. A., & Graen, G. B. (1984). Moderating effects of initial leader-member exchange status on the effects of a leadership intervention. *Journal of Applied Psychology, 69*(3), 428-436.

Scandura, T. A., & Schriesheim, C. A. (1994). Leader-member exchange and supervisor career mentoring as complementary constructs in leadership research. *Academy of Management Journal, 37*(6), 1588-1602.

Schmukle, S. C., Egloff, B., & Burns, L. R. (2002). The relationship between positive and negative affect in the Positive and Negative Affect Schedule. *Journal of Research in Personality, 36*(5), 463-475.

Schriesheim, C. A., Castro, S. L., & Cogliser, C. C. (1999). Leader-member exchange (LMX) research: A comprehensive review of theory, measurement, and data-analytic practices. *Leadership Quarterly, 10*(1), 63-113.

Schriesheim, C. A., Neider, L. L., & Scandura, T. A. (1998). Delegation and leader-member exchange: Main effects, moderators, and measurement issues. *Academy of Management Journal, 41*(3), 298-318.

Schyns, B., & Day, D. (2010). Critique and review of leader – member exchange theory : Issues of agreement , consensus , and excellence. *Psychology*, *19*(1), 1–29. doi:10.1080/13594320903024922

Shuptrine, F. K., Bearden, W. O., & Teel, J. E. (1990). An analysis of the dimensionality and reliability of the Lennox and Wolfe revised self-monitoring scale. *Journal of Personality Assessment*, *54*(3 & 4), 515–522.

Snyder, M. (1974). Self-monitoring of expressive behavior. *Journal of Personality & Social Psychology, 30*(4), 526-537.

Stringer, L. (2006). The link between the quality of the supervisor-employer relationship and the level of the employee's job satisfaction. *Public Organization Review, 6*, 125-142.

Spector, P. E., & Brannick, M. T. (2010). Methodological Urban Legends: The Misuse of Statistical Control Variables. *Organizational Research Methods*, *14*(2), 287–305. doi:10.1177/1094428110369842

Suazo, M. M., Turnley, W. H., & Mai-Dalton, R. R. (2008). Characteristics of the supervisor-subordinate relationship as predictors of psychological contract breach. *Journal of Managerial Issues 20*(3), 295-312.

Thibaut, J. W., & Kelley, H. H. (1959). *The Social Psychology of Groups*. New York: John Wiley & Sons, Inc.

Thoresen, C. J., Kaplan, S. A., Barsky, A. P., Warren, C. R., & de Chermont, K. (2003). The Affective Underpinnings of Job Perceptions and Attitudes: A Meta-Analytic Review and Integration. *Psychological Bulletin, 129*(6), 914-945.

Turnley, W. H., & Bolino, M. C. (2001). Achieving desired images while avoiding undesired images: Exploring the role of self-monitoring in impression management. *Journal of Applied Psychology, 86*(2), 351-360.

Turnley, W. H., & Feldman, D. C. (1999). The impact of psychological contract violations on exit, voice, loyalty, and neglect. *Human Relations, 52*(7), 895-922.

Wampler, K. S., Shi, L., Nelson, B. S., & Kimball, T. G. (2003). The adult attachment interview and observed couple interaction: Implications for an intergenerational perspective on couple therapy. *Family Process, 42*(4), 497-515.

Watson, D. (2000). *Mood and Temperament*. New York, NY: The Guilford Press.

Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality & Social Psychology, 54*(6), 1063-1070.

Wayne, S. J., & Ferris, G. R. (1990). Influence tactics, affect, and exchange quality in supervisor-subordinate interactions: A laboratory experiment and field study. *Journal of Applied Psychology, 75*(5), 487-499.

Wayne, S. J., Liden, R. C., Kraimer, M. L., & Graf, I. K. (1999). The role of human capital, motivation and supervisor sponsorship in predicting career success. *Journal of Organizational Behavior, 20*(5), 577-595.

Wright, T. A., & Staw, B. M. (1999). Affect and favorable work outcomes: Two longitudinal tests of the happy-productive worker thesis. *Journal of Organizational Behavior, 20*(1), 1-23.

Zhou, X. (Tracy), & Schriesheim, C. a. (2010). Quantitative and qualitative examination of propositions concerning supervisor–subordinate convergence in descriptions of leader–member exchange (LMX) quality. *The Leadership Quarterly*, *21*(5), 826–843. doi:10.1016/j.leaqua.2010.07.010

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A QUANTITATIVE STUDY OF MARKET ORIENTATION AND ORGANIZATIONAL PERFORMANCE OF LISTED COMPANIES: EVIDENCE FROM GHANA

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ABSTRACT

The study is part of a larger research of market orientation, which was conducted to build on previous research, and particularly examined the association between market orientation and business performance in a larger market context, using a synthesis model approach. Using the survey approach 24 companies out of 37 listed companies participated in the quantitative study; where 72 senior officials were surveyed from August 2011 to September 2011, through a five-likert scale questions. In this preliminary analysis, correlation analysis was used to measure the association between antecedents of market orientation and components of market orientation; as well as the link between market orientation components and business performance of firms. The findings indicated that top management factors on the average had statistical significant relationship with market orientation; organizational factors related highly with market orientation; and external factors also had statistical significant relationship with market orientation. Similarly, the four components of market orientation were found to have statistical significance correlation with both economic and non-economic performance of business. Thus, the results implied that the overall performance of listed companies in Ghana is linked to market orientation.

INTRODUCTION

The marketing concept has received a lot of research attention, with particular emphasis on its implementation issues (Turner and Crowford, 1994; Kotler and Armstrong, 2010). The importance of the implementation issues have reflected in the manner in which the term "market orientation" had been used extensively to refer to the marketing concept (Shapiro, 1988; Narver and Slater, 1990; Kohli and Jaworski, 1990). Similarly, authors have linked the origin of market orientation to the marketing concept (Kohli and Jaworski, 1990; Narver and Slater, 1990; Ruekert, 1992; Gainer and Pandanyi, 2005; Carr and Lopez; 2007). This suggests that the marketing concept and its implementation have consequences to the overall business strategy.

