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Panel Analysis of Monetary Model of ASEAN-5 Exchange Rates

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Abstract

In this study, we examined whether the exchange rates in ASEAN-5 countries are driven by monetary fundamentals. We applied the panel unit root tests and found that the United States denominated nominal exchange rates of Malaysian Ringgit, Indonesian Rupiah, Philippines Peso, Singapore Dollar, and Thailand Baht are all integrated of order one. Meanwhile, relative money supply and relative real income are also integrated in the same order. Nonetheless, the relative interest rate is integrated in order zero, and it implies the uncovered interest rate parity held in ASEAN-5. By using a panel cointegration test pioneered by Pedroni (2000, 2004), we found evidence that there is a long-run relationship between nominal exchange rate and its monetary fundamentals. Consistent with the monetary model of the exchange rate, relative money supply is positively related to nominal exchange rates, while relative real income is negatively related to nominal exchange rates. Therefore, this study reveals the importance of relative real money supply and relative income for the exchange rate market players to predict and monitor ASEAN-5 exchange rates.

Keywords: monetary exchange rate model, panel cointegration, ASEAN

JEL Classification: C33, F31, F41

1. Introduction and Overview

Exchange rate determination has been a focus of research interest for decades, after the collapse of the *Bretton Woods system of fixed exchange rate in the early 1970s.* As we know, exchange rate plays an important role in economics development. With the right tools to predict the exchange rate behavior, it would help in enhancing the economic development of a country. For this reason, various exchange rate models including the monetary model of exchange rate have been postulated and empirically tested. However, many researchers in the 1980s such as Meese and Rogoff (1983), Frankel (1984) and Boughton (1988) have failed to find the satisfactory exchange rate model.

In the 1990s, Kearney and MacDonald (1990), Edison and Pauls (1993) and Rose (1996) have provided further evidence of the empirical failure of the monetary models in explaining exchange rate movements by using Engle and Granger's (1987) two-step procedure. Even though some researchers found evidence showing cointegrating relationship between monetary fundamentals and exchange rates, others could not obtain supportive evidence to validate the monetary models. In addition, Rapach and Wohar (2002) also pointed out that monetary fundamentals are appropriate to predict exchange rates at longer horizons only. Notably, Rapach and Wohar (2002) were able to provide evidence to support monetary model for half of the industrialized-countries under investigation using data that spanned over a century. There is also another strand of research that utilizes nonlinear techniques to improve the power of tests over the conventional test procedures (see for instance Liew, 2004; Liew et al., 2004; Liew, 2008)

On the other hand, Dabrowski et al. (2014) mentioned that panel procedures could be useful to overcome the low power of standard tests for a short span of data. Hsiao (2003) pointed out that panel data sets for economic research possess several major advantages of time-series data sets. Among others, it gives rise to a larger data set, thereby increasing the degree of freedom and improving the efficiency of econometric estimates. Moreover, panel data provides the foundation for aggregate analysis since time series analysis tends to yield less accurate if not misleading aggregate outcome (Hsiao, 2007). In this conjunction, a number of the most recent studies in

exchange rate determinations that employed the panel technique found evidence that monetary model can predict exchange rate well (see Cerra and Saxena, 2010; Uz and Ketenci, 2010; Dabrowski et al., 2014). In particular, Dabrowski et al. (2014) found that money supply, real income and price level could explain the exchange rate behavior for the Central and Eastern European Countries case using the panel data analysis.

Overall, it can be understood that in the literature of monetary models, when estimated with the appropriate methods and a larger data set, they can be useful tools in determining the long-run relationship between exchange rate and its fundamentals. Previous studies using panel data analysis have examined the validity monetary model for European countries, industrialized countries and OECD countries cases (see Mark and Sul, 2001; Rapach and Wohar, 2004 and Dabrowski et al., 2014). In the same spirit of research, this study has aimed to contribute to the literature by employing panel procedures to test for the validity of the monetary model for ASEAN-5 countries in aggregate[1].

In this article, we show how the United States dollar denominated the nominal exchange rates of ASEAN-5 countries are cointegrated with relative money supply and relative real income using the panel root tests and cointegration tests. Further analysis using fully modified ordinary least squares (FMOLS) as well as dynamics ordinary least squares (DOLS) estimation reveals that the estimated coefficients have the correct sign as predicted by the monetary model of exchange rate. As such, in line with the previous studies that have examined European countries, industrialized countries and OECD countries, this article provides empirical evidence supportive of the monetary model of exchange rate using the panel data approach for the case of ASEAN-5.

Section 2 describes the empirical model adopted in this study. Section 3 explains the data employed, while the methods of analysis are mentioned in Section 4. Section 5 presents the empirical results and interpretation. The concluding remarks are given in the last section.

2. Empirical Model

This study considers the following flexible-price monetary model attributed to Frankel (1976), Mussa (1976) and Bilson (1978):

$$S_{it} = \beta_0 + \beta_1 M_{it} + \beta_2 Y_{it} + \beta_3 I_{it} + B_4 D_{it} + \varepsilon_{it} \tag{1}$$

where S_{it} represents the nominal exchange rate, which is measured as the domestic currency value of one United States dollar. M_{it} is relative money supply (domestic money supply – United States money supply), Y_{it} denotes relative real income (domestic real income – United States real income), I_{it} is relative interest rate (domestic interest rate – United States interest rate). D_{it} is dummy variable that takes into account the effect of the Global Financial Crisis where it takes the value one from 2008:q1 to 2008:q4 and zero otherwise. $_{it}$

denotes error term. $'s$ are regression coefficients.

It is expected that $_1 > 0$, since an increase in relative money supply will cause domestic currency to depreciate. On the other hand, a rise in relative real income will induce an increasing demand for money and causes domestic currency to appreciate. Hence, $_2 \quad 0$. Besides, an increase in relative interest rate will lead to capital inflow. Consequently, domestic currency will appreciate ($_3 \quad 0$). However, home currency could depreciate if inflation rate increases, causing a fall in relative interest rate ($_3 \quad 0$). Note that if the uncovered

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[1] The five largest economies in South-East Asia, namely Malaysia, Indonesia, Thailand, Singapore and the Philippines are the original founders of the Association of South-East-Asian Nations (ASEAN) and its most influential members in the 21st century (Zhu et al., 2016).

interest parity holds, relative interest rate equalizes to zero (Frankel, 1976). As such, the relative interest rate should be stationary at the level it will be excluded from Equation (1), and the resulting model is known as the forward-looking monetary model of exchange rate.

3. Data for Estimation

The balanced panel of quarterly data covers the period from 2000 quarter one to 2014 quarter four for ASEAN-5 countries namely Malaysia, Indonesia, the Philippines, Singapore and Thailand. Data of the United States dollar denominated the nominal exchange rates of the Malaysian Ringgit, the Indonesian Rupiah, the Philippines Peso, the Singapore Dollar, and the Thailand Baht, as well as relative money supply, relative interest rate, and relative real income which are included in this study. Treasury bill rate is a proxy to interest rates for the United States, Malaysia, Singapore and the Philippines (Baharumshah et al., 2002; Baharumshah and Masih, 2005; Islam and Hassan, 2006), and Lending rate is a proxy for interest rates for Thailand and Indonesia. Real gross domestic products (GDP) are used to represent the real incomes. Data of monetary aggregates, M2 are used for measuring the money supply for all countries. All variables are employed in the logarithmic form except for the interest rates.

4. Methodology of the Study

This study applies panel unit root tests such as the LLC test proposed by Levin et al. (2002) and IPS test proposed by Im et al. (2003) test to check for the stationarity of the variables. The test of unit root is crucial to determine whether the variables are integrated of order zero, one or more than one. The advantage of using panel unit roots test is it increases the number of cross section observation and hence improves the power of unit root test over the standard augmented Dickey-Fuller (ADF) tests (Levin and Lin, 1992). LLC assumes that the persistence parameters are common across cross-sections. In contrast, IPS allows the heterogeneity of persistence parameters across cross-sections. Besides, LLC assumes that all cross-sections are stationary in the alternative test. However, IPS test allows for some individual cross-sections to be stationary[2]. These two complementary tests are applied to check the stationarity of the series for the cointegration test in this study.

Based on the panel unit root tests results, we are able to identify the variables to be included in the cointegration test. The cointegration test pioneered by Pedroni (2000, 2004) is applied in this study to test the cointegrating between exchange rate and its fundamentals. The advantages of this method are it allows for multiple regressors and also for heterogeneity in the residuals across sectional units. Seven tests have been used which consist of four within-group tests and three between-group tests to check whether all variables are cointegrated. In order to perform Pedroni's cointegration test, it is necessary to obtain all the series integrated of order one.

Finally, the fully modified ordinary least squares (FMOLS) and dynamics ordinary least squares (DOLS) estimator suggested by Kao and Chiang (2000) are adopted to obtain the long-run coefficients. These estimators provide corrected standard pooled OLS in terms of serial correlation and regressors endogeneity that usually exist in a long-term relationship[3]. Thus, we can apply these models to check the coefficient and expected sign of each variable in the ASEAN-5 countries.

5. Empirical Results

Panel unit root test results

The results of panel unit root tests for ASEAN-5 countries are reported in Table 1. In this preliminary step of analysis, the integration order of nominal exchange rate, relative money supply, relative real income and relative interest rate are identified by using LLC and IPS tests. Basically, the exchange rate, relative money supply and relative real income are found to be nonstationary in levels. This is because the null hypothesis of nonstationary cannot be rejected at the 10 percent based on LLC and IPS tests, regardless of whether a trend or no trend has been included in the estimation. However, the relative interest rate is found to be stationary in level by both tests. Next, the relative money supply, relative income and nominal exchange rate series are subjected to another round of unit root tests in their first-differenced form. It is found that nominal exchange rate and relative money supply are stationary in their first-differenced form, according to the LLC test. In contrast, the relative income is not stationary in the first-differenced form by the LLC test.

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[2]IPS formulated their model under the restrictive assumption that the data must be a balanced panel to compute the *t-bar* test statistic.

[3]See Kao and Chiang (2000) for further discussion on the estimation and the advantages of FMOLS and DOLS estimators.

Table 1. Results of panel unit root tests

Series	LLC		IPS	
	No Trend	Trend	No Trend	Trend
Levels				
S	0.729	1.669	-1.146	-2.571
	(0.767)	(0.952)	(0.816)	(0.127)
M	1.797	-1.254	0.097	-2.444
	(0.964)	(0.105)	(1.000)	(0.176)
Y	2.448	0.427	0.074	-2.190
	(0.993)	(0.665)	(1.000)	(0.352)
I	-3.007	-1.806	-2.937 (0.000)***	-3.199 (0.002)***
	(0.001)***	(0.036)**		
First Differences				
S	-9.740	-8.042	-6.842	-6.590
	(0.000)***	(0.000)***	(0.000)***	(0.000)***
M	-7.931	-8.669	-4.611	-5.045 (0.000)***
	(0.000)***	(0.000)***	(0.000)***	
Y	11.343	16.614	-4.111 (0.000)***	-4.265 (0.000)***
	(1.000)	(1.000)		
I	-	-	-	-

Notes. ** and *** denote rejection of the null of non-stationary at 5 and 1 percent levels of significance, respectively. Probability values are given in parentheses.

According to the IPS test, all variables are found to be stationary in the first-differenced form. IPS has an advantage over LLC, in which it takes into account the heterogeneity across countries, (Quah, 1992, 1994; Ling et al., 2010). Therefore, we can conclude that with the IPS test, all variables are integrated of order one except for the relative interest rate, which is integrated of order zero. Hence, only three variables will be included in the test for cointegration relationship between nominal exchange rate and its fundamentals (relative money supply, relative real income).

Panel cointegration test results

Table 2 depicts the results of the panel cointegration test. According to Pedroni's cointegration test results, the null hypothesis of no cointegration can be rejected by all test statistics at conventional levels of significance. In other words, all statistics show the presence of a long - run relationship between the nominal exchange rates of ASEAN-5 countries and its monetary determinants which are relative money supply and relative real income. Therefore, consistent with Cerra and Saxena (2010), Uz and Ketenci (2010) and Dabrowski et al. (2014), the current study is able to provide evidence supportive of the monetary model of exchange rate using panel data analysis for the case of ASEAN-5.

Table 2. Results of panel cointegration tests

Test Statistic	No Trend
Within-dimension (Panel)	
Panel v-Statistic	3.030 (0.001)***
Panel rho-Statistic	-3.287 (0.001)***
Panel PP-Statistic	-3.166 (0.001)***
Panel ADF-Statistic	-1.408 (0.080)*
Between-dimension (Group)	
Group rho-Statistic	-3.797 (0.000)***
Group PP-Statistic	-4.082 (0.000)***
Group ADF-Statistic	-2.213 (0.014)**

Notes. *, ** and *** denote significance level at 10, 5 and 1 percent levels, respectively. Probability values are given in parentheses.

Estimated long-run elasticities

The final step is to estimate the cointegrating vector by using FMOLS and DOLS pioneered by Kao and Chiang (2000). As relative interest rate is integrated in order zero, it implies that the forward-looking monetary model should be estimated, instead of the flexible-price monetary model. The estimated coefficients of the forward-looking monetary model that correspond to long-run elasticities are reported in Table 3 [4]. The

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[4] We found that the coefficient for dummy variable is insignificant in which we can conclude that the global financial crisis does not seem to give any effect toward the monetary model of the exchange rate in ASEAN-5 countries.

coefficients for relative money supply are positive, while the coefficients of relative income are negative. Indeed, these coefficients are statistically significant at the 1% level. These estimated signs of the coefficients are consistent with the prediction of the monetary model.

Moreover, the FMOLS and DOLS estimators show that the coefficients for relative money supply are 0.380 and 0.346 respectively for ASEAN-5 countries. Thus, based on the FMOLS and DOLS results, a one percent increase (decrease) in relative money supply can be associated to about 0.4 percent depreciation (appreciation) in the nominal exchange rate. Meanwhile, the coefficients for relative income are -0.952 and -0.957 by the FMOLS and DOLS estimators respectively. Here, it can be said that a one percent increase (decrease) in relative real income will tend to appreciate (depreciate) the exchange rate by nearly 1 percent.

Table 3. Results of long-run coefficients

Coefficients	FMOLS	DOLS
β_1	0.380 (0.000) ***	0.346 (0.000)***
β_2	-0.953 (0.000)***	-0.957 (0.000)***
β_4	-0.020 (0.172)	-0.025 (0.176)

Notes. *** denotes significance at 1 percent level. Probability values are given in parentheses.

6. Concluding Remarks

In this study, we have attempted to examine whether monetary fundamentals could explain the ASEAN-5 exchange rates behavior over the 2000 quarter one to 2014 quarter four periods. In other words, we would like to know whether monetary model does hold for ASEAN-5 countries. From our findings, we summarise that nominal exchange rate, relative money supply and relative real income are stationary in their first-differenced according to the IPS test. However, relative interest rate is stationary in the level.

Based on Pedroni's panel cointegration test, we found evidence that nominal exchange rate and relative money supply as well as relative income are cointegrated. The coefficients of relative money supply and relative income are significant and the estimated signs are in line with the monetary model's prediction. Therefore, monetary model is valid for the United States dollar denominated nominal exchange rates of ASEAN-5 countries, namely Malaysia, Indonesia, Singapore, Thailand and the Philippines. In addition, the analysis of dummy variable which has been undertaken here to capture the effect of the Global Financial Crisis has extended our knowledge that this event does not seem to affect the exchange rate model in ASEAN-5 countries.

The issues of exchange rate behavior for ASEAN-5 against the United States Dollar are important to policy makers, researchers, private enterprise and investors, especially after the global financial chaos that occurred in the end 2008. Based on the empirical results, we found out that ASEAN-5 countries have a strong significant impact on the United States but are not affected by the global financial crisis. Therefore, several policy implications can be suggested. First, private enterprise and investors should focus on one indicator such as real income, as a rise in real income will lead to ASEAN-5 countries appreciates due to the increase in money demands. Indirectly, this will also increase the capital account that surpasses the decline in the trade balance. Second, if the money supply differentials are referred by the policy makers, investors and private enterprise, an increase in money supply differentials will cause the five major ASEAN countries vis-à-vis USD to depreciate. Fourth, the behavior of long-run impact must be continuously identified. This is because the policy makers, the private enterprise and investors could evaluate, manage, improve and use it for the benefit of their long-run financial and economic targets. As for the policy implications of our findings, since uncovering interest parity holds for ASEAN-5 nominal exchange rates, there is no opportunity for arbitrating based on the differentials between ASEAN-5 and United States interest rates. It also implies that one could not predict these exchange rates by the relative interest rates. Nevertheless, this study reveals the importance of relative real money supply and relative income for the exchange rate market players to predict and monitor the ASEAN-5 exchange rates.

Several recommendations for future research are suggested to fill up the literature gap. First, the contegrating relationship between exchange rate and its fundamentals for ASEAN-5 countries against the United States has been identified. The long run relationship may exist for ASEAN-5 countries against other world's major currencies such as the euro, the British pound and the Japanese Yen. Second, the interest rate differentials could not be included in testing long-run relationship due to Pedroni's cointegration test, which is only suitable for nonstationary variables in level form. Thus, in the future research, panel autoregressive-distributed lag framework will be applied. Moreover, there might be a nonlinear relationship that exists between exchange rate and its fundamentals. Therefore, it would be interesting to know the exchange rate movements in terms of nonlinearity not only for ASEAN-5, but also for other regions.

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The Relationships among Emotional Demand, Job Demand, Emotional Exhaustion and Turnover Intention

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Abstract

The objectives of this paper are to assess the levels of job demand, emotional demand, emotional exhaustion and employee turnover intention and to examine the relationships among these concepts in the context of three selected apparel manufacturing firms in Eastern region of Sri Lanka. Employee absenteeism and turnover are key issues of apparel firms in Sri Lanka. In order to achieve the objectives of this paper, a questionnaire based survey was conducted among 153 employees of apparel firms and collected data were analyzed by using univariate and bivariate techniques. The findings of this paper revealed that there is a strong positive relationship between emotional demand and emotional exhaustion, emotional demand and turnover intention, job demand and turnover intention, and emotional exhaustion and turnover intention. At the same time, there is a moderate positive relationship between job demand and emotional exhaustion. The findings of the study have various managerial implications for the apparel manufacturing firms to prevent or control employee stress, absenteeism and turnover related issues and to develop good labour-management relationship.

Keywords: emotional demand, emotional exhaustion, job demand, turnover intention

1. Introduction

Gamage and Abeysighe, (2010, p.3), stated that "the textile and clothing industry is one of the industrial sectors which affect the global economies in the world, employing over 25 million people and consumers spend around $1.3 trillion on textiles every year, most of it on clothes". This statement emphasizes the influence of apparel industry in global economy. In Sri Lanka, apparel sector is playing a key role and significantly influencing the Sri Lankan economy. The Central Bank Annual Report of Sri Lanka (2017) stated that, Sri Lankan economy grew at a moderate pace of 3.1 percent in 2017. Agricultural sector, industry sector and service sector are the main contributors of Gross Domestic Product (GDP) of the country. Industry accounted for almost 26.8 percent of GDP. Largest industrial subsector, manufacturing accounts for 15.7 percent contribution of GDP. Under the manufacturing sector, manufacturing of wearing apparel accounted 19.8 percent out of 100 percentage of manufacturing accounts. Additionally, manufacture of textiles, wearing apparel and leather related products, which grew by 5.7 percent in 2017.

Apparel industry provides significant support to strengthen the economy by providing higher employment opportunities in Sri Lanka. According to Labour Force Survey (2016, p. 21), the unemployment rate in Sri Lanka is 4.4 percent. Further, the Labour Force Survey Report (2016, p. 22), stated that "Sri Lanka female unemployment rate remains higher than that of males". In addition, "Apparel industry provides direct employment opportunities to over 300,000 to 600,000 people which include a substantial number of women in Sri Lanka" (Industrial Capability Report, 2017, p. 4). As the apparel is one of the employment providing sector, it enriches the economy by utilizing the available manpower from the youth population to increase the nation's overall productivity via increasing the GDP.

Over the past three decades, the apparel industry has been focusing on innovation, competent workforce, international reputation for quality and environmental accountability. In considering the above situation, employees are important resource to an organization as a production factor. It is not enough for a company to recruit the best employees - it also has to find a way to retain those employees for as long as possible in order to get the most value out of its recruitment effort. Yet, holding on to top talent is something virtually every employer, regardless of industry, struggles to do. The apparel industry also faced deficiency of workforce. This

human resource factor is adversely affecting the organizational growth. Labour Demand Survey (2017, p. 29), reported that "higher labour demand in the industry sector, the occupation, 'sewing machine operator' represents more than 40 percent of total demands and it was the highly demanded occupation in industry sector in Sri Lanka". Further, the newspaper article written by Dias (2017) in Sunday Times of Sri Lanka, indicated that apparel industry is going through a hard time to attract approximately 10,000 employees and today find that is a struggle to retain employees in the face of stiff competition from other sectors especially budding industry. Above situation clearly explain that apparel industry is facing demand for machine operators and other production workforce. In addition, employee absenteeism and turnover among the machine operators are key issues of apparel sector in Sri Lanka.

The employee turnover refers to as voluntary terminations of members from the organizations. It is also observed that staff turnover is the proportion of staff leaving in a given time period but prior to the anticipated end of their contract (Hom, Griffeth, & Gaertner, 1994). Facing the high labour turnover is a major issue for the apparel industry because employee turnover is a serious problem for the organizations in terms of the need to recruit and train employees (Thanacoody, Newman, & Funchs, 2014).

Further, employee turnover is serious issue especially in the field of human resources management (Chan, Foon, Leong, & Osman, 2010). Turnover impacts operations in several ways and most of these are negative impacts such as compromised service quality and productivity, direct and indirect cost involved for replace departed employees, lower morale and diminished profitability are some of the possible outcomes of turnover (Hinkin & Tracey, 2008). The constantly high turnover rate in employees has a great impact on the operation and ultimately influences the performance of the organizations. Therefore, the research needs arise to learn thoroughly about the major causes of turnover before designing effective retention strategy for employee's turnover. Thus, it is a requirement for the researchers to focus on employee absenteeism and turnover issues of machine operators in apparel sector in Sri Lanka.

In Sri Lanka, many researchers (Saman, 2004; Liyanage & Galhena, 2014; Rajapaksha, 2015; Amarathunge, 2016; Rathnasooriya & Jayatilake, 2016) studied the reasons for turnover of machine operators. According to them: poor working environment and worker-stress are the main reasons for the employee turnover; residency, civil status, recognition, work load, social image, job alternatives and work life balance are the important causes for the turnover intention; work life balance, upward mobility and routinization are the main factors while pay does not become a core factor to set a felling in the mind of employees to exit from the job; better working conditions, opportunities for training and higher salary and other benefits were identified as the major reasons of employees intention to stay. In addition, gender, age and educational qualifications were identified as moderators that do influence the employees' intention to leave or stay; and working conditions, workload, promotional opportunities, remuneration are the significant predictors of the employees' turnover intention. These are the main reasons for labour turnover of machine operators.

Moreover, study by Sewwandi, and Perere, (2016, p. 228) found that "there is a positive relationship between the job stress and the turnover intention of machine operators". Their study recommended to carry out similar research studies for other industries and indicated to explore the impact of other dimensions of job stress on turnover intentions of employees. Also by Fernando, Selvam, and Bennet (2010), the study has found that majority of stress related factors are inter correlated and significantly influenced stress in apparel industry Sri Lanka.

Emotional exhaustion defines as stress related cause and it refers to feelings of being emotionally drained out and feelings of extreme fatigue resulting from the chronic demands placed on a person (Maslach & Jackson, 1984). Emotional exhaustion is particularly influenced by workload, time pressure, lack of social support and role stress (Schaufeli & Enzmann, 1998). Once an employee got into a place where he or she is emotionally collapsed then it could also lead them to increase the job turnover as well as reduction of the overall productivity.

Employee job demand is important factor in the context of employee turnover. Job demand refers to physical, psychological, social or organisational aspects of the job that require sustained physical and psychological effort or skills (Bakker, Demerouti, Boer, & Schaufeli, 2003). The causes are due to the project-driven nature of the industry, work pressure and long working hours that this entails. Throughout the years, several models were evolved that explored mechanism underlying stress in a workplace. Among many findings, researchers identified that an increase of job demands is associated with negative job outcomes (e.g. burnout) (Bakker, Demerouti, Taris, Schaufeli, & Schreurs, 2004). High job demands are likely to result in strained reactions which in turn may lead to increase in emotional exhaustion.

Employee emotional demand is another important factor in the context of employee turnover. Employee

emotional demand is defined by Johannessen, Tynes, and Sterud, (2013, p. 605) as dealing with strong feelings such as sorrow, anger, desperation and frustration at work. Further, the study found, "role conflict and emotional demand are most important risk factors for psychological distress in workers and has been linked to decreased job productivity and absenteeism". Also it is an emotionally charged interaction at work, which is considered as an important source of job strain.

Also, in most of the studies, turnover intention used to predict the actual turnover because turnover intention is the critical antecedent of actual turnover behaviour (Lambert, Hogan, & Barton, 2001; Rizwan, Sajid, Kamran, Mohsin, Ali, & Sajid, 2013). Turnover intention refers employee's withdrawal cognition process where they have thoughts of quitting, the job intention to search for a new job and intention to leave (Carmeli & Weisberg, 2006). Further, it is defined as an attitudinal (thinking of quitting), decisional (intention to leave) and behavioural (seeking for a new job) process (Khan, Nazir, Kazmi, Khalid, Kiyani, & Shahzad, 2014).

The researchers have discovered through their research works that emotional exhaustion significantly associated with turnover intentions in nursing service sector (Cropanzano, Byrne, & Rupp, 2003); restaurant service industry (Wang, 2014). Furthermore, emotional demand and job demand of the employees positively leads to emotional exhaustion in sales executive, customer service sector (Anitha & James, 2016).

In this context, there is a need to explore the relationships among the emotional demand, job demand, emotional exhaustion and turnover intention empirically because, emotional demand, job demand and emotional exhaustion are crucial factors to determine the employee's turnover. Apparently on service sectors, most of the research that have been focused on the relationships among these concepts. There are lacunas in empirical studies undertaken in apparel manufacturing firms in Sri Lankan context regarding emotional demand, job demand and emotional exhaustion together with employee's turnover intention. In order to fulfill this empirical knowledge gap, this study was conducted empirically in three selected apparel manufacturing firms in Eastern region of Sri Lanka.

The selected apparel organizations for this study are always selecting and training young employees. The employees are one of the main stakeholders in the context of employee turnover and absenteeism and employee's turnover is a serious issue which also leads the community to loss the employment opportunities. Employee turnover is a costly problem and further, that cost related to the labor turnover can be classified as separation cost, replacement cost, training cost, and hidden cost. Therefore, it is vital for the decision makers to focus on the preventive factors in order to identify the reason for employees' turnover. Hence, this study focuses on the preventive mechanism in order to avoid the employee's psychological and stress oriented employees' turnover of the selected apparel organizations.

Hence, the objectives of this paper are: to assess the levels of job demand, emotional demand, emotional exhaustion and employee turnover intention, and to explore the relationships among job demand, emotional demand, emotional exhaustion and employee turnover intention. The empirical findings of this paper may support the practitioners to understand how employee's psychology and emotions influence on turnover intention of machine operators and to develop the strategies to reduce the turnover among them.

The article is structured as follows: Section 1 presents insights of the study variables and its current needs, section 2 presents the literature review about the emotional demand, job demand, emotional exhaustion and turnover intention with proposed hypotheses, section 3 deals with conceptual model, section 4 gives methodology, followed by analysis and interpretation of results and findings contain in section 5 and section 6 deals with discussion, implications, limitations and future directions. Finally, section 7 indicates conclusions.

2. Literature Review

2.1 Relationship between Emotional Demand and Emotional Exhaustion

In recent days, works expected more sustainable emotional requirement from the employees because they may feel even greater pressure and may be more likely to experience exhaustion during their work. Brotheridge & Grandey (2002) identified emotional demands are related to emotional exhaustion across various occupations.

Further studies stated that emotional demands of a job are an important reason for exhaustion (Hochschild, 1983; Schaufeli & Maslach 1993). A study conducted by Peng (2017), based on six major types of occupations identified by the Holland (1959). Results revealed that incumbents of social and enterprising jobs face higher emotional demand and employees face more emotional demands that lead to exhaustion at work. Tuxford and Bradley (2014) found that general (non-emotional) job demands, emotional demands, social support and self-efficacy uniquely predicted emotional exhaustion in the context of teaching service.

According to previous literatures, this review establishes that emotional demand has a positive relationship with emotional exhaustion of the employee. Therefore, this review proposes the first hypothesis as:

Hypothesis 1: There is a positive relationship between emotional demand and emotional exhaustion.

2.2 Relationship between Job Demand and Emotional Exhaustion

A study conducted among the Dutch managers revealed that increase in job demands and decrease in job resources predicted burnout across a one year period, whereas increase in resources predicted work engagement (Schaufeli, Bakker, & Rhenen, 2010). Bakker, Demerouti and Euwema (2005) tested and refined the job demands–resources model, demonstrating that several job resources play a role in buffering the impact of several job demands on burnout. Schaufeli, Salanova, Roma, and Bakker (2002) suggest that job demands could cause job burnout.

According to Bakker, Demerouti, Taris, Schaufeli, and Schreurs (2003), job demands are the most important predictors of burnout. The high job demands lead to emotional exhaustion is modeled as a key assumption in the job demands–resources (JD–R) model of burnout (Bakker & Demerouti, 2007). According to previous literature, this review establishes that job demand has a positive relationship with emotional exhaustion of the employee. Therefore, this review proposes its second hypothesis as:

Hypothesis 2: There is a positive relationship between job demand and emotional exhaustion.

2.3 Relationship between Emotional Demand and Turnover Intention

The study by Hulsheger and Schewe, (2011), demonstrated that emotional demand often lead to feelings of inauthenticity and exhaust self-regulatory resources, which negatively impact on employees' well-being. Further, elevated risk of depression was related to high emotional demands in women (Wieclaw. Agerbo, Mortensen, Burr Tuchsen & Bonde, 2008). A study conducted by (Younes, Riviere, Plancke, Leroyer, Blanchon, Da Silva, Melchior, 2018) to identify whether the work related factors partly contribute to suicide risk or not? Their findings show that out of six work related factors, emotional demand was significantly associated with suicidality of women employees. A study conducted by Johannessen et al., (2013) found that, role conflict and emotional demand are most important risk factors for psychological distress in workers and has been linked to decreased job productivity and absenteeism.

Employees who faced high emotional demand faced negative consequences and it could lead them into deviation from the work operation as well as losing of the individual productivity. Consequently, this emotionally charge interaction at the work may foster the intention to leave from the organization. According to previous literature, this review establishes that emotional demand has a positive relationship with turnover intention of the employee. Therefore, this review proposes its third hypothesis as:

Hypothesis 3: There is a positive relationship between emotional demand and turnover intention.

2.4 Relationship between Job Demand and Turnover Intention

According to Bon and Shire (2017), the turnover intentions of employees are high if the employees have high job demands in telecommunication sector. In nursing service sector also found positive relationship between job demands and turnover intention (Cortese, Gatti, & Ghislieri, 2014).

A study conducted by Daderman and Basinska (2016), shows that, only high job demands and low vigor were significantly associated with turnover intentions among the nurses. According to previous literatures, this review establishes that job demand has a positive relationship with turnover intention of the employee. Therefore, this review proposes its fourth hypothesis as:

Hypothesis 4: There is a positive relationship between job demand and turnover intention.

2.5 Relationship between Emotional Exhaustion and Turnover Intention

A study conducted among the organisational leaders, revealed that there is a positive relationship between emotional exhaustion and turnover intention (Knudsen, Ducharme, & Roman, 2009). Another study conducted by Ducharme, Knudsen, and Roman (2007) among human services occupational employees also revealed there is a positive relationship between emotional exhaustion and turnover intention.

Another research study conducted by Cropanzano, et al. (2003), found that emotional exhaustion has been linked to the turnover process in nursing service sector. According to Omer & Ahmed (2016), emotional exhaustion significantly related with turnover intention among the faculty of universities. According to above literature, this review established that emotional exhaustion of the employee is positively associated with turnover intention. Therefore, this review proposes its fifth hypothesis as:

Hypothesis 5: There is a positive relationship between emotional exhaustion and turnover intention.

3. Conceptual Model

Based on the theoretical background and review of the previous literature, the conceptual model of this paper was developed to examine the relationships among the emotional demand, job demand, emotional exhaustion and turnover intention. Figure 1 presents the research model.
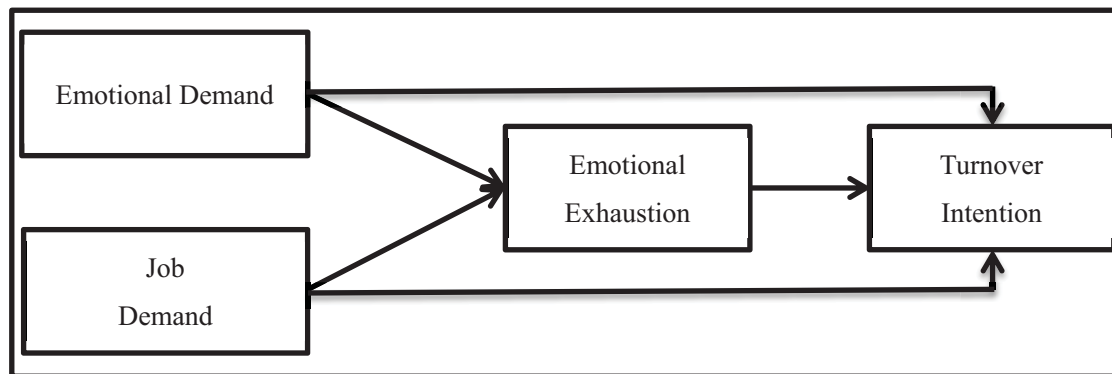
Figure 1. Conceptual Model

(Source: Anitha & James, 2016; Cropanzano, Byrne, & Rupp, 2003; Wang, 2014)

4. Methodology

4.1 Sampling and Data Collection

The objectives of this study are: to assess the levels and to explore the relationships among job demand, emotional demand, emotional exhaustion and employee turnover intention. This study depends on the primary data. The primary data were collected through self-administrated questionnaire. The five point Likert scale was assigned to measure the variables of the study and all are closed questions.

This survey was carried among the sample of 153 machine operators in three selected apparel manufacturing firms in Eastern region of Sri Lanka. The sampling method of the survey was simple random sampling, which enables to everyone in the sampling frame to have equal opportunity to be selected without bias in a systematic manner. The collected data were analyzed by using the computer based statistical data analysis package, and univariate and bivariate analyses methods were used.

4.2 Measures

4.2.1 Emotional Demand

The emotional demand variable measured through the Copenhagen Psychosocial Questionnaire (Kristensen, Hannerz, Hogh, & Borg, 2005) which consists of four question items. They are: (1) My work put me in emotionally disturbing situation, (2) My work is emotionally demanding, (3) I get emotionally involved in my work and (4) My work requires me to get personally involved. The instrument had Cronbach's alpha of 0.717 which is higher than 0.70. Hence, the instrument had a good reliability.

4.2.2 Job Demand

The job demand was measured by using an instrument used by Demerouti, Bakker, Nachreiner and Schaufeli (2001) which consists of five question items. They are: (1) my work does not tax me too much physically, (2) I always have enough time to perform my task, (3) my contact with persons to whom I have to offer services demanding, (4) my physical working condition - climate, light, noise, design of the working place and material - are all right and (5) it is physically taxing for me to get used to my working time. The instrument had Cronbach's alpha of 0.705 which is higher than 0.70. Hence, the instrument had a good reliability.

4.2.3 Emotional Exhaustion

The emotional exhaustion was measured by using an instrument used by Maslach & Jakson (1981). This instrument consists of nine question items. This nine-item scale measures how often one feels emotionally overextended and exhausted by one's work. The items are: (1) I feel emotionally drained from my work, (2) I feel used up at the end of the work day, (3) I feel fatigued when I get up in the morning and have to face another day on the job, (4) Working with people all day is really strain for me, (5) I feel burned out from my work, (6) I feel frustrated by my job, (7) I feel I am working too hard on my job, (8) Working with people directly puts too much stress on me and (9) I feel like I am at the end of my rope. The instrument had Cronbach's alpha of 0.790

which is higher than 0.70. Hence, the instrument had a good reliability.

4.2.4 Turnover Intention

The turnover intention was measured by using an instrument used by Mobley, Horner, & Hollingsworth, (1978) and Abid & Butt, (2017). This instrument consists of three question items. They are: (1) I often think about quitting my present job, (2) I will probably look for a new job in the next year and (3) As soon as possible, I will leave from my current organisation. The instrument had Cronbach's alpha of 0.718 which is higher than 0.70. Hence, the instrument had a good reliability.

5. Results and Findings

5.1 Profile of Respondents

This survey consists of 98% female and 2% male respondents. Most of them are fall into an age category of 16 - 25 years and they are working for a period of 2-5 years in the selected apparel firms. In this survey most of the respondents have general certificate of education (ordinary level) qualifications.

5.2 Univariate Analysis

To achieve the first objective, this study has used univariate analysis each and every variables in the research model were analysed by using descriptive statistical method. For the most important measures of central tendency is mean value. According to Masri and Jaaron, (2017) rules thumb about mean value ($\bar{x}$) range from 1 to 1.8 is considered very low level, 1.8 to 2.6 is considered low level, 2.6 to 3.4 is considered moderate level, 3.4 to 4.2 is considered high level, 4.2 to 5.0 is considered very high level. Table 1 shows the descriptive statistics of the study. According to the Table 1, there is high level of turnover intention and emotional exhaustion, and moderate level of emotional demand and job demand exist in selected apparel manufacturing firms.

To achieve the second objective, correlation analysis was used to examine the relationship between the variables (Jahangir & Begum, 2008). Pearson correlation coefficient indicates the direction strength and significant of the bivariate relationship between the variables. According to Senthilnathan and Tharmi, (2012) rules thumb about correlation coefficient (r), correlation range 0.1 to 0.29 weak positive relationship, range 0.3 to 0.49 moderate relationship and range 0.5 to 1 strong positive relationship. Table 1 also shows the result of correlation analysis. The results imply that strong positive relationship between emotional demand and emotional exhaustion, emotional demand and turnover intention, job demand and turnover intention, and emotional exhaustion and turnover intention. And also, there is a moderate positive relationship between job demand and emotional exhaustion.

Table 1. Descriptive Statistics and Correlation Matrix

Variable	Mean	SD	1	2	3
1 Emotional Demand	3.11	0.93			
2 Job Demand	3.15	0.87			
3 Emotional Exhaustion	3.44	0.74	0.57**	0.49**	
4. Turnover Intention	3.56	1.01	0.53**	0.60**	0.66**

Notes: n=153 ** Correlation is significant at 0.01 level (2- tailed),

(Source: Survey Data)

6. Discussion

This study investigates the relationships among emotional demand, job demand, emotional exhaustion and turnover intention. Over the years, human resource management practitioners and researchers are focusing on reducing the employees' turnover. Therefore, this study brings to light five important findings concerning the employee's turnover and absenteeism issues in the context of apparel manufacturing firms in Eastern region of Sri Lanka.

The first finding of the study indicates there is a significant and strong positive relationship exists between emotional demand and emotional exhaustion ($r = 0.57$, $p < 0.05$). This result provides a support to the first hypothesis of the study. The result of the current study suggests that when employees received emotional demand it directly contributes to increase the emotional exhaustion. Emotional demand provides vital role to create the emotional exhaustion by enhancing the feelings of inauthenticity and exhaust self-regulatory resources of the employees. In addition, emotional demand foster the emotional exhaustion of the employees. This

research suggests that, when an organization reduced the negative impact of emotional exhaustion, it needs to seriously consider more about the emotional demand creating factors and by controlling these factors, employees can be able to work with emotional satisfaction. This finding of the study consistent with the findings of previous studies, such as emotional demand positively related with emotional exhaustion (Brotheridge & Grandey, 2002; Tuxford & Brandley, 2014; Peng, 2017).

The second finding of the study indicates that there is a significant and moderate positive relationship between job demand and emotional exhaustion (r = 0.49, p < 0.05). This result provides a support to accept the second hypothesis of this study. The result of the present study suggests that, employee are emotionally exhausted when they perceive high job demands beard by them that mean emotional exhaustion created by job demand when the workers physiological and psychological resources are dramatically decreases. This research suggests that, when an organization reduced the negative impact of emotional exhaustion consider the employees long working hours, demanding work shifts, high time pressure, work load and unpleasant physical conditions. This finding of the present study is consistent with the findings of previous studies. That means the job demand positively associated with emotional exhaustion (Schaufeli, Salanova, Roma & Bakker, 2002, Bakker, Demerouti, & Euwema, 2005; Shaufeli, Bakker, & Rhenen, 2010).

The third finding of the study indicates that there is a significant and strong positive relationship between emotional demand and turnover intention (r = 0.53, p < 0.05). This finding provides a support to accept the third hypothesis of this study. The result of the current study suggests that one of the causes for employees' turnover intention is emotional demand. In addition, considerable attention is required by decision makers in order to manage the individuals' emotion to create positive outcomes from it. If the organization could not manage the emotions of employees, it could result with negative outcomes such as strain, job dissatisfaction, emotional exhaustion and these outcomes are ultimately affect the well-being and health of the employees'. The effects have a relationship with employees' intent to quit from the organization. The finding from the current study provides the new knowledge on the relationship between emotional demand and employee's turnover intention. Therefore, finding of the study contributes to HRM practitioners to prevent the turnover intention in emotional point of view and organizational psychology literature.

The fourth finding of the study indicates that there is a significant and strong positive relationship between job demand and turnover intention (r = 0.60, p < 0.05). This result provides a support to accept the fourth hypothesis of this study. The result of the current study suggests that one of the causes for employees' turnover intention is job demand. In addition, the job demand becomes essential to be aware at the beginning itself, especially in work situation. As the job demand increases, they may face negative consequences such as work-related strain and inter-role conflict, time pressure, those may lead to employee's intention to leave from the organisation. Further, the prevention of turnover intention point of view, the job demand must be balanced or reduced to certain extent and it should be maintained in a manageable levels. This finding is also consistent with the findings of previous studies. That means, job demand is positively associated with turnover intention (Cortese, Gatti, & Ghislieri, 2014; Daderman & Basinska, 2016; Bon & Shire 2017).

In addition to these findings, fifth finding of the study found that there is a significant and strong positive relationship between emotional exhaustion and turnover intention (r = 0.66, p < 0.05). This finding provides a support to accept the fifth hypothesis of this study. The result of the current study suggests that one of the causes for employee's turnover intention is emotional exhaustion. Moreover, when the individual is exhausted emotionally and develops negative attitudes and feelings towards his or her job and organization and finds less self-efficacy in performing duties. On the other hand, when an employee got into a point where he or she is emotionally collapsed then it could also lead them to increase their job turnover as well as reduction of the overall productivity. Further, the prevention of turnover intention point of view, the emotional exhaustion must be reduced to certain extent and it should be maintained in a manageable levels. This finding is also consistent with the findings of previous studies. That means, emotional exhaustion is positively related with turnover intention of employees (Cropanzano, Byrne, & Rupp, 2003; Kunudsen, Ducharme, & Roman 2009; Wang, 2014).

One of the main challenges faced by the human resource management is managing the employees' turnover. It is essential to understand the reasons for the employees' turnover and associated factors with employee turnover in a specific context. Hence, the findings of this study will help to develop the preventing mechanism towards employee turnover. In order to find the reasons for employee's turnover, these empirical findings could support to solve the problem and to develop the good labour - management relationship.