Six different perspectives have so far been identified to relate to the implementation of the marketing concept. These include organizational decision making perspective, market intelligence perspective, culturally based behavioural perspective, the strategic focus perspective, the customer orientation perspective and the system-based perspective have emerged. Researchers have used one perspectives or another in their study of market orientation, and the implementation of the marketing concept. The six perspectives have demonstrated a number of commonalities, which reveal common areas of agreement; nevertheless, there exist differences, particularly in the concept's conceptualization. Furthermore, despite the importance and extensive use of these market orientation perspectives in the market orientation literature, they have been found to have their individual limitations (Oczkowski and Farrell, 1997; Mavondo and Farrell, 2000). Thus, unlike previous studies, this study conceptualizes market orientation as a combination of all six perspectives (Zebal, 2003; Alhakimi and Baharun, 2009; Bytyqi, 2010).Thus, in this study the six different perspectives have been combined to propose a synthesis model of market orientation (Chapter, Figure 2.1). In other to evaluate the six different perspectives in this study, three issues, from the marketing concept to the outcomes of implementing the marketing concept were identified. These were the originators, which include the marketing concept and its implementation; the

necessitators, including the antecedents of market orientation; and the end-products, including market orientation and its consequences.

Again, despite the importance of market orientation to modern business, the challenge identified in the market orientation literature is the lack of systematic effort to develop valid measures of market orientation (Kaynak and Kara, 2004);and the inconsistencies in the findings of the market orientation studies in developing countries (Malik and Naeem, 2009; Qu and Ennew, 2009). Unlike the developed economies, efforts made to study market orientation in developing economies have produced inconsistent results (Appiah-Adu, 1998; Savitt, 2001;Zebal, 2003;Osuagwu, 2006; Malik and Naeem, 2009;Qu and Ennew, 2009). The literatures reveal that the inconsistency of the findings of the association between market orientation and performance in the developing economies has usually been country specific (Osuagwu, 2006); and also firm and industry specific (Zabel, 2003; Jansen et al. 2005; Gibson and Birkinshaw 2004; Shoham et al. 2005; and Hafer and Gresham, 2008). Thus, in order to fill these gaps, a conceptual framework of all six perspectives of market orientation was proposed for listed companies, which is a larger market context than any of the previous studies. From, the synthesis model, a theoretical framework of market orientation was developed, which included the antecedents of market orientation, the components of market orientation and the consequences or outcomes of market orientation (Chapter 3; Figure 3.1). In order to address the problems identified for this research, the following research questions were outlined for consideration:

Question One: What internal factors (antecedents) of market orientation actually influence the business performance of companies in the Stock Market? Question Two: What external factors (antecedents) of market orientation affect the business performance of the companies in the Ghana Stock Exchange Market? Question Three: To what extent does the level of market orientation of the companies in the Stock Market in Ghana impact on the economic and non-economic performance of these businesses?

This study, like previous market orientation studies should contribute to the current debate on market orientation and business performance linkage, especially in the developing countries. It should be a work that can be replicated in other economies, both developed and developing. This is because, unlike previous studies, this study is not only limited to companies of particular industry or sectors of the economy. The study covers companies in the Stock Market, which belong to different sectors and industries thereby given a better representation of firms than previous studies. Since Stock Markets have certain unique conventional characteristics, the results of this study should be generalizable. The rest of the article deals with the relevant literature, data and methodology used in this study, results of the study and the conclusions drawn from the study.

LITERATURE REVIEW

The marketing concept is a management philosophy guiding an organization's overall activities. It affects the collective efforts of the organization, not just its marketing activities (Dibb et al., 1991). The marketing concept is characterized by a business belief that the customer is always the focal point of the business. It is suggested that market orientation exist when a business philosophy or concept is implemented (Kohli and Jaworski, 1990;Narver and Slater, 1990; Deng and Dart,1994).Both McCarthy and Perreault, (1993) and Kohli and Jaworski (1990)used the term market orientation to refer to the implementation of the marketing concept. Thus, Kohli and Jaworski (1990) defined market orientation as 'the organization-wide generation of market intelligence pertaining to current and future customer needs, dissemination of the intelligence across the departments, and organization-wide responsiveness to market intelligence. Similarly, Narver and Slater (1990) defined market orientation as the organizational culture that most effectively and efficiently creates the necessary behavior for the creation of superior value for buyers and, thus, continuous superior performance for the business. According to Narver and Slater (1990), market orientation involves three behavioral components - customer orientation, competitor

orientation, and inter-functional coordination - and two decision criteria including, long-term focus and profitability.

The literatures identify market orientation as a central theme of modern marketing science, which basically originates from the marketing concept or a business orientation of a firm (Barksdale and Darden 1971; McNamara 1972; Kotler 1977). Thus, market orientation, can be described as an ideal or a policy statement, which defines the understanding and, and organization's ability to meet customers' needs as the key to competitive advantage. Therefore, the level of market orientation of an organization might be dependent on the extent of implementation of the marketing concept (Pitt et al., 1996).Discussing the differences in philosophical stance of the two concepts, Cadogan and Diamantopoulos (1999) postulated that the two definitions overlap considerably and can be integrated into a broader aggregate definition. Consistent with previous studies, this study, views market oriented companies as those whose actions are consistent with the two dominant conceptualizations of market orientation developed by Kohli and Jaworski (1990) and Narver and Slater (1990).

The recognition, adoption and implementation of the marketing concept, should definitely lead to attainment of market orientation and, subsequently help management of the listed companies to design and implement business practices and processes, as well as allocating resources in a manner the help them to be customer-focused. This should aim at making the companies become more oriented towards the market which would result into improved organizational effectiveness and sustained competitive advantage. Management of these companies must appreciate that adoption of the marketing concept is the necessary step to becoming market oriented. However, adoption of the marketing concept alone is not enough; it must be implemented because this is a sufficient condition for market orientation. It should thus be appropriate for organizations to adopt a model that present an alternative market orientation model which ensures that market orientation is not only looked at by its antecedents, components and consequences, but also that, those antecedents specifically affect the components of market orientation, and consequently determine the business performance of the firms.

It needs to be emphasized that, market orientation, which is the implementation of the marketing concept, has been perceived differently by different authors to study the subject. Authors have adopted six different perspectives in market orientation studies including, organizational decision making perspective (Shapiro, 1988); Market intelligence perspective (Kohli and Jaworski, 1990); Culturally based behavioural perspective (Narver and Slater, 1990); The strategic focus perspective (Ruekert, 1992); The customer orientation perspective (Deshponde et al., 1993); System-based perspective(Becker and Homburg, 1999). These differences in perspective of market orientation are discussed fully in the main work (Chapter 2; Section 2.5).

DATA AND METHODOLOGY

Quantitative research was used in this article to collect primary data from the companies of the stock market in Ghana. The population of the research comprised all the 37 companies listed in the Ghana Stock Exchange as at January 1, 2011.In order to ensure that all industries were represented, the listed companies were grouped into six identifiable industries according to their business types. Since twenty four out of thirty seven companies accepted to participate in the survey, the 24 companies were used as a sample for the study (representing 64% of the target population). The sample size was appropriate because it was above the sample requirement suggested by Krejcie and Morgan (1970) in their sampling statistics table (p. 607).Three respondents were selected from each company to participate in the survey. This means, seventy two (72) respondents were used for the survey. Data was collected from August 2011 to September 2011 on the 72 officials, where 43 completed questionnaires were returned in usable form, constituting a 59.7% response rate.The three informants comprised of the CEO/MD/General Manager or his representative, the head of marketing and the head of human resources.

In this article, the coefficient of correlation was used to do the preliminary analysis. Correlation only represents a linear relationship between two variables (Sprinthall, 2000; Barrow, 2006;Lind et al., 2008).Correlation analysis was employed in order to examine the presence of multicollinearity, which is so significant in data analysis techniques. Two sets of correlation analysis to test the relationship between antecedents of market orientation and components of market orientation; and also the relationship between components of market orientation and business performance of listed companies in Ghana. The use of correlation analysis in the preliminary study was appropriate because it helped test the presence of multicollinearty; and also enabled the researcher gain insight into the relationships between the dependent and the independent variables. The use of correlation analysis in the preliminary study was appropriate because it helped test the presence of multicollinearty. It also enabled the researcher gain insight into the relationships between the dependent and the independent variables.

Studies have outlined how the correlation coefficient is used to interpret the relationship between variables (Berry and Feldman, 19985; Hair et al., 1998; Field, 2009). These studies suggest that a correlation coefficient of between .00 and .20 shows a weak and negligible relationship between variables. The relationship is said to be weak and low if the correlation is between .02 and .04; while a range of .04 to .07 is considered to be moderate in relationship. The relationship between variables is considered strong and high when the correlation coefficient is between .70 and .90; and a correlation coefficient of between .09 and 1 is considered to have very strong and very high relationship (Hair et al., 1995). This study used the Pearson product-movement correlation to test the relationship between variables, where a one-tailed test of statistical significance was applied. Two different statistical significance levels were used: (1) highly significant ($Þ < 0.01$) and significant ($Þ < 0.05$).

The coefficient of correlation is defined as:

$$r_{xy} = \frac{\sum x_i \, y_i 1 - n\bar{x}\bar{y}}{(n-1)s_x s_y} = \frac{n \sum x_i y_i - \sum x_i \sum y_i}{\sqrt{n \sum x_i^2 - (\sum x_i)^2} \sqrt{n \sum y_i^2 - (\sum y_i)^2}}$$

Where x and y are the sample means of X and Y, and s_x and s_y are the sample standard deviations of X and Y.

RESULTS

It is suggested in the conceptual framework of market orientation that market orientation of listed companies in Ghana is determined by a set of internal (management and organizational) and external factors. Again market orientation is proposed to influence the economic and non-economic performances of listed companies. In this connection, market orientation is suggested to play both backward and forward integrated roles. While certain factors or antecedents determine market orientation of a firm (backward integration), market orientation in turn determines the business performance or consequences of a firm (forward integration).

Reliability Analysis

The study adopted both existing and new variables in the quantitative research. It was therefore appropriate to test the reliability of these items to find the internal consistencies, to determine how consistently the scale items reflect the construct that they were measuring (Field, 2009). The purpose of this analysis was to further measure how the variables work together in a set; and at the same time able to independently measure the same construct. Both the old and the new scales developed by this study also

passed the coefficient alpha cut-off level of 0.8 (Grayson, 2004), indicating that these scales were reliable for use in Ghana. The internal consistency and reliability of the scale items are shown in Table 1 below.

The findings of Table 1, indicates that the Cronbach alpha values for scales measuring the antecedents of management factors, organizational factors and external factors were all greater than the acceptable cutoff point of 0.8. Similarly, the Cronbach alpha values for scales measuring the four components of market orientation were all above the acceptable cutoff point of 0.8. Finally, Cronbach alpha values for scales measuring the economic and non-economic performance of business were all greater than the acceptable cutoff point of 0.8. This means that both the old and the new variables used in this study were reliable and appropriate for the research.