6.1 Implication of the Study

This study contributes to understand the relationship among emotional demand, job demand, emotional exhaustion and turnover intention of the employees. Even though, there are many studies being conducted regarding the relationships among these variables in the context of manufacturing sector, this study exclusively focused on machine operators of apparel manufacturing firms in the context of Eastern region of Sri Lanka. Hence, the findings of this study may uniquely contribute to fulfill empirical knowledge gap in context of apparel manufacturing sector particularly for the job category of machine operators.

This study has searched and explored some of the key variables which are operating behind the scene of labour turnover of machine operators in the context of apparel manufacturing firms in Eastern region of Sri Lanka and also provides a signal to managers of apparel manufacturing firms in finding efficient and productive ways to control the emotional demand and job demand as well as emotional exhaustion from the employees' in order to reduce the employees' turnover. Further, this study proposes that decision makers must prevent employees from being indirectly forced into performing jobs with extreme work demands or workloads. Specifically, there must be policies that prevent employees from being over demanded and highly emotionally exhausted, as these employees cannot simply perform their best, thereby leave from the organization. In addition, by understanding the emotional demand, job demand and emotional exhaustion, the organization can reduce employee turnover and prevent the negative consequences of it. Hence, employee's emotional and psychological attachment with the organization is necessary for the organization to retain the competent workforce.

6.2 Limitation and Future Studies

This study involves only main hypotheses and did not include any sub dimension and hypotheses, so future researchers can develop and test the sub hypotheses by involving the sub dimensions of the variables. Further, this study was conducted among the three selected apparel manufacturing firms and limited machine operators by using survey strategy from the Eastern region of Sri Lanka. And therefore, further expansion of this study into the other regions of Sri Lanka is also needed. Future studies must consider large sample size as well as both quantitative and qualitative approaches in order to overcome the limitation of the present study.

7. Conclusion

Based on the findings of the study, this research concludes that emotional exhaustion and turnover intention are in a higher level, emotional demand and job demand are in a moderate level. In addition, there are strong positive and significant relationship between emotional demand and emotional exhaustion, emotional demand and turnover intention, job demand and turnover intention, and emotional exhaustion and turnover intention. And this study also conclude that there is a moderate positive relationship between job demand and emotional exhaustion.

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Understanding Organizational Working Environment and Job Satisfaction in the Context of Psychological Capital

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Abstract

In addition to suitable organizational working environment effective management of human psychological capital has become very important for any organizational success in today's complex business world. This study aims to investigate the relationship between organizational work environment, psychological capital and job satisfaction by using a sample of 176 employees from four departments of civil secretariat government of Balochistan. According to correlation and regression analysis there was significant statistical relationship between organizational work environment, psychological capital and job satisfaction. Employees with positive psychological capital are more satisfied from jobs if working in even less conducive environment.

Keywords: work environment, psychological capital, job satisfaction

1. Introduction

Human capital is very much important for any organization to achieve success and obtain competitive advantage. With rise of war for talent hunt, it has become important for every organization to investment in human capital for achieving organizational success in the competitive business world (Youssef and Luthans, 2007).

Number of researchers has largely focused on negative aspects of human's working including mental illness and distress of people (Luthans, 2002; Gable and Haidt, 2005). Within the boundary of organization a similar trend has occurred, where research has generally focused on negative aspects of organizational functions that is resistance to change and stress etc. (Luthans, 2002). Though, latest research in the field of positive psychology has focused primarily on developing the strengths and qualities of individuals rather than fixing weaknesses (Luthans, 2002) in the domain of psychological capital.

In 2002, Luthans and his team identified the need of studying psychological capital (PsyCap) to generalize its effects on different work related variables in different environment. Majority of the research of PsyCap has been conducted in western countries and China but no traces of research in the context of Balochistan.

Psychological capital is regarded as psychological state, as it transient human phenomena, meaning that they are changeable and can be developed with in a person, it can be developed in a person at any time during their life time. Psychological capital possess the basic premise of positive psychology that seeks to encourage as well as develop positive qualities with in a person (Setar, S.B., Buitendach, J.H., & Kanengoni, H., 2015)

Moreover, it is not enough to examine PsyCap as only predictor of employee job performance. Other factors may also affect job performance, such as work place environment. It is anticipated that psychological capital can impact the relation between employee environment and job satisfaction. Employees with more self-confidence, hopeful, optimistic and resilience may be more satisfied if employee work environment is not appropriate.

Therefore the purpose of this paper is to develop a conceptual framework so as to understand the impact of PsyCap on job satisfaction and employee work environment in Balochistan, Pakistan. The research findings will benefit both Government and private sector employees and management.

2. Literature Review and Theoretical Framework

2.1 Psychological Capital

It is one's positive psychological state of development which consists of: (a) confidence (self-efficacy) to take challenging tasks and make necessary efforts to achieve it; (b) make positive attribution (optimism) about following today and in future; (c) resolute toward target and when needed, readdressing pathways to goal (hope) in order to be successful; and (d) power to bounce back and even beyond (resilience) to achieve target when contracted with problem. (Luthans, Youssef 2007).

Psychological capital is much more than traditional, social, human and economical capital. Economic capital traditionally focuses on tangible asset and finance (i.e. what you have), while human capital focuses on education, ideas and skills, (i.e. what you know).Social capital primarily focuses on relationships (i.e. who you know) while Psychological capital focuses on who you are and it focuses on self-efficacy optimism, hope and resilience (Luthans, Avolio, Avery & Norman, 2007).

In today's business world improvement brought about the resources creates competitive advantage. Although traditional means of competitions such as financial, technological and physical capitals are essential but capital such as human, social and psychological have its own implications (Luthans and Yousaff, 2007).Psychological capital is considered one of the most powerful mean in attaining the desired organizational goals and performance. Psychological capital is a faith in an individual to complete the work task when in risky situation. A person with high psychological capital will not be discouraged and rather will learn from failures, develop numbers of ways to achieve the desired goals and demonstrate everything in positive way with optimism. People with high level of efficacy have high level of self-confidence resulting in greater job satisfaction and better work behavior. People with high hope make better use of will power and thinking to achieve the goals, resulting in reduced job turnover. People with high optimism have positive expectations and attitude. Such people have high level of job satisfaction and reduced job turn over. Lastly people with high resilience know more about protective factors to resist against pressure situation and overcome the situation. Therefore, there is no doubt in saying that PsyCap positively influence the work behavior (Dirzyte, 2013)

Four dimensions of Psycap namely, self-efficacy, Hope, Resiliency, Optimism (Luthans & Youssef, 2007) are discussed as below.

2.1.1 Hope

Hope has been widely researched by Synder (2000) and his fellows. They define hope as positive motivational state that consists of activity (will power), pathway (way power) and goal components. The agency component involves having the motivation and will power to reach the preferred goal.

Hope is an idea that an individual can have an optimistic view of future outcomes (Snyder, 2000). Snyder's hope theory showed that the individual mind should be clear about their objectives, and they develop certain way for achieving those goals.

Hope has made remarkable contribution to +ve psychological capital and has very much importance in work place (Luthans and Jensen, 2002). However it is found that it has positive effect on employee commitment, job satisfaction and employee happiness at work. Hope also controls individual predictability and controllability (Snyder, 2000). Employees hope is very important for employee wellbeing.

Research also supports that there is positive relationship between hope and work place performance, and also between entrepreneurs' hope and satisfaction with business (Jensen and Luthans, 2002). It has been found that there is positive relationship between level of hope of organization leaders and profitability of their units as well as the satisfaction of employees (Luthans, Avolio, Avery & Norman, 2006).

In none-supportive organization, hope full employees become too much frustrated because they have energy but not able to use that energy. Their satisfaction and commitment decreases with time may create negative impact on performance (Allen and Meyer, 1990).

2.1.2 Optimism

Optimism is most concerned with positive psychology in general than other concepts (Luthans, 2010). According to Seligman, (2002) optimism is not to expect good things to come in your way but to countering the problems with confidence and higher level of personal ability. Seligman definition comes from attribution theory in terms of two key dimensions that is good and bad events, permanence and pervasiveness. In short, optimist people take bad events as being only short-term, while pessimist people take bad events as being lasting. Optimists consider failure, bad luck or bad happenings as not their fault, pessimist people on the other hand consider the failure, bad

incident bad luck as their own fault (Luthans and Church, 2002).If optimism is high one consider positive events to be internal and permanent on the other side negative events as external and temporary. More precisely, it is about having confidence in yourself and in your capability to recover situation.

In Psychological capital optimism is an explanatory style that features positive events to a person's permanent generality, while negative events are features in term of temporary external as well as specific situation aspect. According to these definitions optimist can take full credit for happiness in his life viewing events as being in control and expecting to continue in future as well. It can be further explained that optimist employees receiving positive feedback from boss will attribute it to work ethics and always ensure to work hard in regular manner at job.

According to research optimism is positively related with favorable out comes that includes work performance (Luthans & Avoilo, 2006). According to Seligman, (2002) optimism is negatively related with emotions, irrational, shallow and misleading illusions. Optimist employees take charge and control of own destiny. According to past research highly optimist leaders are more effective in term of decision, use information and act according to situation (Staw and Barsade, 1993). Organizational leaders having high level of optimism are usually more risk taker, flexible, use the information wisely, and take calculated and necessary risk (Luthans, Avery, Avolio, Norman & Combs, 2006).

2.1.3 Self-efficacy

Self-efficacy is higher order construct of Psychological Capital (Luthans, Avery, Avolio, Norman & Combs, 2006). Self-efficacy is defined as the ones belief about his abilities to organize the motivation, intellectual resources and ways of action needed to effectively accomplish a specific task. Self-efficacy is defined as people confidence in his abilities to increase the motivation, utilize resources and necessary actions to be taken to perform specific tasks (Luthans, Avery, Avolio, Norman & Combs, 2006). However, Bandura (1997) uses the word confidence as conceptually subordinate to efficacy, especially in positive psychology the both terms are used interchangeably,   being confidence most commonly used in today's world. People with high self-efficacy have some attributes, such as, setting high and difficult targets for themselves, ready to take challenges, internally motivated, putting necessary efforts to complete targets when in difficulties. People with high efficacy don't depend on others to set goal for them instead they set goals for themselves. They high light deficiencies by repeatedly setting challenging goals for themselves. Negative feed backs, setbacks and failures can be very dangerous for people with low efficacy.

In past research the relationship between efficacy and work performance has been established.   Luthans, Avery, Avolio, Norman & Combs, 2006) research explains a positive correlation between efficacy and work performance. Moreover, large scale analysis explains a strong bonding between efficacy, motivation and employee performance.

2.1.4 Resilience

Resilience is one's ability to control his environment with success in order to be protective from the negative or adverse events. Luthans, (2002) defines it as people's ability to bounce back from negative circumstances. After facing stressful situation and bad events resilient people become strong enough to manage resources for resolving the problems.

Research by Masten (2001), indicates that resilience comes from every day magic of ordinary and normative human resource that are helpful for promoting competencies in employees. He categorized these factors into three areas namely; assets, risk and influence process. Firstly, asset factor is such which has effect on individual resilience if it's not present, such as sound home condition and education. Secondly, risk factor is such that bring decreased level of resilience and occurs at micro and macro level (Luthans, Avery, Avolio & Norman, 2006). At micro level they are internal such as bad home environment and at macro level they are external such as poor economic conditions.

Past research indicates that there is positive relation between work place performance and resilience (Luthans and Youseef, 2007). The concept of resilience is very important in today's work place, which is associated with increased competitive advantage.

Employees and managers today recognize that organizations are looking for top performer, who can learn and grow through difficult situations, and can bounce back from difficult situations (Hamel and Valikangas, 2003). Bouncing back to initial point is not much sufficient now, such employee cannot full fill organization rapid growing expectations. Psychological capital is not only coping in difficult time, it is a proactive approach leads to positive gain. The proactive approach of resiliency, as power to overcome the bad situation and bounce back,

getting new knowledge and experience, strong relations with others and also gets the meaning in life.

2.2 Job Satisfaction

Job satisfaction is defined as employee satisfaction level regarding their job and work condition (Wageeh Nafei, 2015). Job satisfaction and Commitment are the two most researched work attitudes in organizational psychology. Robbins (1994) has defined job satisfaction as a positive feeling about one's job resulting from an assessment of its characteristics. Job satisfaction focus on overall positive emotions an employee has toward his job while other measures of job satisfaction are feature specific. This means that job satisfaction is measured in terms of features such as pay or working conditions (Fisher et al., 2003).

Job satisfaction is the degree to which a person is happy with job in a way that he is happily willing to perform his duties at an optimum level (Hoffman & Miller, 2013). It can be further defined as ones' favorable and positive attitudes toward their job (Armstrong, 2006). Job satisfaction is sum of collection of beliefs as well as feelings of an employee towards their present job.

Employees, who tends to have high level of job satisfaction, are very punctual on job duties, remains less absent from work, have increased productivity and very much emotionally satisfied. Such employees have very high commitment to jobs and with the organization.

2.3 Workplace Environment

According to Duncan (1972), organizational work environment is defined as "Physical as well social factors taken into consideration in the decision making process by the employees in an organization". According to Duncan both physical and social factors explain external and internal environment of an organization. His work, based on the findings of Rice (1963), focuses on only organizational internal working environment. Dill (1958), introduces task environment as a part of external factors which he feels are very important in organizational goal settings.

Lindsay & Rue, (1982) tries to explore various effects of organizational work environment on long term planning. According to him organizations try to adopt long term planning as instability of organization working environment increases. There are various external factors that force organization to change its strategic planning as well as its implementation.

2.4 Organizational Work Environment and Job Satisfaction

The relationship between organizational work environment and job satisfaction has gained much importance with the passage of time. According to a Danish study a firm may increase its production by improving physical dimensions of work environment that is internal climate of the organization.

Herzberg et al, (1959) established a motivation model for job satisfaction. According to him job related factors can be divided into two categories that is hygiene factors and motivational factors. Hygiene factors, such as, interpersonal relations, supervision, and conducive work environment etc. are very important to employees and lack of such may lead to dissatisfaction. On the other hand motivational factors are those having long term effect as they create positive feeling towards job. In the absence of hygiene factors i.e., work conditions, job security, interpersonal relations and salary etc. the employee's dissatisfaction chances are increased.

Sell & Cleal, (2011) study job satisfaction with integrating economic and work environment variables. They analyze the reaction of employees in hazardous environment with high level of monetary benefits and nonhazardous environment with low financial benefits. The research reveals that work environment have direct impact on employee job satisfaction. Stable working conditions are very important for job satisfaction. If employees work under adverse work conditions, it may cause dissatisfaction and may lead to increased turnover. Productivity of employees as well as of organization increases through healthy work environment. On the basis of existing literature, this study examines the relation between work environment and employee job satisfaction to test the following hypotheses:

H_1: Good organizational working environment has favorable relation with employee's job satisfaction.

2.5 Psychological Capital and Job Satisfaction

Previous research about PsyCap has shown a positive relation with employee job satisfaction. According to Luthans (2007), Psychological Capital explains state like character reflected through +ve appraisal of situations and chances of success based on motivated efforts and persistence. With reference to job satisfaction one should expect that employees with higher level of psychological capital complete tasks in more +ve way and therefore are very much satisfied with their work situation.

According to Luthans, (2007) many factors constituting psychological capital positively relate with job satisfaction and also with some other constructs, such as, employee performance and employee commitment. In addition to this, resiliency increases employee job satisfaction as employee bounce back from bad situation.It creates sense of satisfaction organizational commitment, increased social capital as well as increased performance.

Research also supports a +ve relationship between hope and work place performance, and also between entrepreneur's hope and satisfaction (Jensen and Luthans, 2002). It has been found that there is a +ve relationship between level of hope of organization leaders and profitability of their units as well as the satisfaction of their employees. In non-supportive organization where work environment is not suitable for employees, hopeful employees become too much frustrated because they have energy but unable to use it. Their satisfaction and commitment decreases over time and may create -ve impact on performance (Allen and Meyer, 1990).

Based on above discussion we propose following hypothesis about psychological capital effecting employee job satisfaction.

H_2: Psychological capital has positive relation with job satisfaction

Individual with high level of PsyCap exhibits high level of confidence for achieving tasks and also achieve high level of job outcomes (Bandura, 1997). Self-efficacy as a component of PsyCap acts as moderator and weakens the effect of challenging job routine being an internal environmental factor.

Employees' psychological capital when considered in a certain work environment provide support to job satisfaction by fulfilling deficiencies of one resource or another and also help the individual to successfully adapt the challenging situation (Youssef and Luthans, 2007; Luthans, Norman, Avolio & Avery, 2008). Development of PsyCap is likely to favor employee commitment and job satisfaction as it moderates the relation between organizational work environment and job satisfaction. Employees with high PsyCap can cope effectively with difficult work conditions hence creates satisfaction. Lorenz, Putz & Heinitz (2016) describes that employees who are more hopeful and efficacious are more satisfied with their jobs as a result of their better performance. Such employees are more confident to persist, accept challenges and put effort into achieving their goals.

Self-efficacy has +ve relation with employee performance and job satisfaction. Many researchers have described the relationship between self efficacy and job satisfaction as an outcome. Employee with high efficacy and optimism easily cope with difficult work conditions leading to grater satisfaction. According to Setar, S.B., Buitendach, J.H., & Kanengoni, H. (2015) PsyCap adheres to the basic premise of +ve psychology, which seeks to encourage and develop +ve qualities within a person. This positive attribute acts as a moderator to the impact of employee work environment on job satisfaction. If employees' work environment is not even conducive, employee with high psychological capabilities may cope up situation with ease resulting in high performance and job satisfaction.

Based on such arguments, we anticipate that when individuals have difficult or unsupportive work environment their psychological capital may help them to successfully reduce the stress there by reducing the influence of difficult work environment on outcomes. Subsequently we hypothesize that:

H_3: PsyCap moderates the impact of working environment on job satisfaction
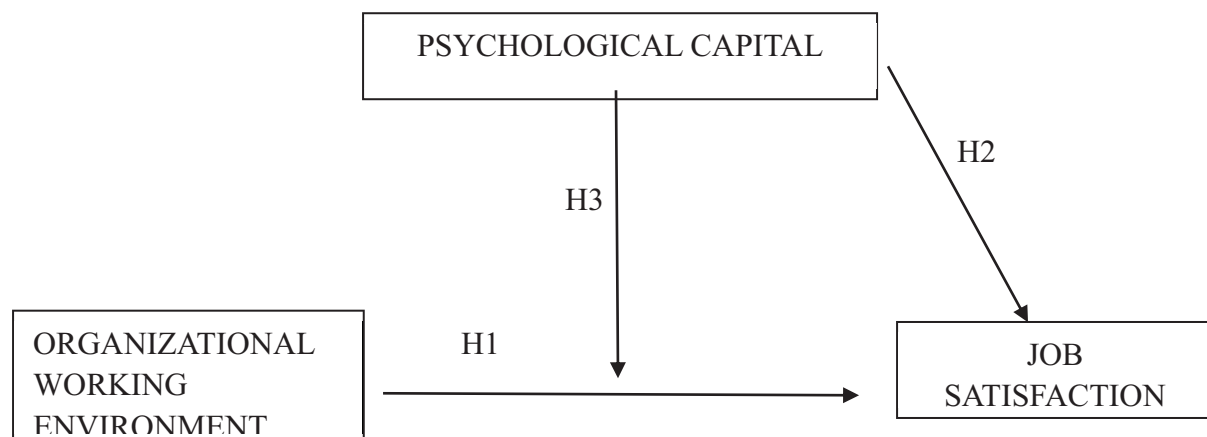
3. Methodology

This quantitative research has targeted middle level employees of Government departments of Balochistan Civil Secretariat (finance, education, health, planning and development) stationed in Quetta a provincial capital of Balochistan of Pakistan. Targeted population of all Government secretariat employees is approximately 417. The primary data was collected from 201 employees at confidence level of 95% with margin error of 5% (aged 18-60 years) through questionnaire by using convenience and snow ball sampling technique resulting in 88% (n-176) response rate.

After detailed literature review regarding the variables of interest, researcher used past valid scales at 5 category levels with 1 representing strongly disagree to 5 strongly agree. Psychological Capital (Hope, Self-efficacy, Optimism and Resilience) was measured with four items proposed by (Luthans, F., Avolio, B., Avey,J., Norman, S. (2006). They determines the internal consistency of such variables as Hope α=0.72, Efficacy α=0.87, optimism α=0.78 and Resilience α=0.72 with overall internal consistency of PsyCap questions α=0.91 (Luthans et al, 2010). Questionnaire was all about asking the participants regarding their views about current job and organizational working environment.

Employee working environment is measured by scales developed by Mohapatra and Srivastava (2003) with alpha coefficient 0.86.Job satisfaction scale includes both extrinsic as well as intrinsic aspects of job satisfaction by Griffin, Patterson and West, (2001) with reliability value of 0.92.

3.1 Data Analysis and Results

Data was analyzed by IBM SPSS version 16 for detailed analysis. Correlation analysis was used in order to find the direction and strength of the relation between independent variables (organizational working environment and psychological capital) and dependent variables (job satisfaction).While regression was used to find the dependency and interaction effect among variables. Table 1 and 2 show participants' characteristics and description about variables under study.

Table 1. Characteristics of participants

Variables		F	%age
Departments	Finance	45	25.56
	Education	58	32.95
	Planning and Development	37	21.02
	Health	36	20.45
Age	20-30	49	27.84
	31-40	79	44.88
	41-50	29	16.47
	50 and above	19	10.79
Tenure	Less than 1 year	17	9.66
	1 year to 5 year	59	33.52
	5 year to 10 year	61	34.66
	More than 10 year	39	22.16

f= frequency, N= 176

Variables were tested for checking the normality through kurtosis and skewness coefficients. For full filling normality assumption the value of kurtosis and skewness must be lie between -1 to +1. Kurtosis and skewness coefficients clearly explains that all the dependent as well as independent variables lies with in the -1 to +1 range as shown in Table. 2.

Table 2. Descriptive Statistics

	Mean	SD	Skewness	Kurtosis
Hope	3.99	0.54	-0.429	-0.648
Efficacy	3.66	0.52	-0.384	-0.513
Optimism	3.76	0.51	-0.494	0.181
Resilience	3.50	0.51	-0.188	-0.447
PsyCap	3.73	0.41	-0.422	-0.634
OWE	3.57	0.57	-0.023	-0.453
Job satisfaction	3.50	0.56	0.099	-0.392

Value of Cronbach alpha 0.7 and above is considered acceptable for internal reliability (Nunally, 1978). Values of Cronbach's alphas of all three scales are above 0.7 as shown diagonally in Table 3, with acceptable range of Correlation coefficients.

Table 3. Pearson Correlation Coefficient

	PsyCap	OWE	JS
PsyCap	**0.915**		
OWE	0.549**	**0.832**	
JS	0.492**	0.506**	**0.884**

(PsyCap = Psychological capital, OWE= organizational working environment, JS= job satisfaction)

In this study the first research hypothesis was about the relation between organizational working environment and the dependent variable job satisfaction? Correlation coefficient for organizational working environment and job satisfaction 0.506 is significant i.e. ($p = 0.000$).We can say that a statistically significant correlation exists between organizational working environment and job satisfaction. Regression analysis shows significant ($p = 0.000$) dependency (b= 0.493) and the value of R^2 (0.256) mentions for approximately 25% of variance perceived job satisfaction is explained by organizational working environment, hence proving H_1.

H_2 was about the relation between psychological capital and the dependent variable job satisfaction. Correlation test shows the significance (0.000) relationship (r = 0.49) between psychological capital and job satisfaction for (N = 176). It means that variation in job satisfaction is significantly related with psychological capital. Entry of Psychological Capital in second model of the regression analysis produced b = 0.224 significant (0.000) variation in perceived job satisfaction (R^2=0.154) as shown in Table 5, hence proving H_2.

Table 4. Regression Analysis

	Model 1	Model 2	Model 3	Model 4
Constant	1.740	1.500	1.217	2.231
OWE	0.493*** (0.064)		0.405*** (0.075)	0.401*** (0.07)
PsyCap		0.536*** (0.095)	0.224*** (0.106)	0.124*** (0.169)
OWE x PsyCap				0.094*** (0.011)
R^2	0.256	0.154	0.27	0.28

Note. Job Satisfaction dependent variable for all models.

In order to analyze the moderating effect of psychological capital on organizational working environment and job satisfaction the interaction term of organizational working environment and psychological capital were calculated in the form of multiple regressions as shown in Model 4 of Table 5. The coefficient of interaction term ($b_3 = 0.094$) shows that a unit change in the effect of X_1 (work environment) as X_2 (Psychological capital) changes is significant ($P= 0.000$). The b_1 and b_2 coefficients in Model 4 represents the effect of X_1 & X_2 (Work environment and Psychological capital) respectively, when the other independent variable is zero. If we compare Model 4 with Model 3 (an unmoderated equation) the value of R^2 increases, showing the moderating effect at work hence proving H_3.

To summarize the findings of the study PsyCap dimensions, organizational work environment and job satisfaction have positive relation. The same is indicated by Luthans, (2010) that many factors constituting psychological capital are positively related with job satisfaction and also with some other constructs such as employee performance and employee commitment. Organizational work environment and job satisfaction is also positively related as described by Bakotic and Babic, (2013). Stable working condition is very important for job satisfaction otherwise employee turnover may increase.

4. Conclusion

The results obtained during this study have theoretical as well as practical implications for managers and organizations. Findings show that suitable work environment are most important for employee work related attitude. If employees have high psychological capital it adds in employee's commitment leading towards job satisfaction. The role of work environment is important for the growth and development of employee, as they feel safe and committed to work and to the organization resulting in greater employee satisfaction.

Psychological capital involvement contains training activities that take place outside work place. In addition, employees' commitment is very important for organization in today's world. Employees are the life blood of any organization. Organizations don't want to lose employees on regular basis as it creates problem for their survival. Organizations by providing suitable and stable working conditions attract proper employees for the organizations.

It is recommended therefore that organization should implement healthy working environment for the employees

in order to improved employee commitment and job satisfaction. Findings from this research would have many practical implications. Employees with high hope, optimism, efficacious, and resilient may be more confident to face dynamic environment. Beside investment in human capital other implication is the effective utilization of employees PsyCap to improve work performance.

Generalizability of this study could be a limitation as respondent were only from a government sector of a particular province. To establish generalizability further studies could be conducted on different areas. Future research can also be look into the effect of Psycap on other behaviors such as work place stress and deviant behaviors.

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Fostering Collaborations: A Knowledge-Acquisition Strategy for Contract Manufacturers in OEM Relationships

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Abstract

Acquiring knowledge through collaborations with OEM buyers is critical for offshore contract manufacturers given its relative resource-deficiency. However, existing research on knowledge transfer within OEM alliances mainly addresses knowledge abuse hazards from the buyers' stance. We have limited understanding about how the contract manufacturers could alleviate the buyers' concerns so as to foster a wide array of joint projects. Adopting lenses of transaction cost economics and relational view, this study hypothesizes that buyer-specific tangible/ intangible/ site assets and relational capital will contribute to collaborations in international OEM relationships. The arguments by and large find empirical support in data collected from 110 dyadic relationships between OEM buyers and Taiwan contract manufacturers in information industries. Overall, this study sheds light on the mechanisms to enhance collaborations and entails a knowledge acquisition strategy for resource-poor contract manufacturers mostly from emerging markets.

Keywords: knowledge acquisition, OEM collaboration, asset specificity, relational capital

1. Introduction

Cross-border contract manufacturing is a contractual arrangement where multinational enterprises (MNEs), often located in developed economies, subcontract production to offshore manufacturers, mostly in emerging economies (Ernst, 2000; Hobday, 1998). One typical arrangement is called Original Equipment Manufacturing (OEM hereafter), in that MNE buyers (Apple Inc. for example) transfer all design and production know-how to offshore contract manufacturers (Foxconn for instance), buy back the output in which the transferred knowledge is embedded, and resell the final products to consumers under their own brand names (Chen, 2005; Ernst, 2000; Sunaoshi, Kotabe & Murray, 2005; Kang, Mahoney & Tan, 2009).

It is worth noting that, in most cases, the contract manufacturers are relatively small in size and, as latecomers, inferior to the foreign MNE buyers in terms of resource abundance and managerial capabilities (Kang et al., 2009; Mathews, 2002). In today's competitive global market, the contract manufacturers need to be competent not only in manufacturing but in managerial capability, cost targeting, or logistic services as well, if they are to win an order. Thus, getting access to proprietary know-how in the course of working for a given MNE buyer to stay competitive is important, if not critical, for the contract manufacturers.

Generally speaking, as the final products will bear the brand names of buyers, it is in the buyers' interest to give necessary product specifications and technology to the contract manufacturers to ensure product quality and brand image (Chen, 2005). In addition, interfirm collaborative projects, joint new product development (NPD) for instance, could be regarded as the platforms facilitating proprietary knowledge transfer from the buyers to the contract manufacturers. It is because, during the implementation of the projects, the participating contract manufacturers could receive information such as market trend, technology, and win the opportunities to solve product design problem together with the MNE buyers (Lu & Yang, 2004; Ritter & Walter, 2003).

On the other hand, much of OEM literature suggests the competence erosion risks, knowledge leakage to third party, and that a learned contract manufacturer may exploit for the benefits of its own brands the knowledge it acquires, including product design/ development and own-brand marketing (e.g. Arrunada & Vazquez, 2006; Jean, Sinkovics & Hiebaum, 2014; Kotabe, Mol & Ketkar, 2008). As such, the risks and possible future rivalry against some learned contract manufacturers would reduce the buyers' willingness to share knowledge. Given buyers' concerns, then, how can contract manufacturers mitigate the challenge to foster collaborations in

international OEM relationships? This is the basic question we are going to address.

When addressing knowledge transfer issues in OEM alliances, existing studies mostly focus on safeguarding the possible hazards of knowledge leakage from buyers' perspectives (Arrunada & Vazquez, 2006; Kotabe et al., 2008). Although some have examined the *results* of knowledge transfer, such as the types of capability developed (Cyhn, 2000; Jean, Sinkovics, & Hiebaum, 2014), and knowledge spillover effects on contract manufacturers (Kang et al., 2009; Liu, Tsou & Chen, 2013), limited attention has been given to examine the *factors* contributing to collaborative projects which facilitates proprietary knowledge transfer in OEM alliances. This study aims to fill the gap and entail a knowledge acquisition strategy for resource-poor contract manufacturers mostly from emerging markets.

The objective of this study is to theoretically develop and empirically examine the motivators of a wide array of collaborative and boundary-spanning projects in international OEM relationships through a combined lens of economic (Williamson, 1985) and relational view (Dyer & Singh, 1998). In the following section, we discuss the concept of transaction cost economics and relational view to provide theoretical hypotheses for the study, followed by methodology, statistical analysis of data, discussions, managerial implications, and conclusions.

2. Literature Review and Hypotheses

The transactions cost economics (TCE), in general, focuses on the efficient governance structure of relationships in a static context to minimize transaction costs arising from traits of transactions. Among the transaction traits, relation-specific assets invested, or "asset specificity" in Williamson's terms, is regarded as a major source of friction between transaction parties (Williamson, 1985). This is because the high switching costs caused by the relation-specific investments will transform an ex-ante market type of bidding into an ex-post small number bargaining situation. Nevertheless, studies also suggest that the customized investments may facilitate smooth coordination between trading parties (Dyer & Singh, 1998), inducing closer partnership (Dyer, 1996), contributing to information sharing and stability in a relationship (Celly, Spekman & Kamauff, 1999), and so on. In brief, like two sides of the same coin, relation-specific investments create both transaction costs and value.

Emphasizing a firm's idiosyncratic linkage with others, the relational view argues that firms can build up their competitive advantage by carefully managing their relationships with suppliers, customers, and other resource providers (Dyer & Singh, 1998; Kohtamaki, Vesalainnen & Moller, 2013). The relation itself can provide a strategic source of efficiency and competitive edge if managed appropriately (Dyer & Singh, 1998; Zaheer, McEvily & Perrone, 1998). Recent research further indicated that relational capital, goodwill, and trust that exist among partner firms can facilitate learning and transferring know-how across the organization boundaries while simultaneously prevent inter-partner technological leakages (Kale, Singh & Perlmutter, 2000; Muthusamy & White, 2005).

Given that the economic governance and social control perspectives complement each other in inter-firm relationship management, we thus combine the two complementary perspectives to broaden our theoretical grounds in exploring the motivators of collaboration within the context of international OEM alliances.

2.1 Asset Specificity and Joint Action

Asset specificity is defined as the extent to which an asset can be redeployed to alternate uses without sacrificing its productive value. It can be in the form of dedicated manufacturing equipment, tailored production tooling, human asset deployment, and proximity of production site to customers (Williamson, 1985). TCE suggests that, due to their non-salvageable nature, the investing party of relation-specific assets may suffer from *ex-post* hold-up risks in the relationship unless proper safeguards are in place *ex-ante*. On the other hand, the pledge of commitment through making buyer-specific investments, such as dedicated equipment, location, and IT interface, also signals credible commitment in relationships (Williamson, 1983).

This study adopts the term joint action from Heide and John (1990) to represent a wide array of collaborations, indicating the extent and scope to which OEM buyers and offshore contract manufacturers work together toward their common goals. Commonly observed joint actions in international OEM business include joint logistic arrangement, joint new product development, joint cost-reduction program, and so forth. With the increased extent and scope of joint projects taken, partners' organizational boundaries are penetrated and information exchanged. It is because that collaborations connect people from both parties and create communities of practice in which complex knowledge can be interpreted and leveraged (McEvily & Marcus, 2005; Muthusamy & White, 2005; Ryzhkova. & Pesamaa, 2015).

In practice, to facilitate the implementation of projects among dispersed partners, investments in information and communication technology (ICT) are necessary due to market pressure to shorten the time-to-market cycle (Hult,

Ketchen, & Slater, 2004). Such investments together with cross-functional team and managerial process dedicated to the projects provide common platforms for firms in onsite and offshore locations to virtually design and develop new product together (Kotabe et al., 2008). Similarly, tangible production equipment and integrated computer systems invested specific to the foreign buyer could enhance efficiency in collaborations. Meanwhile, geographic proximity between partner firms, or site-specificity in Williamson's term, could facilitate frequent interactions and enable frequent people visits from both sides to resolve problems together. That is, the relation-specific assets invested could enhance the degree of inter-firm linkage and create value during collaborations by improving the coordination of complementary resources and international product modularity network (Subramani & Venkatraman, 2003). In addition to these practical contributions, Williamson (1983) suggests that the relation-specific investments also signal credible commitment. Their hostage effects could reduce the buyers' concerns over the knowledge abuse risks. It is thus reasonable to suggest that

H1a. *Tangible specificity is positively associated with joint action in international OEM relationships.*

H1b. *Intangible specificity is positively associated with joint action in international OEM relationships.*

H1c. *Site specificity is positively associated with joint action in international OEM relationships.*

2.2 Relational Capital and Joint Action

Relational capital refers to mutual trust, respect, and friendship both at the individual and the firm level between partners (Kale et al., 2000; Kohtamaki, Vesalainnen & Moller, 2013). Prior research evidenced that mutual trust between partners can reduce opportunistic behavior, enhance knowledge transfer and "thick" information exchange in alliances (e.g. Dyer & Chu, 2000; Uzzi, 1997). Along the similar vein, Szulanski (1996) also argued that a laborious and distant relationship between partners is one of the major barriers to knowledge flow between partners. All the above, taken together, suggest a positive association between a trusting relationship and an effective knowledge transfer between partners.

As discussed above, inter-firm collaboration entails closer interactions and information sharing. The OEM buyers engaging in joint activities risk losing their own proprietary capabilities to the contract manufacturers. Thus, without trust-based relational capital, the fear of possible hazards of proprietary knowledge leakage may become a hindrance for firms to form joint projects with partners (Zaheer & Venkatraman, 1995; Dyer & Chu, 2000). The OEM buyers may decline the proposal of collaborations to withhold exchange of critical information or experience with their contract manufacturers. Nevertheless, with the trust felt in the relationships, the buyers' concerns could be alleviated. It is thus natural to suggest:

H2. *Relational capital is positively associated with joint action in international OEM relationships.*
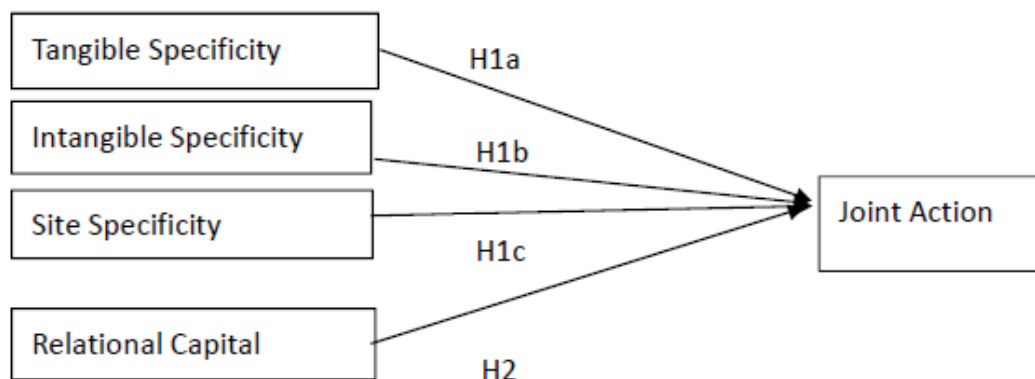
Figure 1. Research Model

3. Method

3.1 Research Setting

This study chose information technology and electronics industries in Taiwan as the target of empirical study for a couple of reasons. First, the industries are globalized and knowledge-intensive. During the past decades, the rising wave of strategic outsourcing is particularly obvious in globalized industries, not to mention that IT and electronic industries have experienced radical technological changes. The knowledge acquisition in OEM

alliance is thus a compelling issue for contract manufacturers in the target industries. Second, Taiwanes contract manufacturers play an important role in the global value chain of the IT and electronic industries. The industry landscapes therefore provide a rich context for accessing international OEM relationships from the contract manufacturers' side and make our research inquiry sufficiently relevant.

3.2 Data and Sample

The data were collected through a survey questionnaire mailed to 286 Taiwanese electronic product manufacturers that offer production services to OEM buyers. There are two different sources of sampling frame: the Directory of Major Companies of Information Industry in Taiwan by the Institute of Information Industry (III), and a supplier list compiled by International Sourcing Center (ISC) of Taiwan External Trade Development Council. Each informant was asked to complete the questionnaire with reference to a self-selected foreign buyer of significant importance to his or her firm. Extensive follow-up phone calls were made. As a result, 119 completed questionnaires were returned. Nine questionnaires were then eliminated due to substantial missing data on key construct items, resulting in 110 cases for subsequent analyses.

The profile of 110 firms is diverse in terms of product type and firm sizes. Regarding product types, 23.3% of the sample firms focuses on peripherals such as CD-ROM and scanner, 19.3% desktop and notebook PC, 15.2% network/multimedia card and motherboard, 15.2% semiconductors, and 10.4% components like connectors, LCD and PC case. In addition, the sample is composed of companies with annual sales ranging from US$6 million to US$5 billion. The number of employees ranges from 69 to 35,000, with an average of 3,202.

3.3 Measures

Most of the questionnaire items in this research are based on 7-point Likert-type scales, ranging from 1= "strongly disagree" to 7= "strongly agree". Multi-item scales based on previous related research were generated and adapted following field interviews with marketing managers of five Taiwanese contract manufacturers, who served as the pilot sample for pre-testing purposes.

Dependent variable Joint action was measured by both manufacturing and managerial joint projects, adapted from Zaheer et al., (1998) and Heide & John (1990), namely (1) *joint new product design* (2) *joint cost reduction* (3) *joint personnel training* (4) *joint logistic arrangement*.

Independent variables A broad concept of asset specificity was decomposed into three sub-constructs, namely *tangible specificity*, *intangible specificity*, and *site specificity*. The first and the third were borrowed from the concepts of dedicated specificity and site specificity suggested by Williamson (1985). Tangible specificity refers to the degree to which the manufacturing equipment is dedicated to or tailored for the relationship; intangible specificity is defined as the degree to which the on-line data exchange, IT interface, and routine process integration are customized to the OEM relationship; whereas site specificity refers to the extent of the proximity of warehouse site to the buyers, which helps speed up order fulfillment and delivery. As to relational capital, three measurement items drawn from Kale et al. (2000) and Zaheer et al. (1998) capture the degree of reciprocity, trustworthiness, and friendship with all levels of the buyer.

Control variables Two control variables were incorporated as they have been recognized as having an influence on joint action: size and duration (the length of relationship). Size was using the logarithm of annual sales of the respondent supplier as a proxy. Larger suppliers generally have the resources to make investments and thus gain opportunities to work closely with their buyers. The length of relationship was operationalized as the logarithm of the number of months the respondent firm has associated with the buyer. It was included as a control variable because it is quite likely that the longer the partners of the alliance associate with each other, the greater the chances that, over time, a broad scope of joint projects exist between them (Subramani & Venkatraman, 2003).

3.4 Analysis

The measurement validation process began with calculating item-to-total correlations to identify items that do not pertain to the designated construct. Table 1 shows that the constructs exhibit satisfactory levels of reliability as indicated by composite reliabilities (Cronbach alpha) ranging from 0.794 to 0.805. The convergent validity of the measurement scales was examinedvthrough the confirmatory factor analysis (CFA). As to item validity, the standardized factor loadings ranges from 0.53 to 0.93. As suggested by Bollen (1989), the factor loadings, which are all bigger than 0.5, can be interpreted as validity coefficients reflecting the degree to which the observed variables adequately measure the underlying construct. Table 1 shows all the detailed items, standardized factor loadings, composite reliability and AVE of the constructs. Descriptive statistics and correlations of constructs can be found in Table 2.

Table 1. Reliability and validity of measures

Construct	Measurement Items	Factor loadings	Composite alpha	AVE
Tangible specificity	1. Dedicated production and testing equipment 2. Dedicated IT hardware 3. Dedicated people	0.62 0.93 0.77	0.794	0.614
Intangible specificity	1. Routines and processes especially adapted for the buyer 2. IT compatibility	0.53 1.08	0.729	0.611
Site specificity	The degree of geographic proximity of warehouse to the OEM buyer' location	--	Single item	Single item
Relational Capital	1. Friendship with all levels of the OEM buyer's staff 2. Reciprocity between partners 3. Trustworthiness felt in the relationship	0.65 0.76 0.88	0.802	0.592
Joint action	1. design new product jointly with the OEM buyer 2. joint cost reduction project the OEM buyer 3. delivery system arranged jointly with the OEM buyer 4. joint personnel training project with the OEM buyer	0.68 0.87 0.64 0.68	0.805	0.523

Table 2. Correlations and descriptive statistics

Variables	Mean	S. D.	1	2	3	4	5	6
1. Joint action	3.888	0.887						
2. Relational capital	4.004	0.475	0.449**					
3. Tangible specificity	4.527	1.349	0.475**	0.188*				
4. Intangible specificity	4.627	1.536	0.464**	0.146	0.427**			
5. Site specificity	5.900	1.226	0.326**	0.190*	0.446**	0.479**		
6. Firm size	5.691	1.459	0.130	0.162	0.218*	0.077	0.141	
7. Duration	64.218	59.458	0.144	0.253**	0.161	0.181	0.237*	0.079

Because all data are self-reported and collected through the same questionnaire during the same period, there was a possibility of a common method variance. Thus we conducted Harman's single-factor test to test the presence of common method effect (Podsakoff & Organ, 1986). Through a principal component factor analysis, no single factor was found by using unrotated factor loading. However, the first extracted principal component, with 54.136% of total variance explained, may cause the presence of general factor. To solve this problem, the confirmatory factor analysis was used to examine whether all variables loaded on one factor fit the data well. The results showed that the single-factor model did not fit the data well ($\chi 2$ 35.193, p=.000; GFI=0.896; CFI= .835; TLI= .670; SRMR= .304; RMSEA = .235). While the results of these analyses do not preclude the possibility of common method variance, they do suggest that common method variance is not of great concern and thus is unlikely to confound the interpretations of results.

This research used a hierarchical regression model to evaluate the hypothesized relationships. In the first step, two control variables were entered. Then the three asset specificity variable were entered and relational capital the final step.

4. Results

Table 3 shows that, in the first step of the regression (Model 1), none of control variables are significant in predicting the existence of joint action. Model 2 tests the effects of the control variables together with relational capital on joint action. In Model 3, three sub-constructs of asset specificity and control variables were tested. Model 4 is the full model, incorporating all three decomposed asset specificity, relational capital, and control variables (R^2=0.430). These variables in full model increased explained variance by 37.5 % more than the explained variance we obtained in Model 1. Consistent with our theoretical prediction, the influence of relational capital on joint action is positive and significant in the Model 4 (β=0.365, p<0.00). As to asset specificity, not every sub-construct of asset specificity is statistically significant. Both tangible specificity and intangible specificity have a significant and positive impact on the joint action (β=0.290, p<0.00; β=0.297, p<0.00 respectively), whereas site specificity is a positive but insignificant predictor (β=-0.002, p>0.10).

To sum up, table 3 reports that both tangible and intangible specificity have a positive and significant impact on joint action while the effects of site specificity are positive but insignificant. H1a and H1b is thus supported, H1c is not. Meanwhile, the hypothetic link between relational capital and joint action is positively and significantly. H2 is supported.

Table 3. Hierarchical regression analysis (Dependent variable = Joint action)

Variables	Model 1	Model 2	Model 3	Model 4 (Full model)
Tangible specificity	—	—	0.321** (3.342)	0.290*** (3.294)
Intangible specificity	—	—	0.297*** (3.369)	0.297*** (3.369)
Site specificity	—	—	0.025 (0.249)	-0.002 (-0.021)
Relational capital	—	0.432*** (4.770)	—	0.365*** (4.638)
Control variable				
Firm size	0.120 (1.255)	0.058 (0.657)	0.031 (0.371)	-0.011 (-0.143)
Duration	0.134 (1.409)	0.030 (0.334)	0.028 (0.329)	-0.048 (-0.611)
R^2	0.035	0.205	0.312	0.430
Adjusted R^2	0.017	0.183	0.278	0.397
R^2 change	0.035	0.171	0.107	0.118
F value	1.931	9.133***	9.413***	12.977***
Significance	0.150	0.000	0.000	0.000
Number of cases	110	110	110	110

Notes. $* p \leq .10$ $** p < .05$ $*** p < .01$

5. Discussion & Conclusion

Conceptualizing joint action as a platform facilitating knowledge transfer, this study takes contract manufacturers as focal firms and examines the motivators of a wide array of collaborative, boundary-spanning projects in international OEM relationships. As noted earlier, the offshore contract manufacturers, typically located in emerging economies, are generally inferior to the branded OEM buyers in terms of resource abundance and managerial capabilities. Thus, to acquire knowledge owned by the buyers through collaborations is critical for the contract manufacturers, given the buyers' concerns over possible knowledge abuse and future rivalry problem.

The empirical results of this study are by and large consistent with theoretical predictions of TCE and relational view. Tangible and intangible buyer-specific assets, such as dedicated manufacturing equipment, tailored production tooling, people, managerial processes computer software system, among others, are effective investments conducive to joint action in international OEM relationships; whereas site specificity (i.e. proximity of production site to the buyer) is not a significant predictor. A plausible explanation is that the hindrance arising from geographic distance in partner interactions has been reduced by information communication technology and the importance of buyer-specific site has thus been declining (Kotabe et al., 2008). Meanwhile, relational capital is found positively and significantly associated with joint action. Our findings support the relational view that inter-organizational relation itself can provide a strategic source of efficiency and competitive edge if managed appropriately (Dyer & Singh, 1998; Zaheer et al., 1998; Kohtamaki et al., 2013).

This study contributes to the existing OEM literature in two ways. First, departing from extant research which suggests joint action as a safeguard or governance mechanism to monitor partners' behavior (e.g. Heide & John, 1990; Somaya, et al., 2010), this study conceptualizes joint action as a knowledge transfer platform which enables offshore contract manufacturers to interact frequently with, and acquire knowledge from, the resource-rich MNE buyers. Second, this study addresses the strategic aspects of buyer-specific investments and empirically elaborates the effects of various asset specificities on joint action. It is true that, in practice, MNE buyers are dominant and tend to request contract manufacturers to invest chunky, customized assets to facilitate information exchange with respect to product design and manufacturing etc. Nevertheless, this study provides evidences that the buyer-specific investments also signal credible commitments and pave the way for a wide array of collaborative projects in international OEM relationships.

The current study contains certain limitations that can be improved in future research. First, this study had an implicit assumption that all firms want to learn, and future studies may want to examine the assumption. Further,

like most large-sample survey research on alliances, we too obtained responses from just one of the alliance partners. However, since knowledge acquisition from partners is an issue more critical for contract manufacturers than for OEM buyers, it would be more relevant to examine the drivers of collaboration from the contract manufacturers' side. Finally, all subject firms are based in Taiwan, and our results could be more generalized if data from contract manufacturers in other countries have been included.

To conclude, for contract manufacturers, a straightforward way to acquire external knowledge through collaborations is to commit buyer-specific assets and cultivate trusting ties with the resource-abundant MNE buyers in international OEM relationships. The buyer-specific assets include physical production & test equipment, computer software, managerial process, dedicated cross-functional team, and managerial process etc. Nevertheless, given the potential conflicts between OEM buyers and ambitious learned contract manufacturers, the level of buyer-specific assets invested should be considered as a strategic choice to alleviate the buyers' concerns over knowledge abuse hazards to foster collaborations, rather than a mere compliance to the buyers' requests. However, without a trust-felt and reciprocal relationship, the buyer may decline the proposal of collaborations to withhold exchanges of critical information or experience with the contract manufacturers. Thus, with a purpose to broaden collaborative and boundary-spanning projects, contract manufacturers could examine the level of mutual trust cultivated in the relationship when making the buyer-specific investments. Overall, this study offers strategic insights on proactive knowledge acquisition in international OEM relationships for offshore contract manufacturers that are resource-poor relative to branded MNE buyers.

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The Impact of CRM Strategy on Customer Loyalty in SMEs

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Abstract

The beauty service industry is one of the most flourishing industries in contemporary Beirut, the capital of Lebanon, as versatile demands from men and women have catered to this uplifting growth. A national scandal, however, lead to the suspension of several beauty centers, and conveyed a challenge for competitive small-medium enterprises (SME) to sustain relationships with customers over the long-run. The aim of this study was to understand the impact of customer relationship management (CRM) strategy on customer loyalty using the case of beauty centers in Beirut, Lebanon. The study employed a quantitative approach where data was collected by means of a questionnaire, from a sample of 103 customers. Four variables, as components of CRM, were measured in this study. Results of the statistical analysis verified that customer experience, employee behaviour, and value proposition have a positive impact on customer loyalty. This research provides recommendations for strategically improving relationship-oriented practices in Lebanese SMEs, particularly in the beauty sector.

Keywords: Small-Medium Enterprise (SME), Customer Relationship Management (CRM), Customer Loyalty, Beauty Center

1. Introduction

Rapid changes in the competitive environment have forced enterprises to rethink the way they do business. In many contemporary societies, the reputation and importance of beauty has materialized into elective forms of cosmetic enhancements and the marketing of 'the self' as a commodity for visual consumption for a wide range of people. Hence, the demand for beauty-enhancing services rises, as long as the desire to attain certain aesthetic ideals persists in society. In response to the demand, the supply for such services is multiplying, meaning that competition among small-medium sized enterprises (SMEs) in the market is stiff. This can potentially instigate switching behaviour of customers that want the best value they can get, given that their alternatives are abundant and easily accessible. Thus, the challenge for SMEs is to stand out as the best-option in order to retain a good customer base and seize their loyalty. The focus of this paper is on SMEs, and how customer relationship management (CRM) is considered an effective and strategic option to gain a competitive advantage. Previous studies have looked into the attainment of customer loyalty by way of relationship-oriented practices, such as CRM, but in the financial sector. This study looks at the Beauty sector, and aims to discover to what extent are SMEs (Beauty Centers) in Beirut, implementing the CRM strategy and the impact of CRM on customer loyalty.

2. Literature Review

2.1 SME and CRM

Being customer-driven is the main survival tool for any enterprise in a competitive market. After all, the customer is the central player in every business venture. Large or small, the purpose of every enterprise is not just to earn a profit, but instead, to create and keep a customer (Scarborough, 2011).Thus, the way that SMEs compete in today's economy is significantly due to the range of challenges they face in their ability to maintain a significant customer base (Harrigan et al., 2011). Today most Lebanese SMEs face significant challenges in breaking the barriers of growth and face a high risk for long-term sustainability, especially as they are situated in a complex environment. Lebanon also suffers overall from a poor infrastructure setup, economic uncertainty, and slow business activity. As a result, enterprises are forced to keep up with changing demands over time and break traditional means of doing business in order to survive in the market. Khodakarami & Chan (2014) elaborate the application of customer relationship management, as a major component of success for many enterprises that

desired to shift away from traditional approaches. The following table presents the difference of CRM with traditional marketing initiatives.

Table 1. Traditional Marketing versus CRM Approach

Traditional Marketing	Customer Relationship Management
Transaction focus	Customer focus
Short-term focus	Lifetime focus
One transaction	Multiple transactions
Broadcast approach	Sniper approach
One-way, one-time communication	Two-way, continuous dialogue
Segment of many	Segment of one

Source: Piccoli et al., (2003) p.62, as cited in Ozgener & Iraz (2006)

From the overall evaluation of the topic it has been recognized that the purpose of CRM is to develop customers instead of just focusing on earning profit. According to Piroozfar &Yaghini (2012), high competition and decreasing customer loyalty for businesses leads to the emergence of business models that concentrate on nurturing relationships with customers.

2.2 The Role of CRM in Attaining Customer Loyalty

Implementing a CRM strategy is a complex undertaking that requires effort across the entire organization. Organizations that strive for a relationship aim for the long-term, and have a deep interest in the "right" customers (Peelen & Beltman, 2013). However, building relationships requires a business strategy and an inclusive vision throughout the entire organization, as it affects every function. Without this vision, the enterprise will not stand out from competition, customers will not know what to expect, and employees would be lost in terms of what to deliver to the customer's experience with the business (Gartner, 2001).

Customer loyalty is a competitive asset for any enterprise and has emerged as a key driver of profitability, given that loyal customers tend to purchase more (Shen & Russell, 2007). It is assumed that the cost of retaining a loyal (existing) customer is five times less than the cost of attracting and serving a new one (Ndubisi et al., 2007; Peelen, 2013; Reijonen & Laukkanen, 2010). Thus, higher customer traffic leads to higher profitability and greater market share for the business (Oliver, 1999). However, for a consumer to become and remain loyal, he or she must believe that the firm offers the best choice alternative (Oliver, 1999). The implementation of CRM strategies not only improves retention rates but also spending. Hence, the potential for developing meaningful relationships becomes greater than ever when efficient methods are used to capitalise on customer needs and preferences.

The discussion of CRM and its effect on customer loyalty has been the focus of a number of previous studies. Table (2) below summarizes the most important studies related to the relationship between CRM and Customer loyalty The studies commonly recognize that CRM offers the necessary tools to gather relevant data quickly, identify the most valuable customers over time, and increase customer loyalty through customized products and services.

Table 2. Previous studies on CRM & Customer Loyalty

Author(s)	Objective	Methodology	Results
(Shen & Russell, 2007)	To examine the relationship between CRM practices in customer service and customization, multiple channels and customer loyalty, and the moderating effect the multiple channels have on the relationships between CRM practices and customer loyalty.	Survey on financial consumers in Taiwan; 400 questionnaires distributed, response rate of 63%.	CRM practices involving loyalty programs and cross-selling, customer service and customization, and the use of multiple channels have positive effects on customer loyalty.
(Ndubisi et al, 2007)	To examine the impact of relationship marketing strategies, including: commitment, competence, communication and conflict handling, on customer loyalty, and the effects of trust and relationship quality.	Survey on bank customers in Kota Kinabalu, Malaysia; 400 questionnaires were collected, with a response rate of 57.5%.	The relationship marketing strategies are directly and indirectly associated with customer loyalty (through trust and relationship quality). Trust and relationship quality are directly associated with loyalty.
(Fozia et al., 2014)	To investigate the impact of CRM on the profitability of Kenyan Public Universities, and the impact of CRM on gaining customer loyalty.	Survey of 100 students and interview on 12 university heads; Moi University, Kenya	CRM strategy has a positive impact for gaining competitive advantage and customer loyalty for the University.
(Long et al., 2013)	To examine the impact of CRM elements on customer satisfaction and loyalty.	Questionnaire distributed; 300 out of 500 usable surveys; at department store in Tehran, Iran.	CRM has a positive relationship on satisfaction and loyalty. Employee behaviour showed the most significant relation and contribution to customer satisfaction and loyalty.
(Oliver, 1999)	To discover what aspect of satisfaction responses have implications for loyalty, and what fraction of loyalty is due to this satisfaction component.	Descriptive study; qualitative review of literature	Satisfaction is a necessary step in the formation of loyalty, however, becomes less significant as loyalty begins to set through other mechanisms such as: individual perception, personal courage, and social bonding.
(Colgate & Danaher, 2000)	To study the effect of implementing CRM on customer satisfaction and loyalty in the bank industry.	Quantitative research on 1917 subjects from telephone directory in New Zealand; response rate of 43.5%	CRM, carried out skillfully, resulted in higher satisfaction and loyalty. Opposite effects were true when CRM execution was deficient.
(Kirmaci, 2012)	To reveal the relationship between CRM and the customer loyalty in the banking sector.	Questionnaire on commercial credit customers of 23 branches of Ziraat Bankasi in Denizli, Turkey.	Customer relationship management has an effect on customer loyalty in the banking sector. Collecting customer information arouses a sense that the customer is valued. Furthermore, short waiting times, personnel knowledge, and speed of service account to customer loyalty.
(Bobalca et al., 2012)	To develop and test a customer loyalty scale. The tested hypothesis is that loyalty is a process with four phases: cognitive, affective, conative, and action.	Qualitative and quantitative research was used. Sample was represented by 676 buyers of cosmetic products from direct selling companies.	Statistical analysis proved that the final scale, made up of the four components (cognitive, affective, conative, and action loyalty) can be used to collect information about customer loyalty levels and implement efficient CRM strategies.

3. Methodology

3.1 The Research Model & Hypotheses Statements

According to the literature review, there are many "building blocks" or elements that makeup CRM. However, after an extensive review of literature, the researcher developed the following four elements to apply to the study: customer experience, employee behaviour, value proposition, and relationship development. These variables are abridged factors that deepen the relationship between the customer and the business, and eventually contribute to higher satisfaction and retention of the customer base. The researcher developed a conceptual model that demonstrates the four variables of CRM that affect customer loyalty. The model below guides the premise of this research study.
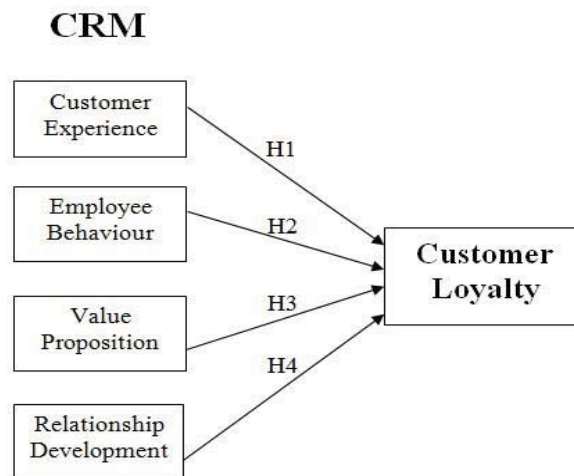
Figure 1. Research Model

The researcher insinuated four hypotheses to this research, as the independent variables were: customer experience; employee behaviour; value proposition; and relationship development. Customer loyalty was the dependent variable. The hypothesis statements were as follows:

H1: Customer experience has a positive impact on customer loyalty.

H2: Employee behaviour has a positive impact on customer loyalty.

H3: Value proposition has a positive impact on customer loyalty.

H4: Relationship development has a positive impact on customer loyalty.

3.2 Sample Industry

The researcher targeted a range of 26 popular beauty centers in Beirut. These beauty centers were a collection of small-sized and medium-sized enterprises that employed less than 50 employees or less than 100 employees respectively. The researcher took into consideration that some enterprises held other branches outside of the city; however only the branches in the Beirut region were studied.

3.3 Design of the Questionnaire

A questionnaire was the most suitable research instrument to collect quantitative data for the purpose of testing the hypotheses of the study. The questionnaire started with the customer's profile and continued towards specific questions related to variables of the study. The profile section identified the customer's gender, age, marital status, the name of the beauty center they visit, and how often they visit it. The customer' social class, occupation, how much they typically spend for a treatment at the beauty center, and the type of service they purchase were also items of interest in the customer's profile. The next section of the questionnaire contained specific questions pertaining to the variables of the study. The items in the questionnaire for each variable were based on a sufficient literature review of various studies. The items used were inspired by different scales found in the works of Long et al., (2013), Kirmaci (2012), Peelen (2013), Buttler (2004), Fozia et al., (2014), and Bobalca et al., (2012). The researcher did not take a specific scale from any particular source; however, it was suitable for this topic to select and adapt different dimensions from an abundant collection of literature.

For the first independent variable, customer experience, the questionnaire contained eleven items (i.e.: appointment reminder, channel of reminder, appointment follow-up, channel of follow-up, promotion information, channel of promotion information, welcoming reception area, refreshing ambiance, waiting time, hospitality, available help). Employee behaviour was the second independent variable and contained eight items (i.e.: friendliness, politeness, listening to needs, knowing preferences, quick response, knowledge of equipment, expert in work, and cooperativeness). Value proposition, the third independent variable, contained six items (i.e.: fair price, product quality, equipment quality, convenience of location, service-preference fit, fulfillment of needs). Relationship development was the fourth independent variable contained ten items (i.e.: record of personal information, record of visits, presence of a loyalty-card program, complaint, means of reporting complaint, means of handling complaint, satisfaction of solution for complaint, feedback request, channel of feedback request, seriousness for feedback). Using the dimensions of CRM strategy proposed by the literature,

the researcher adapted six items related to customer loyalty (i.e.: best-choice, emotional attachment, switch-over, re-purchase, satisfaction, and recommendation).

3.4 Data Collection

The researcher first made contact with owners of four large beauty centers and requested their consent to share the facility in order to collect data from customers during operating hours. The researcher first contacted two owners through the telephone, and the other two face-to-face, explaining the purpose of the study in detail. However, the researcher's requests were refused by all owners that were approached. Their reasons for refusal involved concerns of privacy and potential disruption to their clientele. This was a limitation in data collection for the study.

Snowball sampling was therefore the most suitable technique to administer the research questionnaire, due to the constraints mentioned, in addition to limited cost and time. There was also no list or obvious sources available to locate specific members of the population needed to contribute to the study, especially after the refusal. Snowball sampling is generally considered a non-probability sampling technique, in which existing study subjects recruit future subjects, from among their acquaintances, via their social networks. This research technique is metaphorically referred to as "snowball" sampling, because as more relationships are built through mutual association, more connections are made so that for information can be shared and collected, similar to a snowball that rolls and increases in size as it collects more snow (Zikmund et al., 2010).

The researcher distributed 110 questionnaires in total, of which 103 were returned completed and usable, and 7 were voided because of incomplete data. This translates to a 94% response rate. In total, the collected data comprised of responses from 26 different Beauty Centers. The results discuss the descriptive statistics and demographic information in more detail.

4. Results

4.1 Studying the Homogeneity of the Metric Scales

The metric scales for each variable in the research model are studied in this section to ensure reliability and validity before proceeding with the regression analysis (for hypothesis testing) that will measure the impact of CRM on customer loyalty. To demonstrate the validation of the scales of measurement in this research, the researcher conducted Factor Analysis, and to obtain the reliability of the scales, the researcher conducted the Chronbach Alpha (α) test. Factor analysis is an explorative analysis that reduces a larger set of variables into a smaller set of 'principle components' that account for the variance in the original variables (Zikmund et al., 2010). In this study, principle component analysis (PCA), or factorial analysis, was used as a method for analysing the relationships between the items of a scale, and for the purification and validation of those scales prior to regression analysis. Overall, this analysis, based on the purpose of having homogeneous scales while using methods of measuring dimensions and internal coherence, has enabled the data to be purified and lead to the appropriate structuring of the variables. Thus, the researcher has condensed the variables initially adopted in order to be able to carry out validation tests of the hypotheses. In the table below, the researcher has synthesized the set of items selected as a result of the factorial analysis (PCA and Chronbach (α)) carried out on the different variables.

4.2 Regression Analysis

This section examines the nature of the relationships that characterize the variables under study. The aim is to study the quality of the cause and effect relationships between the independent variables and the dependent variable, formulated in the research hypotheses. Multiple-regression involves predicting the value of the dependent variable based on the values of more than one (multiple) independent variable. Conducting multiple regression analysis as the final step and the purpose was to learn more about the relationship between the variables involved in the research model. Results of this analysis enabled the researcher to discover which independent variable was the best predictor for the dependent variable. The variables entered for the analysis were: customer experience, employee behaviour, value proposition, and relationship development (as independent variables, also called "the predictor variables"); and customer loyalty (the dependent variable, also called "the response variable"). The analysis used a confidence interval of 95% for the coefficients. Results indicated an R value of 86%. This value represented the strength of the correlation between the observed and predicted values of the dependent variable. The adjusted R^2 had a score of 0.729. This value meant that 72.9% of the variability of customer loyalty was accounted for by the model. At the threshold that the (p) value should be 0.05 or less, the table of results indicated which variables were more significant predictors of customer loyalty. The (p) value for customer experience was = 0.000, and the (p) value for value proposition was = 0.000, therefore showing a significant relationship. However, employee behaviour, with a (p) value = 0.107, and

relationship development with (p) value = 0.174, showed that there was no significance.

However, it is important to recall that "employee behaviour" was a significant predictor of "customer loyalty" according to the linear regression analysis; while in the multiple regression analysis, the results indicated that it was not. As mentioned earlier, the (p) value of each independent variable indicated whether or not it was a significant predictor of the dependent variable over and above the other independent variables. Hence, this result occurred only because other independent variables were added into the equation. In specific, the variance that the first independent variable shared with the dependent variable overlapped with the variance that was shared between the second, third, and fourth independent variable and the dependent variable. As a result, "employee behaviour" was no longer a unique predictor, and thus did not appear significant in the multiple regression analysis as in the linear regression analysis. Nevertheless, the results of the model still derived a highly significant R^2 value, even though some of the independent variables proved insignificant.

Overall, the results of this multiple regression analysis confirmed that CRM has a positive impact on customer loyalty, which was consistent with results of other literature (Colgate & Danaher (2000); Long et al., (2013), Kirmaci (2012);Fozia et al., (2014); Shen & Russell (2007).

Table 3. Summary of the variables and items selected as a result of the factorial analysis

Variable	Items Selected
Customer Experience	Welcoming reception
	Refreshing ambiance
	Generous hospitality
	Help available
Employee Behaviour	Friendly employees
	Polite employees
	Needs listened
	Preferences known
	Quick response
	Knowledge of equipment
	Expert in work
	Cooperative employees
Value Proposition	Fair price
	Product quality
	Equipment quality
	Service to preference fit
	Fulfillment of needs
Relationship Development	Complaint handled without delay
	Satisfaction of solution for complaint
Customer Loyalty	Best choice
	Satisfaction
	Attachment
	No possibility to switch-over
	Re-purchase

Table 4. Results of Multiple Regression Analysis

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.860[a]	.740	.729	.48987

Coefficients[a]							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	-1.858	.347		-5.361	.000	-2.546	-1.170
Customer_Experience	.321	.088	.255	3.655	.000	.147	.495
Employee_Behaviour	.219	.134	.140	1.629	.107	-.048	.485
Value_Proposition	.771	.125	.555	6.146	.000	.522	1.020
Relationship_Development	.035	.025	.071	1.370	.174	-.016	.085

a. Predictors: (Constant), Relationship_Development, Employee_Behaviour, Customer_Experience, Value_Proposition

b. Dependent Variable: Customer_Loyalty

The table below summarizes the results of the hypothesis testing, as a reflection of the outcomes prior to the discussion in the next section.

Table 4. Summary of Hypothesis Testing

Hypothesis		Result
Hypothesis 1:	H_1: Customer experience has a positive impact on customer loyalty	Accepted
Hypothesis 2:	H_1: Employee behaviour has a positive impact on customer loyalty	Accepted
Hypothesis 3:	H_1: Value proposition has a positive impact on customer loyalty	Accepted
Hypothesis 4:	H_1: Relationship development has a positive impact on customer loyalty	Rejected

5. Discussion of Results

The main objective of the study was to understand the impact of CRM on customer loyalty in the context of small-medium enterprises, using the case of beauty centers in Beirut, Lebanon. The hypotheses in this study proposed that customer loyalty is dependent on the strategic implementation of CRM fundamentals, including: the customer's experience, the behaviour of employees, the value proposition, and relationship development. The results on these items confirmed our theory, in that CRM has a positive impact on customer loyalty. Customer experience, employee behaviour, and value proposition were the most essential elements in the formation of customer loyalty for customers of beauty centers in Beirut. The results were consistent with those of other literature. Customer-experience and value-proposition contributed the most according to regression results, indicating that customers count on a memorable journey, as well as quality interaction. This demonstrates how a meaningful and sincere connection between the customer and the supplier contributes to satisfaction, trust, and long-term loyalty, while poor experiences have the opposite effect, supporting the results of Shen & Russell (2007), and Gartner (2001). Also, when the service is "customer centric", customers were more pleased, because things like fair price, quality service, and customization demonstrate that the enterprise places importance on their relationship, rather than on profit or marginal gains.

Moreover, it was proven that positive employee behaviour leads to positive customer loyalty. Since employees exhibit the most interaction with customers, especially in the service sector, they have a large impact on the creation and maintenance of customer relationships, lining up with theory from Peelen & Beltman (2013). An employee that possesses the knowledge, courtesy, and responsiveness in line with the business's strategy will impact customer perceptions of the enterprise, as well as the likelihood of long-term relationships. Hence, the customer and the employee are inseparable entities. However, the degree of the relationship was contrary to that of Long et al., (2013), where employee behaviour held the greatest contribution towards customer loyalty in department stores in Tehran. Our results were less significant, however the dissimilarity could be associated with the difference in culture, population observed, and targeted sector. The results regarding the association between relationship development and customer loyalty was also unexpected. It was concluded that relationship development was not a direct predictor of customer loyalty, and this was consistent with the results of Long et al., (2013). However, the components that form this variable are still important to mention. First of all, the extent of conflict and feedback management could be influenced by the context of the situation. For instance, conflicts could have occurred but were solved before they manifested; or problems were discussed openly and customers disregarded them thereafter; and hence, an association was not declared. Furthermore, knowledge management using internal databases should be maintained in as many SMEs as possible. Our results indicated that a vast majority of the beauty centers already have a means of storing customer information internally, and make use of necessary customer knowledge. This was a good indication and should be continued, because in line with theory, an internal database provides crucial customer-insight necessary for developing appropriate solutions and facilitates effective interaction. Moreover, the existence or knowledge of a loyalty program within beauty centers was low, even though such a tool aids in the development of customer relationships, according to theory (Peelen & Beltman, 2013).

Consistent with results of other literature, CRM presents the tools that are necessary to establish deeper relationships with customers, and create lasting relationships that are mutually beneficial. With a committed team perspective, and appropriate tools for managing customer knowledge, businesses can better understand customer needs and create better value propositions, which therefore, increase customer purchase behaviour.

6. Conclusion

6.1 Recommendations

Marketing research about the management of the beauty sector is almost absent in Lebanon. This paper is considered among the first to provide implications pertaining to the strategic management of SMEs through CRM. Hence, given their characteristics of being small, and therefore close to customers, this research can benefit many entrepreneurs in realizing that a customer-centric approach will provide their business a competitive advantage in a competitive industry, such as the beauty industry. Hence, SME owners should consider several initiatives, outlined as follows. One initiative is to establish a mentorship network. Potential

SME owners can be matched with mentors from a local network of successful CEOs or other business owners who can provide guidance and advice to the entrepreneurs about best practices. In the context of developing potential entrepreneurs, there should be plenty of room for a female-led business environment. The development of women-entrepreneurs in Lebanon should be supported through committed policies, specialized training, as well as women-to-women support networks.

6.2 Limitations

The first limitation to this study was its reliance on snow-ball sampling. When administrating the questionnaire, the researcher was rejected by owners of beauty centers after requesting to share the facility for the purpose of data collection during hours of operation. Owners refused because of reasons related to privacy and potential disruption of their clientele. Hence, the dynamics of the sample involved could impose on the ability to generalize the results. Furthermore, results cannot be generalized to other parts of the world, since the study concentrated on only one sector in the Middle-East (Lebanon). Finally, the work in this study consisted of a quantitative examination only. However, a different approach such qualitative methods, like open or closed individual interviews, could have provided a wider understanding of customer perceptions or even management's decision-making mechanisms.

6.3 Researcher's Perspective

The previously mentioned limitations give attention to different avenues of research. These avenues concern the extension of this research and application of the model to other contexts. Future studies could be conducted outside of Lebanon to investigate the implications further. For instance, a comparative study could be done to take a further look into the differences of two different regions on the CRM practices that impact customer loyalty. Or, this type of study could be applied to other service organizations. In addition, the variables used in this study could be re-adapted or classified further, as some of variables could have multiple dimensions and relationships with other aspects. Future research could look into those specific areas. Lastly, qualitative techniques could be incorporated to supplement quantitative connotations.

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FDI-Led-Growth in Malaysia:
Autoregressive Distributed Lag (ARDL) Bounds Testing Approach

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Abstract

This study intends to investigate the validity of the foreign direct investment, FDI-led-growth hypothesis in Malaysia in this era. Autoregressive Distributed Lag (ARDL) bounds test approach is adopted to examine the impact of FDI inflow towards growth of Malaysia based on annually data from 1980 to 2016. Empirical results indicate that FDI inflow has significant positive impact on economic growth. This implies that FDI inflow remain important tool for stimulating economic growth of Malaysia. In addition, there is a negative impact of FDI inflow on economic growth during the 1997 Asian Financial crisis and positive impact during the 2008 Global Financial crisis. In terms of policy recommendation, the policy makers should continue to develop strategies to further attract FDI that will contribute to increasing the productivity in the country.

Keywords: foreign direct investment, ARDL bound test, economic growth

1. Introduction

Foreign direct investment (FDI) has been the engine of growth in Association of Southeast Asian Nations (ASEAN) in the 1990s. This can be seen from the influx of FDI into ASEAN-5 countries, namely Indonesia, Malaysia, Philippines, Singapore and Thailand. The spillover effects of FDI can be in the form of human capital development, new technology and management skill transfer, stimulate the international trade activity and ultimately contribute to the economic growth of the countries (Blomstrom and Wolff, 1994; Chuang and Hsu, 2004; Dollar and Kraay, 2004; Hermes and Lensink, 2003; Schneider, 2005; Li and Liu, 2005; Wang and Yu, 2007).

Table 1. Selected Macroeconomics Indicators of Malaysia

	1989-1992	1993-1996	1997-2000	2001-2004	2005-2008	2009-2012	2013-2016
GDP (%)	9.13	9.73	3.69	4.62	5.42	4.20	4.99
FDI	3,364.97	5,858.50	4,179.97	2,713.68	6,473.01	7,987.36	11,010.06
Total Trade (%)	148.38	177.93	208.28	201.82	193.89	155.82	135.81
Domestic Credit (%)	99.65	123.46	153.49	139.38	113.13	127.15	142.21

Source: World Economic Outlook, UNCTACD and World Development Indicator.

Table 1 indicates selected macroeconomics indicators of Malaysia based on 4 years average from 1992 to 2016. Malaysia has experienced tremendous economic growth prior 1997 with average GDP growth at 9.13% and 9.73% in the period of 1989-1992 and 1993-1996, respectively. In terms of FDI inflow, Malaysia recorded US$3,365 million in the period of 1989-2002 and increased to US$5,859 in the period of 1993-1996. This increasing

pattern did not persist and decrease to US$4,180 and US$2,714 in the period of 1997-2000 and 2001-2004, respectively. The remarkable FDI inflows into Malaysia in the early 1990s indirectly contributed to the economic growth as Malaysia has become one of the favourite FDI destination. However, the 1997 Asian Financial crisis has caused severe negative impact on the FDI inflow and eventually affecting the economic growth. Since then, the GDP growth and FDI inflow into Malaysia gradually improving. Interestingly, the 2008 Global Financial crisis have minimal impact on Malaysia. This can be seen from the slight decrease of GDP growth from 5.42% in the period of 2005-2008 to 4.20% in the period of 2009-2012. Meanwhile, FDI inflow shown a slow increase from US$6,473 to US$7,987 in the subsequent period of 2005-2008 and 2009-2012, respectively. In terms of GDP performance, the country recorded the highest GDP growth at average 9.73% in the period 1993-1996 before drastic decline to average 3.60% in the period 1997-2000. The subsequent period of years indicated stable GDP growth at around 4%, with average 4.99% in the period 2013 to 2016. Meanwhile, Malaysia recorded highest level of total trade with average 208% of GDP in the period 1997 to 2000. However, it declined to average 135% in the period of 2013 to 2016. Domestic credit also portrayed the highest level of average 153% of GDP in the period of 1997 to 2000. Although there was a slight declination of the domestic credit level in the subsequent periods, it recorded at average 142% of GDP in the period of 2013 to 2016.

The relationship between FDI and economic growth has received much attention among the researchers. This is due to the positive spillover effects of FDI towards economic growth of the host country (see for example: Chakraborty and Basu, 2002; Liu, Burridge and Sinclair, 2002; Chowdhury and Mavrotas, 2005; Li and Liu, 2005; Duasa, 2007; Carbonell and Werner, 2018). Nevertheless, the contribution of the FDI to economic growth has comes to the point of concern, particularly the effects of crisis such as financial crisis. This is due to the severe negative impact on the FDI inflow during the crisis periods such as 1997 Asian Financial crisis and 2008 Global Financial crisis. For instance, ASEAN region, especially Malaysia has become the main attraction of FDI preference in the 1990s as shown in Table 1. However, the consequences of the 1997 Asian financial crisis led to the drastic declination of the FDI inflow from US$7,297 million in 1996 to US$2,714 million in 1998. Similarly, during the 2008 Global Financial crisis, FDI inflow into Malaysia recorded severe drop from US$8,585 in 2007 to US$1,453 in 2009. Furthermore, the intense rivalry among the ASEAN tigers (Indonesia, Malaysia, Thailand and Philippines), emerging economies such Vietnam and the rise of China have become a challenge among the nations in attracting FDI inflow.

This phenomenon indirectly indicates although FDI plays significant role in stimulating economic growth of a country, however, uncertainties such as financial crisis and challenges among the nations to become FDI preference destination has lay a doubt on the role of FDI towards economic growth in this era. In other perspective, it is undeniable the fact that FDI spillover effects contributed to the economic growth, but the relevancy of the FDI role in ensuring sustainable economic growth cast further doubt among the policy makers. This is due to the nature of the FDI, which can be in the form of greenfield investment and equity. The greenfield investment FDI in general will take a longer time period to observe the impact as it is considered long-term investment. Equity investment FDI is viewed as short term investment and may subject to fluctuation of the business. Both FDI forms have their respective risk level and eventually may dampen economic growth due to unforeseen circumstances.

Therefore, it is important to re-examine the role of FDI towards economic growth of Malaysia, especially to ensure sustainability growth of the country in view of the nature of the FDI and challenges in attracting the FDI inflow into Malaysia due to the competitive advantage in terms of labor cost in other countries such as China and Vietnam. The contributions of this study are two folds. Firstly, the findings from this study are essential to the policy makers as to ensure the relevancy of the FDI in stimulating growth in the recent business and economics environment. With regards to that, the government may develop relevant strategies to ensure sustainable FDI inflow into the country if FDI is still valid in contributing to economic growth. Secondly, the revisit of the role of FDI towards economic growth by incorporating the effect of financial crises further provide new insight on the association between FDI and economic growth.

The remainder of this paper is structured as follows: Section 2 provides discussion on the literature about FDI led growth, section 3 shows the methodology adopted, section 4 provides discussion of the results obtained. Finally, section 5 provides concluding remarks.

2. Literature Review

There are several empirical literatures shown the evidence of FDI-led growth where FDI plays essential role in contributing to economic growth of a country.

Borensztein et al. (1998) conducted study on 69 developing countries from 1970 to 1989 with the aim to

examine the relationship between FDI and economic growth. Their findings indicated that FDI is an important tool contributing to economic growth via transfer of technology. Zhang (2001) examined the validity of the FDI-led-growth hypothesis at a broader aspect where the sample countries are East Asian and Latin American countries. He discovered that there is a mixed result where some countries showed evidence of FDI-led growth and some countries exhibited the opposite direction causality. Chakraborty and Basu (2002) investigated the causality direction between FDI and economic growth of India from 1974 to 1996 using vector error correction model (VECM), The causality result indicated that GDP causal FDI instead of the other way for India case. Liu, Burridge and Sinclair (2002) performed empirical analysis FDI, trade and growth of China from 1981 to 1997. Their findings showed that there is bi-directional causality between FDI, trade and economic growth. In other words, FDI plays an important role in stimulating economic growth of China. Meanwhile, Chowdhury and Mavrotas (2005) investigated the causality between FDI and growth using Toda-Yamamoto method for three countries, namely Chile, Malaysia and Thailand from 1969 to 2000. Their results indicated that causality from growth to FDI for the case of Chile, but bi-directional causality between FDI and growth for the case of Malaysia and Thailand. Li and Liu (2005) examined the impact of FDI on growth on 84 countries from 1970 to 1999. They proclaimed that FDI has positive impact on economic growth, particularly via human capital element. On the other hand, Duasa (2007) investigated the causality between FDI and economic growth as well as FDI and stability of growth in Malaysia. Empirical results indicated no causality between FDI and growth, but FDI contribute to the growth stability of Malaysia.

Batten & Xuan (2009) conducted a study on examining the relationship between FDI and economic growth for 79 countries that include developed and developing countries, from 1983 to 2003 using panel data. The findings indicated that FDI has positive impact on economic growth and tends to be stronger in the countries with higher level of education, trade openness, stock market development and lower rate of population growth. Schmitt and Alexiou (2016) examined the FDI-led-growth hypothesis for Ireland from 1976 to 2011 using VECM. Their empirical results showed that there is a significant positive association between FDI and economic growth in the long-run and short-run. Mahmoodi and Mahmoodi (2016) examined the causal relationship between FDI, exports and economic growth for two groups of countries that consists of eight European developing countries and eight Asian developing countries. The sample period for first group is from 1992 to 2013 while the for second group is from 1986 to 2013. They adopted panel VECM and causality method to investigate the tri-variate model. Their empirical results showed that evidence of bidirectional causality between FDI and economic growth and unidirectional causality from economic growth and FDI to exports in developing European countries and Asian countries.

3. Methodology

The sample period used in this study covers from 1980 to 2016. Gross domestic product is the dependent variable, whereas FDI inflow as the main independent variable. Total trade, domestic private credit and population are included in the model as control variables. All the variables are obtained from World Development Indicator (WDI). All the variables are transformed into logarithm form with the aim to standardize the different measurement units.

Variables	Measurement	Source
Gross domestic product	Constant in local currency	
FDI inflow	Current US$	
Total trade	Sum of exports and imports of goods and services measured as a share of gross domestic product	World Development Indicator (WDI)
Domestic private credit	Percentage of GDP	
Population	Total population in persons	

In order to examine the impact of the FDI inflow and economic growth, the following models specification are developed:

Model A: Baseline model with control variables as shown in Equation (1)

Model B: Baseline model with control variables, 1997 crisis dummy and 2008 crisis dummy as shown in Equation (2)

Model C: Baseline model with control variables, interaction terms between FDI and 1997 crisis dummy,

interaction terms between FDI and 2008 crisis dummy as shown in Equation (3)

$$LGDP_t = \alpha + \beta_1 LFDI + \beta_2 LTT_t + \beta_3 LDC_t + \beta_4 LPOP_t + \varepsilon_t \tag{1}$$

$$LGDP_t = \alpha + \beta_1 LFDI + \beta_2 LTT_t + \beta_3 LDC_t + \beta_4 LPOP_t + \beta_5 D1_{1997} + \beta_6 D2_{2008} + \varepsilon_t \tag{2}$$

$$LGDP_t = \alpha + \beta_1 LFDI + \beta_2 LTT_t + \beta_3 LDC_t + \beta_4 LPOP_t + \beta_5 (FDI * D1_{1997}) + \beta_6 (FDI * D2_{2008}) + \varepsilon_t \tag{3}$$

where $LGDP$ denotes logarithm of GDP, $LFDI$ denotes logarithm of FDI inflow, LTT denotes logarithm of total trade, LDC denotes logarithm of domestic private credit, $LPOP$ denotes logarithm of population, $D1_{1997}$ denotes 1997 Asian financial crisis, $D2_{2008}$ denotes 2008 Global financial crisis, $(FDI * D1_{1997})$ denotes interaction terms between FDI and 1997 Asian financial crisis, $(FDI * D2_{2008})$ interaction terms between FDI and 2008 Global financial crisis and ε denotes white noise error term.

This study adopts Autoregressive Distributed Lag (ARDL) bounds testing approach proposed by Pesaran et al. (2001) to determine the long-run relationship among the variables. Narayan and Narayan (2005) stated that the bounds test is based on the estimation of unrestricted error correction model (UECM) and has several advantages compared to cointegration approach. First, the ARDL approach does not require the stationarity of $I(1)$ for all the variables as the F-statistics has non-standard distribution under the null hypothesis of no-cointegration, regardless the variables are $I(0)$ or $I(1)$. Second, it is applicable and robust for small sample. Third, it can estimate the short-run and long-run parameters simultaneously.

The UECM is expressed in Equation (4):

$$\Delta LGDP_t = \alpha + \sum_{i=1}^{p} \beta_1 \Delta LGDP_{t-i} + \sum_{i=1}^{p} \beta_2 \Delta LFDI_{t-i} + \sum_{i=1}^{p} \beta_3 \Delta LTT_{t-i} + \sum_{i=1}^{p} \beta_4 \Delta LDC_{t-i} + \sum_{i=1}^{p} \beta_5 \Delta LPOP_{t-i}$$

$$+ \lambda_1 LGDP_{t-i} + \lambda_2 LFDI_{t-i} + \lambda_3 LTT_{t-i} + \lambda_4 LDC_{t-i} + \lambda_5 LPOP_{t-i} + \varepsilon_t \tag{4}$$

where Δ denotes a first difference operator.

The long-run relationship is determined via F-statistic or Wald statistic based on the null hypothesis of no cointegration, $H_0: \lambda_1 = \lambda_2 = \lambda_3 = \lambda_4 = \lambda_5 = 0$ and alternative hypothesis, $H_1: \lambda_1 \neq \lambda_2 \neq \lambda_3 \neq \lambda_4 \neq \lambda_5 \neq 0$. The null hypothesis can be rejected if the calculated F-statistics value is larger than the critical value of the upper bounds and this indicates there is long-run relationship between the variables. The null hypothesis cannot be rejected if the F-statistic value is less than the lower critical value and this indicates that there no long-run relationship between the variables. If the F-statistic value falls in between the lower and upper bounds, the test will be inconclusive. The optimal lag length can be selected based on Schwartz-Bayesian Criteria (SBC) and Akaike Information Criteria (AIC).