Table 1 Coefficient Alpha and Descriptive Statistics

Scale Items	No of Items	Alpha
Top management emphasis	4	0.87
Management risk aversion	5	0.87
Management training	4	0.87
Management leadership style	5	0.86
Organizational capabilities	5	0.87
Organizational culture	4	0.87
Organizational politics	5	0.87
Centralization	4	0.87
Formalization	4	0.87
Market turbulence	5	0.87
Competitive intensity	5	0.87
Technological turbulence	5	0.87
General state of the economy	5	0.87
Internal marketing	5	0.86
Intelligence generation	4	0.87
Intelligence dissemination	4	0.87
Intelligence responsiveness	5	0.86
Profitability	4	0.86
Return On Investment	4	0.86
Sales Growth	4	0.86
Employees' Commitment	5	0.86
Espirit de Corps	5	0.86
Customer Satisfaction	4	0.87
Customer Retention	4	0.87
N = 43		

This table shows the Coefficient alpha of the antecedents and components of market orientation, as well as the performance measures of market orientation of listed companies in Ghana. The table is showing the reliability of scales used in the research to confirm the justification of their use in measuring market orientation and business performance in Ghana.

Correlation Analysis

This study conducted two sets of correlation analysis to test the antecedents of market orientation; and components of market orientation influencing economic and non-economic performance of listed companies. Table 0.02 illustrates the correlation between antecedents of internal and external market orientation and the components of market orientation.

From the table 2, top management emphasis was found to have significant correlated with internal marketing (r = 0.23; Þ <.075), intelligence generation (r = 0.14 Þ <0.178) and intelligence dissemination (r = 0.20; Þ <0.099) of the listed companies in Ghana. However, top management emphasis showed significantly positive correlation with intelligence responsiveness (r =.44; Þ <0.002). This suggested that management emphasis placed by top management on market-oriented, least encourage market orientation of the listed companies in Ghana.

Table 2: Correlation Matrix for Internal and External Factors of Market Orientation with Components of Market Orientation (Internal Marketing, Intelligence Generation, Intelligence Dissemination, Intelligence Responsiveness)

VARIABLE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Internal Marketing (1)	-	0.42**	0.45**	0.55**	0.23	-0.32	0.49**	0.57**	0.46**	0.59**	0.49**	-0.43**	0.16	-0.15	0.51**	0.52**	0.40**
Intelligence generation (2)			0.48**	0.51**	0.14	0.1	0.08	0.47**	0.48**	0.48**	0.39	0.49**	-0.21	0.11	0.42**	0.42**	0.17
Intelligence dissemination (3)				0.51**	0.2	0.33*	0.08	0.12	-0.15	0.36**	0.19	0.39**	-0.13	0.17	0.36**	0.38	0.3
Intelligence responsiveness (4)					0.44**	-0.13	-0.19	0.21	0.51**	0.52**	0.48**	0.51**	0.21	0.18	0.14	0.12	0.45**
Top management emphasis (5)						-0.33*	0.39*	0.49**	0.33*	0.23	0.23	0.31	0.26	0.39**	0.29*	0.40**	0.40**
Management risk aversion (6)							0.31*	0.39**	0.48**	0.45**	-0.18	0.26*	0.28*	0.33*	0.39**	-0.32*	0.29*
Management training (7)								-0.46**	0.36**	-0.46**	0.42**	0.42**	0.44**	0.38**	0.43**	0.38**	0.45**
Management leadership style (8)									0.36**	0.49**	0.36**	0.44*	0.54**	0.47**	0.39**	0.59**	0.37**
Organizational capabilities (9)										0.42**	-0.40**	-0.36**	0.32*	-0.35**	0.33*	0.29*	-0.33**
Organizational culture (10)											0.40**	0.38**	0.46**	0.35**	-0.29*	0.38**	0.45**
Organizational politics (11)												0.55**	0.26*	0.61**	0.41**	0.29*	0.42**
Centralization (12)													-41**	-26*	0.37**	-0.40**	0.15
Formalization (13)														-0.16	-0.44**	-0.39**	0.35**
Market turbulence (14)															0.49**	0.49**	0.35**
competitive intensity (15)																0.59**	0.34*
Technological turbulence (16)																	0.36**
State of the economy (17)																	-

*This table shows the correlation estimates of antecedents of market orientation and components of market orientation for listed companies in Ghana. The antecedents are represented by top management emphasis (5), management risk aversion (6), management training (7), management leadership style (8), organizational capabilities (9) organizational culture (10), organizational politics (11), centralization (12), formalization (13), market turbulence (14), competitive intensity (15), technological turbulence (16) and the state of the economy (17). Similarly, the components of market orientation are represented by internal marketing (1), intelligence generation (2), intelligence dissemination (3) and intelligence responsiveness (4). N = 43. **. Correlation is significant at the 0.01 level (2-tailed), *. Correlation is significant at the 0.05 level (2-tailed)*

Risk aversion was found to be statistically significant and negatively correlated with internal marketing component of market orientation of the listed companies in Ghana. The examination of the correlation between risk aversion and internal marketing was (r = -0.32*; Þ <0.020). The negative significant relationship means that the more risk the companies take, the less emphasis they place on the internal customer. On the other hand, risk aversion had positive correlation with intelligence dissemination; risk aversion and intelligence dissemination was (r = 0.33*; Þ <0.016). This positive correlation indicates that

as management takes risk, they improve the inter-departmental coordination. Risk aversion was found to have no significance correlation with intelligence generation and intelligence responsiveness. The relationship between risk aversion and intelligence generation was (r = 0.10; Þ <0.263); and risk aversion and intelligence responsiveness was (r = -0.13; Þ <0.197). These were indication of no correlation. Thus, the results suggest that risk aversion behavior of top management discourages market orientation of listed companies in Ghana.