If there is long-run relationship among the variables, the error correction model is represented as stated:

$$\Delta LGDP_t = \alpha + \sum_{i=1}^{p} \beta_1 \Delta LGDP_{t-i} + \sum_{i=1}^{p} \beta_2 \Delta LFDI_{t-i} + \sum_{i=1}^{p} \beta_3 \Delta LTT_{t-i} + \sum_{i=1}^{p} \beta_4 \Delta LDC_{t-i} + \sum_{i=1}^{p} \beta_5 \Delta LPOP_{t-i}$$

$$+ \partial ECT_{t-i} + \varepsilon_t$$

where ECT_{t-i} term denotes the long-run equilibrium speed of adjustment. Diagnostic tests such as normality

test, serial correlation test and heteroscedasticity test will be performed to ensure the goodness of fit of the model while cumulative sum (CUSUM) and cumulative sum of square (CUSUMSQ) will be performed to check the stability of the model.

4. Empirical Results

Table 2 shows the Unit Root test results for Augmented Dickey Fuller (ADF), Philips Perron (PP) and Kwiatkowski-Phillips-Schmidt-Shin (KPSS). The objective of conducting the unit root test is to check the stationarity of the time-series variables as either integrated with the same order at level or at first difference.

Table 2. Unit Root Test Results

Variables	Augmented Dickey-Fuller (ADF)		Philips Perron (PP)		Kwiatkowski-Phillips-Schmidt-Shin (KPSS)	
	At Level	First Difference	At Level	First Difference	At Level	First Difference
LGDP	-1.2152	-4.8512***	-1.3859	-4.8598***	0.1618**	0.1739
LFDI	-4.9310***	-6.6373***	-4.9310***	-18.673**	0.0697***	0.2585
LTT	0.3828	-3.4459**	0.1129	-3.4926**	0.1801***	0.4893
LDC	-3.0992	-5.3758***	-3.1781	-5.5851***	0.0992	0.1031
LPOP	-3.7551**	-0.5926	0.9724	-0.0346	0.1931**	0.5968

Notes: Asterisks *, ** and *** denote significance levels: 10%, 5% and 1%. LGDP = logarithm of GDP, LFDI = logarithm of FDI inflow, LTT = logarithm of total trade, LDC = logarithm of domestic private credit and LPOP = logarithm of population. Automatic lag selection by Schwarz Info Criterion (SIC) for ADF. Null hypothesis under ADF test and PP test state that time series variable is non-stationary, while null hypothesis under KPSS test states that time series variables is stationary.

Under the ADF test, LGDP, LTT and LDC are non-stationary at level (non-rejection of null hypothesis of variable contain unit root) but become stationary at first difference, except for LFDI and LPOP where they are stationary at level. Under the PP test, LGDP, LTT, LDC and LPOP are non-stationary at level and become stationary at first difference except for LFDI where it is stationary at level. Under the KPSS test, LGDP, LTT, LDC and LPOP are non-stationary at level (rejection of null hypothesis of variable is stationary) and become stationary at first difference except for LDC where it is stationary at level. Therefore, there is a mix results on the stationarity of the time-series variables as either stationary at level or at first difference. Due to that, ARDL bounds test can be adopted since there are some variables exhibit stationarity at level or at first difference and it is not a precondition for performing ARDL bounds test.

Table 3. ARDL Bound Test Results

	Model A: (1, 0, 4, 1, 4)		Model B: (1, 2, 1, 1, 2, 2, 2)		Model C: (1, 2, 1, 1, 2, 1, 1)	
Bounds test F-statistics	4.75***		7.45***		8.79***	
Long–run:	Coefficient	Standard Error	Coefficient	Standard Error	Coefficient	Standard Error
LFDI	0.0242***	0.0080	0.1478***	0.0115	0.1500***	0.0156
LTT	0.0625**	0.0243	0.0874***	0.0094	0.0918***	0.0156
LDC	-0.1705***	0.0449	0.4166***	0.0491	0.4009***	0.0609
LPOP	2.3849 ***	0.0913	1.5717***	0.0696	1.5714***	0.0910
Constant	-28.2548***	1.3819	-20.1286***	0.7573	-20.1188***	0.9455
Crisis Dummy 1997			-0.1158***	0.0166	-	-
Crisis Dummy 2008	-	-	0.1707***	0.0183	-	-
LFDI * Crisis Dummy 1997	-	-	-		-0.0052***	0.0011
LFDI * Crisis Dummy 2008	-	-	-		0.00845***	0.0012

Short–run:	Coefficient	Standard Error	Coefficient	Standard Error	Coefficient	Standard Error
LFDI	0.0173***	0.0028	0.0559***	0.0048	0.0508***	0.0042
LTT	-0.0775	0.0746	-0.2713***	0.0635	-0.1724***	0.0503
LDC	0.0187	0.0249	0.1094***	0.0221	0.0902***	0.0222
LPOP	-6.1741***	1.1648	-8.6239***	1.1973	-7.1334****	0.9803
ECT	-0.7399***	0.0997	-0.9366***	0.1021	-0.7988***	0.0814

Diagnostic test			
Normality test, Jarque Bera	0.1795 [0.9142]	1.4912 [0.4744]	1.2944 [0.5235]
Serial correlation, BG-LM test	1.2370 [0.3166]	3.1163 [0.0621]	2.2224 [0.1533]
Heteroscedasticity, BPG test	1.7213 [0.1384]	1.6265 [0.1627]	1.3991 [0.2421]
CUSUM test	Stable	Stable	Stable
CUSUM² test	Stable	Stable	Stable

Notes. Asterisks *, ** and *** denote significance levels: 10%, 5% and 1%. LGDP = logarithm of GDP, LFDI = logarithm of FDI inflow, LTT = logarithm of total trade, LDC = logarithm of domestic private credit and LPOP = logarithm of population. Values in bracket indicate probability. Serial correlation BG-LM test indicates Breusch-Godfrey Serial Correlation LM Test, Heteroscedasticity BPG test indicates Heteroscedasticity Breusch-Pagan-Godfrey test.
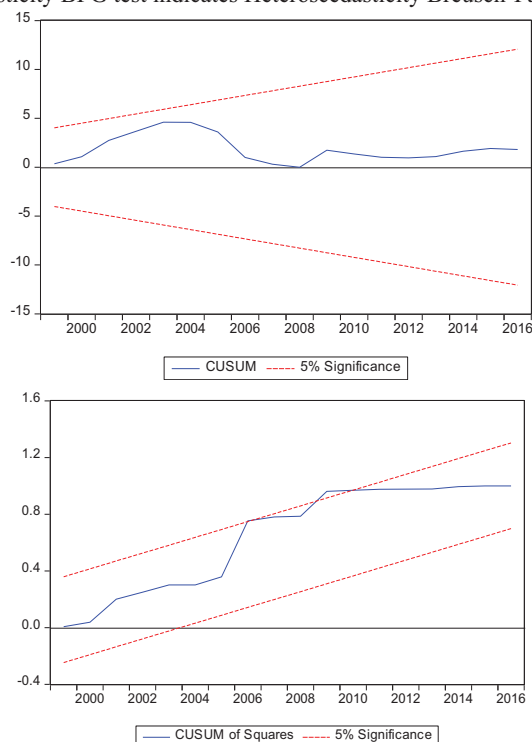
Figure 1. Stability Test for Model A
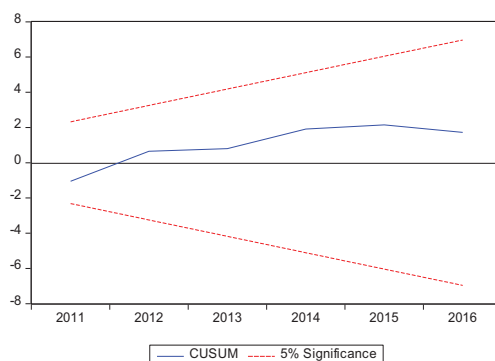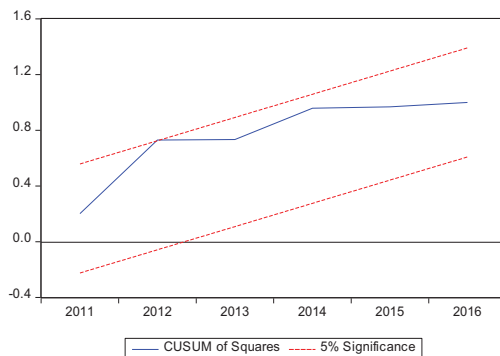
Figure 2. Stability Test for Model B
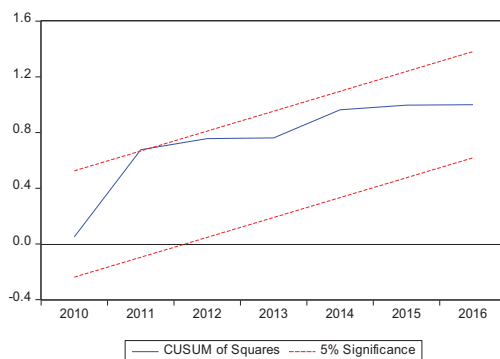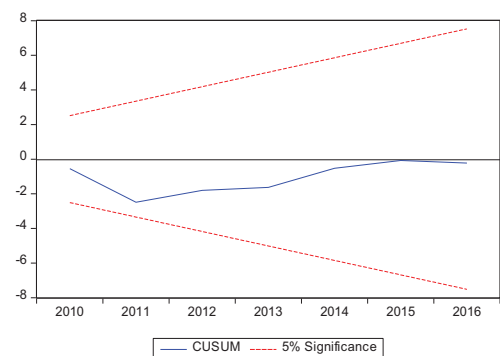
Figure 3. Stability Test for Model C

Table 3 show the results of Model A (GDP and FDI inflow with set of control variables), Model B (GDP and FDI inflow with set of control variables and crisis dummy 1997 and crisis dummy 2008) and Model C (GDP and FDI inflow with set of control variables and interaction between FDI inflow and crisis dummy 1997; interaction between FDI inflow and crisis dummy 2008). Based on the results of Model A, the F-statistic value of 4.75 is greater than the upper bound of 4.37 at 1% significance level and this signifies evidence of long-run equilibrium between the variables.

In terms of long-run perspective, there is a significant positive relationship between FDI inflow and GDP with coefficient of 0.02 and statistically significant at 1% significance level. Intuitively, 1% increase (decrease) in FDI inflow will lead to increase (decrease) of 0.02% in GDP of Malaysia. This result is congruent with Carbonell and Werner (2018), Mahmoodi and Mahmoodi (2016), Batten & Xuan (2009), Duasa (2007), Chowdhury and Mavrotas (2005), Li and Liu (2005), Chakraborty and Basu (2002) and Liu, Burridge and Sinclair (2002).

The results of the other control variables also show significant relationship with GDP. Total trade and population have positive relationship with GDP with coefficients of 0.06 and 2.41, respectively. Domestic private credit has negative relationship with GDP with coefficient of 0.17. In the short-run, there is also positive relationship between FDI inflow and population have positive relationship with GDP with coefficient of about 0.02 and 5.67, respectively. Meanwhile, the relationship between total trade and domestic private credit with GDP are statistically insignificant. Moreover, the ECT result shows significant coefficient of about -0.74, which signifies

the speed of adjustment of about 74%. In terms of the diagnostic test, the model passes all the diagnostic test of normality test, serial correlation test, heteroscedasticity test and stability test.

In order to capture the crisis effects, the results in Model B and Model C show that the crisis in 1997 and 2008 have impact on the relationship between FDI inflow and economic growth. The inclusion of the 1997 Asian Financial crisis in the estimation shows that there is significant positive relationship between FDI inflow and GDP of Malaysia in the long-run, with larger coefficient of about 0.21. The results for total trade and domestic private credit are statistically significant, except for population. Interestingly, 1997 crisis dummy have negative impact on GDP while 2008 crisis dummy has positive impact on GDP. This may be due to the severe negative impact of 1997 Asian Financial crisis on ASEAN region and detrimental to economic growth. Meanwhile, the positive impact of the 2008 Global financial crisis may due to the severe impact that affected western region only.

The results in Model C provide more insight information regarding the interaction term between FDI with the crisis dummy. There is a positive relationship between FDI inflow and economic growth. The interaction term between FDI and 1997 crisis dummy indicates negative relationship with GDP with coefficient of about 0.02. This shows that the FDI inflow during the 1997 Asian Financial crisis may not contributed to the economic growth. This is due to the severe negative impact of the crisis that led to drastic drop of FDI inflow and capital flight during that period. Nevertheless, this phenomenon was transitory impact as FDI remain as prominent tool for economic growth in the long-run. The positive impact of the interaction term between FDI and 2008 crisis dummy may due to the impact only affected

5. Conclusion

This study intends to re-examine the role of FDI towards economic growth in Malaysia. Annually data from 1980 to 2016 are used in this study using Autoregressive Distributed Lag (ARDL) bounds test approach. This method enables to estimate the long-run and short-run relationship simultaneously. Empirical findings show that FDI inflow has positive relationship with economic growth of Malaysia. This means the FDI-led-growth hypothesis remain valid in this era. Furthermore, FDI has a negative association with economic growth during the 1997 Asian Financial crisis. This is due to the severe impact of the crisis that mainly affected most of the countries in the Southeast Asia region. However, there is a positive impact of FDI on economic growth during the 2008 Global Financial crisis. This may due to the consequences of the crisis that affected western region. Moreover, this provide opportunity for the East Asia countries in terms of FDI preference. In the nutshell, FDI still play essential role in stimulating the economic growth of Malaysia in the long-run. Although, FDI inflow may be affected during the crisis period, especially if the crisis hit on the East Asia region, however, it is undeniable that FDI remain valid to economic growth. Therefore, policy makers should continue to develop strategies to attract FDI inflow into the country to ensure sustainable economic growth via higher productivity level. One of the critical concerns is the availability of skill workers or expatriate, which is important in terms of technology transfer. This can be done by revising the bureaucratic procedure in engaging and employing relevant expertise in the manufacturing sector for example. Besides that, the stability of the economy is also essential to enhance the confidence level of the investors where the government may need to ensure prudent management of expenditure and debt level.

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Analysing the Impact of Managerial Ownership on the Performance of Shariah-Compliant Firms in Pakistan

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Abstract

This paper analyses the impact of managerial ownership upon firm performance in the Shariah-compliant firms of Pakistan. Agency theory that suggests involving managers as part of firm's ownership can help firms reduce the agency cost, has widely been applied in the corporate setup of conventional finance, however, there is growing need of academic research to find out the role and application of this theory in the Shariah-compliant organizations. All around the Muslim world, there is the rise of Shariah-compliant firms; however, little work has been done to critically evaluate such important concepts based on agency theory, it is, therefore, an optimistic approach to familiarise the idea of firm performance with the relationship of managerial ownership under Agency Theory in such organizations. In order to better understand the acceptability and adaptability of Agency Theory, the objective of this study is to examine the impact of managerial ownership upon firm performance in Shariah-compliant firms of Pakistan for the first time. This paper is based upon panel data and regression models applied to the sample of 68 Shariah-compliant firms listed on Pakistan's Karachi Stock Exchange covering five years from 2009 to 2013. This paper tests the firm performance through two different dependent variables Tobin's Q and ROA by regressing through OLS, Fixed effect (FE) and Random effect(RE) methods. Both models are proved empirically significant. The robust results confirm that managerial ownership (MO) has a positive and strong impact upon firm performance (Q)/ (ROA) in the Shariah-compliant firms of Pakistan. The outcomes may provide a good understanding and help in making a better decision regarding investment on the ethical grounds. It proves that more concentrated managerial ownership produces the higher firm profits. It can be also inferred that the increased proportion of managerial ownership tends to align with the interests of owners and thus help to reduce the agency conflict in our sample of Shariah-compliant firms in Pakistan. Moreover, Size (LNTA) has a positive relationship with firm performance (Q)/ (ROA) viewing that the Shariah-compliant firms depend on retained earnings. It may be due to the restricted criterion on the leverage for Shariah-compliant firms by the board of Shariah compliance. Leverage (DAR) is negatively and significantly correlated with profitability and growth (GROW) is positively and significantly correlated with firm performance (Q). In the developing and Muslim world, this study may reserve a unique place due to its virgin attempt and highlight the ignored aspect in the body of literature. These findings are of great benefit to investment managers, and Shariah cautious and other ethical investors regarding investment and portfolio related decisions.

Keywords: firm performance, managerial ownership, Shariah-compliance

1. Introduction

Agency theory proposes that the separation of ownership and management of the firm causes a serious agency conflict. The agents (managers) run a business on behalf of widely spread shareholders. This creates a typical agency related problem for the firms (Eisenhardt, 1989). The opportunistic behaviour of managers exacerbates

this problem when they make decisions for their benefits at the cost of shareholders' interest (Jensen & Meckling, 1976). However, agency theory suggests that the conflicts between firms' management and owners could be resolved if managers partially own the firm they run (Jensen & Meckling, 1976). Therefore, managerial ownership is perceived to be one of the key determinants of firm performance. Literature observes that the firm performance improves when ownership and managerial interest are merged through concentration of ownership (Agrawal & Mandelker, 1990). The financial performance is one of the indicators of judging the performance of managers and their self-serving behaviour (Hillman, Keim, & Luce, 2001). Although there exists a large body of research on the ownership-performance relationship from the conventional finance perspective, this aspect is noticeably ignored from the perspective of Islamic finance and Shariah-compliant firms.

The growing number of Shariah-compliant businesses captures our attention for their unique characteristics distinguishing them from the conventional enterprises. Shariah compliance leads firms to follow certain guidelines which include maintaining a restricted level debt in the capital structure and keeping a certain level of liquid assets in the asset mix of the firms (Bellalah et al. 2013). Katper et al. (2017) further discovered that Shariah-compliant firms in Pakistan on average have shorter debt maturities in their total borrowing structure. Moreover, shariah teachings obligate agents to practice due diligence in the best interest of the principal (Sarker 1999; Katper et al. 2015). These factors make the Shariah-compliant firm a unique corporate entity which calls for exclusive investigation of a managerial role in maximizing the wealth of the shareholders and avoiding the selfish and opportunistic behaviour. Hence, we explore whether Shariah-compliant firms differ in the relationship between performance and managerial ownership.

Islam also emphasizes the role of justice, selflessness, and trustworthiness in a principal-agent relationship. Kahf (1992) discusses that the Islamic economic system emphasizes that market should work with justice, commiseration, and solidarity. Siddiqi (1988) mentioned that the goal of an economic firm is to make reasonable profits that may be different from profit maximization in the neoclassical sense due to ethical and social factors affecting the production decision. el-Din and Seif (2008), mention that Islam is against the axiom of selfishness. This provides evidence that managerial self-interest is discouraged in Islamic teachings. All these factors make it relevant to study the role of managers in improving firm performance among the Shariah-compliant firms. However, the problem is no prior study on such real issue regarding agency conflict and relationship between managerial ownership and firm performance is focused. As the matter of fact, the agency is judged on the grounds of either mitigating the problems or increasing those with other stakeholders. Therefore, this study is useful for the practical purpose and will help stakeholders and investors in investing decisions.

Collecting the financial and accounting data on Shariah-compliant firms from Pakistan for the period 2009 to 2013, we discover the positive and significant relationship between managerial ownership and firm performance. These findings corroborate agency cost perspective that increasing managerial ownership aligns otherwise conflicting of managers' and shareholders' interest in the Shariah-compliant firms. The paper is further organized as follows. Section 2 provides a literature review. Section 3 gives hypothesis development. The model specification, data and sample, and variable description are presented in section 4. Section 5 is dedicated to the analysis of results whereas section 6 concludes the study.

2. Literature Review and Hypothesis Development

Corporate governance is considered an imperative part of an organization because it is concerned with the all operating activities, therefore; it is useful for all the stakeholders beyond only single party such as stockholders (Aras & Crowther, 2008). Numerous studies have been found on the matter of the relationship between firm performance and corporate governance. Nevertheless, there is no such research on the managerial ownership and firm performance in the connection of Shariah-compliant firms despite the concept of Shariah-compliant firms is growing fast especially in the Muslim world. The issue of corporate governance is directly related to the agency conflict theory as the managers are the agents of the owners and the separation of two parties may involve in the clash of their interests. The seminal research concerning owner-manager relationship is led by Jensen & Meckling, (1976). Various attempts have been made afterwards to mitigate this agency problem by a great number of authors, yet, the problem is unresolved and different studies are inconsistent in this context. In the literature, the agency problem is recurrently highlighted in the conventional firms as well as in the Shariah-compliant firms (Sarker, 1999).

Since the agency problem is significantly concentrated in the Islamic teachings. Islam emphasizes performing managerial role and responsibilities with honesty. Though many studies evaluate different aspects regarding this agency problem including managerial ownership and firm performance conventionally, yet the issue is ignored from the perspective of Shariah-compliant firms. Even so, the literature on conventional firms provides

inconsistent results on the relationship between firm performance and ownership structure too. The various studies focus on the impact of concentrated ownership and/or diffused ownership in relation to firm performance and find diverse results. For example, Berle & Gardiner, (1932) imply that diffused ownership adversely affects the firm performance.

A good volume of research took place on such opportunistic managerial approach in this regard. Various authors attempted to explore managerial self-interest pursuit in different ways (Bethel & Liebeskind, 1993; Hoskisson, Johnson, & Moesel, 1994). The authors argue that the firm performance improves when ownership and managerial interest are merged through concentration of ownership (Agrawal & Mandelker, 1990). It is because key equity holders' build concentrated ownership and thus reduce the cost of the agency at a considerably low level. Moreover, block holders may be opportunistically excerpt firms' resources for their personal benefits which exert an adverse effect on the value of the firm.

In this vein, the literature observes that managerial ownership is one of the determinants of firm performance. For investigating the relationship between ownership structure and firm performance various authors find significant relationship Demsetz 1983; Demsetz & Lehn, 1985). Though a good volume of research is conducted, the findings are inconsistent with leaving the room for further analysis. Different studies find mixed results hence the matter is unresolved as one cluster of studies finds a positive relationship. The other band of research discovers the negative relationship. However, the third and fourth groups observe a curvilinear relationship and no relationship between ownership and performance respectively.

For instance, Porta et al. (1997, 1998, 1999, and 2000) find the positive effect of ownership concentration and profitability. They argued that in the weak legal environment, the positive association between profitability and the ownership is greater (Porta et al. 2002). It is also expected that firms with better investment opportunities, better corporate governance practices should have a higher valuation. Claessens & Djankov, (1999) find a positive relation in ownership concentration and firm profitability and labour productivity for the Czech Republic firms from 1992 to 1997. Several other studies find a significant and positive relationship between concentrated ownership and firm performance (Gedajlovic & Shapiro, 1998; Gedajlovic & Shapiro, 2002; Kang & Shivdasani, 1995; Shleifer & Vishny, 1986; Short, 1994; Thomsen & Pederson, 2000; Kapopoulos & Lazaretou, 2007). Consequently, the literature suggests that when profitable investment opportunities are there, the controlling shareholders divert to concentrated ownership and corporate valuation becomes higher.

However, Cho & Kim, (2007) examined the effect of outside directors on firm performance on the firms in Korea and found mixed results. They observe a positive relationship between outside director effectiveness (outside director participation rate) and firm profitability and a negative moderating effect regarding large shareholder ownership and managerial ownership. Also, a positive moderating effect when it comes to blockholder ownership. They specify that outside directors had a positive but weak impact on firm performance. Outside shareholders had weak and less power to monitor large controlling shareholders. The same effect was found by Javid & Iqbal, (2008) who explore the relationship between ownership concentration and firm's performance and conclude that with increasing profitable opportunity, controlling equity holders distract to the concentrated ownership and the firm value becomes high, thus, they observe the positive effect on firms' profitability. However, they maintain the negative relation between corporate governance practices and disclosures and transparency with a concentration of ownership.

In this connection, Craswell, Taylor, & Saywell, (1997) find a curvilinear relationship between insider ownership and corporate performance. But, the findings do not support the institutional ownership as an important determinant of Australian firms' performance. It is also observed that the higher firm profitability requires a less diffused ownership. On the Jordanian industrial and service companies, Alabdullah et al. (2014) find the negative relationship between board size and firm performance. They further observed that the independent directors in the board exert no impact on the firm's financial performance. Similarly, their result shows no association of CEO with the firm financial performance. However, recently in 2016, research on the service sector of the Jordanian firms was conducted by the same author Alabdullah, (2016) and evaluated firm performance by using the accounting measures as dependent variables return on assets (ROA) and return on equity (ROE). In this study, he observed that the measures of board size affect the two variables i.e. return on assets (ROA) and return on equity (ROE) positively and significantly while the firm size showed no association with the firm performance. Likewise, the author finds no evidence of the relationship between managerial ownership and firm performance ROA and ROE. Afterwards, within the span of two year the same author Alabdullah, (2018), discovers that managerial ownership exerts positive influence on the firm performance. However, they identify that firm size and foreign ownership has no association with firm performance.

Consequently, from the literature, we observe some studies showing that the managerial ownership is not a determinant of firm performance such as Demsetz & Villalonga, (2001) and Chang, (2003) catch no evidence for the relationship between ownership and firm performance. They find no significant relationship between the two variables due to the distributed ownership supporting the idea that diffused ownership may not align the owner-manager interests. Hence, it may exaggerate some agency problems.

From the Shariah-compliance perspective, other areas are focused but this particular dimension regarding firm performance is ignored in the non-financial sector of developed, developing and Muslim world. However, a recent study in 2014 is conducted on CSR and firm performance for the financial companies Banks. The research is conducted to explore corporate social responsibility (CSR) and financial performance in the financial sector i.e. banks by (Mallin, Farag, & Ow-Yong, (2014). The authors by taking the sample of 90 Islamic banks from 13 countries find a positive relationship between and financial performance. They also observed the significant relationship between Shariah supervisory board (SSB) size and corporate social responsibility (CSR) discloser index. Moreover, their research indicates that Islamic banks involve in the range of social activities. They observed that Islamic banks are more committed to the vision as well as mission, top management and financial product and service dimensions. However, less focus is paid to environment dimension. They are attentive in accounting and auditing while less focused on voluntary CSR disclosure. Hence, there is a shortage of research in the literature regarding Shariah-compliant firms in this research on agency based issue to examine relationship between managerial ownership and firm performance. Therefore, it is highly needed to explore the diverse aspects considering the fast growing Shariah-compliant business round the world.

Convincingly, the available empirical research established on the relationship between firm performance and ownership structure is conducted on conventional firms but still inadequate and incompatible and/or inconsistent. Nonetheless it is rarely found from the Shariah-compliant non-financial sector. To realise this fact from a different angle, we attempt to assess the managerial ownership and performance in Shariah-compliant firms. Based on our empirical evidence, we can infer the managerial tendency to align the interest of stakeholders and reduce the agency problem. Since the managerial ownership is not directly investigated with firm performance in Shariah-compliant firms. Therefore, this research would be a new beginning in this area and contribute to the literature of vital importance providing practical evidence to the academia, other beneficiary parties, policy makers and investors in the developed, developing and/or the Muslim world particularly Pakistan.

2.1 Research Hypothesis

Based on agency separation hypothesis, we test the argument by Jensen and Meckling (1976) that managers have divergent motives which can affect firm performance. More strikingly, the literature indicates that managerial discretion creates agency costs normally by two ways. First managers engage in short run cost-increasing activities planned to enhance their nonsalary income, or to provide other forms of on-the-job consumption (Williamson, 1964; Jensen and Meckling, 1976). This behaviour decreases the corporate profits by increasing the costs. Second, managers tend to satisfy their needs for prestige, power, and status (Baumol, 1959), over-invest in long-run projects to maximize size and growth rather than corporate profits (Marris, 1964; Grabowski and Mueller, 1972; Jensen & Warner, 1988). This is also observed that such self-interested manoeuvring occurs when managers over-diversify (Amihud and Lev, 1981). In this situation, managers invest in negative NPV projects thus decreasing the firm profits. Though short-run cost increase and self-interest planning reveal two different routes, both ways if managerial discretion exists, firm performance will decrease.

In the absence of managerial incentives and effective monitoring, discretionary behaviour among the management rises. However, managerial participation in corporate ownership would incentivize the managers to work in the overall best interests of the owners (Jensen and Meckling, 1976). Based on this argument, the following hypothesis is developed and tested.

> *H0: The managerial ownership does not affect the profitability of the firm.*

> *H1: The managerial ownership has a positive/negative effect on the profitability of the firm.*

3. Methodology

3.1 Data and Sample Size

The main sources of data for this study comprise the balance sheet, income statement, and ownership data for the companies listed on Karachi Stock Exchange (KSE) of Pakistan. The data on balance sheet variables and income statement were extracted from the annually published financial statements of non-financial companies listed on Karachi Stock Exchange 2008 to 2013. The secondary data are published by the State Bank of Pakistan (SBP), the central bank of the country. This source is considered as one of the authoritative sources of data on Pakistani

corporate sector. The publication tabulates yearly the most valuable data on each company listed on KSE. We extracted the ownership data of firms by locating each company's financial statements for each year of the sample period from their respective websites. In Pakistan, firms are required to publicize their pattern of shareholding in the annual report as per the basic requirements of the Securities and Exchange Commission of Pakistan (SECP), the watchdog for the corporate sector in Pakistan. We collected the firms that made the Shariah compliance list for all the years that is from 2009 to 2013. This made our sample relatively more balanced. As balanced data records observations of the same unit every time, it reduces noise and heterogeneity normally observed in the unbalanced panel. Following this procedure, we collected the data for 68 Shariah-compliant firms from 2009 to 2013 for five years yielding our sample to 340 firm-year observations. We, however, were limited to the availability of ownership data; therefore, we collected balanced panel data containing these firms.

3.2 Model and Variables Description

This section contains the model description and definitions of variables. This study proposes the quantitative method of research and implies the econometric model on multiple regression models. We use the econometric model to test our hypothesis regarding the relationship between performance and managerial ownership following by some prior studies (Klein, Shapiro, & Young, 2005). We developed two equations based on two different proxies for firm performance, Tobin's Q and Return on assets (ROA). Equation (1) uses Tobin's Q as the dependent variable and equation (2) applies returns on assets (ROA) as the dependent variable for the robustness check of results (Cui & Mak, 2002). The main explanatory/independent variable is the managerial ownership (MO) and others are control variables in the model based on two equations. The two equations having two different dependent variables are given below.

3.2.1 Models

$$Q = \alpha_0 + \beta_1 Managerial\ Ownership_{it} + \beta_2 Size + \beta_3 Tangiblity_{it} + \beta_4 Leverage_{it}$$
$$+ \beta_5 Growth_{it} + \varepsilon_i \qquad\qquad (Eq.\,1)$$

$$ROA = \alpha_0 + \beta_1 Managerial\ Ownership_{it} + \beta_2 Size + \beta_3 Tangiblity_{it} + \beta_4 Leverage_{it}$$
$$+ \beta_5 Growth_{it} + \varepsilon_i \qquad\qquad (Eq.\,2)$$

3.2.2 Description of Variables

a) Firm performance: We use Tobin's Q and ROA as the two main proxies for firm performance.

Following Klapper and Love (2004), Tobin's Q was computed as follows.

$$Q_{it} = (MVE_{it} + TD_{it})/BVA_{it}$$

Where *Q* is Tobin's Q, *MVE* is the market value of equity, *TD* is total debt, *BVA* is book value of total assets, and *i* and *t* are firm and time subscripts.

For the robustness, the dependent variable ROA is measured as the five-year mean return on assets which is used as an alternate measure to check the robustness of the results.

b) The explanatory variable: Managerial ownership is the main explanatory variable which is measured as a ratio of shares held by the management and a total number of equity shares.

c) The control variables: Managerial ownership is not the sole determinant of a firm's profitability. Hence the literature identifies various other factors affecting the performance of the firm. The effect of these factors is, therefore, important to isolate. Following Cui and Mak (2002), we control for the effects of firm size, tangibility, leverage, and growth. All variables are defined in Table 1 below.

Table 1. Definition of variables

Variables	Measurement of variables
Dependent variable:	
Tobin's Q	The ratio of market value of equity plus total debt to the book value of assets.
Return on Assets (ROA)	Net income divided by total assets
Explanatory variable:	
Managerial Ownership (MO)	The fraction of managerial ownership in total equity,
Control variables:	
Size (LNTA)	Natural logarithm of total assets.
Tangibility (TANG)	The ratio of fixed assets to total assets,
Leverage (DAR)	Total debt to total asset ratio
Growth (GROW)	Annual % change in sales

4. Results and Discussion

4.1 Descriptive Statistics

Table 2 describes the descriptive statistics of the variables individually. We observe that the firm performance is 21.5 and 10.8 for Q and ROA respectively ranging from negative to positive profits indicating Tobin's Q value relatively higher. The fraction of the concentration of managerial ownership is around 15% in our sample of Shariah-compliant firms. An average Shariah-compliant firm has total assets of PKR 7275.4 million. The tangibility is around 40% whereas, as expected we notice that the debt ratio is averaging around 16% ranging from 0 to around 37%. Moreover, the mean of growth in Shariah-compliant firms is however 20% and fluctuating from negative to a positive range.

Table 2. Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Q	340	21.551	33.720	-98.460	158.680
ROA	340	10.779	12.987	-19.930	46.480
MO	337	15.402	23.660	0.000	76.400
TA (PKR ml)	339	7275.4	192.4	26.10	281319.0
TANG	338	0.399	0.246	0.017	0.894
DAR	338	0.164	0.176	0.000	0.366
GROW	337	19.935	32.938	-47.624	165.070

4.2 Correlation Analysis

Table 3 presents the correlation for our sample of Shariah-compliant firms. Managerial ownership is positively correlated with both Q and ROA and is significant. Managerial ownership is negatively correlated with firm size, whereas, it is positively correlated with growth indicating that managers in firms with fewer assets and higher growth rates hold more equity shares. This seems consistent with the evidence that managers align their interests with those of owners of higher growth firms with the relatively lower assets base (Smith and Watts, 1992; Gaver and Gaver, 1993). Profitability (ROA) and firm size (LNTA) are positively correlated. However, ROA has a negative correlation with tangibility (TANG) and leverage (DAR). The size is positively correlated with ROA, and a similar correlation with Q depicting that large firms have a higher potential and the productive ability for future profitability growth. Larger firms may have more growth opportunities as compared to smaller firms. Moreover, firms with higher assets base have lower fixed assets ratios.

Table 3. Correlation matrix

	Q	ROA	MO	LNTA	TANG	DAR	GROW
Q	1.0000						
ROA	0.8078*	1.0000					
MO	0.0044*	0.1224*	1.0000				
LNTA	0.2568*	0.2484*	-0.3042*	1.0000			
TANG	-0.2476*	-0.3421*	0.3029*	-0.1187*	1.0000		
DAR	-0.2008*	-0.2878*	0.2157*	-0.0818	0.5084*	1.0000	
GROW	0.0634	0.0402	0.1511*	-0.1242*	0.0680	0.2036*	1.0000
$*p < 0.05; **p < 0.01$							

4.3 OLS Regression, Fixed Effect, and Random Effect

Dependent Variables: Tobin's Q and ROA

We apply pooled OLS, Fixed effect, and Random effect models to test the relationship between managerial ownership (MO) and firm performance (Q)/ (ROA) in Pakistani shariah-compliant firms. In the first specification, Tobin's Q is used as the main proxy for firm performance. The results are reported in Table 3 and 4.

The main explanatory variable of interest in the regression is managerial ownership (MO). For determining which method is appropriate among all methods we apply the Hausman test which is developed and incorporated in the different programs Such as Eviews and Stata and others. We used Stata to answer the question either the Fixed effect is appropriate for the analysis or Random effect. The Hausman test shows that the random effect model (REM) is the better choice because of the P- value making it insignificant.

In our Findings, all regressions show a positive relationship between managerial ownership (MO) and Q, which is consistent with the hypothesis that firms performance enhances as a result of increased managerial ownership (Jensen & Meckling, 1976). The results are empirically similar to those found in previous studies (Claessens & Djankov, 1999; Porta et al. 2000).

As for other explanatory variables, our research outcomes show a positive relationship between size (LNTA) and the dependent variable firm performance (Q) as well as (ROA) in the two equations. Hence, the Shariah-compliant firms depend on retained earnings due to the restricted criterion on the leverage also following the pecking order theory of capital structure (Ahmed, 2007). Moreover, it can be concluded that when there exists the economy of scale in large firms, there is expected a positive relationship between profitability and size (Baumol, 1959; Hall and Weiss, 1967; Shepherd, 1972; Markides 1995). Following this, our study is consistent with the notion that Shariah-compliant firms rely on internal funds (Retained earnings) more than the external financing. However, from the conventional side, the results may be mixed such as Craswell et al. (1997) examine that firm size is negatively correlated with profitability. This indicates that the conventional firms, in contrast to the Shariah-compliant firms, may rely on external funding more than the internal one.

Table 3. Regression analysis of Tobin's Q on managerial ownership

The table reports the OLS, FE, and RE results of Eq. 1. The dependent variable is Tobin's Q (Q). The explanatory variable is Managerial ownership (MO). The regression controls the effects of firm size (LNTA), tangibility (TANG), leverage (DAR), and growth (GROW). All variables are explained in Table 1. The Hausman test shows that the random effect is the better choice.

	Pooled OLS	Fixed Effects	Random Effects
MO	**0.214****	**0.095***	**0.200****
	(2.63)	**(0.55)**	**(1.88)**
LNTA	4.957***	6.506	5.457***
	(4.97)	(0.97)	(3.68)
TANG	-27.062**	-27.653	-25.324*
	(-3.18)	(-1.63)	(-2.35)
DAR	-25.576*	-32.905	-29.660*
	(-2.17)	(-1.76)	(-2.17)
GROW	0.112*	0.104	0.110*
	(2.08)	(1.96)	(2.23)
Constant	-47.245**	-68.362	-55.272*
	(-2.81)	(-0.63)	(-2.23)
F/ Wald test	11.589***	2.896**	36.02***
R_sq	0.151	0.053	0.1505
N	331	331	331
Hausman test			1.13
p-value			0.951

*$p < 0.05$; **$p < 0.01$

The result in table 3 shows that the random effect model is appropriate according to the Hausman test and is considered as the better choice.

Our result demonstrates that the negative and significant relationship between the coefficient of leverage (DAR) and firm performance in both models (Q) and (ROA). Similar results are reported in the case of conventional firms by Kapopoulos & Lazaretou, (2007). One of the possible explanations for this relationship in Shariah-compliant firms may be the ceiling of debt ratio. Consequently, the Shariah-compliant firms do not rely much on the debt financing like conventional firms with the unrestricted debt limit. The rationality behind this phenomenon is when the firms utilize their retained earnings they save the cost of external financing thus by reducing the cost of capital, firm's profitability increases. However, our findings are contradictory to those by Craswell et al (1997) they find a positive relationship between leverage and firm performance. The growth has a positive and significant relationship with firm performance in both models which specifies that the firm performance also depends on the firm growth opportunities.

4.4 Robustness Check

To verify the robustness of our findings, we performed additional analysis replacing Tobin's Q with accounting

measure of performance return on assets (ROA). Results are reported in Table 4. We find the consistent results in both equations 1 and 2 on the measures of Q and ROA respectively. In the following table, the Hausman test shows that the random effect is the better choice.

Table 4. Robustness check: Regression analysis of ROA on managerial ownership

The table reports the OLS, FE, and RE results of Eq. 2. The dependent variable is the return on assets (ROA). The explanatory variable is Managerial ownership (MO). The regression controls the effects of firm size (LNTA), tangibility (TANG), leverage (DAR), and growth (GROW). All variables are explained in Table 1.

	Pooled OLS	Fixed Effects	Random Effects
MO	0.014**	0.026*	0.003 **
	(0.46)	(0.54)	(0.07)
LNTA	1.463***	2.503	1.772**
	(3.91)	(1.34)	(2.76)
TANG	-13.240***	-10.640*	-11.247**
	(-4.14)	(-2.25)	(-3.00)
DAR	-12.385**	-13.321*	-13.802**
	(-2.80)	(-2.56)	(-3.13)
GROW	0.043*	0.033*	0.035*
	(2.11)	(2.21)	(2.43)
Constant	-5.934	-22.484	-11.201
	(-0.94)	(-0.74)	(-1.05)
F/ Wald test	15.184***	5.728***	52.76***
R_sq	0.189	0.100	0.1851
N	331.000	331.000	331.000
Hausman test			2.23
p-value			0.897

*$p < 0.05$; **$p < 0.01$

4.5 Summary of Findings and Discussion

The Shariah-compliance is a fast-growing concept worldwide. Various factors contribute to this trend, for instance, the increasing interest of investors because of its secured mode of investment and growing Muslim population as the second largest religion in the world. Islamic finance is expected to grow faster in the near future especially after the Muslim millennials' involvement in applying Islamic investment concepts to cater for the complex investment and consumption needs of modern society. With the rise in commodity prices and income in the current global economy, the appetite for Shariah investments is expected to continue to improve in the future. Given this scenario, we expect our results to be insightful for Shariah-cautious and other ethical investors.

This study is important from the Islamic perspective due to growing concept in the business, especially in the Muslim world. Prior literature has not focused this aspect to explore the impact of managerial ownership on the firm performance in the Shariah-compliant firms. Therefore, this study will be the major add-in to the literature. Moreover, the agency perspective is worth due to the very clear and focused concentration of Islamic teachings about the agents or managers of any organization in the context of being Ameen and trustworthy remaining on the job (Katper et al. 2015, Sarker 1999). Shariah compliance gives the instruction not to insight any conflict with the contractual party due to your own benefits. Managers being safeguard of the property and wealth of owners and other stakeholders ought not to exploit it in a harmful way for others.

The agency theory perspective is important due to assuming the core responsibilities performed by the managers within any organization regarding the key matters especially achieving the goal of the firm by satisfying the key stakeholders along with moral and ethical considerations. Whereas the institutional theory emphasis on social structure and behaviours including guidelines about norms and rules to adopt. However, we have highlighted the Islamic facet in this study where the Shariah-compliant firms are bound to follow some criteria to work under Shariah-compliance. Consistently, we find some particular features regarding the behaviour of explanatory variable managerial ownership (MO). We observe that increasing level of ownership enhance the level of profitability showing positive relationship between two variables. This result specifies the tendency to align the interests of ownership and control of the firm which is required by the Islamic teachings to avoid the conflict with the contractual parties.

In previous literature, the fact is identified for the managerial ownership that the self-interested manoeuvring occurs when managers over-diversify (Amihud and Lev, 1981). In this situation, managers invest in negative NPV projects thus decreasing the firm profits. Though short-run cost increase and self-interest planning reveal

two different routes, both ways if managerial discretion exists, firm performance will decrease. Unlike this outcome, our results show increasing firm performance when managerial ownership increases by positive relationship, thus, managerial discretion does not decrease the profitability of the firm. Our findings reject the null hypothesis and indicate that managerial ownership affects the firm performance as expected in the Shariah-compliant firms and tends to reduce agency conflict by aligning the interests of key stakeholders. Our result is also in contrast with the findings of research by Alabdullah, (2016), on the Jordanian non Shariah-compliant companies, who finds no effect of managerial ownership on both ROA and ROE. However, later on the same writer Alabdullah, (2018), observes that managerial ownership positively impacts on firm performance.

Moreover, we discover some diverse characteristics of Shariah-compliant firms by applying OLS, fixed and random effect models to test the hypothesis. The Hausman test shows that the random effect is the better choice. Accordingly, our results show that leverage (DAR) is significantly and negatively related to firm performance (Q) and (ROA) in Shariah-compliant firms. The result is behaving according to the pecking order theory of capital structure. With the increase in profits, the debt size decreases specifying the importance of retained earnings in the firm's capital structure and managerial financial decision making. The Shariah-compliance restricts the level of debt ratio/leverage obtained by the Shariah-compliant firms, which is less than 40% in the capital structure of these firms. Realizing this mentioned fact, the Shariah-compliant firms are utilizing their retained earning instead of relying on the heavy debts. It is also postulated by Ahmed (2007) that the Sharia-compliant firms focus and prefer retained earnings and owner equity on the higher proportions of Debt Financing. Our findings in this regard provide the evidence which is a unique characteristic of Shariah-compliance firms which is not necessarily restricted in the traditional or conventional firms. This result also seems to satisfy the criterion set by Shariah-compliance authorities to limit the leverage at the certain level. Hence, this result is consistent with the notion that Shariah-compliant firms follow the pecking order theory for building their capital structure. Moreover, the results show that the size and firm performance are positively correlated in Shariah-compliant firms. The big firms, with the growing assets, tend to earn more profits. Hence, the analysis provides some diverse facts about the Shariah-compliant firms that may have financial investment implications for the different stakeholders.

5. Conclusion

Agency problem is a serious issue for the firms because it increases the costs of the firm. There is also a problem of the clash in the interest of different parties thus the alignment of interests among all stakeholders is a challenging task. Although a significant volume of research is conducted on the matter, however, still the issue seems unresolved. This study is a first attempt at probing the managerial behaviour regarding the performance of the Shariah-compliant firms. We seek to explore the relationship between managerial ownership and firm performance in the shariah-compliant firms. This paper provides new indications on the relationship between firm performance and corporate governance in the Shariah-compliant firms. This study observed some new insights regarding the agency issue and profitability of the firms.

Our findings show that managerial ownership (MO) is positively and significantly correlated with the performance (Q)/ (ROA) of the Shariah-compliant firms. Hence, the managerial ownership is perceived to be one of the key determinants of firm performance in Shariah-compliant firms. This result indicates that in the scenario of increased numbers of ownership in the management, the profitability also increases. The managers, in this case, are working in the direction where owner-manager can catch the target of aligning their interests being major stakeholders of the firm. We observed that there is a positive relationship between size (LNTA) and firm performance (Q). It indicated that the Shariah-compliant firms relatively depend on retained earnings more than the conventional firms due to the restricted criterion on the leverage. This result is consistent with the notion that Shariah-compliant firms follow the pecking order theory for building their capital structure. Further, our results show that leverage (DAR) is significantly and negatively related to firm performance. Hence we discover some diverse behaviours of variables in Shariah-compliant firms.

This study contributes in a number of ways to the existing body of literature by having new evidence by testing the relationship between managerial ownership and firm performance empirically for the Shariah-compliant firms. This paper is the first attempt, according to the knowledge of authors, on the research and analysis made for the Shariah-compliant firms in the developing and Islamic countries of the world. By discovering the diverse characteristics of Shariah-compliant firms regarding managerial ownership and profitability, ethical and Muslim investors/ stakeholders would make their investment decisions in a better way. Exclusively when the investors would perceive and know the substantiation of aligning the interests of owner-manager by growing level of managerial ownership and thus plummeting the agency conflict or cost in the Shariah-compliant firms.

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Employee Satisfaction as per Working Environment in King Salaman Military Hospital, Tabuk, Saudi Arabia

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Abstract

In the current knowledge economy, it is important for organizations to utilise their resources in growing a favourable working environment for its employees. Development and sustenance of a reliable working environment is a prerequisite for a company to achieve effective growth and maximum productivity in the current era of cut throat competition. Job satisfaction is directly linked with a healthy work environment and researches have indicated the presence of several components in determining the job satisfaction rate for any employee. This research has used a cross–sectional descriptive design within the premises of King Salaman Military hospital in Tabuk. The data was collected through questionnaire from 139 employees of King Salaman Military hospital. The research has found that the overall satisfaction has a statistical relationship with gender and nationality whereas no statistical relationship was observed between nature of work and overall satisfaction, educational level, age group, and years of experience.

Keywords: employee, hospital, job satisfaction, Saudi Arabia, work environment

1. Introduction

The current economic scenario prevalent in the corporate sector around the globe compels the industries to cater the needs of their employees to sustain their market position and revenues (Glebe, 2009). The environment and external factors aren't usually in the control of company's employees and management but the internal conditions can be influenced and gauged to harbour competent working employees for long term growth of the company. The human resource department is regarded as the key influencer for maintaining a compatible working environment within a company. The relationship between employee satisfaction and the working environment of the company is a leading theoretical subject, pursued by many authors and scholars alike (Wright, 2001).

The significance of work environment in job satisfaction cannot be ruled out in any of the circumstances. In the past, studies have been conducted to relate and establish the link between employee satisfaction and productivity/performance (Smits, 1972). The results overwhelmingly however, pointed out the association between employee satisfaction and the working environment. Same set of principles can be applied to the general health industry which plays a crucial role in determining the direction of society. Employee satisfaction and job retention are vital to smooth growth and running of hospitals and healthcare centres around the globe.

In the current knowledge economy, employee satisfaction has become a matter of great concern for all organizations. Over the years, organizations have realized that employee's performance and productivity centres on the spectrum of job satisfaction. The working environment within a firm can be categorised as the most vital element towards attainment of job satisfaction for any individual. Cherogony & Wapangana (2017) have pointed that the efficiency of employees is directly related to the working environment of the organization. Moreover, a decline in job satisfaction rate is always exponentially related to deteriorating working conditions. It has been observed that often the employees leave a company because of its unhealthy environment and mismanagement at the middle or upper level (Carsten, 2006). The prevalent conditions of job satisfaction and working environment aren't taken seriously by the employers in majority of organizations that is a matter of concern. Identification, prevention and rectification of these problems can be managed through an effective human resource management strategy.

Over the years, healthcare industry has turned into a complex paradigm of patient well-being and technology coupled with increasing demands and daily stress. The fundamental transformations in the industry has propelled

the employees to consider the factors of working environment, job retention and satisfaction (Jooste, 2003). It has been observed that job satisfaction in healthcare industry is related to multiple factors such as timing, role of administration, communication, and working environment (Freeborn & Hooker, 1995).

Zaghloul et al. (2008) observed that the problems faced by Saudi Arabia in health sector are primarily based on the shortage of staff and absence of a healthy working environment. Miller-Rosser et al. (2009) have pointed that healthcare system in Saudi Arabia is gradually improving and adapting according to world standards but the level of Job satisfaction and working environment needs a focused attention of the relevant authorities.

The current paper seeks to evaluate and analyse employee satisfaction as per working environment in King Salaman Military Hospital, Tabuk, Saudi Arabia. Specifically, the research objectives laid out by the paper shall focus on the factors of employee satisfaction and the working environment of the hospital.

1.1 Research Questions and Objectives

The objective of this paper is to investigate the level of employee satisfaction as well as to examine the overall environment and to assess the level of satisfaction based on the factors like gender, age, income, occupation and experience in the King Salaman Military Hospital, Tabuk, Saudi Arabia.

In the light of observed research objective, following main research questions have been indicated in this paper.

- Generally, are the employees satisfied with the overall working environment of the hospital?
- Is there any disparity in the level of job satisfaction when compared on the basis of gender, age, income, experience and occupation?

1.2 Research Hypothesis

Research provide evidence how an ideal, and supportive working environment enables the workers to utilise the best of their knowledge, abilities and skills to effectively solve the problems at hand (Leshabari, 2008). A simple causal relationship was needed to define the parameters of job satisfaction and working environment in the hospital. In the present case, the overall satisfaction rate of employees within the hospital is the dependent variable and gender, nationality, nature of work and experience level are independent variables. The literature studied for this purpose had defined attributes of certain independent variables which might cast an impact on the job satisfaction rate of the involved participants but as we are just observing the overall picture and not the details of the working environment, it should be clear that selection of null and alternate hypothesis has been defined to accommodate the simplistic nature of this study. Our paper takes into account certain positive indicators on the basis of which, job satisfaction rate is determined. The availability of such straightforward and simple hypothesis has added to the discreet nature of this study with upfront objective of determination of job satisfaction ratio in the hospital staff.

Therefore in order to check if there is a relationship between job satisfaction and working environment the following hypothesis were formulated:

H1: The overall satisfaction of employees have significant relationship with working environment of the hospital.

H2: The overall satisfaction of employees have no significant relationship with working environment of the hospital.

2. Literature Review

A supportive work environment has always been considered as vital to job satisfaction of employees. It has to be noted that work environment is the constituent of many factors that significantly influence the physical and psychological health of an individual. The working environment is often calibrated in terms of trust, wages, and relationship with management. It comes as a challenge for today's organizations to create a comfortable environment within the company to harnesses high level of job satisfaction.

The fundamental change in the health sector of Saudi Arabia can be observed in terms of unavailability of local staff or dominant involvement of foreign doctors and nurses (Al-Ahmadi, 2009). A job satisfaction study, conducted by Bhuian et al. (1996) used exploratory methodology to ascertain the relationship between job characteristics and quality of work life. The results of other studies revealed that working environment and growth opportunities were the critical factors in job satisfaction (Mitchell, 2009; Zaghloul et al., 2008). A study by Al-Dossary et al. (2012) revealed that satisfaction level of employees were closely affiliated with factors such as income, timing and leadership style while dissatisfaction was mostly dependent on the lack of recognition, working policies, hospital environment and relationships with peers. A similar study by Zaghloul et al. (2008) revealed that lack of motivation and absence of a good salary package are the leading causes of dissatisfaction in Saudi Arabia.

Kreitner (2004) described job satisfaction as an emotional response to various aspects of employee needs within the office. Though the working dynamics have evolved exponentially in the previous decades, the theoretical concept of job satisfaction is still associated with the work of Hoppock (1935), who defined it as any circumstances within the place of work that causes a level of contentment and joy for the employee. Considering the overall picture, most of the definitions and roles of job satisfaction rely on the emotional well-being of an employee. It could cover the overall nature of job or some specific components of it (Lu et al., 2005). Moreover, the results subscribed with the job objectives also dictate the level of job satisfaction for an employee, so in theory the overall situational analysis for the job description can be linked to the assessment of job satisfaction based on working environment (Judge et al., 2002).

Studying work environment in the healthcare sector, Lewy (1991) stated that hospital workforce face one of the most stressful and challenging working environments where they constantly have to meet the demands and requirements of patients. People working in healthcare sector have the ability to influence and affect the experience and quality of services being provided to patients (Schoombie et al., 2014). Moreover, the healthcare professionals are at the highest risk of stress and work pressure thus establishing the fact that work environment and working conditions are integral to wellbeing of the workers. Organizations having a friendly work environment tend to have more productivity and financial stability (Kreitzer et al., 1997). Swansburg (1996) is of the view that within the context of healthcare sector, the work environment set forth by the management of hospitals determine the behaviour of working staff which in turn determines the environment perceived by patients. Moorhead and Griffin (1998) pointed that management of any organization including the healthcare sector can set the tone for the overall working environment and subsequently the job satisfaction of employees.

Human resource management and strategy is an important component of company's overall plan to harness job satisfaction. Human resources can be referred to as the sum total of people working for an employer while utilising their skills, abilities and knowledge (Drasnfield, 2001). It is evident that the organizations that prioritizes the experience of their employees along with a healthy working environment by utilizing their resources to actively engage and look after the employees are in a better position of increasing their efficiency and maximizing their productivity. Management of individuals is related with utilization and handling of staff appropriately at various locations and projects to suit the company's objectives and goals. It is the responsibility of human resource department to effectively maintain a healthy and growing working environment with the presence of positive indicators. The coming sections will illustrate the evaluation of working environment at King Salaman Military Hospital, Tabuk, Saudi Arabia. This will assist in defining parameters for the current study as well as laying foundation for further research.

3. Methodology

3.1 Research Design

This research adopted quantitative method according to the nature of the study and its objectives. Under quantitative method, the current study of employee satisfaction as per working environment in King Salaman Military Hospital, Tabuk, Saudi Arabia, a cross-sectional descriptive research design was employed.

Descriptive research is a study design that is accurate to depict the participants in an accurate manner. It is being utilised when some specific components or variables are related to people in the experimental population (Zikmund, 2003). It actually contains a certain set of defined questions with fixed elements (Malhotra et al., 2006). In the same context, a research study that employs a single data collection technique is referred to as a cross sectional (Easterby-Smith et al., 1991). This method is employed when quick results are required for the analysis of causal associations.

3.2 Data Collection Method

The current study used the questionnaire for data collection purpose that is a technique of survey strategy. The online questionnaire method was employed for the purpose of testing hypothesis. The choice of questions took care of the factors like confidentiality of information, secrecy, anonymity, clarity, and convenience for respondents. After development and formulation of a suitable questionnaire with relevant demographic and technicalities, it was sent to the 200 randomly selected employees of King Salman Military Hospital Tabuk out of which 139 responded that marks a response rate at 70%.

3.3 Data Analysis

The data analysis was carried out by using SPSS 24. First of all, descriptive analysis was done to get mean, percentages, frequencies, and standard deviation for all demographic data followed by independent T test to test the hypothesis. As with most studies, there were several impeding factors like shortage of time and low response

rate of employees (Only 139 out of 200 employees filled out the questionnaire) to the proposed study which might have affected the overall result calibration of the tests.

4. Results

The results have been compiled and evaluated based on the findings and analysis of the SPSS. The results reflect the overall findings of our paper with focus on job satisfaction and working environment. It has to be noted that these results are purely based on the available data and no alterations have been made to reconfigure the outlined information.

Table 1. Relationship between overall satisfaction and gender

Overall Satisfaction				
Gender	N	Mean	SD	P Value
Male	102	3.493	.5633	.008
Female	37	3.212	. 4883	

Note. SD=standard deviation

Table 1 shows the statistical relationship between Overall satisfaction and gender, as the p-value is less than 0.05 Male members are more satisfied than females as the satisfaction score of males is significantly higher than females.

Table 2. Relationship between Overall satisfaction and nationality

Overall Satisfaction				
Nationality	N	Mean	SD	P Value
Saudi	124	3.393	.568	.029
Non Saudi	12	3.760	.284	

Note. SD=standard deviation

Table 2 indicates that there is a statistical relationship between overall satisfaction and nationality of employee, as again the p-value is less than 0.05. Non-Saudi members are significantly more satisfied than Saudi nationals.

Table 3. Relationship Between Nature of Work and Overall Satisfaction

Overall Satisfaction				
Nature of Work	N	Mean	SD	P Value
Administrative	95	3.407	.570	.592
Technical	42	3.463	.531	

Note. SD=standard deviation

Table 3 shows there is no statistical relationship between nature of work and overall satisfaction because the p-value is very high.

Table 4. Relationship between Overall satisfaction, educational level, age group, and years of experience

Overall Satisfaction		SS	df	MS	F Value	Sig.
Age Group	Within groups	1.00	2	.500	1.18	.56
	Between groups	80.68	136	.593		
	Total	81.68	138			
Educational Level	Between groups	122.03	136	.89	3.58	.24
	Within groups	.50	2	.25		
	Total	122.53	138			
Years of Experience	Between groups	182.32	136	1.34	5.36	.17
	Within groups	.50	2	.25		
	Total	182.82	138			

Note. SS=sum of squares; MS=mean square;

While comparing the Educational level, Age group, and Years of experience with overall satisfaction, there is no statistical relationship observed between these as the P Value in all variables is greater than 0.05. This result presents an interesting association of the assumed connection between different factors and the actual summary

of outcomes. The elements discussed within the statistical analysis contribute towards revelation of segmented information.

Table 5. Distribution of participants as per their overall evaluation of working environment

Indicator	Mean	SD	Rank
Participation and effects	3.89	62	1
salary and other financial motivation	2.82	.94	9
working environment	2.99	1.03	8
security and comfort ability	3.48	.674	5
Leadership	3.05	.79	7
respecting efforts	3.68	.88	4
Working satisfaction	3.82	.75	2
Training and performance development	3.73	.73	3
Social Environment	3.30	.70	6
Overall Evaluation of all Indicators	3.4	.55	5

Note. SD=standard deviation

In order to verify the relationship between overall satisfaction and working environment, 9 indicators were used and results are summarized in table 5. The overall satisfaction of participants to all indicators is 3.4 out of 5, which exhibits the notion of 'satisfied' but the analysis of the ranking of these indicators according to their satisfaction degree, it is evident that some have strong and some have weak relationship with working environment.

5. Discussion

This study has used quantitative research method with a questionnaire on a sample of employees of King Salman Military Hospital Tabuk, Saudi Arabia. The aim of this study was to investigate the level of employee satisfaction as per the working environment of the hospital.

H1 upheld that overall satisfaction of employees have significant relationship with working environment of the hospital. The research findings shows that the overall satisfaction of participants to nine indicators have significant relationship with working environment of the hospital that lead us to accept H1. However, all these indicators have different satisfaction degrees. Working satisfaction, training and performance development have the highest rank and salary and other financial motivation represent lower rank. The comparison of gender and nationality with overall satisfaction shows a significant statistical relationship but results for age group, educational level, nature of work and years of experience show no statistical relationship with overall satisfaction.

According to the literature review, the subject of job satisfaction and its relation with working environment has been in active discussion but there are not so many empirical studies that investigate the relationship between employee satisfaction and environment in hospital settings. In order to establish this relationship, it was needed to select suitable indicators of employee satisfaction. In the same context, a parallel study by Dawson et al. (2017) prioritised the investigation of job satisfaction and its link with nature of employment, i.e. full time and part time. It was revealed that job satisfaction had no particular influence from the nature of job and that it was an independent variable with no consequences on career contentment. The same was effectively demonstrated by our sub-indicators in the above results. Another research by Sumner & Niederman (2004) sought to reflect the findings in an analysis of gender role in job satisfaction. It was widely speculated that job satisfaction rate might be closely linked with gender roles and the approach taken to cater job description. The result however casted a different scenario where no or very minute connection was established between gender roles and the job satisfaction rate, terming the overall debate void. The same was exhibited by our study of positive indicators and independent variables correlation. Gil & Mataveli (2017) rightly points out in his study that job satisfaction can only be linked with social and physical parameters of working environment and circumstances. The assumed connection of job satisfaction with virtual parameters of age, gender or nature of work are only speculative and hold no real association (Zeffane & Bani Melhem, 2017).

6. Conclusion

This objective of this study was to explore the relationship between employee satisfaction and working environment in King Salman Military Hospital Tabuk, Saudi Arabia. The paper draws a relationship between several factors and indicators in the hospital setting to study the effect of working environment on job satisfaction. It was observed and analysed in the result section that several elements were responsible for job satisfaction of employees in King Salman Military Hospital. The productivity, effectiveness and performance of an employee is directly dependent on his working environment and subsequently affect the job satisfaction rate.

It can be concluded that the study conducted in the Military hospital, Saudi Arabia was fundamental in determining the overall picture of job satisfaction, The age, experience, gender and nationality was in no way connected to job satisfaction, rather it was connected to the overall work environment of the hospital. Finally, it has to be noted that, work environment within the hospital is an effective estimate of the overall long term sustainability and performance of the hospital employees.

The basic strength of this study lies in its simple cross sectional approach to analyse and cater the problem of job satisfaction scrutiny at the subjected hospital. The development and implementation of this study in the hospital has given rise to certain indicative parameters that can be utilised effectively to counter the problems causing the dissatisfaction among employees.

One of the major limitations of this study is its restricted generalizability. Since the study only covers the staff of particular hospital, the small population of that hospital along with demographic indicators do not allow the results of the study to be generalized to other organizations. Thus, the impact and correlation of this study with the corporate world might be questionable.

This study has practical implications for the development of organizational productivity and performance improvement through a systematic inference of available data. Job satisfaction has always been closely affiliated with the adjoining parameters of productivity, performance and work efficiency (Schleicher, 2004). Thus, the results of this paper can be actively employed to harness and develop these characteristics which aim at fulfilment of career and professional objectives for most of the employees.

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Corporate Finance Principles and Wood Industry Growth: Empirical Evidence from Bosnia and Herzegovina

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Abstract

The use of fundamental corporate finance principles as well as the combination of their effects does not always contribute to the same performance effects and firms' growth. It can considerably vary in certain periods, market turbulences and various industries. Referring to the permanent need for exploration of the individual and integrated effects of the corporate finance principles on firms' growth in specific circumstances, on the one hand, and particular importance of wood industry in Bosnia and Herzegovina (B&H), on the other, in this paper we examine the extent to which corporate finance principles support wood industry growth in B&H.

Specifically, the aim of this research is to investigate the contribution of investments, financial leverage and dividend policy to the growth of firms in this particular industry. Furthermore, the compliance of the paper findings with theoretical concepts and expectations of corporate finance principles role arises as the additional research challenge. Finally, we are interested to find out if the empirical results provide a solid base to apply consistent incentives policy that may further stimulate wood industry growth in B&H.

We select all wood-processing firms in B&H from 2008 to 2016. Stata 15 is applied in the empirical analyses and calculations.

Keywords: corporate finance principles, wood industry, Bosnia & Herzegovina, growth

1. Introduction

Internal potentials of firms' growth generally deserve particular research and practical focus. However, during implications of financial crises or similar negative external trends the effects of these potentials are considered more comprehensive. Corporate finance principles are among the most widely used internal growth potentials of the firms in various industries.

The combining use of the corporate finance principles generate particular performance growth effects, although their application is expected to reflect significant growth potential and return on investments.

Therefore, permanent research efforts are needed to evaluate the fundamental corporate finance principles use on growth of firms. In turn, if findings require determined reaction it is necessary to adapt the use of the fundamental corporate finance principles to specific firms, industries, times etc.

Although similar research is required in every industry of particular importance we focus the wood-processing. B & H is a country with relatively largest forests area and greatest diversity of forests types in the Western Balkans. The forests are significant natural resource in the country. Forests cover 63% of the total country surface, with the highest quality of wood. The wood industry is the only major manufacturing field with a multiple positive foreign trade balance.

In this paper we develop and examine three major hypotheses referring the wood processing industry in B&H:

H.1. Investing in advanced technologies does contribute to the growth of firms.

H.2. The financial structure and debt policy provide distinctive effects on the operating activities.

H.3. Dividend policy has no impact on the main growth performance of firms.

2. Theoretical Framework

According to (Damodaran, 2011), (Brealy, Myers, & Marcus, 2007), (Ross, Westerfield, Jaffe, & Jordan, 2010) and other sources, there are three fundamental corporate finance principles: the investment principle, the

financing principle, and the dividend principle. Investment principle is closely related to the firm investment portfolio able to provide business' goals in the long term. Thus, the ultimate effects of capital budgeting process combined with the activities that are carried out by applying the other two principles should provide the potential for long-term firms' growth.

Researches that have resulted in setting the traditional theory suggest that managers, acting in the best interests of owners, i.e. trying to maximize their wealth, undertake such projects to generate positive net present value. Accordingly, the traditional theory predicts a positive correlation between capital expenditures and future returns on the investement.

The Agency Theory, (Jensen & Meckling, 1976), suggests that agency costs may arise when managers and owners support conflicting interests. Sometimes managers conduct investment projects with dubious outcomes. Accordingly, the hypothesis of Agency Theory suggests not always positive correlation between capital expenditures and future returns. In addition to agency theory, Echevarria (Echevarria, 1998) emphasizes other factors that can lead to investment failures, such as unexpected changes in market conditions in the context of consumer preference changes, ultimately threatening the opportunities for growth.

The use of the financing principle refers to firms' financial structure optimization. It seems obvious that value and growth are not only determined by the investments itself. The combination of external and internal financial sources used plays special role too. While this seems simple, significant theoretical discussions have developed theoretical principles on whether the firms' capital structure does impact the growth. Distinctive theories, as a result of seminal papers in the domain of financing principle, are: Traditional theory of capital structure, Modigliani and Miller's Capital Structure Theories, The pecking orders theory etc.

By looking into theories, one may conclude that some are mutually exclusive in certain segments, while others are complementary and not surprisingly the extent and ways of their application depend on circumstances in which firms do businesses. Apart from that, the effectiveness of their application differs among the various fields of operation, firm size, property structure, internal performance etc.

Similar to previously described two corporate finance principles, researches across history have generated the different theories about dividend principle, such as: Theory of the Dividend Payment Preference, Dividend-Irrelevance Theory, Models of Tax and Clients' Effects, Dividends Clientele Models. Each theory explains the policy of earnings share between the owners and reinvestment purposes with specific factors determining that policy.

Contrary to the theoretical fundamentals, latest knowledge and best practices, some deviations from the application of the corporate finance principles even in sophisticated firms are recently identified. Innovative policies arise due to many motives in the domain of investments, financial structure or dividend payments, and even the lack of financial literacy of decision makers (Adomako, Danso, & Damoah, 2016) (Greenspan, 2002) (Drexler, Fischer, & Schoar, 2014).

3. Review of Previous Research

Theoretical affirmation of the corporate finance principles knowledge and understanding of the practical need to adapt these principles in different times and circumstances of business operations; have contributed to a significant number of researches in this area. Previous empirical results on the association between capital expenditures and corporate earnings as potential indicators for firm growth are not conclusive. On the one hand, researchers have documented a positive relation between capital expenditures and current corporate earnings (Callen, Livnat, & Rayan, 1998) (Lev & Thiagaranjan, 1993). On the other hand, the association between current capital expenditures and future earnings is less conclusive.

In addition Kim (Kim, 2001) finds that "winner" firms exhibit positive while "loser" firms exhibit negative correlation between capital expenditures and future earnings. When "losers" are excluded from the sample, Kim finds that capital expenditures generally provide positive information about future earnings.

In attempts to extend knowledge of financial leverage, firm growth and financial strength some authors (Beia & Wijewardana, 2012) identify a positive rather than negative relationship between financial leverage and firm growth.

When considering the impact of the capital structure on the firm's growth, it is worth mentioning that the researchers (Antoni & Chinaemerem, 2012) examined the impact of capital structure on the financial performance of Nigerian firms over a period of 7 years, i.e. from 2004. to 2010. They have revealed that capital structure represented by the debt ratio has a significant negative impact on the firms' financial performance. This is in line with the conclusions of researchers (Soumadi & Hayajneh, 2012), who examined public firms.

On the other hand, the results of a similar study, (Ebaid- El-Said, 2009) in Egypt have indicated weak influence of the capital structure on the firms' financial performance while hypothesis of the positive impact of capital structure on firm performance could not be rejected in some other papers (Salehi & Moradi, 2015), (Fosu, 2013). Also, the results of a recent research about the impact of financial leverage on the firms' growth in Romania (Anton, 2016) undoubtedly point out importance of the integral approach to the principles of corporate finance.

Considering dividend principle, there are more researches which have been conducted for developed capital markets. Nevertheless, an interesting finding for the purpose of this overview is the case of non-listed firms on the African stock exchange in Cameroon. Django & Tsapi (Django & Tsapi, 2013) have investigated the determinants of dividend distribution for unlisted firms in Cameroon. They have revealed that shareholding concentration, the investment level and the total debt affect the frequency of dividend distribution negatively. At the same time, profitability plays a key role on dividend distribution.

In addition, exploring the dividend policy and performance of firms in 34 emerging market countries during 17 years, researchers (Abor & Bokpin, 2010) have revealed profitable firms significantly supporting higher dividend payout compared to those relatively well-developed firms supporting weak dividend payment policy. Furthermore, recent 20 year long research of the dividend policy determinants in Indian firms (Labhane & Mahakud, 2016), illuminates larger, more profitable, mature and high-solvency firms with higher dividend payments ratio, while those with higher investment opportunities, greater financial leverage and greater business risk exhibit lower dividends payout ratio.

Similar conclusions are drawn for dividend policies for firms in Greece (Patra, Poshakwale, & Ow-Yong, 2012), where the size, profitability and liquidity increase the likelihood of dividend payments, while investment opportunities, leverage and business risk reduce the probability of dividend payments. Finally, a comprehensive survey of 17.000 firms in 33 countries over the 20 years period (Fatemi & Bildik, 2012) examining patterns in dividend policy across the globe, have demonstrated a significant decrease in the firm's willingness to pay dividends.

When it comes to growth measures, Delmar (Delmar, 2007) emphasizes five-year, three-year and one-year periods as the most commonly used, depending on whether the goal is to examine growth opportunities in the short or long term. The choice of absolute or relative growth is especially important for the relationship between size and anything correlated with size and growth. Absolute measures are more frequently used for measuring the growth of smaller firms, while relative measures are used in case of larger ones. However, the most commonly used proportional growth measures are logarithmic values. By using logarithmic values, econometric results are less exposed to the problem of heteroskedasticity. In addition, the measurement of absolute measures can lead to different results, which is in line with other researches (Almus, 2002), (Stepherd & Wiklund, 2009).

Examining alternative proxies for firm's growth estimates Mamudar (Majmudar, 2013) points out two groups of empirical proxies used in econometric models: market measures and measures based on the financial statements. The author points out that market measures are only available for listed firms while measures based on the financial statements are very practical for unlisted firms.

The research results of growth determinants (Aggarwal, 2015) show the necessity to consider size, age, profitability, solvency, leverage and nature of industry. Anderson & Yoshihiro (Anderson & Yoshihiro, 2013) emphasize the importance of control variables, and when explaining firm's growth, they recommend use of firm's size, age and industry as control variables.

This brief overview of the researches presents more than a sufficient basis for consistent research of integral investment, financing structure and dividend policy impacts in various industries and specific times. In this regard, the text to follow should be considered as an attempt for a further contribution to this research field.

4. Methodology of the Empirical Research and Discussion of the Results

4.1 Sample and Data

This research was carried out by using data for a total of 431 firms in Bosnia and Herzegovina whose core business is wood-processing and which were operating permanently from 2008 till 2016. Data from the financial statements in both Entities in Bosnia and Herzegovina are provided by the Financial Information Agency (for Federacija Bosna i Hercegovina) and the Bottom of Form LRC BIS - Business Intelligence System (for Republika Srpska.)

Table 1. Number of firms by size and entity

| SIZE | ENTITY | | TOTAL |
	FBiH	RS	
Small	190	177	367
Medium	22	35	57
Large	3	4	7
TOTAL	215	216	431

Note. Fib= Federacija Bosna i Hercegovina; RS= Republika Srpska.

The total number of observations is 1.433 due to logarithmic data use as they comprise only non-negative values of individual variables. Data are structured as a panel providing 9-year time-series for the same firms.

4.2 Description of the Variables

Considering the main purpose of this research, the dependent variable is firm growth whereas the key independent variables are the investments, financial leverage and dividend policy. Functional forms of variable indicators are logarithmic and ratios values. Namely, growth variable of firms (logarithmic value of sales revenue), investments variable (logarithmic value of fixed assets difference), variable of financial leverage (logarithmic value of total debt and ratio of indebtedness), dividend policy variable (logarithmic values of dividends paid). The choice of logarithmic values use is obvious as we cover firms of three different size types.

In addition to the abovementioned structural variables, the model also deploys several control variables. These are: current assets (represented by logarithmic values of current assets), profitability (separating firms that generated profit and those with a negative result), entity origin (to display differences between firms from two entities of Bosnia and Herzegovina), financial crises influence, as we have option to identify side effect of the financial crises, firm size, to identify differences in variations between three sizes categories (large, middle and small). The table below (Table 2) provides the summary of the variables descriptive statistics.

Table 2. Descriptive statistics for variables used in the regression model

Variable	Obs	Mean	Std. Dev.	Min	Max
LogINC	3. 608	12. 54204	2. 185961	1. 386294	17. 28267
LogFA	3. 776	11. 63386	2. 233333	. 6931472	16. 42772
LogTD	3. 715	11. 99468	1. 806081	2. 564949	17. 19261
IND	3. 719	14. 29827	95. 71989	0	1000
LogDiv	1. 627	9. 381254	3. 636415	0	16. 1057
LogCA	3. 732	12. 30076	1. 508058	0	17. 03258
PRFT	3. 879	. 7076566	. 4548979	0	1
FED	3. 879	. 4988399	. 5000631	0	1
FinCr	3. 879	. 4444444	. 4969681	0	1
MDDL	3. 879	. 1322506	. 3388067	0	1
LRG	3. 879	. 0162413	. 1264185	0	1

4.3 Econometric Model

The following equation contains related model specification structure.

$$LogINC_{it} = \beta_0 + \beta_1 * LogFA_{it} + \beta_2 * LogTD_{it} + \beta_3 * IND_{it} + \beta_4 * LogDiv_{it} + \beta_5 * LogCA_{it} + \beta_6 * PRFT_t + \beta_7 * FED + \beta_8 * FinCr + \beta_9 * MDDL + \beta_{10} * LRG + e_i + u_{it}. \tag{1}$$

LogFA: logarithmic values of fixed assets

LogTD: logarithmic values of total debts

IND: ratio of indebtedness

LogDiv: logarithmic value of dividends

LogCA: logarithmic value of current assets

PRFT: profitability

FED: Federation (Entity)

FinCr: financial crisis

MDDL: middle enterprises

LRG: large enterprises

i: number of observations

t: number of years from 2008 to 2016.

4.4 Model Estimations, Results and Quality

In order to proceed with the findings discussion we present some of the comments related to the model quality. Regarding the type of the panel regression model, Hausman test provides evidence against fixed effect model use. In addition, all interactions that relate critical variances of the model with size or entity-origin effect provide no evidence of significance. Corresponding F-test reveals that list of interactive variables is no relevant for the model. Therefore, only structural and control variables are applied in the model.

Model explains around 23,6% of the within variations, 53,5% of the between variations and almost 42,5% of the overall variations what turns out to be the model with significant explanatory power.

Table 4. Random effect model regression output

Random-effects GLS regression				Number of orbs = 1. 433			
Group variable: ID				Number of groups = 393			
R-sq:				Ops per group:			
within = 0.2357				min = 1			
between = 0.5351				avg = 3.6			
overall = 0.4245				max = 8			
				Wald chi2(10) = 795.28			
corr(u_i, X) = 0 (assumed)				Prob > chi2 = 0.0000			
LogINC	Coef.	Std. Err	z	p>lzl	95% Conf. Interval	
LogFA	.2142854	.0254795	8.41	0. 000	. 1643464	. 2642243
LogTD	.0490863	. 0407047	1.21	0. 228	(. 0306935)	. 1288661
IND	.0075948	. 0011654	6.52	0. 000	. 0053107	. 0098788
LogDiv	.0178879	. 0136346	1.31	0. 190	(.0088354)	. 0446111
LogCA	.5754513	. 0522497	11.01	0. 000	. 4730438	. 6778587
PRFT	.8185909	. 1276688	6.41	0. 000	. 5683647	1. 068817
FED	.3816852	. 122085	3.13	0. 002	. 1424029	. 6209675
FinCr	(.260113)	. 0852575	(3.05)	0. 002	(.4272343)	(. 0929917)
MDDL	.3215496	. 1611537	2.00	0. 064	. 0056943	. 637405
LRG	.4572564	. 4090223	1.12	0. 264	(.3444127)	1. 258925
_cons	1. 50019	. 4804666	3.12	0. 002	. 558493	2. 441888
sigma_u	. 75413707					
sigma_e	1. 4827648					
rho	. 20551433 of variance due to u_i)					(fraction

Heteroscedasticity, as expected, is of no concern due to the data structure. When performing regression with robust standard error as general remedy for this assumption, regression output is pretty the same as the standard procedure. Also, no serial correlation has been identified with respect to residuals. The findings of the model exhibit reduced predictive power only, except for the influence of investments on income growth generation. This finding provides solid base for incentives policy. All parameters are linear while independent nature of the repressor's value is provided (data are structured as time-series). There is no perfect correlation between them (Table 3 below) while correlation between residuals and regressors close to zero.

Table 3. Correlation between independent variables

Variable	LogFA	LogTD	IND	LogDiv	LogCA	PRFT	Ent	FinCr	MDDL	LRG	Residual
LogFA	1. 0000										
LogTD	0. 5108	1. 0000									
IND	(0. 0917)	(0. 0234)	1. 0000								
LogDiv	0. 1450	0. 1352	0. 0513	1. 0000							
LogCA	0. 4974	0. 6496	(0. 2003)	0. 2233	1. 0000						
PRFT	0. 1609	0. 1437	(0. 0138)	0. 0920	0. 2579	1. 0000					
Ent	0. 0985	0. 0965	(0. 1495)	(0. 3707)	0. 0208	0. 0495	1. 0000				
FinCr	(0. 0776)	(0. 1182)	0. 0569	(0. 0688)	(0. 0715)	0. 0536	(0. 0000)	1. 0000			
MDDL	0. 1731	0. 1558	(0. 0097)	0. 1590	0. 2613	0. 1137	(0. 0881)	0. 0000	1. 0000		
LRG	0. 1449	0. 1556	0. 0218	0. 1020	0. 1617	0. 0467	(0. 0181)	(0. 0000)	0. 0502	1. 0000	
Residual	0. 0000	(0. 0000)	(0. 0000)	(0. 0000)	0. 0000	0. 0000	0. 0000	(0. 0000)	0. 0000	0. 0000	1. 0000
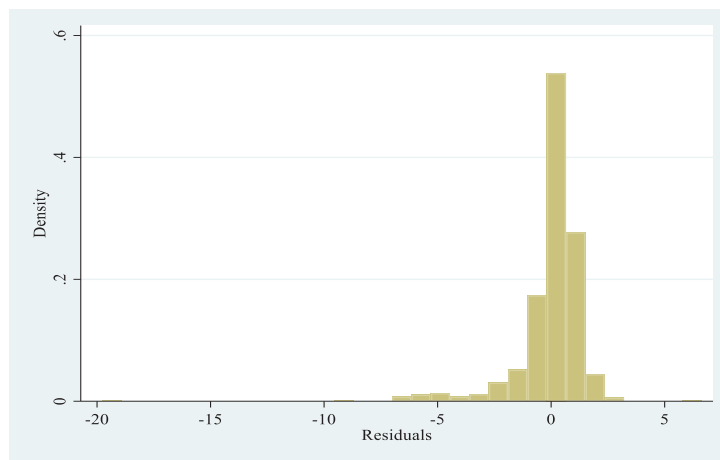
Figure 2. Residuals distribution

Zero mean, (almost) normally distributed residuals assumption is satisfied (obvious from the upper histogram), and normality distribution of structural regressors is clearly visible (Figure 3, 4, 5).
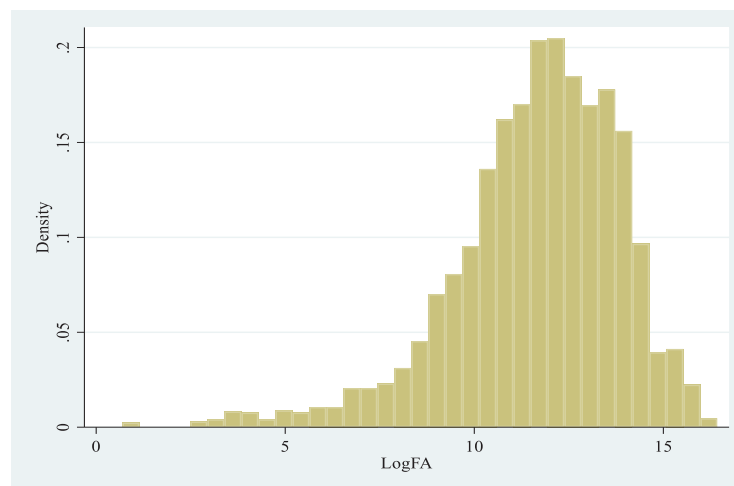
Figure 3. Logarithm values of Fixed Assets distribution
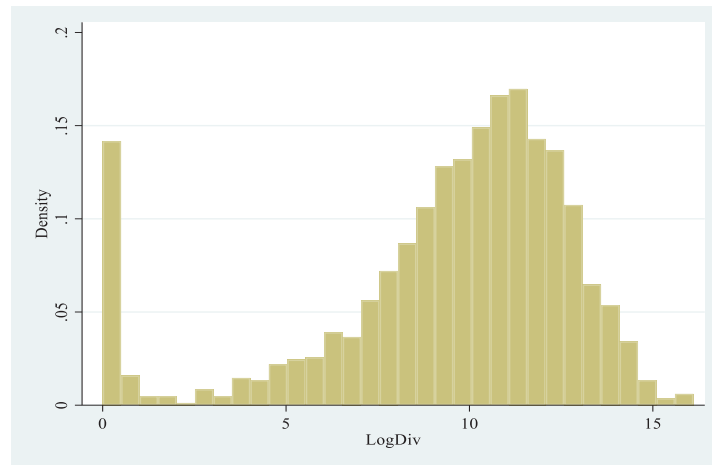
Figure 4. Logarithmic values of Dividends distribution
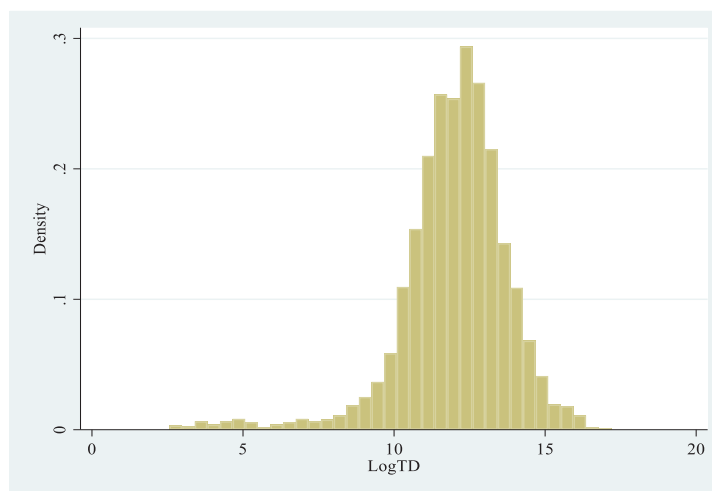
Figure 5. Logarithmic values of Total Debts distribution

Considering the main features of the regressors and residuals, linear regression model is the best possible estimate for this type of regression. Functional form with logs application proves to be the best concept of explanation referring to the variety of firms with respect to their size and entity origin.

4.6 Results Discussion and Practical Essence of Findings

Seven out of ten independent variables are set to be significant. Among the four variables of special interest, total debts and dividends are not influential on firm's income growth. This suggest that debts are used for purposes other than to developed projects, while dividend policy has no effect on the firms growth trends, i.e. distribution of profit is not related to the growth potentials tools.

In addition, the variable reflecting the financial crisis lasting provides evidence of certain effect of the crisis on firms under research. Furthermore, profitability in general affects the growth of sales income. This suggests a necessity for predetermined conditions in case of implementing investments incentives policy.

Middle size firms do have different impact on the sales growth compared to small ones while large firms perform the same sales growth pattern as small firms. The latter can be explained due to very small number of large firms exhibiting the same pattern compared to small ones. Both findings fit to the expectations of the influences and encourage the use of the findings that provide significant impact on the income growth of the wood processing industry in B&H.

Practical essence of the findings:

$$LogINC_{it} = 1,5 + 0,214 * LogFA_{it} + 0,049 * LogTD_{it} + 0,0076 * IND_{it} + 0,018 * LogDiv_{it} + 0,575 *$$
$$LogCA_{it} + 0,818 * PRFT_t + 0,381 * FED - 0,26 * FinCr_t + 0,321 * MDDL + 0,457 * LRG + e_i + u_{it}.$$

$$(2)$$

Fixed assets and current assets increase have not only statistical but also essential impact on sales growth. The conclusion comes out from values associated to the respected regressors. Both finding deserve particular focus. The former suggests clear incentive policy to facilitate further growth while the latter provides not only evidence of the necessity to bring this variable under control but also its huge effect on the sales growth performance.

Although from the theoretical perspective total debts are expected to have impact on the firms growth, this finding reveals the use of debts in purposes other than those related to firm's growth.

The ratio of indebtness although statistically significant is not that essential. Namely one unit point of this ratio, with other factors being unchanged, affects the income growth by only 0,76%. This corresponds to the latest finding on the total debts use affect. Dividend policy on its own is obviously not in use in respect of firm's value and other growth performances and it does not affect firm's sales income in any systemic and positive effect.