From the table 2, top management emphasis was found to have significant correlated with internal marketing (r = 0.23; Þ <.075), intelligence generation (r = 0.14 Þ <0.178) and intelligence dissemination (r = 0.20; Þ <0.099) of the listed companies in Ghana. However, top management emphasis showed significantly positive correlation with intelligence responsiveness (r =.44; Þ <0.002). This suggested that management emphasis placed by top management on market-oriented, least encourage market orientation of the listed companies in Ghana.

Risk aversion was found to be statistically significant and negatively correlated with internal marketing component of market orientation of the listed companies in Ghana. The examination of the correlation between risk aversion and internal marketing was (r = -0.32*; Þ <0.020). The negative significant relationship means that the more risk the companies take, the less emphasis they place on the internal customer. On the other hand, risk aversion had positive correlation with intelligence dissemination; risk aversion and intelligence dissemination was (r = 0.33*; Þ <0.016). This positive correlation indicates that as management takes risk, they improve the inter-departmental coordination. Risk aversion was found to have no significance correlation with intelligence generation and intelligence responsiveness. The relationship between risk aversion and intelligence generation was (r = 0.10; Þ <0.263); and risk aversion and intelligence responsiveness was (r = -0.13; Þ <0.197). These were indication of no correlation. Thus, the results suggest that risk aversion behavior of top management discourages market orientation of listed companies in Ghana.

Management training was found to be significant and positively correlated with one of the components of market orientation; but did not have any correlation with three of the components of market orientation. The statistical significant correlation between management training and internal marketing was (r = 0.49**; Þ <0.000). This shows that the higher the degree of management training the higher the level of internal marketing. On the contrary, the statistical significant correlation between management training and the three components were: management training and intelligence generation (r = .08; Þ <0.314), management training and intelligence dissemination (r = 0.08; Þ <0.309), and management training and intelligence responsiveness (r = -0.19; Þ <0.106). These results also indicate that investment in management training would not affect organization's intelligence generation, intelligence dissemination and intelligence responsiveness of the listed companies in Ghana in any meaningful way. Therefore, it could be argued that while management training would be necessary to enhance market orientation through improvement in internal marketing, too much investment in management training might not be needed for market orientation of listed companies.

Management leadership style was found to be significant and positively correlated with internal marketing components of market orientation. The positive and significant correlations between management leadership style and the two market orientation components were: internal marketing (r = 0.57**; Þ <0.000), intelligence generation (r = 0.47**; Þ <0.001). However, no significant correlation was identified between management leadership style and the other two components of market orientation. The relationships were, management leadership style and intelligence dissemination (r = 0.12; Þ <0.219); management leadership style and intelligence responsiveness (r = 0.21; Þ <0.098). The significant correlations between management leadership style and the two components indicate the importance of

transformational-transactional leadership style in determining the level of market orientation of the listed companies in Ghana, through enhancement in internal marketing and intelligence generation.

Organizational capabilities of the listed companies were identified to be statistically significant and positively correlated with three components of market orientation; but had no significant correlation with one of the components of market orientation. This statistical significance were: organization capabilities with internal marketing (r = 0.46**; Þ <0.001), intelligence generation (r = 0.48**; Þ <0.001), and intelligence responsiveness (r = 0.51**; Þ <0.000). Nevertheless, the relationship between organizational capabilities and intelligence dissemination was (r = -0.15; Þ <0.162). The correlations suggest that the listed companies in Ghana should invest in areas that can improve the organization's capabilities in order to be market oriented.

Organizational culture was found to have significant and positive correlation with all four market orientation components. Organizational culture had significant and positive correlation with internal marketing (r = 0.59**; Þ <0.000), intelligence generation (r = 0.48**; Þ <0.001), intelligence dissemination (r = 0.36**; Þ <0.008) and intelligence responsiveness (r = 0.52**; Þ <0.000). These positive correlations indicate that the cultural behavior of listed companies in Ghana contribute significantly to market orientation of the organizations. Similarly, organizational politics had significant and positive correlation with internal marketing (r = 0.49**; Þ <0.000), intelligence generation (r = 00.39**; Þ <.005) and intelligence responsiveness (r = 0.48**; Þ <0.001). However, organizational politics had no relationship with intelligence dissemination (r = 0.19; Þ <0.118). These positive correlations between organizational politics and the three of four components of market orientation suggest that listed companies in Ghana should manage organizational politics in their firms and prioritize organizational interest ahead of individual self-interest.

Centralization was found to be significant and negatively correlated with two components of market orientation. The correlations between centralization and the two components of market orientation were: centralization and internal marketing (r = -0.43**, Þ <0.002) and centralization and intelligence responsiveness (r = -0.51**; Þ <0.000.). On the contrary, centralization was found to be statistically and positively correlated with the two other components of market orientation. The correlations were: centralization and intelligence generation (r = -0.49**; Þ <0.000), and centralization and intelligence dissemination (r = 0.39**; Þ <0.005). This significant correlation between centralization and components of market orientation is an advice to the listed companies in Ghana to combine effectively centralized with decentralized structures to becoming more market oriented.

Market turbulence had no significant correlation with any of the four components of market orientation. The relationships were: market turbulence and internal marketing (r = -0.15; Þ <0.163), market turbulence and intelligence generation (r = 0.11; Þ <0.245), market turbulence and intelligence dissemination (r = 0.17; Þ <0.132) and market turbulence and intelligence responsiveness (r = 0.18; Þ <0.125). These uncorrelated results suggest that the market of listed companies is quiet stable; therefore their being market-oriented is not determined by the turbulent nature of the market.