Profitable firms do generate huge impact on sales growth unlike those in the loss zone. This finding deserves particular attention of the decision makers when creating the investments incentive measures. Namely, profitability is to be set as a precondition to be satisfied in order to apply investment incentives policy program.

Furthermore, firms originated in Federacija Bosna i Hercegovina perform better than those in Republika Srpska. This finding justifies the application of the dummy variable suggesting entity origin of firms being examined.

Finally, years of the financial crises had a significant impact on wood processing firms in B&H. It affects the intercept variable negatively by almost 17%. It makes no sense to comment the intercept in this case while it shows what would be the log value of sales income in case when all variables are set to zero. However measuring it up by 17% and adding to other values does sound practically worth to be pointed out.

Taking into account the results of this research we cannot reject the first hypothesis. Therefore, investing in technologies and related assets contributes to firm's growth. It is necessary to implement investment incentives in order to facilitate further firm's income growth.

Hypothesis two is rejected. Financing structure, with an emphasis on borrowing policy, do not contribute to the operating activities growth. Education and trainings are needed to widespread awareness of the financial leverage potentials on firm growth.

Finally, hypothesis three is not rejected i.e. dividend policy has no impact on the main growth performance of the firm.

5. Conclusions and Recommendations

The findings of this research are very important and suggestive. The common impact of the investments into firm assets determines steady growth of the sales income. This finding justifies consequent investment incentive policy measures in the wood processing field in Bosnia & Herzegovina. Clear incentives policy for investments in wood industry assets is recommended.

Profitability affects the growth of sales income and therefore we suggest using this condition for implementing investments incentives policy.

Debts are used for purposes other than those related to the development projects. Attention should be focused on the proper education of the decision makers to understand how the leverage can be effectively used as a tool to prosper and what the consequences are when the external funding is misused or used for the short term purposes. Also, abovementioned investment incentives policy should account for reimbursement of debt costs incurred to finance fixed assets investments.

Dividend policy has no effect on the firm growth trends, i.e. distribution of profit is no under scrutiny of growth triggers potentials. This in turn reveals that firm's owners lack understanding of dividend policy role on firm value and growth performance. Attention should be focused on the proper education of the decision makers on how earnings reinvestment might impact firm's value and growth.

We recommend further researches by including more explanatory variables since the lack of some significant variables affecting the sales income is obvious for deepening the capacity of the existing model findings. Furthermore, inclusion of start-ups and firms with discontinued business history may strengthen the findings on

the way towards consistent incentives policy. To conclude, we believe that similar researches in other industries with potentials of added value creation deserve focus and findings to shape respective industry growth strategies.

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Study on the Effect of Equity Incentive Plans for Private Enterprises in Zhuhai City----A Case Study of Ninestar

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Abstract

In recent years, in order to study the actual effect of equity incentives of the listed companies, Chinese scholars have mainly studied it from three aspects, including enterprise performance, manager behavior and market response. This paper analyzed the equity incentive plan scheme of Ninestar company, a private listed company in Zhuhai city, in detail, and made an analysis on the specific effects of Ninestar's equity incentive measures from the following three aspects: enterprise performance, manager behavior and market response. Finally, we put forward relevant suggestions from the perspective of corporate governance structure, providing beneficial reference for private enterprises in China to improve equity incentive measures.

Keywords: equity incentives, restricted stock, Ninestar

1. Introduction

In recent years, the ranks of private listed companies have grown steadily, especially in the SME board and the GEM board. More than 80% of listed companies are private enterprises, and less than 20% are state-owned enterprises. At the present stage, private listed companies play the most important role in the implementation of equity incentive plan in China, because there are differences in the regulatory policies of equity incentive implemented by CSRC for state-owned listed companies and private listed companies. Private listed companies have become the most powerful executors of equity incentive implementation. Equity incentives can effectively promote the stable and sustainable development of private listed companies. However, the regulations on equity incentives in China are not perfect enough. There are some problems in the process of floating the non-tradable shares. It is difficult for some listed companies in China to give full play to the equity incentive effect, or even interrupted it midway. This paper aims to make a case analysis of the effectiveness of equity incentives in listed companies of private enterprises in Zhuhai. Taking the equity incentive measures of Ninestar, a private listed company in Zhuhai, as the case study object, it investigates the specific measures of equity incentive of Ninestar and the results obtained, and puts forward some suggestions from the perspective of corporate governance structure, so as to provide beneficial reference for private enterprises in China to improve equity incentive measures.

2. The Theoretical Basis and Literature Review

In the 1950s, the separation of management rights and ownership led to the principal-agent problem of American enterprises, and equity incentives came into being because it can align the interests of enterprise operators and managers. Equity incentives are the way in which the company's operators own the company's stock or equity in different ways, making it one of the company's shareholders, enabling the company's operators to actively participate in the company's decision-making from the perspective of the company owner. The research on the effectiveness of equity incentives has been controversial in the academic circle since the emergence of equity incentives. On the whole, Chinese scholars' evaluation of the implementation effect of equity incentives is mainly from the perspective of corporate performance, governance structure and market response.

Here are some related researches on equity incentives and company performance. Zhou Jianbo and Sun Jusheng (2003) studied 34 listed companies that tried equity incentives from 1999 to 2001 and found that the performance of listed companies that implemented equity incentive plan was generally higher before the implementation of equity incentive plan. They believed that such samples had some selectivity bias. Their research also shows that the

improvement of corporate performance is positively correlated with the increase in the number of shares owned by the managers due to the equity incentives in the company with a great potential of growth. While Dong Bin and Chen Jie (2015) took all listed companies from 2006 to 2013 as the initial sample, selected the listed companies implementing equity incentives from 2006 to 2011 as the sample of the treatment group, and used the PSM model to conduct empirical analysis. The results also show that the implementation of equity incentives can effectively improve the performance of non-state-owned listed companies. Compared with the listed companies with low growth potential, the effect of equity incentives in listed companies with higher growth potential is more obvious. However, some scholars have come to a different conclusion. Wei Gang (2000) took 791 listed companies in 1998 as research samples and found no significant correlation between the number of executive stock ownership and the company's business performance. According to the two scholars Yao Weifeng and Yao Tong (2009), there is no significant correlation between management shareholding ratio and enterprise efficiency before company share-holding reform and there was a significant negative correlation between the two even after the company share-holding reform. It can be seen that the relevant research conclusions of equity incentives and company performance are not consistent in the academic circle.

Here are some related researches on equity incentives and corporate governance structure. Pan Ying and Liu Guangsheng (2009) studied the listed companies that implemented the equity incentive from 2004 to 2007 as samples, and showed that the stronger the ability of medium and small shareholders to check and balance the larger shareholders, the more obvious the effect of the implementation of equity incentive was. Wu Yuhui and Wu Shinong (2010) collected the draft equity incentive plans of 82 listed companies for research, and found that the shareholding ratio of major shareholders has certain constraint effect on the high-pipe self-interest behavior of the company to implement equity incentives from the perspective of corporate governance structure. However, other corporate governance variables have no significant influence on the self-interested behavior of senior executives. It indicates that the current corporate governance structure has limited constraint effect on the self-supporting behavior of senior executives. Some scholars also believe that the equity incentives mode under the control of shareholders can effectively alleviate the short-sighted behavior of management.

Here are some researches on equity incentives and market response. With regard to the research on equity incentives and market reaction, it mainly adopts the event research method and mostly uses case analysis. Taking Kunming pharmaceutical as an example, Wang Xiaohua (2018) investigated the market announcement response of the equity incentive plan by using the event research method, and the result showed that the market reacted positively to the action. Qiao Shuomin (2018) took the listed company of Aier Ophthalmology as an example, studied the market announcement response of Aier ophthalmology's equity incentive plan by adopting the event study method, which also won a good market reaction. He Jiang et al. (2010) conducted an empirical study on the stock prices of 53 listed companies in China's A-share market from January 2006 to December 2007 by adopting the event research method, and the results showed that there were significant positive stock price effects before and after the announcement. Zhou Xiaodong and Zhao Xin (2015) conducted empirical research on 75 a-share listed companies by adopting the event study method and the results also showed that A-share market made significant positive responses to the announcement of equity incentive plan. It can be seen from the relevant research of market reaction that the market is generally optimistic about the equity incentive plan of listed companies.

Whether the equity incentives are beneficial to enterprise development or not? This paper takes the equity incentive measures of Ninestar, a private enterprise in Zhuhai city, as the case study object. It investigates the specific equity incentive measures of Ninestar and their effects obtained after the implementation of equity incentives from the following three aspects: the specific scheme of Ninestar's implementation of equity incentives and the enterprise performance, manager behavior and market response, and puts forward some suggestions from the perspective of corporate governance structure, so as to provide beneficial reference for private enterprises in China to improve equity incentive measures.

3. The Analysis on Implementation of Equity Incentive in Zhuhai Ninestar Co., Ltd.

3.1 Background of the Company

Zhuhai Ninestar Co., Ltd. (hereinafter referred to as "Ninestar share." or "the company") was established in 2000, and its business scope covers the printing imaging industry, imaging and output technology solutions and printing management services. It possesses the laser printer brand "Limeng", and has 20,000 employees worldwide approximately. The company's annual sales volume is about CNY 30 billion, and its products cover more than 150 countries. It develops and sells industrial-grade 3D printers. Zhuhai Senna Co., Ltd., one of its portfolio companies, develops and sells industrial-grade 3D printers. Its product is applicable to medical education training model and surgical planning model, jewelry casting model and color multi-material

customized product. In 2007, legend holdings acquired a stake in Senna through its Junlian capital.

3.2 Motivation Analysis of Implementing Equity Incentive

In order to further improve the corporate governance structure of Ninestar, promote its establishment and improvement of the incentive and restraint mechanism, fully mobilize the enthusiasm, responsibility and sense of mission of the company's top management and core employees, effectively combine the interests of shareholders, the interests of the company and the personal interests of operators, pay attention to the long-term development of the company and strive for it together, it formulates a restricted stock incentive plan in accordance with the company law of the People's Republic of China, the securities law of the People's Republic of China and other relevant provisions, and in combination with the management systems such as the compensation system and performance appraisal system currently implemented by the company.

This restricted stock assessment index is divided into two levels, which are performance assessment at the company level and performance assessment at the individual level. The performance index system at the company level is the growth rate of operating revenue. The growth rate of operating revenue reflects the company's market size, future profitability and enterprise growth, which can establish a good capital market image. Through the reasonable prediction and taking the incentive effect of this incentive plan into account, the company has set the performance assessment target of taking the company's operating income in 2014 as the base, and the operating income in 2016-2019 is not less than 20%, 40% and 60% respectively, and the growth rate of net profit is not less than 20%, 30% and 40% respectively. In addition to the performance assessment at the company level, the company also sets a performance assessment system for individuals, which can make a relatively accurate and comprehensive evaluation of the work performance of the incentive object. The company will determine whether the individual of the incentive object has met the conditions for the lifting of restrictions according to the performance evaluation results of the incentive object in the previous year.

According to the draft restricted stock incentive plan of Zhuhai Ninestar Co., Ltd., the details are as follows:

Table 1. The specific implementation of equity incentive in Zhuhai Ninestar Co., Ltd.

Incentive staff	A total of 531 people, including company directors, senior management, middle management.		
Incentive quota	206.66 million shares, accounting for 2.075% of the company's total share capital of 9.960116 billion shares when the draft incentive plan was announced.		
Incentive price	16.48 yuan per share		
Lock-up period	The shares transferred each year during the term of office shall not exceed 25% of the total number of shares held by the directors and senior managers of the company. The shares of the company held by him shall not be transferred within half a year after his resignation. The number of shares of the company listed on the stock exchange shall not exceed 50% of the total number of shares held by the company within December six months after the declaration of leaving the company.		
	When the last batch of restricted stocks in the plan is unlocked, the incentive object of the company's senior management positions is awarded 20% of the total restricted stocks (and the stock dividends allocated for the stocks), and is locked into the term of office (or term). After the expiration, determine whether to unlock according to the term of the senior management position or the economic responsibility audit.		
Restricted stock trade period	The first period	From the first trading day 12 months after the date of first grant to the last trading day within 24 months after the date of first grant	30%
	The second period	The first trading day after 24 months from the date of the first grant to the last trading day within 36 months from the date of the first grant	30%
	The third period	The first trading day after 36 months from the first grant date to the last trading day within 48 months from the first grant date	40%
Release of restricted conditions	The first period	Taking 2014 as the base year, the growth rate of operating income is not less than 20% in 2016. The growth rate of net profit shall not be less than 20%;	
	The second period	Taking 2014 as the base year, the growth rate of operating revenue in 2017 is no less than 40%; The growth rate of net profit is no less than 30%;	
	The third period	Taking 2014 as the base year, the growth rate of operating revenue in 2018 shall not be lower than 60%; The growth rate of net profit is no less than 40%.	
Personal performance appraisal	Evaluation results	Excellent	100%
		good	
		Basically qualified	80%
		Failed	0%

3.3 The Analysis on Effectiveness of Equity Incentive in Zhuhai Ninestar Co., Ltd.

It analyzes the effectiveness of equity incentive plan of the company based on the annual audit report of Zhuhai Ninestar Co., Ltd from 2012 to 2016.In debt paying ability, the current ratio is used as the index to reflect its short-term debt paying ability, and the asset-liability ratio is used as the index to reflect its long-term debt paying ability. It takes receivables turnover, current assets turnover, working capital turnover and total assets turnover as indicators to reflect their operating capacity. The net operating interest rate and net total asset interest rate are used as indicators to reflect its profitability. The sales price and operating income ratio are used as indicators to analyze the manager's behavior. It analyzes the market performance by taking the return on investment as the index.

3.3.1 Financial Performance Evaluation

(1) Debt-payment capability analysis
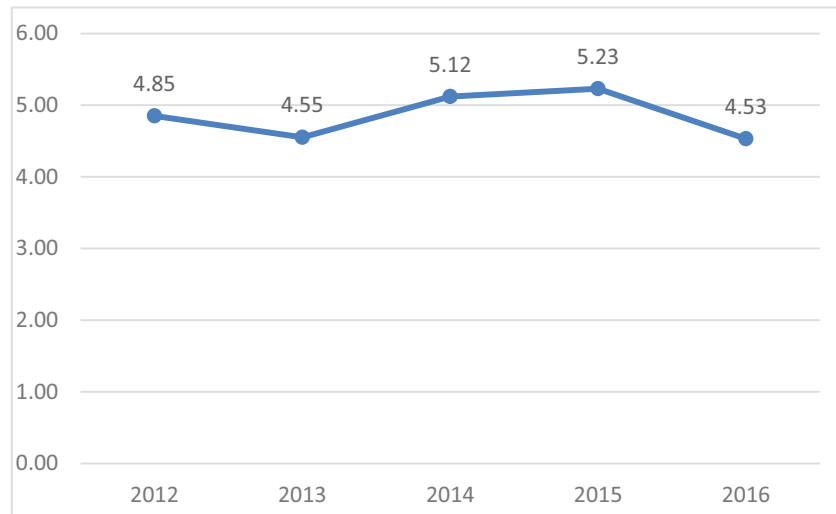
Figure 1. Current ratio chart of Zhuhai Ninestar Co., Ltd. from 2012 to 2016
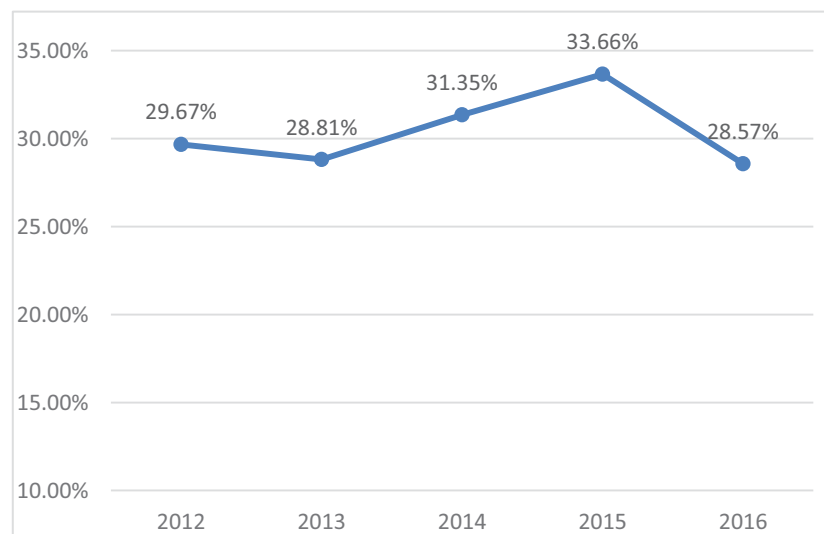
Figure 2. The trend of asset-liability ratio of Zhuhai Ninestar Co., Ltd. in 2012-2016

It can be seen from Figure1 and Figure2 that the current ratio of Zhuhai Ninestar. Co., Ltd shows the same trend as its asset-liability ratio. Compared with 2012, it decreased in 2013, but it continued to rise from 2014 to 2015, and fell again in 2016.This indicates that the profitability of Zhuhai Ninestar. Co., Ltd has declined since 2013, while its profitability has increased again in 2016. This means that the company has the same trend of short-term and long-term debt-paying ability. As it can be seen from the debt-paying ability, the company's profitability has been declined and its financial risks has increased since 2013. After the introduction of restricted stock incentives in 2015, the company's profitability has increased and its financial risk has decreased.

(2) The analysis of capabilities in operations
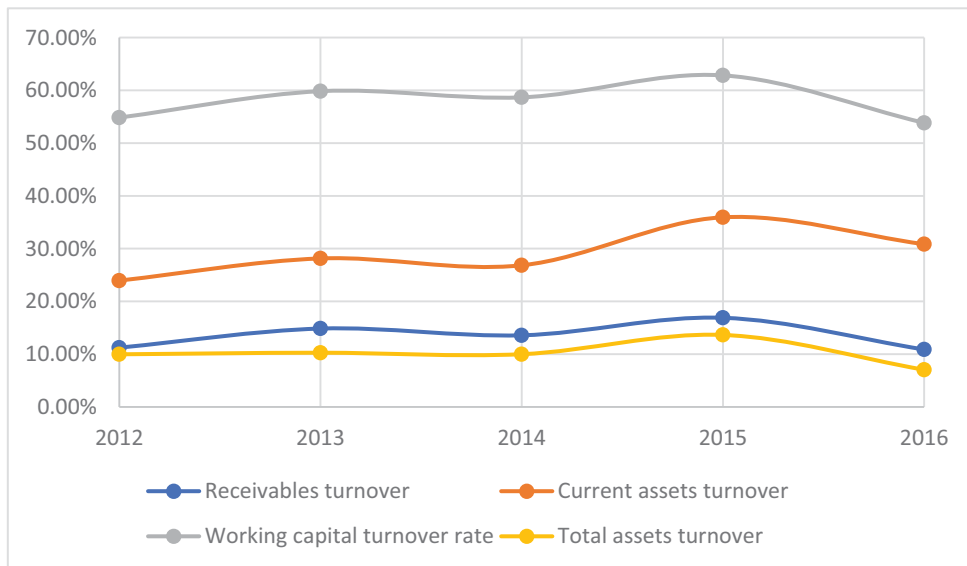
Figure 3. The operational capacity chart of Zhuhai Ninestar Co., Ltd. from 2012 to 2016

As shown in Figure 3, the receivables turnover rate, current asset turnover rate, working capital turnover rate and total capital turnover rate of the company show the same movement trend. The turnover rate of shipboard receivables of the company from 2012 to 2014 and the turnover rate of total assets of the company were stable with small changes, which reflects that the company's operation capability is relatively stable. After 2013, all the data of the company, such as the receivables, current assets and working capital required for each unit sales are all on the rise. After the restricted stock incentive was implemented in 2015, the company's receivables, current assets and working capital required for each unit of sales declined.

(3) Profitability analysis
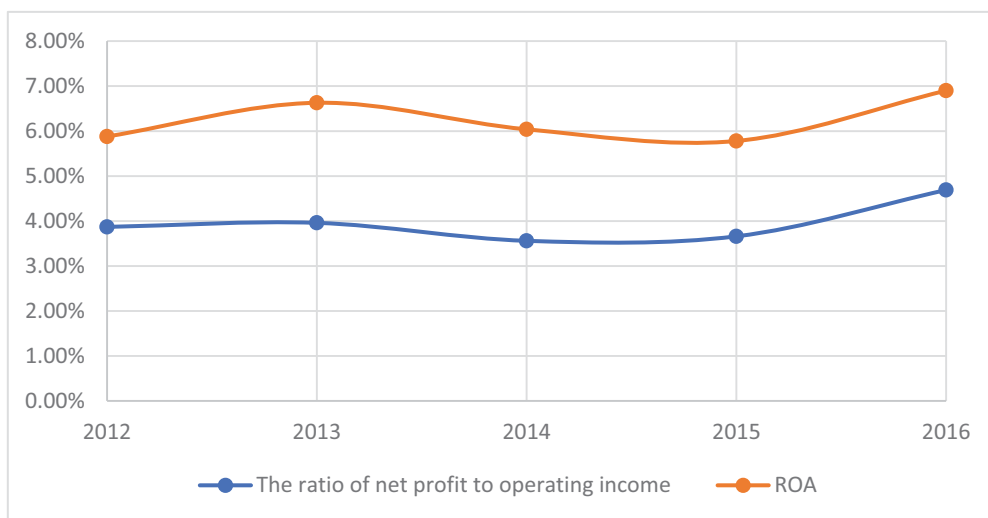
Figure 4. The profitability of Zhuhai Ninestar Co., Ltd. in 2012-2016

The net operating interest rate reflects the change of the growth rate of net profit compared to the growth rate of operating income. When the growth rate of net profit is faster than the growth rate of operating income, the net operating interest rate goes up, and it goes down conversely. The net interest rate of total assets reflects the growth rate of net interest rate compared to the growth rate of operating income. Therefore, it can be seen from Figure 4 that the profitability of the company decreased first and then increased again from 2012 to 2015. From 2012 to 2015, the operating net interest rate of the company was relatively stable, while the net interest rate of total assets rose significantly in 2013, and fell again in 2014 and 2015, which reflected that the profitability of the company was declining. In 2016, the net operating interest rate and the net total asset interest rate of the

company showed the same upward trend, which indicated that the profitability of the company was rising.

3.3.2 The Analysis of Managerial Behaviors
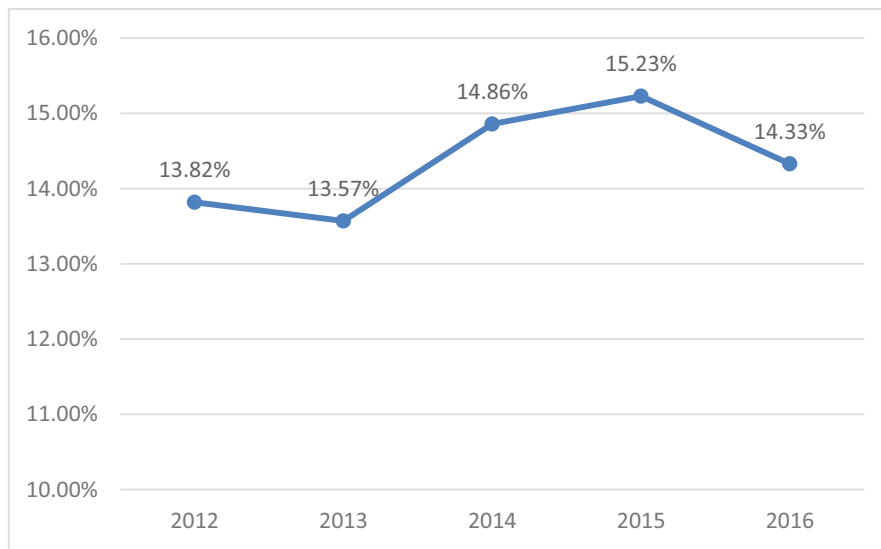
Figure 5. The ratio of sales price to operating income of Zhuhai Ninestar Co., Ltd. in 2012-2016

Since the company just used the equity incentive policy of restricted stock incentive, the restricted stocks connect the enterprise stock price with the manager's income. If managers want to get more compensation, they must improve enterprise performance, and they should adopt policies to reduce the ratio of sales price to operating income. Figure 5 shows the trend of the ratio between 2012 and 2016. It can be seen from the figure that the ratio decreased in 2013 compared with the same period last year. However, the ratio continued to rise from 2013 to 2015, and declined significantly after the implementation of restricted stock incentive in 2015.It considers that its restrictive stock incentive policy has shown some promise in this paper.

3.3.3 Market Performance Analysis
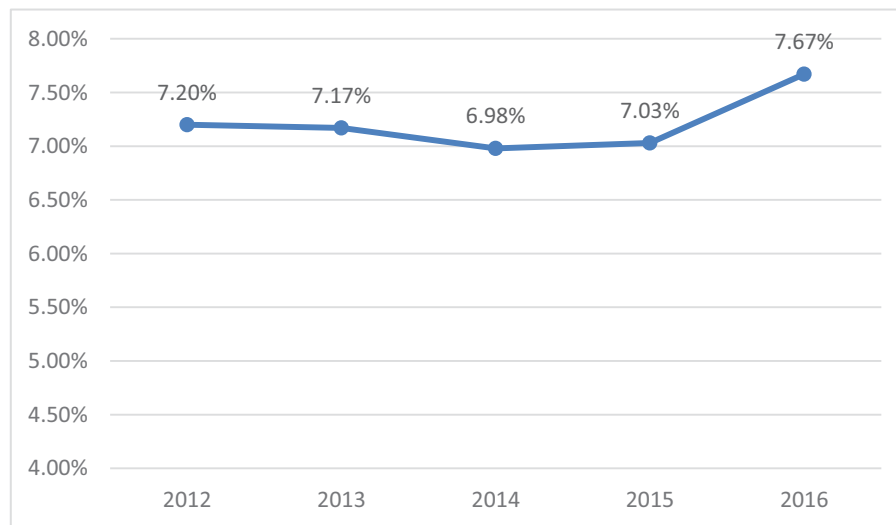
Figure 6. The ROI of Zhuhai Ninestar Co., Ltd. 2012-2016 ROI

In this paper, the market performance of the company is analyzed with the return on investment. Return on investment (ROI) = annual return or average annual profits annual return/total investment x 100%, and it can reflect the comprehensive profitability and market performance of the investment center. Enterprises can improve their profit margin by reducing the cost of sales and improve the ROI(return on investment) through improving the asset utilization efficiency. Figure6 shows the company's investment return trend in 2012-2015.The company's ROI (return on investment) kept a stable and slightly fluctuating trend from 2012 to 2015,and the company's ROI index in 2016 showed a slight upward trend. It reflected the effectiveness of the

restrictive stock incentive policy of the company to some extent.

4. Case Revelations

The reasons for the success of Ninestar equity incentive plan include good external environment, government policy support and reasonable design of equity incentive plan. This paper focuses on the analysis of corporate governance structure specification. The formulation and implementation of many decisions made by Zhuhai Ninestar's board of directors since 2015 has laid a foundation for the success of the restricted stock incentive plan thereafter. Since Zhuhai Ninestar completed backdoor listing in 2014, on the one hand, it continues to consolidate its leading technology in the field of general printing consumables chips; On the other hand, the company actively carries out follow-up capital operation with the help of the capital market, and perfects its industrial chain layout through merger and reorganization such as cash purchase, stock issue and asset purchase. In 2015, the company's board of directors actively drafted the company's major asset acquisition plan, decided to invest in foreign investment projects, and set up an industrial fund. On the one hand, the main businesses of the company can be enhanced through business integration, M&A and other ways; on the other hand, the expected value added goals can be achieved through M&A, restructuring, IPO and other ways, bringing high value added returns to the shareholders of the company. The board of directors of the company adjusts and hires senior executives with professional management level and rich international management experience to decide their remuneration, in order to bring support and help to the company's operation management and international business integration.

Therefore, the board of directors should play its due role. Once the board of directors plays its due role, it is easier to find out the "tunneling" behavior of major shareholders and the welfare equity incentive formed by insider control. It can help the board to evaluate the manager's market value rationally, which will enhance the management incentive effect. When the behavior designed by the board of directors is effective, it will give play to the due supervision and execution function in the process of the implementation of the equity incentive scheme with significant effect.

In addition, in order for the equity incentives to be effectively implemented, it is necessary to establish and improve the board of directors with rules and regulations, so that the board of directors has rules and regulations. The corporate governance structure is an important part of the enterprise management theory. The incentive mechanism and the restraint mechanism are inseparable. The two cannot be operated separately. Otherwise, the short-sighted behavior and "Internal person control" of the enterprise managers are prone to occur. Therefore, the supervision and restraint mechanism for enterprise managers should be strengthened to resist possible adverse selection and moral risks and undermine the orderly progress of economic order.

Chinese private enterprises should actively improve their corporate governance structure and protect the interests of small and medium-sized investors, especially those with low ownership concentration. In addition, private enterprises should give full play to the democratic nature of enterprise management, increase the number and proportion of medium and small shareholders in the general meeting of shareholders, so that the major decisions made by the company can be voted on by all shareholders. They should strengthen the "supervision in advance, supervision in work and supervision afterwards" of enterprise operation, strengthen the execution of internal control, establish and improve the internal control system, and reduce the possible internal risks of enterprises. With the improvement of external environment and internal governance structure, the implementation effect of equity incentives can be fully displayed.

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Key Factors of Cognitive Performance in Moroccan Preschool: Evidence from Random Slope Model

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Abstract

Compared to social factors, some studies have concluded that the quality of school environment is not important for learning. However, other studies have pointed out the divergence from this finding, highlighting the importance of environmental and educators quality regarding cognitive acquisition. Therefore, this article is in the same vein, and this, by seeking in a Moroccan context to identify the factors likely to influence cognitive learning in early childhood. The major features of our research reveal that in the Moroccan context mothers' level of education, environment's quality, the training of educators and class size are among the key factors of preschool learning. Multilevel modeling is applied to data from an ad hoc survey of 780 children in 45 pre-schools.

Keywords: education (A20), environment's school (I250), microeconomics (B21), multilevel estimation (C13), skills (I250)

1. Introduction

Many researches have linked the quality of early education to the efficiency of educational systems and thus to the heterogeneity of cognitive acquisitions and the rate of failure at later levels. Morocco, as a signatory of international conventions including the Convention of the Rights of the Child, is committed to protecting children's rights to education, health, safety, equality, etc. Nevertheless, various reports that have touched the Moroccan preschool (CSE, UNESCO, World Bank, etc.) underlined the insufficiencies and the poor performances which singularize the early education. In fact, Moroccan children who arrive in the first year of primary education start their studies with different chances, in favor of those who have benefited from a preschool of quality, and therefore with unequal chances to succeed in their schooling. Also, because of limited capacity in public structures and the preponderance of the private sector, it is the law of the market that decides on the establishment of preschool structures (Global Education and Formation, 2014). Considering all these issues, it is clear that a fairly deep reflection is needed on the Moroccan preschool and the determinants of its quality.

We will present in this paper an overview of the literature relating to the determinants of school performance. Then, we briefly present the characteristics that mark the Moroccan preschool. Finally, we will expose the different results from our empirical study.

2. The Family Environment as a Grid for Analyzing School Performance and Success

Initially economists conceptualized the process of success as one of the aspects of family behavior theory (Becker and Tomes 1979). Moreover, they tried to consider the behavior of the family in terms of fertility, choice of the marital model, and investment in human capital as an integral part of the transmission of income and inequality models (Wolf and Haveman, 1995).

Indeed, Wolf and Haveman (1995) conceptualized the family as a production unit that uses real inputs to generate utility for its members. They also emphasize that parents make decisions regarding the generating of family economic resources (labor supply); they also determine the uses (consumption, asset accumulation, or investment in children) of theses resources. Parents also make a variety of other choices such as fertility, location, and family stability that both influence the returns on productive efforts and directly affect the well-being of

members of the family. In addition, the amount of family resources allocated to children, the nature of these resources and the timing of the distribution of their resources greatly affect the success of children in their families. In this sense, Wolf and Haveman (1995) add the number of siblings, the type of neighborhood in which children grow up, the number of possible moves of the family and the structure of the family (traditional family / single-parent family).

Having said that, Leibowitz (1974), Becker and Tomes (1979) and Wolf & Haveman (1995) have all marked a point of convergence in relation to the importance of the genetic inheritance (human capital) transmissible from parents to children in the success of these children. In fact, children begin their lives with a genetic heritage transmitted by their natural parents, genetic inheritance is described by the "Markov process". On average, parents with fairly high levels of education will produce children who are likely to achieve high levels of schooling too, but not necessarily as much as their parents.

Although the debate about the factors that best explain success still prevails between researchers, their positions converge when it comes to culture and social origin as determinants of success and learning. Indeed, Bourdieu and Passeron (1964) support the existence of a close link between culture and social origin on one side, and the success of another. Moreover, they view school as a factor of social conservation rather than a factor of social mobility (theory of origin and social reproduction). In the same perception, Gras (1974) argues that social origin and culture can impact school success and performance as much as the intellectual dispositions and character of children. Baudelot and Establet (1971) are also in the same vein, concluding that the children of privileged classes are more successful in school compared to children from disadvantaged social classes.

All these arguments (culture and social origin) are somehow related. But it must be noted that such a school of thought has not been deprived of criticism. Moreover, the research carried out by Cherkaoui (1999) has led to the conclusion that, despite particularly difficult socio-economic conditions, some children from underprivileged backgrounds arrive through school to achieve upward social mobility. Also, Duru-Bellat (2003) questioned this ideology (systematic influence of culture and social origin on the success of children). According to the author, the most disadvantaged individuals in some education systems have higher educational achievement than other education systems.

3. From the Differentiation of School Contexts to the Construction of Contextual Effect

In order to have an analysis of the determinants of school performance, in this section we summarize a review of performance theories. We can generally subdivide the literature on the influence of the school environment into three theories, to wit: the school-effect theory, the teacher-effect, and the class-effect.

3.1 The School-Effect

Since the eighties, the sociology of education has begun to take an interest in the possible impact of schools on student performance, and this, apart from the specific characteristics of students and their families. Indeed, the school-effect principle states that schools can have their own effectiveness, regardless of the specificities of their audience. In other words, school is no longer seen as a monolithic system acting blindly in the same way everywhere and at the same time, but rather as the aggregation of multiple units each producing significantly different effects on educational outcomes (Cousin, 1993). This theory was built on the work of Beck and Murphy (1998), who have the merit of having tried to identify the specificities of so-called high-performance schools. Moreover, they pointed out that in well-performing schools, school results are analyzed in order to elaborate corrective reforms to the teaching provided, also the in-service training of the teaching staff and the contacts with the parents of the pupils are highly sought-after policies. In the same context, Grisay (2007) believes that in well-performing schools, teachers define and pursue clear objectives with students, courses are well structured and assessments help to regulate teaching. Consequently, these so-called high-performance schools can embody a good reputation allowing them to manage the competition and the parents' pressure.

Therefore, the school-effect theory explains the difference in performance between schools by a variety of variables specific to the school. Indeed, Meuret (2000) confirms that hierarchical, physical, pedagogical and managerial aspects are decisive in the acquisition of skills and academic performance. Characteristics that distinguish one school from another constitute a kind of internal environment that promotes learning and, consequently school performance. In this sense, the internal determinants likely to positively impact the performance of a school consist of an effective director, the support that the community brings to the school, a regular supervision, the endowment of a teaching device, and adequate quality infrastructure and materials (Meuret, 2000, Duru-Bellat, 2003). These conclusions were also confirmed by Bressoux (1995) and Coussin (1998), the work of the latter concluded that the family context, the school context and the school climate have a direct impact on student performance.

3.2 The Teacher-Effect

The theoretical principle of the teacher-effect states that the performance of the children may vary from teacher to teacher. In this sense, the literature has been able to explain the variations in performance by the difference in teaching methods practiced, the difference in the levels of training, qualification and experience of teachers (Meuret, 2000, Duru-Bellat, 2003).

Indeed, Bressoux (2006) proceeded by a classification of teachers in two classes, to wit: effective teachers and those who are not. The author argues that ineffective teachers are likely to subject weak students (poor-performing students) to too much criticism and prefer to lighten and simplify learning objectives. In addition, teachers have less patience when they question them, criticize them regularly, interact less with them and ask them simpler questions. In total, teachers expose weak students to a poorer curriculum (Jarlégan, 2008). On the other hand, teachers who are qualified as effective, value their students and develop a constant attitude toward low scores by accepting, for example, that a student does not understand but he is not necessarily "weak" (Lautier et allieu, 2008). Also, a set of researchers defines effective teachers as those who have received adequate training and experience, are provided with teaching materials, prepare their courses and plan learning according to the time allotted to them, They organize individual work, class discussions, group work, question and answer sessions, provide explanations, and provide special guidance for students with learning difficulties (Duru-Bellat, 2003 ; Robin, 2009).

Finally, we find in the literature that pedagogical practices, differences in training and qualifications, judgments and differential expectations of teachers combine together to give birth to a master effect that intervenes in the cognitive performance of children.

3.3 The Class-Effect

The analysis of the differences in performance between classes in the same school led Hanushek (1971) to find that the results of school performance depended on the class to which the children belong. Thus, the sketches of the theory of the class-effect were able to arise. Indeed, this last one explains the differences of school performances by the different compositions of the classes. In this sense, Veldman and Brophy (1974) deduced that the level of performance is higher among classes that are composed mainly of children from wealthy families. While classes mostly made up of children from disadvantaged families have a lower success rate. This phenomenon can have consequences for the image that children have of themselves. Indeed, convinced of belonging to a class deemed weak, children will reduce their involvement and their efforts in learning. As a result, poor self-image leads to poor outcomes through a process of disinvestment of children.

However, other researchers have investigated the impact of the degree of homogeneity on school performance. With this in mind, Robin (2009) and before him Kerckoff (1986) both emphasized that performance increases as the initial grade level of the classroom is better. They also concluded that classes where groups of apprentices are homogeneous further increase performance gaps between students, as bright students progress better by belonging to homogeneous classes compared to children in heterogeneous classes. Moreover, belonging to heterogeneous classes is more likely to be perceived as an advantage for students whose performance level is below average, unlike students whose performance level is above average (Mingat, 1984). Nevertheless, Duru-Bellat and Mingat (1997) have quantified the magnitude of the advantages and disadvantages by confirming that the gains of "weak" students from heterogeneous classes far outweigh the losses of bright students in a heterogeneous context.

4. Preschool Education in Morocco

Pre-school education in Morocco is a sector whose main concern is the care of early childhood education, often the age of these children varies from 3 to 5 years. The first of the singularities that mark this sector in general is the multitude of supervisory bodies and the heterogeneity of the frames of reference that define the orientations and objectives of pre-school education. Indeed, the preschool sector in Morocco is characterized by different bodies of guardianship namely, the Ministry of National Education, the Ministry of Youth and Sports, the Ministry of Habous and Islamic Affairs and National Mutual Aid. This segmentation, which reflects several stakeholders and several types of institution, explains the diversity and the heterogeneity of the content, practices and languages of instruction.

The second characteristic of preschool education in Morocco is the fact that a very large proportion of preschool establishments belong to the private sector, and this, in parallel with classes integrated into so-called public establishments, which are always trying to improve their rates capacity, but the workforce remains very small compared to those supported in the private sector. In addition, Moroccan preschool dependence on the private

sector over the last twenty years has led to a limited, unfair and dependent quality of pre-school education for families with sufficient resources (El Andaloussi & Faiq)[1]. Also, pre-school education in Morocco is not yet able to overcome the challenge of widespread access to preschool. Moreover, given the small evolution of the numbers benefiting from the educational care, we can conclude that it is impossible to reach this objective in the short term.

■ the number of children enrolled in the preschool cycle

Source: done by the author

In fact, the overflight of the number of preschool children advanced by the Ministry of National Education in Morocco has led us to note that in general, the preschool sector has not made any progress in quantitative terms since 1999 until 2016. All in all, although all the protagonists of preschool mark a point of convergence, and this, by stipulating that the early childhood education is the key to the establishment of quality education in Morocco and the lever of his development. However, many problems persist or worsen. Indeed, the first challenge that continues to hamper the development of educational care is the expansion of access to pre-school education, the Moroccan preschool has not made progress in quantitative terms. The second challenge facing the Moroccan pre-school is the quality of education and the preschool environment which remains limited, inequitable and dependent on the private sector. The problem of the quality of preschool education is also illustrated by the heterogeneity of acquisition levels at the beginning of the primary cycle and the high rates of wastage and failure at later levels. Considering all these issues, it is clear that a fairly deep reflection is needed on the Moroccan preschool and the determinants of its quality.

5. Methodology and Results

5.1 Methodology

During this survey, children had to pass cognitive tests[2] that touched four cognitive dimensions, to wit: Mathematics, Sensori-Motricity, Classical Arabic and French. These tests were used to evaluate the cognitive performance acquired at the end of the preschool cycle and with which preschooled children are supposed to start their primary cycle (calculation, vocabulary and comparison of quantities, colors and senses). Questionnaires were administered to the teachers and to the parents. We also collected information on environmental quality using the Early Childhood Environmental Rating Scale (ECERS)[3]. Note that the score obtained from the quality of the preschool environment consists of three modalities, to wit: "Inadequate Quality", "Minimum Quality" and "Good Quality".

The selection of children in the final year of the preschool cycle was done by a stratified two-stage sampling procedure. As for the stratification variables, the sample is stratified by the geographic area (urban / rural) and the status (private / public type) of the school. That said, the principle is to consider a set of randomly selected schools in each stratum based on the number of children at the end of the preschool year. If the chosen school has several classes of children in the final year of the preschool cycle, one of these classes drawn at random in each school. We proceed then by the standard explanation of the course of the tests, and this, while respecting the fixed durations of each test. In case the number of children in a class is less than 6, we draw another class in the school, if necessary, the school is replaced by its replacement from the list.

The data used in this analysis concern exactly 784 children distributed in 45 schools. This data comes essentially from the information already collected from the forms and questionnaires administered to institutions and families of preschool children, and information extracted from the cognitive tests that children have spent in order to assess their cognitive knowledge at the end of the preschool cycle.

The data from this survey realized during the year of 2016, although rich in information, presents some difficulties related to the missing values that can skew the estimates. To overcome this difficulty, Rubin (1987) introduced for the first time the technique of multiple imputations, it corresponds more to the nature of our data.

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[1]El Andaloussi, K. Faiq, M. « la situation du préscolaire : importance, diagnostic et concept pédagogique ».

[2]The tests were validated empirically by the internal validity test (Cronbach coefficient).

[3]ECERS (Early Childhood Environnment Rating Scale), This grid used previously as an instrument of accreditation in the United States by the NAYEC (National Association for the Young Children), it is recognized by its empirical validity, and this, thanks to the consistency of measurement and the magnitude of the correlations between the aspects taken into consideration and the final score of the quality.

The multiple imputation method can be described in three steps. The first is to create plausible value groups for the missing data (our case m = 10). Each of these groups of values is used to fill in the missing values and thus create m databases. Then, the complete bases are analyzed with the multilevel models with constant and random coefficient. Indeed, the hierarchical nature of these data required the use of multilevel modeling. The latter are privileged because they present a solution to all the constraints imposed by ordinary regressions in particular, the non-independence of errors, the heterogeneity of relations, homoscedasticity and the problems of aggregation or disaggregation of hierarchical data (Bressoux, 2008).

5.2 Results

In order to identify the determinants of cognitive performance at preschool age, our analysis goes through a process of six estimates in which we tried to feed the models with the relevant variables allowing both a good fit and a better parsimony.

Table I. Estimated key factors of cognitive performance.