While three external factors, including competitive intensity, technological turbulence and general state of the economy were also found to be significantly correlated with components of market orientation, market turbulence was the only external factor that was found to have no significance relationship with market orientation. Competitive intensity was found to be significant and positively correlated to internal marketing (r = 0.52**; Þ <0.000), intelligence generation (r = 0.42**; Þ <0.002), and intelligence dissemination (r = 0.38**; Þ <0.006). There was no significant correlation between competitive intensity and intelligence responsiveness (r = .14; Þ <0.185). The positive correlations indicate competition's positive influence in determining the level of market orientation of the listed companies in Ghana. Technological factors were also found to be statistically and positively significant with three components

of market orientation; while it was found to have no correlation with one component. Technological turbulence had significant positive correlation with internal marketing (r = 0.51**; Þ <0.000), intelligence generation (r = 0.42**; Þ <0.002), intelligence dissemination (r = 0.38**; Þ <0.006);but with intelligence responsiveness (r = 0.12; Þ <0.218). The significant positive correlations of three components suggested that listed companies adopt market oriented behavior in a technological-driven business environment than in less technological driven situation.

Furthermore, the general state of the economy of Ghana was identified to significantly and positively correlate with internal marketing (r = 0.40**; Þ <0.004); intelligence dissemination (r = 0.30*; Þ <0.026); and intelligence responsiveness (r = 0.45**; Þ <0.001). Nevertheless, no statistically significant was found with intelligence generation (r = 17; Þ <00.138). The significant positive correlation between the general economy and the three components of market orientation suggest that the market orientation of the listed companies in Ghana is a function of the country's state of the economy. However, formalization was found to have no statistical significance correlation with any of the four components of market orientation. The relationship between formalization and the four components were: internal marketing (r = 0.16; Þ <.151), intelligence generation (r = -.21; Þ <0.087), intelligence dissemination (r = -13; Þ <.201); and intelligence responsiveness (r = 0.24, Þ <0.060). The presence of no correlation between formalization and the four components confirm that formalization structure of the listed companies in Ghana does not promote market orientation behavior; and that the companies should rethink the adoption of an informal structure of organization in order to become more market oriented.

Table 3 shows the correlation between market orientation and the seven variables of business performance, including profitability, return on investment, sales growth, employees' commitment, espirit de corps, customer satisfaction and customer retention. An analysis of the correlation matrix indicated that the market orientation of the listed companies in Ghana was found to be statistically significant to economic and non-economic performance of business.

From the table 3, internal marketing was found to be statistically significant and positively correlated to profit (r =0.47** Þ <0.001), return on investment (r =0.57** Þ <0.000), sales growth (r =0.63** Þ <0.000) employee commitment (r =.57** Þ <0.000), espirit de corps (r =0.55** Þ <0.000), customer satisfaction (r =0.38** Þ <0.012), and customer satisfaction (r =0.57** Þ <0.000). These significant positive correlation indicate that management concentration on internal customers contribute directly with both the economic and non-economic performance of listed companies in Ghana. Similarly, intelligence generation was found to be statistically and positively significant with all seven business performance indicators, except return on investment. The statistical relationships with intelligence generation were: profitability (r = -0.33* Þ <0.032); sales growth (r = -.35* Þ <0.022); employee commitment (r =0.55** Þ <0.000), spirit de corps (r =0.47** Þ <0.002), customer satisfaction (r =0.36** Þ <0.019); customer retention (r =0.42** Þ <0.005) and return on investment (r =0.22 Þ <0.075). The statistical significance correlation indicate that both economic and non-economic performances of listed companies are functions of internal marketing. Furthermore, intelligence dissemination was statistically and positively significant with only three non-economic performance indicator; but had no significant relationship with all three economic factors and one non-economic factor of business performance. The statistical relationship of intelligence dissemination with the business factors were: espirit de corps (r =0.37* Þ <0.014), customer satisfaction(r =0.35* Þ <0.022) and customer retention (r =0.32* Þ <0.036). Intelligence generation, was statistically uncorrelated with profitability (r = 0.24 Þ <0.096); return on investment (r =0.24 Þ <0.129); sales growth (r =0.27 Þ <0.078); and employee commitment (r =0.28 Þ <0.078). The correlation results suggests that intelligence dissemination is a function of non-economic performance of listed companies; but not the same for economic performance. Finally, information responsiveness was found to be statistically and positively significant with only two non-economic performances of business; but uncorrelated with all three economic performance and two non-economic performances. The correlation of intelligence responsiveness with the two business performances was: employee commitment (r

=0.54** Þ <0.000) and spirit de corps (r =0.60** Þ <0.000). The others were: profitability (r =0.29 Þ <0.061);return on investment (r =0.28 Þ <0.067);sales growth (r =0.24 Þ <0.065); customer satisfaction (r =0.28 Þ <0.078); and customer retention (r =0.24 Þ <0.075). This statistical correlation results is a 'wakeup call' to managers of listed companies in Ghana to be more responsive to intelligence to enhance non-economic performance of business, as well as encourage economic performance of business.

Table 3. Correlation Matrix for Components of Market Orientation with Consequences of Market Orientation (Profitability, ROI, Sales growth, employees' commitment, espirit de corps, Customer satisfaction, Customer retention)

VARIABLE	1	2	3	4	5	6	7	8	9	10	11
Profitability (1)	-	0.72**	0.61**	0.64**	0.39**	0.79**	0.55**	0.47**	0.33*	0.19	0.29
Return on Investment (2)			0.73**	0.42**	0.34	-0.43**	0.35**	0.57**	0.22	0.24	0.28
Sales Growth (3)				0.49**	0.49**	0.35**	0.57**	0.63**	0.35**	0.27	0.24
Employees commitment (4)					0.54**	0.48**	0.41**	0.57**	0.55**	0.18	0.54**
Espirit de corps (5)						0.54**	0.55**	0.55**	0.47**	0.37**	0.60**
Customer satisfaction (6)							0.49**	0.38**	0.36**	0.35**	0.28
Customer retention (7)								0.57**	0.42**	0.32*	0.24
Internal marketing (8)									0.42**	0.45**	0.55**
Intelligence generation (9)										0.48**	0.51**
Intelligence dissemination (10)											0.51**
Intelligence responsiveness (11)											-