VARIABLES	Model (01)	Model (02)	Model (03)	Model (04)	Model (05)	Model (06)
Variables of level I (Child & Family) :						
Age of the child = 1, More than 5 years		6.31214 (5.85717)	7.54102 (5.84909)	7.62523 (5.81478)	7.27121 (5.81640)	9.77624 (6.08873)
Gender of the child = 1, Boy		-16.23541** (5.84492)	-15.46739*** (5.00280)	-14.77915** (5.14497)	-14.90869** (5.14330)	-14.73048** (5.56876)
Siblings size = 1, 3 children and plus		-23.93300** (8.39383)	-18.33400 * (8.07066)	-19.02893 * (8.07253)	-19.09750* (8.08847)	-18.07213* (8.35338)
Education's level of the mother = 1, Primary			22.08107** (8.17134)	22.96561** (7.98512)	23.37366** (7.95174)	23.70437** (8.06338)
Education's level of the mother = 1, Middle school			35.75024*** (7.71618)	34.59275*** (7.55107)	35.53145*** (7.52842)	35.97416*** (7.17420)
Education's level of the mother = 1, Secondary			42.57335*** (9.39325)	40.80688*** (9.27691)	41.41924*** (9.27597)	40.08790*** (11.19143)
Education's level of the mother = 1, Postsecondary			62.82884*** (12.11279)	59.68642*** (11.64979)	59.8208 *** (11.75526)	53.52829*** (11.17067)
Education's level of the father = 1, Primary			-2.17374 (11.90465)	-1.38915 (12.01556)	-1.95204 (12.02375)	-1.55374 (12.80473)
Education's level of the father = 1, Middle school			-3.15752 (11.76608)	-2.88607 (11.52837)	-3.09310 (11.58181)	-2.45182 (11.42832)
Education's level of the father = 1, Secondary			12.60540 (10.64344)	10.18380 (11.04512)	10.22772 (11.08702)	10.38644 (11.16800)
Education's level of the mother = 1, Postsecondary			35.25402 ** (11.89469)	27.80458 * (12.76325)	27.60742 * (12.80491)	26.53529 * (12.91726)
Socioprofessional status of father = 1, Agr / Art / Ouv				-8.57951 (12.85466)	-8.92849 (12.72700)	-9.12544 (12.81981)
Socioprofessional status of father =2, Empl/CadSup/Chef				4.19036 (16.31574)	3.51567 (16.13726)	1.47388 (16.05375)
Family structure =1, single parent family				-4.51256 (6.52920)	-5.00098 (6.64729)	-3.87376 (6.75992)

Variables of level II (School & Environment) :

Environment quality = 1, Minimum quality				48.1233*** (14.24567)	40.91225 * (17.02363)	31.44098 * (13.04057)
Environment quality = 2, Good quality				97.94773*** (19.18691)	75.25983*** (18.78077)	70.61329*** (15.42164)
Class size = 1, 15-20 children					-56.6619*** (13.66790)	-54.86119*** (9.80605)
Class size = 2, 21-30 children					-62.6871*** (14.81215)	-74.65595*** (12.25230)
Class size = 3, +30 children					-79.4953*** (23.83241)	-84.24568*** (24.87983)
Type of school = 1, Public preschool						-29.08559 (17.20852)
Training of educators = 1, Without training						-40.34220** (13.12458)
Constant	519.70439*** (9.90994)	527.95614*** (10.63166)	484.2058*** (13.50110)	459.55153*** (18.96444)	528.1056*** (21.71924)	554.3639*** (26.46685)

Random-effects :

Level II : Inter-school variability	63.7653*** (6.817021)	63.30388*** (6.887245)	52.7178*** (6.139677)	40.56989*** (5.180853)	38.17413*** (4.784237)	37.088*** (5.160244)
Slope variability - Mother with Postsecondary						31.524*** (9.861134)
Correlation slope-constant - Corr (Slope, Constant)						-1*** (0.00086)
Level I : Intra-school variability	71.1150*** (4.193543)	70.06092*** (3.972941)	66.36915*** (4.028722)	66.11033*** (4.00813)	66.09487*** (4.012316)	65.517*** (4.244841)
Log (Likelhood)	-139 331.17	-130 196.35	-125 870.9	-125 814.77	-125 777.11	-123 151.7
Observations	784	784	784	784	784	784
Number of schools	45	45	45	45	45	45

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

According to the Table I summarizing the estimates made of the cognitive score, the empty model (Model 01 in the table) that does not contain any explanatory variables reflects a simple decomposition of the variance. In fact, the variance is subdivided into one part of inter-school variance and one part of in-school variance.

At this level of analysis (empty or unconditional model), we pay a lot of attention to the intra-school correlation

coefficient also called "Rho", this coefficient informs us about the proportion of inter-school variance occupied in the variance total. From this, we can have information on the degree of similarity of the cognitive scores of preschooled children within their groups (schools). In the case of the empty model of the total cognitive score,

$$Rho = \frac{63.7653}{71.1150 + 63.7653} = 0.4728.$$

This simply means that 47.28% of the total variance in the cognitive score of preschool children resides between schools. In other words, the inter-school variance of the total cognitive score occupies 47.28% in the total variance. Of course, there are schools where cognitive scores are on average higher than in others.

5.3 Model Building Steps

In the second model of the Table I, we started introducing explanatory variables. Moreover, we started at first the characteristics properly related to the preschooled child. From this, we try to identify the possible effects of certain specificities properly related to the child, including his age, his gender and the size of his siblings (number of brothers and sisters). That said, we find that the gender of the child is a variable whose impact on the cognitive score is negative and statistically significant. Consequently, the significance of the negative sign of the effect of gender reveals that, on average, the transition from a girl to a boy will lead to a decrease in the cognitive score. In other words, girls are more likely to acquire a higher level of cognitive skills than boys. As for the effect of the number of siblings on the cognitive score, we note that it is also statistically significant and negative. This negativity states in our case that on average when the sibling size exceeds or equal to three it implies a decrease in the total cognitive score. As for the age's variable, we can see that its effect is positive but a priori it is not significant in the second model. Having said that, we kept age's variable in our model all the same because we will see the adjustment of its coefficient as we introduce other explanatory variables.

It should also be noted that in the second model, we infer that the introduction of the variables characterizing the child (age, gender and sibling size) has modified the random component of the previous model (empty model). In other words, the two components of the total variance, namely inter and intra-school variance, have undergone different changes. In fact, we notice that the intra-school variance has been slightly downgraded from 71 to 70, which means that adding the child's explanatory variables explains some of the variance emanating from the child and his family. As for the inter-school variance, it decreased slightly from 63.76 to 63.30, at this level of analysis (inter-school variance), it should be noted that sometimes and following the introduction of the variables of level I (child and his family), we can see a slight increase in inter-school variance, this can be explained by the fact that some variables characterizing the child and his family (level I) can vary and interact also at level II (school and its environment) which leads to an increase in inter-school variance. That said, the change in the random component observed by moving from the empty model (model (01)) to model (02) remains very timid, this is obviously due to the non-consideration of other potentially explanatory variables in the second model.

At the third model, to capture the intra-school effect of early childhood, we introduced other variables that characterize the parents, and this, to identify other family dimensions that may further explain the intra-school variance. Indeed, in the model (03) we added variables characterizing the intellectual level of the parents (level of education of the father and the mother). We find in model (03) that the addition of the explanatory variables characterizing parents' educational level further improved the adjustment of the effect of age, gender and number of siblings, and while keeping a statistical significance of the gender and sibling size variable. Regarding the newly introduced variables in the model (03), we note that the effect of the mother's education level is positive and statistically very significant for all categories of this variable (primary, secondary, secondary and postsecondary). While the level of education of the father is significant only after secondary school with a positive impact, moreover, when the level of education of the father goes to primary or secondary school the impact on the cognitive score is negatively very small, as it is said that when its level goes on to secondary or post-secondary school, the impact becomes positive but whether it is the transition to primary, secondary or secondary school, the effects remain statistically insignificant, unlike the post-secondary level, which contributes significantly and positively to cognitive score of the child.

At the level of the fourth model, we proceeded by the introduction of certain variables of level I likely to explain the variability of the cognitive score at the intra-school level in particular, the socio-professional status of the father and the structure of the family (traditional or single-parent)) and a variable describing level II (school and its environment) reflecting the score of the overall quality of the preschool environment (model (04)), and this, to determine on the one hand the effects strictly related to the quality of the environment. On the other hand, we are also looking for a better specification of the random part of the model. For the socioprofessional status of the father and the family structure (model (04)), we note that the shift from a traditional family to a single parent

family negatively affects the total cognitive score recorded, but this impact remains statistically insignificant. As for the socio-professional status of the father, we deduce that children with fathers in well-paying positions (senior managers and entrepreneurs) have on average a higher cognitive score compared to other children, but this impact remains statistically no significant. The introduction of these Level I variables and the Preschool Environment Quality Score as a Level II variable greatly improved the specification of the random components, as inter-school variance dropped from 52.7 to 40.50, accounting for 23% of the inter-school variance observed in the previous model, this gives a priori idea of the importance of the contribution of environmental quality in improving the cognitive skills of preschool children.

That said, we also find that the addition of the variables reflecting the quality of the preschool environment and the class size (model 05) brought on one side an adjustment to the coefficients (slopes) of the explanatory variables level I (child and his family), moreover a large part of the slopes have been readjusted while keeping a little close the level of significance and the sign of the departure (with also some variables whose level of significance is revised downwards), ditto for the random component and more specifically inter-school variance which has been significantly reduced. We find from both models (models (04) and (05)) that the impact of the quality of the preschool environment is positive (as the quality improves the total cognitive score increases) and statistically significant. As for class size, this variable has a negative and statistically significant impact, which suggests that as class size increases, the cognitive score decreases. On the other hand, the comparison between the random-constant model (model (05)) and the empty model (model 01) shows that the addition of level II variables provided a better specification of the variance, and this, when the latter has significantly changed. Compared to the empty model, the random component has significantly changed for both inter and intra-school variance components. In fact, from the empty model to the 05 model, the intra-school variance has dropped from 71 to 66, or about 8% of the explained variance. In other words, variations in the total cognitive score from one child to another in the same school are explained by up to 8% by gender, age, number of siblings, level of parents' education, and the socio-occupational status of the father and the family structure. Consequently, a very large proportion of intra-school variance remains unexplained despite the use of several variables characterizing the child and his family. With regard to inter-school variance, the latter experienced a drastic drop compared to the empty model, from 64 to 38, or 41% of the explained variance. This significant decrease in variance is explained by the good diet and adjustment of the random effects model.

In order to bring a better fit of the final model and to improve the specification of its random component, we asked ourselves the question of a possible heterogeneity of impact between some Level I variables and the cognitive score (in our case, we chose examine the heterogeneity of a post-secondary mother's impact on the total cognitive score). This amounts to assuming that for example the relationship between the mother's (post-secondary) education level and the total cognitive score is not the same from one school to another, implicitly means that the regression lines do not have the same slope and therefore are not parallel. It is this reason that led us to specify a random effect of the relationship between the post-secondary education level of the mother and the total cognitive score (see Appendix). In other words, in model 06, we allowed that the coefficients (slopes) of the regression lines vary randomly from one school to another. Consequently, we will also have to estimate the variance of these coefficients and their covariance with the constants that are already random.

One of the major spans that can be noticed in the random slope model (model 06) is that it allows a significant adjustment of the data compared to previous models. Moreover, the effects of certain variables improved in terms of statistical significance, namely the quality of the preschool environment and the child's sibling size. Other newly added variables have been found to be significant, namely, the regular training of educators. To confirm the improvement of the fit of the model, we must use the deviance that raises the relevance of the model 06 compared to previous models that contain fewer explanatory variables or are less complicated (random constant model vs. random slope model). Before looking at the interpretations and discussion of the results of the final model (model 06), we stopped at the level of the tests making it possible to judge the validity and the relevance of this model, and this, through the analysis of the explanatory potential and the deviance (other tests can be found in the appendix).

5.4 Validity of the Final Model

To make a judgment on the magnitude of the variance explained by this final model (model 06) we will call upon the calculation of the explanatory power of this model that we commonly call the "Pseudo R²", indeed, the explanatory power of the model with constants and random slopes can be deduced from the same principle of the coefficient of determination calculated in ordinary least squares (OLS). It is also calculated for each hierarchical level by simply taking the difference of the variance of the empty model and the residual variance related to the

variance of the empty model. Other authors suggest the removal of random coefficients before the calculation of the explanatory power, and this, because this process will generate values closer to the correct version (Snijders and Bosker 1999).

According to the table summarizing the set of multilevel models of the cognitive score, we have the total estimated variance of the empty model (model 01):

$$\hat{\varphi}_0 + \hat{\theta}_0 = 63.7653^2 + 71.1150^2 = 9\ 123.35671$$

While the total estimated variance in the final model (model 06) is:

$$\hat{\varphi}_F + \hat{\theta}_F = 37.088^2 + 65.517^2 = 5\ 667.9971$$

From where:

$$\textbf{Pseudo } R^2 = \frac{\left[(\hat{\varphi}_0 + \hat{\theta}_0) - (\hat{\varphi}_F + \hat{\theta}_F)\right]}{\hat{\varphi}_0 + \hat{\theta}_0} = \frac{9\ 123.35671 - 5\ 667.9971}{9\ 123.35671} = \textbf{0.37873776}$$

This means that the explanatory variables level I and II that were added to the final model of the total cognitive score (model 06) could explain 38% of the total variance. As already indicated, this explanatory power of the model can be broken down into two parts, and this, by calculating also the explanatory power for each level (Raudenbush and Bryk 2002). In this sense, we will try to calculate the proportional reduction in each component of the total variance, between the empty model (model 01) and the final model (model 06).

Indeed, the explained proportion of the variance of level II (school and its environment) by the explanatory variables is 66%:

$$\textbf{Pseudo } R_2^2 = \frac{\left[(\hat{\varphi}_0 - \hat{\varphi}_F)\right]}{\hat{\varphi}_0} = \frac{63.7653^2 - 37.088^2}{63.7653^2} = \textbf{0.6617031}$$

The explained proportion of the variance of level I (child and family) by the explanatory variables is 15%:

$$\textbf{Pseudo } R_1^2 = \frac{\left[(\hat{\theta}_0 - \hat{\theta}_F)\right]}{\hat{\theta}_0} = \frac{71.1150^2 - 65.517^2}{71.1150^2} = \textbf{0.15123868}$$

We can also analyze the change in total variance from model 05 to final model (model 06). It should be noted that the authorization of the slope of the variable level of education of the mother (post-secondary level) has, on the one hand, led to an increase in inter-school variance, which can be explained by the addition of an additional variation which is that of the slopes. On the other hand, this has allowed a reduction in intra-school variance.

The deviance of the final model

As already indicated, deviance allows us to estimate the relevance of one model over another (usually the upstream model that contains fewer parameters to estimate). For this, the deviance uses the difference between the likelihoods of the two models.

If L5 and L6 are respectively the likelihood of the models 05 and 06, as already indicated the model 06 is the model containing more complexity, and this, because this model allows the variance to the constants and the slopes, the deviance D is defined as following:

$$D = -2\ (\log L_5 - \log L_6)$$

Comparing the value of D with the fractal of the law of $\chi^2(m)$, we reject or reject the hypothesis of the relevance of opting for a model with constants and random slopes compared to the model 05 which refers to the model random constant only. In other words, if the decrease of the deviance is significant between the two models compared (05 and 06), one will retain the one which is more complicated or which understands the additional parameters to estimate (model 06).

```
Likelihood-ratio test                              LR chi2(4)  =     17.93
(Assumption: Modèle05 nested in Modèle06)           Prob > chi2 =    0.0013


Note: The reported degrees of freedom assumes the null hypothesis is not on the boundary of the
      parameter space.  If this is not true, then the reported test is conservative.
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According to this test, at the level of 5% and a degree of freedom of 4 and a p-value = 0.0013. We can largely reject

the null hypothesis that the authorization of slope variability will not provide an explanation for the total cognitive score. That said, it can be concluded that the decrease in deviance is very significant (p-value = 0.0013) between the two models compared (random-constant model and constant and random-slope model). Consequently, we will retain the most complicated model in which the constants and the slopes are random (model 06).

6. Results' Discussion

To illustrate a better visibility of the results obtained in the final estimate, we will proceed with an interpretation of the final model by level.

6.1 Child & Family's Level

The gender of the child plays a decisive role in improving the cognitive score, moreover the transition from a girl to a boy reduces significantly the cognitive score by 15 points, all things being equal. This means that sketches of learning disparities between girls and boys appear before primary school age. This result reflecting the impact of gender is also found by Haveman, Wolf and Spaulding (1991), except that they found a positive but not significant impact. Also the fact that the preschooled child has a sibling size that exceeds 2 members decreases the cognitive score by 18 points. This negative impact of size on performance can be explained by the direct link between family size and the amount of economic resources allocated to children (Arleen Leibowitz 1974, Wolf and Haveman 1995). However, it should be noted that this variable is only significant in our results at 10%. As a result, in preschool age our results do not support the favorable position for the significant link between family size and cognitive skills.

Compared to a Child with an illiterate mother, their peers, whose mother has a level of education of elementary, middle, and secondary have a score higher on average by 24 points, 36 points and 40 points, respectively. By contrast to the level of education of the father that does not have a statistically significant impact on cognitive learning, and this, excluding post-secondary where the incidence becomes insignificant (at the 10% threshold). With this post secondary level of the father, the children review their preschool performances 27 points up higher (ceteris paribus). This is tantamount to saying that the education of the mothers of preschool children is very decisive in terms of preschool learning for all levels. However, fathers' level of education contributes to cognitive learning only after secondary school. This result is also found by Ribar (1993) and Datcher (1982), both concluding in their studies that the mother's human capital is more critical than that of the father in terms of skill acquisition and success. Our results also reveal that as parents' level of education increases, the impact on the cognitive score increases and peaks at the postsecondary level of parents. In the empirical literature, this finding is also shared in several studies (Haveman, Wolf and Spaulding 1991, Behrman 1991). Indeed, these studies have all confirmed that a year or two in post-secondary education has the greatest impact on the skills acquired and consequently on the success of children.

It should also be noted that the results revealed that the father's socio-professional status and the family structure (traditional / single-parent family) of children at an early age do not have a significant impact on the preschool performances of these children. The results concerning the non-contribution of socioprofessional status to cognitive acquisitions are consistent with the results found by Cherkaoui (1999) and Duru-Belat (2003). Indeed, these studies have confirmed that despite the particularly difficult socio-economic conditions, some children from disadvantaged backgrounds manage to record important results. In other words, being part of any social category will not systematically result in a predefined outcome at preschool age.

As for the family structure, unlike a majority of studies that have confirmed the significant impact of family structure (Ribar 1993, Manski et al 1992, Haveman et al 1991), our results reveal that there is no significant influence of this variable on children's preschool performance. Although this observation does not align with the majority of studies, Wolf and his associates (1995) come close to our results, and this, by qualifying the influence of the family structure on the children's success by a "weak influence". Regarding the age of children in the preschool level, the results obtained from the final model stipulate that beyond 5 years, children improve their cognitive performance by about 10 points, all other things being equal. However, this impact remains statistically insignificant.

6.2 School & Environment's Level

The second level, which focuses on the school and its environment, only variables related to the quality of preschool environment, training of teachers and class-size that revealed a statistically significant effect on cognitive learning. Indeed, when the multidimensional quality of the preschool environment changes from "inadequate" quality to "minimal" quality, cognitive performance improves by 32 points. While once the threshold of "good" quality is reached, cognitive performance increases significantly by 71 points, all things

being equal. As a result, children in an "Inadequate" quality learning environment are likely to acquire less cognitive skills compared to children in "Good" and "Excellent" quality environments. This leads to the conclusion that the quality of the environment significantly favors the development of early childhood in general and cognitive skills in particular. Our results align with all recent studies that have concluded the importance of environmental quality as a key determinant in the learning of preschool skills (François and Poupeau, 2008 ; Grisay 2007 ; Duru-Bellat, 2003 ; Meuret 2000 ; Mingat, 1984).

Moreover, teachers who have benefited from regular preschool training, raise students' average score by 41 points compared to their peers who are taught by untrained. Consequently, teachers who have benefited from regular training in preschool makes his children progress better than teachers who practiced without any special training in preschool. In other words, the regular training of teachers makes it possible to promote learning in preschool education. These findings confirm the results of several studies (Meuret, 2000, Duru-Bellat 2003, Grisay, 1997) sharing the training of educators as an element having an effect on the cognitive abilities of early childhood.

However, it should be noted that the variables describing the experience, the academic level of the educators and the follow-up of the homework and activities have been removed from the model, for the little that they bring to the explanation of the children's results. Indeed, whether it is the academic level of the educators or the accumulated experience of the educators, the results revealed that there is no relation between these two variables and the cognitive performances acquired at the preschool age. These findings echo the same conclusions of some researchers (Rivkin, Hanushek and Kain, 2005) and go against some others (Duru-Bellat, 2003 ; Meuret, 2000 ; Grisay, 1997 ; Cherkaoui, 1999 ; Psacharopoulos and Woodhall, 1988).

As for the number of children per group (class size), it should be noted that in the preschool cycle, the highest class size leads to the weakest cognitive results, and the smallest size leads to the highest cognitive performance. In fact, children whose group size is less than 15 children per group improve their total cognitive score by 55 points compared to those whose number is between 15-20. They (fewer than 15 children) further improve their total cognitive score by 75 points compared to children between 21-30 children per group. Also, they (fewer than 15 children) further improve their total cognitive score by 85 points compared to children whose enrollment exceeds 30 children per group. This leads to the conclusion that the smaller the group size, the less children learn. These results are consistent with the findings of many studies (Rivkin and al, 2005, Leroy-Audouin and Mingat, 1995, Blatchford et al, 2004, Leroy-Audouin, 1995). Regarding the impact of the type of preschool (public / private) on the cognitive score, our results reveal that the transition from a public preschool to a private preschool results in a total cognitive performance increase by 30 points. Nevertheless, the impact of preschool type was not statistically significant.

After discussing the results from the interpretation of the fixed coefficients of the final estimate, it is worth noting that the introduction of the random effect on the impact of mothers with postsecondary education has led to a change in the inter-school variance. In fact, the inter-school variance of the cognitive score varies according not only to the measurement of the total cognitive score but also to the scale of measurement of the variables whose slopes are random. As a result, inter-school variance becomes more complicated by having a quadratic function of these variables. Also, we must be very careful with respect to their interpretation and this because the scales of the variance and the covariance do not remain the same. As a result, it is not logical to compare the magnitude of the variance of the random constants and the variance of the random coefficients (Rabe-Eesketh, Skrondal, Edition:3)[4]. To interpret the estimate of standard deviations of random constants and coefficients, the literature recommends the construction of intervals that contain 95% of schools.

For the random slopes of children whose education level of mothers is at postsecondary level, the interval will be:

$$\left[\hat{\beta}_2 - 1.96.\sqrt{Var(\hat{\delta}_{2j})} \quad ; \quad \hat{\beta}_2 + 1.96.\sqrt{Var(\hat{\delta}_{2j})} \right]$$

$$\left[53.52829 - \left(1.96 * \sqrt{31.524^2} \right) ; 53.52829 + \left(1.96 * \sqrt{31.524^2} \right) \right]$$

$$[-8.25875 ; 115.31533]$$

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[4]Rabe-Eesketh, S. Skrondal, A. « Multilevel and Longitudinal Modeling Using Stata », Volume I «Continuous Responses », Edition N°3.

This implies that 95% of schools have slopes for the mother's postsecondary variable that range from -8.26 to 115.32 points. As we can see, the postsecondary post-secondary coefficient range is broad enough for a possible crossover of school regression lines (see Appendix).

For random constant:

$$\left[\hat{\beta}_1 - 1.96.\sqrt{Var(\hat{\delta}_{1j})} \quad ; \quad \hat{\beta}_1 + 1.96.\sqrt{Var(\hat{\delta}_{1j})} \right]$$

$$\left[554.3639 - \left(1.96 * \sqrt{37.088^2}\right); 554.3639 + \left(1.96 * \sqrt{37.088^2}\right)\right]$$

$$[481.67 ; 627.06]$$

Therefore, we can conclude that 95% of schools have their constant between 481.67 and 627.06 points. In other words, the total cognitive score of schools varies on average between 481.67 and 627.06 points.

6.3 Conclusion

The purpose of this work was to decorticate and analyze the determinants of cognitive learning quality in Moroccan preschool. For this, we used the data from a study that covered more than 780 children in the final year of the preschool cycle. These children are spread over 45 schools. The results of the different multilevel models elaborated in this research reveal that the cognitive performance during preschool does not only depend on the characteristics relating to children and their families but also on the specificities characterizing the school environment, the educators in charge and the quality of services offered in early childhood. Thus, we were able to answer the central question of our research, which questioned the key factors in cognitive performance learning in preschool age.

Indeed, concerning parents' education, our results reveal that cognitive learning in early childhood is not very sensitive to the father's eduction, the latter only becomes a determinant once the level of his education exceeds the secondary (post-secondary) level. However, it is clear that as the level of education of the mother evolves, early childhood significantly improves their cognitive performance. This amounts to concluding that the mothers' education is more decisive in cognitive learning at an early age. Similarly, our results reveal that belonging to any socio-professional category will not influence the skills acquired in preschool education. With regard to sibling size, our results reveal that, in fact, a child with a sibling size exceeding two members reduces these cognitive performances. However, it should be noted that this negative influence is only statistically significant in our results at the 10% threshold. As for the structure of the family, we find that there is no significant influence of this variable on the preschool performance of children. In other words, whether the children belong to a single-parent or traditional family, children's cognitive outcomes remains insensitive to this variation.

Other factors also contribute to the explanation of cognitive performances acquired in preschool especially, the preschool environment. To identify the effects of school that may influence preschool learning, we used some explanatory variables. For example, the preschool environment quality score, the results reveal that this variable plays a key role in preschool learning, as it has a positive and statistically significant effect. In fact, as the quality of the environment improves, children improve their cognitive performance even more. As a result, children in a quality learning environment called "Inadequate" are likely to acquire less cognitive skills compared to children in "Good" quality settings. This leads to the conclusion that the quality of the environment significantly favors the development of early childhood in general and cognitive skills in particular. As for the class size or the number of children per group (class), it should be noted that in the preschool cycle, the highest class size leads to the weakest cognitive results, and the smallest size leads to the highest cognitive performance. Similarly, for the training of preschool teachers, our results show that children with a teacher who has benefited from regular training had significantly higher cognitive performance than children whose teachers are untrained. Hence, the important role of teacher's training enabling them to promote preschool learning. On the other hand and according to our results, it is advisable to point out that the academic level or the accumulated experiences by teachers have no impact on the cognitive performances acquired at the preschool age.

By limiting ourselves to the results of this research, we can make the following recommendations:

✓ First, for the teachers' training, we observed that educators who received training were significantly more effective than untrained teachers. It is therefore necessary to encourage formal and regular teachers' training.

✓ Moreover, concerning the environment quality we noted that, in a context that favors the physical, emotional, social and cognitive development of early childhood, this environment manages to produce

better results than those who do not (inadequate quality). Consequently, it is necessary to introduce standard policies and requirements to ensure the respect of the environment's quality.

✓ Also in the preschool cycle, we noticed that high class size leads to poor cognitive outcomes. The results revealed that the best performing class size is one with fewer than fifteen children. It is therefore wise to ensure that the class size does not exceed this size.

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Appendix

Tests of the inter-school variance

    i.   Likelihood ratio test

```
Likelihood-ratio test                        LR chi2(1) =   356.16
  (Assumption: . nested in ri)               Prob > chi2 =   0.0000
```

    ii.   Score test

```
       Breusch and Pagan Lagrangian multiplier test for random effects

           SS_ScoreTotal[IDecole,t] = Xb + u[IDecole] + e[IDecole,t]

           Estimated results:
                                   Var      sd = sqrt(Var)
                          ─────────┼──────────────────────────
                          SS_Scor~l │   10000          100
                                 e │  5446.02       73.79716
                                 u │  4669.197      68.33152

           Test:   Var(u) = 0
                                 chibar2(01) =  1469.05
                               Prob > chibar2 =   0.0000
```

    iii.   Fisher test

```
Fixed-effects (within) regression          Number of obs      =        784
Group variable: IDecole                    Number of groups   =         45

R-sq:  within  = 0.0000                     Obs per group: min =          6
       between = 0.0911                                    avg =       17.4
       overall =     .                                     max =         39

                                            F(0,739)           =       0.00
corr(u_i, Xb)  =     .                      Prob > F           =          .

─────────────┬────────────────────────────────────────────────────────────
  SS_ScoreTo~l │     Coef.   Std. Err.       t    P>|t|     [95% Conf. Interval]
─────────────┼────────────────────────────────────────────────────────────
       _cons │       500   2.635613   189.71   0.000     494.8258    505.1742
─────────────┼────────────────────────────────────────────────────────────
     sigma_u │  71.148246
     sigma_e │  73.797156
         rho │ .48173088   (fraction of variance due to u_i)
─────────────┴────────────────────────────────────────────────────────────
F test that all u_i=0:    F(44, 739) =    15.88            Prob > F = 0.0000
```

Fixed effect versus Random effect model

i. Hausman test

```
. hausman fixed random

                 ———— Coefficients ————
             |     (b)          (B)          (b-B)      sqrt(diag(V_b-V_B))
             |    fixed        random       Difference        S.E.
-------------+-----------------------------------------------------------------
         Age |   12.67979     10.34598      2.333807        1.029622
          SX |  -14.69974      -13.685     -1.014737         .6566186
         NFS |  -17.60336    -19.09938      1.496022         .6874673
         NIM |
           1 |   21.35174     20.79273      .5590101         .9435698
           2 |   33.51593     33.78583     -.2699062         .9650998
           3 |   39.32179     39.83811     -.5163196        1.175694
           4 |   55.97666     55.83089      .1457721        1.632162
         NIP |
           1 |  -1.269802    -2.508084      1.238282         .7208462
           2 |  -4.823987    -4.790503     -.0334836         .8175933
           3 |   8.692528     7.891459      .8010692         .8197291
           4 |   22.82803     23.76518     -.9371546        1.255613
        SSPP |
           1 |  -.2470152     1.305148     -1.552163        1.285686
           2 |   13.43961     15.64109     -2.201477        1.552367
          SF |  -3.652437    -2.629876     -1.022561        1.197343
-------------+-----------------------------------------------------------------

                       b = consistent under Ho and Ha; obtained from xtreg
          B = inconsistent under Ha, efficient under Ho; obtained from xtreg