*This table shows the correlation estimates of market orientation and business performance for listed companies in Ghana. The components of market orientation are represented by internal marketing (8), intelligence generation (9), intelligence dissemination (10), and intelligence responsiveness (11). On the other hand, business performance is represented by profitability (1), ROI (2), sales growth (3), employee commitment (4), spirit de corps (5), customer satisfaction (6) and customer retention (7). ** and * represent significance at 99% and 95% level respectively. N = 43. **. Correlation is significant at the 0.01 level (2-tailed); *. Correlation is significant at the 0.05 level (2-tailed)*

CONCLUDING COMMENTS

Despite the importance of market orientation to modern business, the challenge identified in the market orientation literature, was the lack of systematic effort to develop valid measures of market orientation (Kaynak and Kara, 2004);and the inconsistencies in the findings of the market orientation studies in developing countries (Malik and Naeem, 2009; Qu and Ennew, 2009). Thus, in order to fill these gaps, a conceptual framework of all six perspectives of market orientation was proposed, based on three issues of the synthesis model, which involve all the necessary elements to develop a synthesis market orientation model for listed companies in Ghana. The study tested for the first time the applicability of the market orientation framework with listed companies in Ghana.

In order to test the applicability of the conceptual framework of market orientation, quantitative research was adopted. In the quantitative research, hypotheses were tested based on primary data collected from the listed companies in Ghana between August 2011 and September 2011. Similarly, in order to confirm the appropriate use of parametric statistics, statistical assumptions were first tested and correlation analysis conducted. It was found to be supportive for the use of parametric statistics. Further, in order to examine the reliability of the scales used for this study, a reliability analysis was also conducted and the results confirmed that the scales used for the data collection in this study were reliable for use in Ghana.

The survey questionnaires were pre-tested in Ghana and refined before it was declared ready to use for the data collection.

The findings of the study suggested that all four management factors, including top management emphasis, management risk aversion, management training and management leadership style had a statistical significant relationship with the level of internal marketing. On the basis of this it can be stated that top management factors is a function of market orientation of listed companies. The results also indicate that all five organizational factors, except formalization, had statistical significant correlation with components of market orientation. With four of the five organizational factors correlating in one way or the other with all four components of marketing orientation, it can be concluded that organizational factors have causal relationship with market orientation of listed companies. The findings further suggest that three of the four external antecedents, including competitive intensity, technological turbulence and the state of the economy had statistical significant relationship with the components of market orientation. Only market turbulence factor was found to have no significant relationship with any of the external factors. Thus, the results indicate a functional relationship between external antecedents and market orientation. The findings revealed that all seven performances of business had statistical significant relationship with the market orientation components. The statistical significant relationship suggests that market orientation influence the economic as well as non-economic performance of listed companies in Ghana. In general, the results imply that the overall business performance of listed companies in Ghana is a function of market orientation.

The study is not without limitations. Firstly, the study adopted the informant method in the data collection. This method was chosen because it was expected that it could help address the research problem; also it has been used in previous market orientation studies. This method involved the use of senior executives of the companies as respondents for the study. Looking at the busy schedules of these senior executives, they could give "wrong" responses without realizing it. Secondly, the study did not use customers as respondents for measuring customer satisfaction; which should be the best option.The companies were rather used because of lack of accurate customer data, which made it extremely difficult to locate and reach customers who are spread over the country. As the study used executives of the companies instead of the customers to measure customer satisfaction, perhaps the result might not truly reflect the views of customers. Also, variables to test return on investment (ROI) and profitability was more likely to receive incorrect response from managers who might be tempted to hide information relating to such issues for various reasons.

Future studies may consider using other methods rather than the informant method. This should ensure that responses come from a wide range of people from different levels of management of the companies. This will go a long way to ensuring that responses reflect not only the views of management, but those of the whole organization. As the study uses executives of the companies instead of the customers to measure customer satisfaction it might affect the true reflection of the reality. Thus, future studies can consider finding a way of using customers as respondents to measure customer satisfaction. Since additional factors, including professional marketing education, entrepreneurship, professionalism, company size and capital structure were not considered in the conceptual framework, because of time and the objective of the study, future studies, could consider these in addition to the ones in the framework of this study.

REFERENCES

Alhakimi, W. and Baharun, R. (2009) A Synthesis Model of Market Orientation Constructs Toward Building Customer Value: A Theoretical Perspective, *African Journal of Marketing Management* Vol. 1(2) pp.043- 049

Appiah-Adu K (1998). Market Orientation and performance: Empirical tests in a transition economy. *Journal of Strategic Marketing*, *6*, 25-45.

Barksdale, H. and Darden, B. (1971) "Marketer' Attitude Toward the Marketing Concept, *Journal of Marketing,* 35, 29 - 36

Barrow, A. (2006) *Statistics for Economics, Accounting and Business Studies,* 4th edition New York, Pearson Education Limited
Becker, J., and Homburg, C. (1999). Market-oriented management: A system-based perspective. *Journal of Market Focused Management*, 4(1), 17-41.

Berry, W. D., and Feldman, S. (1985). *Multiple Regression in Practice.* Sage University Paper Series on Quantitative Applications in the Social Sciences, series no. 07-050). Newbury Park, CA: Sage.

Bytyqi, F, Zeqiri, N. and Hasani, V. (2010) Internal Perspectives of Market Orientation: Case of Central Public Organizations in Kosovo, Research Journal of International Studies – Issue 17

Cadogan, J.W., Diamantopoulos, A. and Pahud de Mortanges, C. (1999), "A measure of export market orientation: scale development and cross-cultural validation", *Journal of International Business Studies*, Vol. 30 No. 4, pp. 689-707.

Carr, J.C. and Lopez, T.B. (2007). Examining market orientation as both culture and conduct: modeling the relationship between market orientation and employee responses. *Journal of Marketing Theory and Practice; 15*, (2) 113-123.

Deng, S. and Dart, J. (1994).Measuring market orientation: a multi-factor, multi-item approach.*Journal of Marketing Management,* 10: 725-742.

Deshpande´, R., Farley, J.U. and Webster, F.E. (1993), "Corporate culture, customer orientation, and innovativeness in Japanese firms: a quadrad analysis", *Journal of Marketing*, Vol. 57, pp. 23-7.

Dibb, S., Simkin, L., Pride, W. M., Ferrell, O. C. (1991): '*Marketing; concepts and strategies',*

Farrell, M.A and Oczkowski E (1997). An analysis of the MKTOR and MARKOR measures of Market Orientation: An Australian Perspective, *Marketing Bulleting,* 8 (3), 30 – 40.

Field, A. (2009) Discovering Statistics Using SPSS (3ed.), SAGE Publication, NY

Gainer, B. and Padanyi, P. (2005)," The relationship between market-oriented activities and market-oriented culture: implications for the development of market orientation in nonprofit service organisations", *Journal of Business Research*, Vol. 58, pp. 854- 862.

Gibson, C.B and Birkinshaw, J (2004) The Antecedents, Consequences, and Marketing Role of Organisational Ambidexterity, *Academy of Management Journal*, 47 (2), 209 – 226

Hafer, J. and Gresham, G.G., (2008). Organizational Climate Antecedents to the Market Orientation of Cross-Functional New Product Development Teams.*Journal of Behavioral and Applied Management.9* (2), 184.

Hair, J. F. Jr., Anderson, R.E., Tatham, R.L. and Black, W.C., (1998).*Multivariate Data Analysis*, MacMillan Co: New York.

Jansen JJP, Van Den Bosch, FAJ, VolberdaHW (2005). Managing potential and realized absorptive capacity: How do organizational antecedents matter? Acad. Manage. J., 48(6): 999-1015.

Jansen, J., Frans, J. P., Van den Bosch, A. J., and Volberda, H. W. (2005). Exploratory innovation, exploitative innovation, and ambidexterity: the impact of environmental and organizational antecedents. *Schmalenbach Business Review, 57*, 351-63.

Kaynak E., Kara, A. (2004), "Market orientation and organizational performance: A comparison of industrial versus consumer companies in mainland China using market orientation scale (MARKOR)", *Journal of Small Business Management,* Vol.43, No.2, 105-118.

Kohli, A.K, and Jaworski, B.J, (1990). Market orientation: The construct, research propositions and managerial implications. *Journal of Marketing, 54*, 1–18.

Kotler, P. and Armstrong, G. (2010) *Principles of Marketing*, New Jersey, Pearson Education

Kotler, Philip (1977), "From Sales Obsession to Marketing Effectiveness*", Harvard Business Review*, 55 (November-December).
Krejcie, R.V and Morgan, D.W (1970) Determining Sample Size for Research Activities, *Educational and Psychological Measurement*, 30, 607-610.

Lind, M. I., Persbo, F. and Johansson, F. (2008).Pool desiccation and developmental thresholds in the common frog, *Ranatemporaria*. Proc. R. Soc. Lond. B 275:1073–1080.

Malik, M. and Naeem, E. B. (2009) Identification of Drivers and Obstacles of Market Orientation among Diversified Industries of Pakistan, *A Research Journal of South Asian Studies Vol. 24, No.2, July-December 2009, pp. 322-33*

Mavondo, F., and Farrell, M. (2000). Measuring market orientation: are their differences between business markets and consumer markets? *Australian Journal of Management, 25*, 223-244.

McCarthy, E. J, and Perreault, Jr., W.D (1993).*Basic Marketing*, Homewood, Ill.: Richard D. Irwin, Inc.

McNamara, C.P. (1972) The Present Status of Marketing Concept, Journal of Marketing, 36 (1) 50-57.

Narver, J., and Slater, S. (1990). The effect of a market orientation on business profitability.*Journal of Marketing, 54*(4), 20-36.

Oczkowski, E., and Farrell, M.A. (1998).An Examination of the Form of Market Orientation in Australian Companies.*Australasian Marketing Journal*, 6, 3-12.

Osuagwu, L. (2006). Market orientation in Nigerian companies.*Marketing Intelligence and Planning*, *24*(6), 608-631.

Pitt, L., Prinsloo, M., and Berthon, J. (2007). Market orientation and mode of focus: A study of South African Firms. *Management Dynamics*, *16*(1), 20-33.

Qu, R., Ennew, C. T. (2009) Developing a Market Orientation in a Transitional Economy: The Role of Government Regulation and Ownership Structure. *Journal of Public Policy and Marketing*, Vol. 24, Issue 1.

Ruekert, R.W. (1992), "Developing a market orientation: an organizational strategy perspective", *International Journal of Research in Marketing*, Vol. 9, pp. 225-245.

Savitt, R. (2001), "Understanding marketing development in the Czech Republic", European Journal of Marketing, Vol. 35 Nos 11/12, pp. 1386-97.

Shapiro, B.P. (1988), "What the hell is market oriented?", *Harvard Business Review*, Vol. 66 (6), 119-25.

Shoham, A., Rose, G. M., and Kropp, F. (2005). Market orientation and performance: a meta-analysis. *Marketing Intelligence & Planning*, *23*(5), 435-454.

Sprinthall, R.C. (2000) *Basic Statistical Analysis*, Allyn and Bacon, Boston

Turner, D. and Crowford, M., (1994), Managing current and future competitive performance; the role of competence", in G. Hamel and A. Heene (eds.), *Competence-based Competition*, 241-264.

Zebal, M. A. (2003) *A Synthesis Model of Market Orientation for Developing Country – A Case of Bangladesh,* PHD Thesis, Victoria University, Melbourne, Australia

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