    Test:  Ho:  difference in coefficients not systematic

              chi2(14) = (b-B)'[(V_b-V_B)^(-1)](b-B)
                       =        19.93
              Prob>chi2 =       0.1324
```

The level postsecondary of the mother and his heterogeneous impact on the cognitive score

i. For each and all school

Graphs by ID
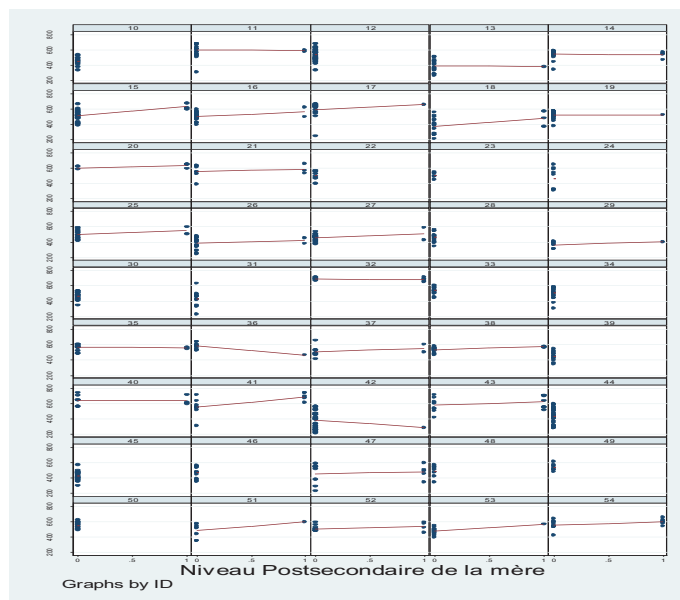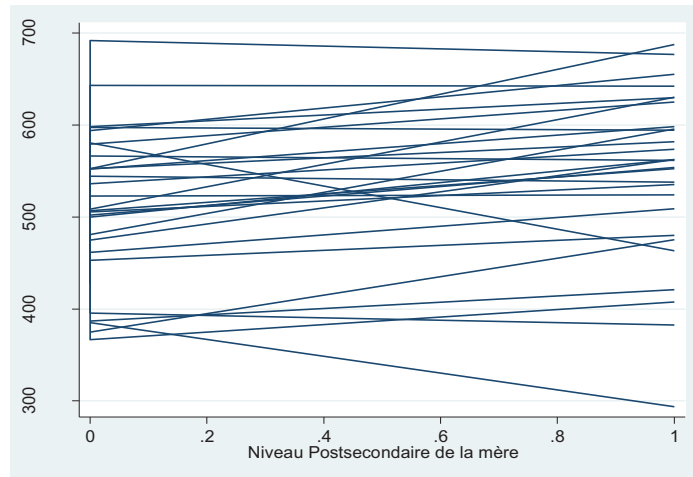
ii.   Relationship between constant and random slope

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Adoption of Mobile Commerce and Service in Adentan Municipality of Ghana: An Examination of Factors Influencing Small Scale Enterprises

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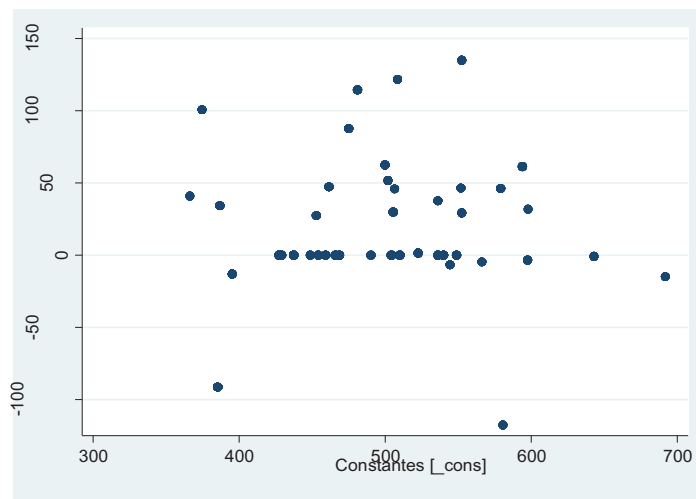
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Abstract

After the introduction of mobile commerce and services, people have accepted, adopted and used the services for various purposes. However, little attention has been given to its continual usage in small scale enterprise sector in Ghana. Also, studies on the benefits to businesses and barriers of use of mobile commerce and service have been carried out, but the extension of the studies to include examination of the effect of social and demographic factors of small business owners on mobile services use is lacking in the small scale enterprise sector in Ghana. This study investigates the factors which determine the adoption of mobile commerce and services among small scale enterprises in the Adentan Municipality of Ghana. The objective of the study is to determine the effects of demographic factors, experience and attitude on the adoption of mobile commerce and service. Data was collected using questionnaires administered to 400 owners of small scale enterprises in Adentan Municipality. Using structural equation model analysis, the results show that males have less attitude to use mobile commerce and service than females. Also, as people age, attitude to use mobile commerce and service improves. Education and experience have positive effect on attitude to use mobile commerce and service. On the contrary, there is a negative effect of income on attitude. There is a significant positive effect of attitude on mobile commerce and service's actual usage. The study recommends that, internet service practitioners should develop effective strategies and tactics to improve the attitude to use mobile commerce and service among small businesses owners in Ghana.

Keywords: demographic factors, small enterprises, attitude, mobile commerce and services, Adentan Municipality

1. Background of the Study

Around the world, mobile commerce and service are being adopted as the latest trend to undertake business transactions. Mobile commerce and service is widening the approach through which business undertake transaction, from a simple traditional approach to a larger and multifaceted system of intra and inter-firm cooperation. Mobile commerce and service comprise the delivery of products and services from one entity to the other. This transmission is done via wireless technologies. The purpose is to enable the use of internet business activities without necessarily facing any restrictions of either time or space. Studies (Allil & Khan, 2016; Kim, Mirusmonov & Lee, 2010; Mallat, Rossi, Tuunainen & Oorni, 2009) have shown that mobile commerce and service have important effects on business and society. Mobile commerce and service have experienced a substantial growth since they were introduced. A number of reasons have been provided. These include rapid proliferation and improvement of mobile devices as well as the advantages brought by anytime-anywhere connectivity and use. This notwithstanding, certain factors have hindered consumers' usage of mobile commerce and service. These factors include cost of access and low access securities. One key factor is that, managerial support and enabling regulatory environment have important roles to play in stimulating SMEs use of mobile commerce and service.

According to Lee and Lee (2007), mobile commerce is conceptualized to all forms of business transactions using mobile or wireless networks. Ngai and Gunasekaran (2007) referred to mobile commerce as the conduct of

commerce via wireless devices. Mobile services are activities that offer benefits to businesses and individuals of the use of mobile technology, particularly mobile communication and financial transactions. In the case of Ghana, the activities of mobile money is gaining roots. The Bank of Ghana reports that a growth rate of 129.5% in mobile money transactions from 2015 to 2016 (Bank of Ghana, 2017) as the economy experiences growth (Tuffour & Owusu, 2018; Tuffour & Mensah, 2018).

According to Kim, Mirusmonov and Lee (2010), with recent advances in mobile technologies, mobile commerce is having an increasingly profound impact on our daily lives. This is beginning to offer interesting and advantageous new services to both businesses and customers. Kim et al. (2010) analysed the impact of mobile payment system features and user-centric factors on mobile payment usage across different types of mobile payment users. The conclusion from these authors suggested new directions for future research in the emerging field (Kim, Mirusmonov & Lee, 2010). Their research focused more on the recent advances in mobile technologies but touched a little bit on the challenges facing them. In light of the challenges which inhibit mobile commerce and service operations, Zhou (2011) reported that little attention has been given to analysis of continual use of mobile service.

Mallat, Rossi, Tuunainen and Oorni (2009) studies suggested the need to extend mobile services use study to other related areas. Bouwman, Carlsson, Molina-Castillo and Walden (2007) analysed the importance of understanding the role of barriers and benefits of mobile services. It was indicated that understanding actual use of mobile facilities depends on the characteristics of the services involved. However, the study did not include analysis of the effects of user socio-demographic variables on mobile commerce and service. This is covered in the present study.

According to Dholakia and Kshetri (2004), adoption and usage of mobile commerce and service have been highly variable among countries. This is because the adoption of mobile service and technology has not followed one single acceptable trend. The differences in adoption and usage identified across different people contexts is attributable to differences that exists in a) mobile telecommunications infrastructure available, b) the range of mobile commerce and services, c) the marketing strategies utilised by mobile service providers, and d) underlying culture of the consumers of mobile services. This raises the need for country and sector specific studies, the small enterprises sector of Ghana being not an exception.

As a result of mobile adoption and usage behaviour, lack of comprehensive study between actual use and impact of socio-demographic contributors on mobile services and culture of the consumers of mobile are some contributing problems facing adoption of mobile commerce and service among SMEs in Ghana. Thus, this research examines the factors influencing small enterprises' adoption of mobile commerce and service, and challenges which inhibits their adoption in the Adentan Municipality. Specifically, to examine the effect of demographic factors, experience, income and attitude on actual usage of mobile commerce and service. The next section contains the literature review. Section three contains the methodology while section four contains the results and discussion. The last section contains the conclusion and policy implications of the study.

2. Literature Review

2.1 Theoretical Literature Review

According to Grandon and Pearson (2004), mobile commerce has been conceptualized in several ways. These different ways depend on the context and research objective for any study. Poon and Swatman (1999) indicates that, mobile commerce and services in SMEs is generally contextualised as the utilisation of ICT and applications to support business activities. Laudon and Traver (2003) refer to mobile commerce and service as technology that is deployed to support internet business transactions. The transactions can be between the mobile service utilizing organizations and their direct end customers on one hand and others within their business networks on the other. Meanwhile, Turban, King, Lee, Liang and Turban (2010) provided a more specific definition where they stated that "mobile commerce and service is the process of buying, selling, transferring, exchanging products, services and/or information using computer networks mostly the internet and intranets". In this research, the dependent variable of mobile commerce and service adoption is adapted from the definition of Turban et al. (2010) where mobile commerce embraces the exchanges of transaction information from the business to customers and suppliers through online networks.

Different theories have been propounded by previous studies to examine and determine mobile commerce and service adoption and use. Some of these theories include the Theory of Reasoned Action, Diffusion of Innovation Theory, Technology Acceptance Model and the Theory of Planned Behavior among others. The Theory of Reasoned Action which was developed by Fishbein and Ajzen (1975) to predict the behavioural intention, indicated that a person's performance of a specified action is determined by his or her behavioural intention

which equals the person's attitude combined with the subjective norm that represent the person's perception about service/ product importance (Alexander, 2006; Hennessy, 2012). The theory explains the relationship between attitude and behaviours of humans. The theory of Reasoned Action helps to understand an individual's basic motivation. The intention is known as behavioural intention. It is based on the belief that putting up a certain behaviour will lead to a specific outcome. Behavioural intention is important because the intentions "are determined by attitudes to behaviours and subjective norms". The theory suggests that when the intentions are stronger, then an increased effort to perform the behaviour, which also increases the likelihood for the behaviour to be performed. However, as there are differences between attitudes and subjective norms of individuals, they are unlikely to be given equal weights. Thus, based on the individual and the particular situation, different impacts on behavioural intention may result. Ajzen (1991) acknowledged the fact that, some actions are more likely to present problems of controls than others. Within this, there is limited certainty about that person carrying out the intentions.

Rogers' (1995) Diffusion of Innovations Theory is widely used by technology adoption frameworks which tries to explain factors affecting spreading of new ideas or technologies through cultures (Sahin, 2006). The theory indicated that there are four elements that affect ideas or technology diffusion: innovation, communication channels, time, and a social system (Rogers, 1995). The end result of this diffusion is that people adopt a new technology, idea, behaviour or product.

The Technology Acceptance Model (TAM) developed by Davis, Bagozzi and Warshaw (1989) explain user acceptance and usage of information systems, which states that the actual use of any new system is influenced by its perceived ease-of-use and perceived usefulness. Based on the theory of Reasoned Action, Davis et al. (1989) view is the acceptability of an information system. The TAM postulates that the use of a new system such as technology is determined by the behavioural intention, but on the other hand, the behavioural intention is determined by that person's attitude towards the use of the new system and also by his/her perception of its utility. In the view of Davis et al. (1989), the attitude of an individual determines the use of a new system, but up to a certain limit. The actual use also depends on the effect such use bring on performance. Therefore, even if a person is unwilling to welcome a new technological system, the probability that overtime such a person will use it is high when it is perceived that the system will improve performance. On the other hand, if there are two systems which have the same features, a user will find it more useful because he/she can choose what he finds easier to use (Dillion & Morris, 1996).

The Theory of Planned Behavior (TPB) developed by Ajzen (1991) which is an extension of the Theory of Reasoned Action, states that the attitude toward behaviour, subjective norms (beliefs about significance of use) and perceived behavioural control directly influence behavioural intentions and behaviours. The TPB helps to understand how we can change the behaviour of people. The TBP is a theory which predicts deliberate behaviour, because behaviour can be deliberative and planned. These theories have been applied in various empirical studies, with varying results.

2.2 Empirical Literature Review

Past studies have demonstrated that relative advantage perceived from mobile service use is a significant determinant of technological adoption (Al-Qirim, 2007; Kaynak, Tatoglu & Kula, 2005). Such past studies have advocated that the use of mobile commerce positively influences an organisation's performance, specifically in terms of growth (Qureshi, Keen & Kamal, 2010; Raymond, Bergeron & Blili, 2005), financial gain (Johnston, Wade & McClean, 2007) and competitive advantage (Teo & Ranganathan, 2004). However the study was more interested in how the SMEs perceived those benefits.

According to Grandon and Pearson (2004), the compatibility among mobile services, firm's cultural values and work practices is an important factor in determining mobile commerce adoption. Prior studies on mobile commerce adoption within SMEs found that mobile commerce/service adoption and usage is significantly affected by mobile commerce compatibility (Hong & Zhu, 2006; Saffu, Walker & Hinson, 2008).

Literature has found significant relationship between complexity of innovation and mobile commerce and service adoption (Huy & Filiatrault, 2006; Jeon, Han & Lee, 2006). Some SMEs perceived mobile commerce and service as complex to their businesses. Such SMEs are considered to possess low level of managerial and technical skills. Therefore, they perceived the implementation of mobile commerce and service as very challenging (Hussin, King & Cragg, 2002).

It is known that, knowledge about mobile commerce and service is most influential at the early stage of adoption. However, it becomes less important when mobile commerce and service moves toward the higher end of adoption ladder (Roberts & Toleman, 2007). In the Adentan Municipality, among the major barriers to mobile

commerce and service adoption were: not having mobile commerce and service knowledge, lack of mobile commerce skills and lack of skilled workers to operate mobile commerce (Sulaiman & Jaafar, 2003). It has been revealed that education has significant effect on mobile commerce adoption (Cullen & Kabanda, 2018). This makes education and experience important factors to consider in the present study. The hypotheses tested are:

H₁: Education has significant effect on attitude to adopt and use of mobile commerce and service

H2: Experience has significant effect on attitude to adopt and use of mobile commerce and service

According to Saffu, Walker and Hinson (2008), top management's enthusiasm to adopt information technology is one of the factors that contributes toward adoption of mobile commerce and service. Mirchandani and Motwani (2001) argued that the support from top management is essential and it serves as the factor that clearly differentiates between the adopters and non-adopters of mobile commerce and service. If the managers of an organization understand the role of mobile commerce and service, then they are more likely tend to influence organizational members to also embrace it. In addition to this, management will also commit resources for its adoption (Premkumar & Roberts, 1999). There seems to be a lack of skills among small enterprises owners. This might affect the implementation of mobile commerce and service as a hindrance (Hussin et al., 2002). This attitude of management can have a positive management effect towards the use of mobile commerce and service activities. Thus, the following hypotheses are tested in the case of small enterprise owners in Ghana.

H₃: Attitude has significant effect on small enterprise owners' mobile commerce adoption

H₄: Attitude has significant effect on small enterprise owners' mobile service adoption

Environmental context tells about both the external and internal factors which influence SMEs adoption of mobile commerce and service. In this case, a company may feel pressured to adopt a new technology if business partners request or recommend the company to do so to facilitate business transactions. Dholakia and Kshetri (2004) argued that SMEs in developing countries are adopting mobile commerce and service due to the external pressure they receive from suppliers, customers and related business partners.

Related to experience of technology use are age and income levels of people. Is it expected that, as people age, they get into positions that make them mature to use internet and other IT related facilities. Chong (2013) revealed that age and education have significant relationships with the use of mobile commerce activities in China and South Africa (Cullen & Kabanda, 2018). In the same vain, males report more intention to adopt mobile commerce than females (Dai, Singh & Iyer, 2007) while males perceive more benefits than females in respect of using mobile commerce (Alduaij & Al-Amari, 2016). Dai, Singh and Iyer (2007) reveal that older people are more likely to use mobile commerce to meet their entertainment needs and also search for information. Thus, hypotheses deducible are:

H₅: Males are more likely to adopt the use of mobile commerce and service than females

H₆: Age has significant effect on small enterprise owners' mobile commerce and service adoption

Income level is an important predictor of internet purchasing as earlier revealed by Sultan and Henrichs (2000). For Richa (2012), the results of income level does not significantly affect on-line shopping in India. On the other hand, earlier studies conducted by Sultan and Henrichs (2000) show that the consumer's willingness to and preference for adopting the internet based technology for shopping was positively related to the income level of respondents. Thus, it can be hypothesized that

H₇: Income level has significant effect on adoption of mobile commerce and service by small enterprise owners

Relationships among players within the same industry also affect the overall industry structure (Gregor & Johnston, 2000). These determine how competition among industry players and rivalry within the industry play a role in mobile commerce and service adoption. A company may feel pressure when it sees more and more companies in the industry adopting mobile commerce/service and therefore feels the need to adopt it as well, in order to remain competitive (Kuan & Chau, 2001). There are various results in literature on how mobile commerce and service are affected. For instance, Chong, Ooi, Lin and Tang (2009) were of the view that decision to adopt mobile commerce technologies is influenced by the competitive pressure and market trends, Al-Zougool and Kurnia (2008) claimed market power leaders who adopt mobile service can force weaker or follower firms to also adopt such technologies to conform to industry standard. Similarly, if the industry is composed by duopolies or oligopolies, then any new initiative undertaken by one player has the tendency to be matched by the rest of the players due to their interdependencies. However, only few studies have explored how this factor affects the adoption of mobile commerce and service (Wymer & Regan, 2005; Zhu, Kraemer & Xu, 2003).

3. Methodology and Data

3.1 Design and Sampling

The exploratory research design is used for the study to determine the factors influencing SMEs adoption of mobile commerce and service. This helps to describe variables, examine relationships and to determine the causes and effects relations among variables. Cross-sectional survey is used to collect primary data. The population comprised of SEs in Adentan Municipality with a sample size of 400 within the specified area. The sampling technique adopted for this study was convenient sampling technique.

A survey questionnaire with close-ended questions was used to collect data. The questionnaire on attitude and other variables were in Likert scale ranging from 1-5 indicating the degree of opinions. The questionnaires involved sections about the demographic characteristics of the respondents such as age, gender, educational level and marital status. Other sections covered income level, experiences, attitude of respondents, and actual use of mobile commerce and service.

3.2 Model Specification and Analytical Techniques

The study used structural equation modeling to ascertain how attitude is determined and its subsequent effect on mobile commerce and service. Theoretical literature (Ajzen, 1991; Fishbein & Ajzen, 1975) and empirical literature (Al–Qirim, 2007; Kaynak, Tatoglu & Kula, 2005; Mirchandani & Motwani, 2001; Saffu, Walker & Hinson, 2008) have opined that certain factors (Tuffour, Banor & Akuffo, 2015) influence attitude to adopt the use of mobile facilities in business activities. Within this framework, the regression model is specified as:

$$ATT = \beta_0 + \beta_1 G_t + \beta_2 Age_t + \beta_3 Edu_t + \beta_4 Inc_t + \beta_5 Exp_t + \varepsilon_t$$

where,

ATT = attitude

G = Gender

Age = Age

Edu = Education

Inc = Monthly income

Exp = Experience

ε_t = random error term

β_1, β_2, β_3 β_4 and β_5 are the coefficients of regression, it is expected that $\beta_1 > 0$; $\beta_2 > 0$; $\beta_3 > 0$, $\beta4 > 0$ and $\beta_5 > 0$. Specifically, regression analysis is used to ascertain the effect of the demographic and other factors on attitude to use mobile commerce and service. Gender is represented as dummy where males are represented as 1 and females otherwise. Age shows the number of years while education is rank ordered according to the education structure in Ghana. The more the number of years, the higher the educational level. It is expected that, as business income improves, attitude to adopt mobile facilities for business transactions would improve. Experience relates to prior use of related mobile and internet based facility. As such, experience is likely to enhance attitude to use mobile commerce and service.

4. Results

4.1 Demographic Profile of Respondents

In general, the setup of SEs mostly consists of more females than males owners. Regarding the gender distribution of the 400 SEs, more than half, 57.50% (230) of the respondents were females while the remaining 42.50% (170) represent males. From the results, it is evidence that the respondents are in different age categories. Those in 24-29 age bracket recorded a maximum of 21.8%, and 7.8% for each of 54-59 and 60+. Relatively, younger people are in the informal sector since about 92.2% of respondents are less than 41 years.

The educational response of the study produced mixed results. About 22.75% (91) of respondents have obtained secondary school level certificate and 16.75% (67) of them have obtained undergraduate degree. The rest have had Higher National Diploma, Advanced Level, Diploma, no education, Ordinary Level, and masters with a recorded percentage of less than 13%. As expected most SE operators do not really have higher qualification.

The number of respondents from the retail sector in the survey was 40.80%. This is followed by the service providers, wholesalers and the manufacturers. They recorded 22.30%, 20.80% and 16.30% respectively. Most of the respondents fell within the married group with a record of 50.25%. This is followed by the singles, recording about 32.75%. In terms of marital status, the rest were divorced, widowers and widows. Generally, about 82.3%

of the businesses owners earn not more than GH₵1,000 monthly income.

4.2 Structural Equation Model Results and Discussions

The proposed variables in the model were tested using the structural equation modeling. The results of the path coefficients are presented in Figure 1
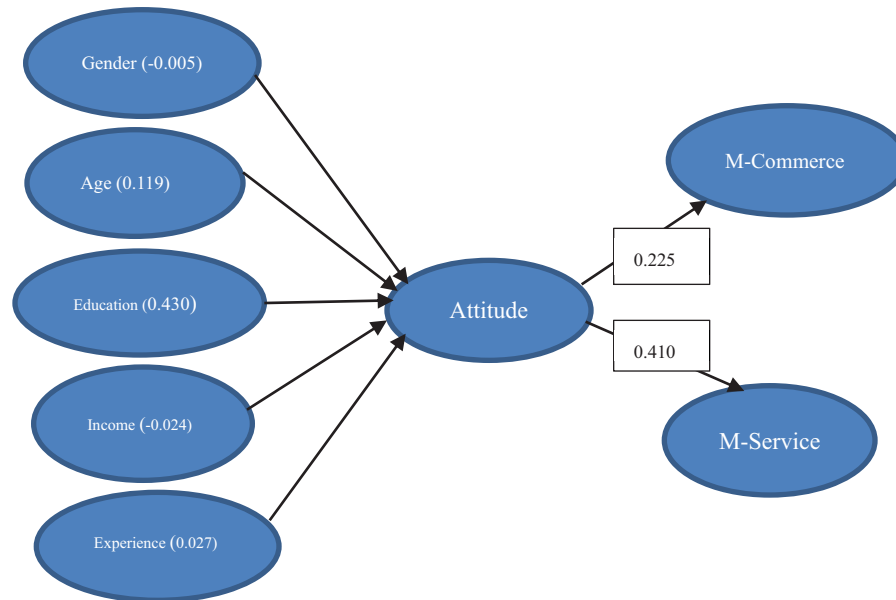

Figure 1. Path Coefficients of the Adoption of Mobile Commerce and Service

Figure 1 shows the coefficients of the adoption of mobile commerce and service. The path coefficients represent standardized versions of the linear regression weights. These are used to examine the causal linkage between independent and dependent variables. Gender (with male dummy value of 1) has a negative influence (value of -0.005) on the attitude of the usage of mobile commerce and service. This implies females are more likely to have the attitude to use mobile commerce and service than men, though this has very small coefficient. This results contradicts those indicated by Dai, Singh and Iyer (2007) and, Alduaij and Al-Amari (2016) where males are more likely to use mobile service than females.

Also there is a positive effect of age on attitude, with indicative coefficient of 0.119 showing that the higher the age, the more positive attitude they have towards the use of mobile commerce and service. This also supports literature such as Dai, Singh and Iyer (2007) and Chong (2013). Education also has a positive effect on attitude towards the use of mobile commerce and service. From Figure 1, the higher the educational level of business owners, the higher the attitude of respondents' use of mobile commerce and service, this is shown by a coefficient of 0.430. The results of Chong (2013) and, Cullen and Kabanda (2018) are in line with the present study while Roberts and Toleman (2007) indicate that knowledge is most influential only at the earlier stage of adoption.

Experience which entailed ICT facilities usage, expectation from the use of mobile commerce and service, and social media integration has a positive effect on attitude towards mobile commerce and service usage. This results support the conclusions of Dai, Singh and Iyer (2007). For Khalifa and Cheng (2002), different years of experience of people in using mobile devices have different effects on the individual user's adoption of mobile commerce. Interestingly, income has negative influence on SEs attitude on usage of mobile commerce and service. The income level of an individual does not determine the attitude to use mobile commerce and service. Richa (2012) and, Sultan and Henrichs (2000) results report the opposite, where income is important determinant of adopting internet based transactions.

The implication is that, the higher the income level, the less the attitude to use more mobile commerce and serves. Thus, as people become richer, they tend to use other financial transaction modes such as cheques and bank transfers. Attitude has positive effect on both mobile commerce and service. The coefficient for mobile service is higher than mobile commerce. Thus, SEs have more attitude to use mobile service than mobile commerce, although, attitude has positive effect on both mobile commerce and serves.
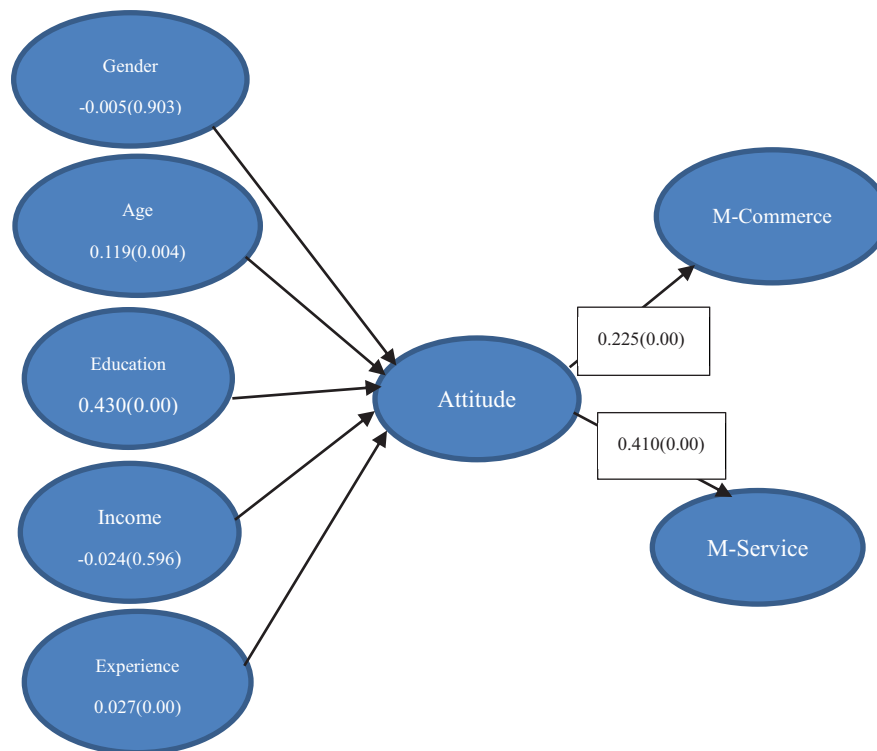
Figure 2. Significance of the Variables

Source: Survey Data, 2018

Figure 2 represents the Bootstrapping results which show the significance of the variables. Among the demographic characteristics, gender, age, education, income and experience have been specially addressed in this study. From Figure 2, being males and income level have no significance towards the attitude to use mobile commerce and service. Gender and income indicated p-value of greater than 0.05 (that is 0.903 and 0.596 respectively).

Education has the strongest significance in one's attitude towards the use of mobile commerce and service, the higher the educational level, the higher the level of one's attitude towards the use of mobile commerce and service. Experience is one of the key elements influencing the level of usage of information technology as indicated by Jaeger (2003). Kalliny and Minor (2006) also indicated that, the higher the level of education of an adult is, the more likely such an adult will use computers and the internet. Education has significant effect on attitude.

Attitude of individuals and actual usage of mobile commerce and service are factors used in some previous studies. From the analysis, there is empirical support regarding the causal link between use intention and actual use in the adoption of mobile facilities. From Figure 2, there is significant effect of attitude in the adoption of mobile commerce and service usage among small enterprises in Adenta municipality. The attitude of respondents of SEs influences its usage of mobile commerce and service.

5. Conclusion

The study concludes that educational level was observed to have the best positive influence on the attitude towards adoption of mobile commerce and mobile service. In addition, experience of respondents was also found to have positive influence on the attitude of individuals for actual use of mobile commerce and mobile service. In other words, experienced people use these technologies more. Surprisingly, being males and income level do not show any significant influence on attitude to adopt mobile commerce and service. Also, small enterprise owners' attitude is a significant determinant for the use of mobile commerce and service.

Our results provide a significant insight for policy makers regarding how to promote mobile commerce and service in Ghana. However, the use of larger samples, which may lead to more intuition into the use of mobile technologies among SMEs may be helpful. Second, an extension of the study to consider the influence of nature of business and other work climate on mobile technologies from different sectors may also be insightful.

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Factors Influencing Professional Judgment of Auditors in Malaysia

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Abstract

The purpose of this study was to examine the factors influencing professional judgment of Malaysian auditors. A questionnaire was used to measure the level of professional judgment and factors influencing the judgment such as gender, knowledge, position level, experience and also firm size. The multiple regression results showed that the position level and experience to be statistically significant in determining the level of professional judgment of auditors. Gender, knowledge and firm size have no significant relationship with professional judgment. As for gender, past research has shown mixed results and this study proves that there is no gender differences among Malaysian auditors in terms of their professional judgment. Even though past research has shown that knowledge has a positive relationship with professional judgment, this study finds no significant relationship between the two variables. With regard to firm size, this study finds similar results of prior study that there is no significant relationship between firm size and judgment. In terms of the practical implications, this study provides insights into significant factors that influence professional judgment of Malaysian auditors. Besides, the management of audit firms can place emphasis on establishing training to their employees especially for the junior staff. Exposing junior auditors at the early stage might improve their professional judgment when facing with complexities of assignments.

Keywords: auditors, Malaysia, professional judgment

1. Introduction

Professional judgment among accounting professionals has always been a subject to scrutiny both in practice and also literature. In auditing, professional judgement is about practising related knowledge and experience in auditing based on the accounting and auditing standards and professional code of ethics to make a sound decision-making. In addition, the accounting and auditing discipline has increasingly recognised professional judgment as one of the highly important attributes in the profession. Besides financial reporting, which are influenced by factors such as accounting standards, economic factors and professional ethics and responsibilities, auditing also involved a critical professional judgement. The public can rely on an auditor's representations when confidence exists that the auditor has acted as an impartial judge, basing conclusions on objective evidence (Mansouri, Pirayesh, & Salehi, 2009).

The International Auditing and Assurance Standards Board (IAASB) issues international standards for auditing and other assurance and related services and these standards are now used by more 100 countries in the world. In addition to this, there is also the International Ethics Standards Board for Accountants (By-Laws on Code of Ethics) that issues ethical standards and guidance for use by professional accountants. In Malaysia, the Malaysian Institute of Accountants (MIA) has adopted this standard and renamed the code as MIA By-Laws (Eilisfsen et. al, 2014) and this code provides guidelines for professional accountants with regard to fundamental ethical principles.

Because financial statement audits play an important role in economy, the public put absolute trust in accounting and auditing professionals as these profession exemplified high moral values and integrity (Haron, Ismail, Ibrahim, & Na, 2014). Auditors should maintain a high standard of professional conduct and exercise professional judgment in their work, failure of which, may result in civil damages or even criminal penalties. In addition, professionalism means using technical and communication skills and values. Unbiased professional judgement by auditors is an important assumption of professional standards. However, the complexities of

today's accounting and auditing process become one of the serious challenges to auditors (Heyrani, Banimahd, & Roudposhti, 2016).

Prior research has documented that there are various factors that could influence how auditors exercise their professional judgement. For example, personal characteristics such as gender influences how auditors behave. For example, with regard to higher ethical values female are less likely to engage in unethical behaviour as compared to   male (Haron et al., 2014). In addition to gender, cultural factors such as different races also influence the behaviour of auditors (Patel, Harrison, & McKinnon, 2002). Besides personal characteristics, factors such as audit work environment, auditor's independence, audit evidences and the process of decision making do influence professional judgment of auditors. Therefore, it is argued in this study that there are different factors that could influence how auditors in Malaysia exercise their professional judgment, particularly in addressing the new auditor's report with the new key audit matters. Therefore, the objectives of this study are (i) to examine the level of professional judgment of auditor and (ii) to identify the factors influencing professional judgment of auditors in Malaysia, namely gender, culture, firm size, position level and experience. In order to achieve these objectives, six research questions are formulated which are:

1) What is the level of professional judgment of Malaysian auditors?

2) Does gender influence professional judgment of Malaysian auditors?

3) Does knowledge influence professional judgement of Malaysian auditors?

4) Does position level influence professional judgement of Malaysian auditors?

5) Does experience influence professional judgement of Malaysian auditors?

6) Does firm size influence professional judgement of Malaysian auditors?

This study makes important theoretical contributions. This is because it extends the literature of factors influencing professional judgement of auditors by providing information on experience and also position level of auditors particularly among Malaysian auditors. From a practical perspective, this research is expected to benefit the professional accountants and also auditors as best practices mechanisms can work toward effective professional judgement. This research benefits the regulatory bodies such as MASB and MIA in order to help them strengthening the profession.

1.1 Literature Review

With regard to professional judgment of auditors, a stream of research has been conducted to determine the level of professional judgment and its various contributing factors. These studies have examined factors such as personal characteristics and experience of auditors, firm size, and also position level regarding what and how these factors influenced auditors' professional judgement. However, prior studies provide inconsistent results regarding the factors related to professional judgment. Therefore, further investigations are necessary so that issues that hinder the consistencies of results can be addressed and more conclusive evidence can be drawn.

In essence, the principles-based approach requires accountants to make professional judgments on the substance rather than their legal form (Agoglia, Doupnik, & Tsakumis, 2011; Psaros & Trotman, 2004). Bennett, Bradbury, & Prangnell (2006) argued that a relatively more principles-based standards regime requires professional judgment at both the transaction level (substance over form) and at the financial statement level ('true and fair view' override). This is because the IFRS require exercise of more professional judgement. Judgement has always been a critical issue of both the preparation and of audits of financial statements. In this regard, concerns about the subjectivity and possible variability of accountants' judgements cast some doubt on the operational effectiveness of the conceptual approach. Some has also argued that to some extent principles-based approach leads to biased financial reporting (Bennett et al., 2006).   This is due to the fact that the IFRS allow preparers to apply judgement in selecting reporting methods, estimates and disclosures that match firms' underlying economics. The use of judgement, however, also presents the opportunity for management to select methods and estimates to achieve desired earnings figure (Smieliauskas, 2012).

1.2 Factors Influencing Professional Judgement

Prior research documented that there are various factors that can be associated with good professional judgement. According to Emby & Gibbins (1987) expectation, outcome, and justification perspectives on judgment quality are among factors that influence the accountants' judgement. From the perspective of public accountants, they see these factors as important in defining good judgment with variations related to position (level of responsibility). This study is supported by Ponemon (1990) who documented that there is an association between the way in which auditors resolve dilemma and their position level. Although the primary focus of good auditor

judgments and audit quality is at the early stage, the current regulatory environment and the structure of audit firms are of increased importance in influencing those judgments. These factors also influence the independence and professional scepticism of auditors and how audit evidence combines with auditor knowledge, traits, and incentives to produce judgments that reflect professional scepticism (Wedemeyer, 2010).

1.2.1 Gender

Auditor judgment is observed as one of the most important elements of a financial statement audit and defined as "any decision or evaluation made by an auditor, which influences or governs the process and outcome of an audit of financial statements" (Wedemeyer, 2010). Auditors use their judgments when they make major decisions such as: "(1) the assessment of the risks of material misstatements of financial statements, including the potential effects of fraud, bias and business risk; (2) the identification, performance and assessment of audit procedures to address those risks; (3) the evaluation of audit evidence to determine the quality and meaning of that evidence and to assess the need for additional evidence based on the process; and (4) the formation of an opinion on the financial statements and the decision whether or not to express that opinion" (Wedemeyer, 2010).

Gender has typically been treated as a personal characteristic or an indicator which is supposed affect both affective and continuous commitment. In other words, the influence of some organisational practices may be different for men and women (Haron et al., 2014). For example Fumagalli et al. (2010) find that moral judgment does differ between gender. In addition to that, Shawver and Clements (2015) indicate that female accountants were more sensitive to business situations involving earnings management and viewed earnings management actions as less ethical than male accountants. In a study involving 166 participants from business classes, Barnett, Brown, and Bass (1994) examined the ethical judgments of the students regarding 24 business-related scenarios. These scenarios included, amongst others, "a worker passing blame for errors to an innocent co-worker, a worker claiming credit for someone else's work, an employee following management directives and not informing an auto manufacturer about a faulty component part, a manager authorizing a subordinate to violate company rules, a management decision that violates the privacy of subjects during a marketing research study" (Barnett, Brown & Bass, 1994, p.335). The results of their study showed significant differences in the ethical judgments of participants based on gender in 22 of the 24 cases, with male students judging all the actions described in the scenarios to be less unethical than the female students. These gender differences, as Barnett, Brown, and Bass (1994) further explained, indicated that males' moral development might be slower than that of females, or that males' approach towards moral dilemmas might be more pragmatic.

Previous behavioural accounting research focusing on gender differences in auditors' judgments has produced mixed results. While some researchers have seen no differences in judgments between male and female auditors (Haron et al., 2014; Jamilah, Fanani, & Chandr, 2007; Ponemon, 1990; Setiawan, 2018) others have found empirical evidence of significant gender differences in decision-making processes (Chung & Monroe, 2001, Pajouh & Martin, 2018). A study on auditors by Chung & Monroe (2001) find that gender plays an important role with regard to audit judgment. It was argued that female auditors were more accurate as compared to their male counterparts. It can be argued that this lack of gender differences may be caused by work-related socialisation, occupational roles, similar training, the structure of the business world, and professional standards.

1.2.2 Knowledge

A considerable amount of research associated with auditor judgment has produced several concerns about how knowledge might affect the approach to audit judgment and to help auditors in better decision making (Mala & Chand, 2015). Auditors acquire knowledge through education, training, and experience (Bhattacharjee & Moreno, 2002). In this regard, a considerable amount of research have been carried out to determine how audit tasks are carried out and what kind of education and training would assist individuals, which include how knowledge might affect the approach to judgment and help in better decision making (Mala & Chand, 2014).

1.2.3 Position Level

Studies on ethical behaviour found that individuals of higher rank have a stronger sense of obligation to their profession than those in a lower rank. This means the attention to ethical principles increases as the level of responsibilities increases. In earlier study, Ponemon (1990) investigate possible relationship between moral reasoning and position and found that auditors' position level in the firm influence ethical reasoning and judgment. This is because, according to the study, higher position means auditors pays more attention to external forces such as firm's profit. Moreover, auditors who hold a higher position such managers and partners display greater management skills than auditors of lower position. However, (Haron et al., 2014) find no significant relationship between position level and ethical judgment.

1.2.4 Experience

Besides knowledge and position level, experience has also been identified as possible factors that may influence an auditor's performance. Bonner (1994) note that although experienced auditors have a stronger performance than auditors with less experience and knowledge, they provide a better explanation for the difference in their performance. In addition, Libby & Frederick (1990) find that experienced auditors have a more complete understanding of the errors in the financial statement and are able to explain them. They conclude that experienced auditors can reach a proper conclusion more quickly than their less experienced colleagues.

In another study, Bhattacharjee & Moreno (2002) find that more experienced auditors are able to ignore irrelevant information while making judgment while less experienced auditors are not. Less experienced auditors incorporated irrelevant negative information into their judgment, resulting in higher risk assessment ratings. Quite recently, Farma, Karamoy, & Datu (2016) ; Limen, Karamoy, & Gamaliel (2017) and Ríos-figueroa & Este (2013) examine whether experience could affect the professional judgment of auditors during the planning phase of an audit. However, they discover that experience does not significantly affect professional judgment. In other words, auditors with less experience does not seem to have a significant difference on professional judgment.

1.2.5 Firm size

Some studies argue that how auditors behave including their independence is influenced by the size of audit firms (Abu Bakar & Ahmad, 2009). These studies observed that as the number of dilemmas faced by small firms' personnel increases, the level of moral reasoning increases (Clarke et al 1996). Generally, small audit firm do not have formal in-house training on which to rely. However, Sweeney (1995) find that firm size is not related to moral practice and judgment. Likewise, Haron et al. (2014) find no significant relationship between firm size and ethical judgment.
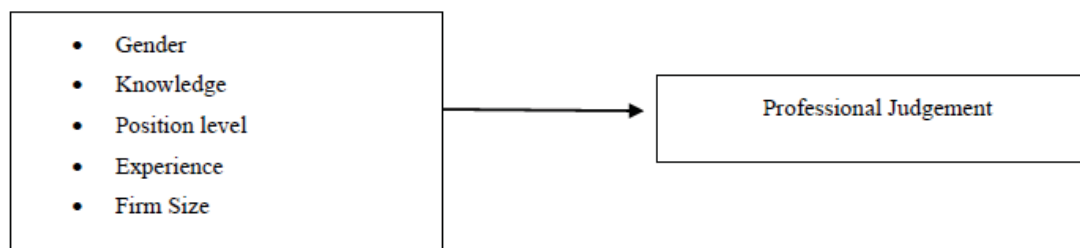
1.3 Hypotheses Development

Figure 1. Theoretical Framework

Figure 1 shows the theoretical framework for this study. Based on the theoretical framework of the current study, five general hypotheses are developed.

1.3.1 Professional Judgment and Gender

Findings related to the influence of gender on professional judgment are mixed. Some studies have suggested that with regard to professional judgment, women are more prominent, whereas others have reported that gender and professional judgement are not correlated. Based on the discussion presented in the previous section, findings regarding gender and professional judgment are mixed and, therefore, this hypothesis is proposed:

H1: Gender influence the level of professional judgment of Malaysian auditors.

1.3.2 Professional Judgment and Knowledge

A considerable amount of research have been carried out to determine how audit tasks are carried out and the types of education and training would assist individuals, or how knowledge might affect the approach to judgment and help in better decision making (Mala & Chand, 2014). Therefore, the next hypothesis is proposed:

H2: Knowledge and the level of professional judgment of Malaysian auditors are positively related.

1.3.3 Professional Judgment and Position Level

As previously discussed, many studies on ethical behaviour found that individuals with higher position have a stronger sense of commitment or obligation to their profession than those in a lower position. Therefore, the following hypothesis is proposed:

H3: Position level and the level of professional judgment of Malaysian auditors are positively related.

1.3.4 Professional Judgment and Experience

In this study, we consider whether the number of years of experience of auditors influence their level of professional judgment. This is because some studies conclude that experienced auditors perform better than their less experienced colleagues. Therefore, the following hypothesis is proposed:

H4: Experience and the level of professional judgment of Malaysian auditors are positively related.

1.3.5 Professional Judgment and Firm Size

As previously discussed, some studies argue that behaviour of auditors is influenced by the size of audit firms. They highlighted that as the number of dilemmas faced by small firms' personnel increases, the level of moral reasoning increases. Therefore, the following hypothesis is proposed:

H5: Firm size and the level of professional judgment of Malaysian auditors are positively related.

2. Method

Data were collected using survey questionnaire administered to the following groups: senior auditors, junior auditors and audit managers of audit firms in the Klang Valley area. The questionnaires were distributed during May to July 2018. A total of 55 usable responses were received. The questionnaires consist of three sections. Section A requires demographic information such as gender, age, religion, years of experience, professional qualification, position level and also company category. Section B measures knowledge and Section C measures professional judgment. Four statements measure knowledge and eight statement measures professional judgment. These sections require respondents to choose the appropriate response from the 5-point Likert scale from one (strongly disagree) to five (strongly agree). The responses derived from the questionnaires are coded, entered and analysed by using the SPSS statistical package. The questionnaire was pilot tested by administering the questionnaire to final year accounting students in one of public universities in Malaysia. Their feedback was recorded and several additional changes were made. A reliability test was carried out to ensure the internal consistency of the instrument. All items possessed Cronbach's Alpha's value of more than 80% and this indicates that the internal consistency of the instrument is good and therefore, acceptable.

3. Results

3.1 Profile of Respondents

Table 1. Profile of Respondents

Demographic Variables	Category	Frequency (n=53)	Percentage (%)
Gender	Male	17	32.1
	Female	36	67.9
Race	Malay	40	75.5
	Chinese	9	17
	Indian	4	7.5
Religion	Islam	40	75.5
	Buddhism	5	9.4
	Hinduism	4	7.5
	Christianity	4	7.5
Age	Below 26	35	66
	26 -31	10	18.9
	31 - 35	2	3.8
	36 - 40	4	7.5
	Above 40	2	3.8
Highest Level of Education	Degree	40	75.5
	Masters	2	3.8
	Professional Qualification	11	20.8
Professional Qualification	None	28	52.8
	Less Than 2	16	30.2
	More Than 2	9	17
Years Being Members of MIA	Non Member	41	77.4
	Less Than 4	5	9.4
	4 - 6	2	3.8
	7 - 9	2	3.8
	More Than 9	3	5.7
Position Level	Junior	35	66
	Senior	12	22.6
	Manager	6	11.3
Income	RM 3,000 and below	36	67.9
	RM 3,001 - RM 4,000	6	11.3
	RM 4,001 - RM 5,000	4	7.5
	RM 5,001 - RM 6,000	1	1.9
	RM 6,001 and above	6	11.3
Years working in Present Company	Less than 2	42	79.2
	2 - 3	2	3.8
	4 - 6	7	13.2
	7 - 9	1	1.9
	More than 9	1	1.9
Years Being an Auditors	Less than 4	41	77.4
	4 - 6	7	13.2
	7 - 6	3	5.7
	More than 9	2	3.8
Company Category	Big Four	13	24.5
	Non - Big four	40	75.5

Table 1 shows that 33% of the respondents are male and 67% female. Based on the table, almost 80% of the respondents are Muslim. The respondents are mostly below 26 years old and possessed a degree. Around 20% of the respondents possessed professional qualifications. In addition to that, 66% of the respondents hold junior position and 34% hold senior and managerial position. This explains the number of years of experience because 77% of the respondents have less than four years as auditor. Finally, 25% of the respondents are from Big Four firms and the remaining are from Non-Big-Four firms.

3.1 Mean Value of Professional Judgment

Section C has eight statements that measure the level of professional judgement of the respondents. Respondents were asked to rate their responses through a 5-point Likert scale of one (strongly disagree) to five (strongly agree).

3.2 Hypotheses Testing

Multiple Regression Analysis

The basic model is:

PROFJUDG= β_0 + β_1 GENDER + β_2 KNOWLEDGE + β_3 POSITION LEVEL + β_4 EXPERIENCE + β_5

FIRM SIZE + €

All assumption of the model, including the normality of the error term, homoscedasticity, autocorrelation, linearity of the relationship and independent of the independent variables were fulfilled.

Table 2. Multiple Regression Results

Model	Unstandardized coefficients		Standardized coefficients		
	B	Std error	B	t	Sig.
(Constant)	0.160	0.151		1.061	0.294
Gender	0.003	0.044	0.002	0.074	0.942
Position level	0.187	0.077	0.137	2.427	0.019*
Knowledge	0.020	0.049	0.016	0.405	0.688
Experience	0.870	0.043	0.879	20.211	0.000*
Firm size	0.006	0.053	0.003	0.122	0.903
Adjusted R^2:				0.476	
Standard error:				0.14757	

Dependent Variable: Professional Judgment

*Significant at 5% confidence level (p<0.05)

The regression results indicate that 47% of the variation in professional judgment level is explained by independent variables. Results show that position level and experience are significant at 5% significance level. Both variables show a positive relationship with professional judgement. The other variables are not significant in relation to professional judgment.

4. Discussion

Overall, this study developed five (5) hypotheses. *H1* related to the influence of gender on the level of professional judgment of Malaysian auditors. The expectation was that gender would, to some extent influence the level of professional judgment of auditors. However, the results show no significant influence of gender with regards to professional judgment; hence, does not provide support to *H1*. The results of this study support findings by Haron et al (2014), Jamilah et al (2007) and Ponemon (1990) that in terms of judgment, there is no differences between male and female auditors. This lack of gender differences may be caused by work-related socialization, similar training and also the professional standards that may eliminate differences between male and female auditors.

H2 expected a positive association between professional judgment and knowledge. However, the results showed no association between the variables. Hence, *H2* is not supported. It can be argued here that even though auditors acquire knowledge through education and training (Bhattacharjee & Moreno, 2002), knowledge is not significant in explaining the variation in professional judgment. *H3* predicted a positive relationship between professional judgment and position level. Position level was found to be statistically significant and therefore, provide support for *H3*. However, an earlier study conducted in Malaysia found no significant relationship between position level and judgment (Haron et al, 2014). It was argued in the study that more stringent rules and regulations will change the judgment of auditors. The higher the auditors perceived the ethical climate of the organisation, the more ethical they will be and not because of their position level. In contrast, our findings is similar to Ponemon (1990) and Praditaningrum (2012) who found that position level is positively associated with the level of judgment of auditors.

H4 posited a positive relationship between experience and professional judgment. The results revealed a significant positive relationship between experience and professional judgment of Malaysian auditors and hence, provide support for *H4*. This results are similar to prior studies which found that experience have positive and significant impacts on audit judgment (Bhattacharjee & Moreno, 2002; Griffith et al, 2017; Mala & Chand, 2014 and Safi'i & Jayanto, 2015). Therefore, it can be concluded that more experienced Malaysian auditors provide higher level of professional judgment as compared to their counterparts. The final hypothesis, *H5* expected a positive association between firm size and professional judgment. However, the results revealed no significant relationship between both variables, leading *H5* to be rejected.

The purpose of this study was to examine the factors influencing professional judgment of Malaysian auditors. Influencing factors were classified as personal factors and organizational factors. The multiple regression results showed that the position level and experience to be statistically significant in determining the level of professional judgment of auditors. Gender, knowledge and firm size have no significant relationship with professional judgment. As for gender, past research has shown mixed results and this study proves that there is no gender differences

among Malaysian auditors in terms of their professional judgment. Even though past research has shown that knowledge has a positive relationship with professional judgment, this study finds no significant relationship between the two variables. With regard to firm size, this study finds similar results of prior Malaysian study (Haron et al., 2014) that there is no significant relationship between firm size and judgment.

This study offers several implications. In terms of the practical implications, this study provides insights into significant factors that influence professional judgment of Malaysian auditors. Besides, the management of audit firms can place emphasis on establishing training to their employees especially for the junior staff. Exposing junior auditors at the early stage might improve their professional judgment when facing with complexities of assignments. Despite the implications, this study is still subject to several limitations. The limitations may affect the usefulness and generalizability of this study. However, they can serve as basis for future research. First, this study used representative sampling and it may not be representative of Malaysian auditors because of the small sample size. Future studies should attempt for a larger sample size than this study for representativeness of the Malaysian auditor's population. Secondly, this study involves the use of questionnaire survey only. Future studies may attempt to adopt a different approach such as the interviews or case study questions to better evaluate the factors influencing professional judgment of auditors.

Acknowledgement

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Internal Relationship Marketing and Job Performance: A Theoretical Analysis

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Abstract

Human resources are considered as one of the important intangible resources of company composed mainly of employees' knowledge, skills and attitudes. When human capital is scarce, precious and difficult to imitate, it can be a source of sustainable competitive advantage. Internal Relationship Marketing (IRM) acts in this sense. It is considered as a process of creating, developing and maintaining sustainable relationships between the company and its employees. In this context, and through an analysis of the existing literature in this field, we will try to study the effects of IRM on the employee job performance. The main results of this work are that the IRM, through its relational determinants namely: communication, organizational trust, organizational commitment and job satisfaction, help improve employee job performance and more precisely task performance and contextual performance. This study wraps up by a proposal of a conceptual model, linking the different components of our research.

Keywords: internal relationship marketing, job performance, communication, trust, commitment, satisfaction, task performance, contextual performance

1. Introduction

In a constantly changing economic environment, marked by fierce competition and increasingly sophisticated customer requirements, companies seek to create and maintain sustainable competitive advantages. Human resources are one of the competitive advantages, as they are rare, valuable and difficult to imitate (Javadein et al. 2011). Relationship marketing intervenes in this sense. It aims to establish, develop and maintain sustainable and successful exchange relationships with internal and external partners of the company. It marks the reference of companies to a relational and defensive orientation rather than a transactional and offensive orientation. Relationship marketing is applied in all relationships between the company and its various stakeholders. Regarding the organization-employee relationship, internal marketing is used as a specific tool for managing this type of relationship (Morgan and Hunt, 1994).

Various theoretical and empirical studies have shown that the relationship marketing has positive effects on financial and organizational performance of the company (Jang et al.2006, Leo et al. 2002). However, few studies have examined the effects of adopting a relationship marketing approach at the internal level of the company on employee job performance. This paper aims to fill this gap. Our goal is to know how internal relational marketing influences employee job performance.

In this context, we will try to provide theoretical answers to this major issue, based on existing literature reviews in this area. In the first place, we will try to highlight the role of IRM in managing the relationships between the company and its employees. In a second place, we will focus on job performance and its components. Finally, we will try to establish links between IRM and employee job performance as well as to propose a conceptual model representing the different links.

2. Internal Relationship Marketing

From the definition of internal marketing (1-1) and the distinction between its transactional and relational tools (1-2) necessary for its implementation, we will emphasize the role of Internal Relationship Marketing in the management of relations between the company and its employees (1-3).

2.1 Definition of Internal Marketing (IM)

The concept of IM finds its origins in the work of Sasser and Arbeit (1976) who considered that employees are the first market of the company. Berry (1984, p : 272) stressed that IM is "considering the employee as an internal consumer, working as an internal product and meeting the needs and desires of internal clients while meeting the organization's goals." Similarly, Berry & Parasuraman (1991, p: 151) defined IM as "attracting, training, motivation and retention of qualified employees through job products that meet their needs. The IM is the philosophy of treating as clients (. . .). This is the strategy of shaping the work to fit human needs. "

The literature proposes several definitions of internal marketing. However, these definitions can be grouped into five main components (Shiu & Yu, 2010):

• *The employee is considered an internal consumer:* Gronroos (1981) is the first author to define IM as a means to see the employee as an internal consumer. Several authors have supported his point of view in particular: Cahill (1996a, 1996 b), Lings (2004). The goal of this vision is to foster employee satisfaction which in turn leads to improved business performance (Shiu and Yu, 2010) .

• *Employee and customer orientation:* In this component, the objective of IM is to stimulate employees to develop behaviors favoring the customer orientation of the companies through the implementation of a set of marketing programs for the internal market, similar to those of the external market. Moreover, using approaches, theories, concepts, tools and techniques of marketing, IM contributes to employee motivation (Papasolomou, 2006), and satisfaction of internal customers of the company namely employees.

• *Management orientation of Human Resources:* According to Cooper & Cronin (2000), the goal of IM is to train, encourage and motivate employees to provide better service. This idea is supported by several studies (Berry & Parasuraman, 1991 ; Joseph, 1996 ; Rafiq & Ahmed 2000 ; Kelemen and Papasolomou-Doukakis 2004 ;   Zboja et Hartline, 2010) which demonstrate that IM should be used in human resources management and marketing to stimulate, encourage, mobilize, recruit and manage all employees within   an organization and improve the methods of offering service to external and internal customers (Shiu and Yu, 2010)   .

• *Internal exchange:* Some research (Lings   et Greenley 2009; Shiu & Yu 2010) has justified the importance of IM by the fact that to satisfy external customers, it is first necessary to take care of the internal exchange, i.e the exchange between a company and its employees.

• *Strategic tool*: According to Dennis (1995), IM is a philosophy, a managerial strategy consisting of attracting, developing, motivating and retaining employees by providing the necessary elements to satisfy employees in the job.

Ahmed and Rafiq (2000, 2003, 2004) proposed a more comprehensive definition of IM: « internal marketing as a planned effort using a marketing like approach to overcome organizational resistance to change and to align, motivate and inter-functionally coordinate and integrate employees towards the effective implementation of corporate and functional strategies in order to deliver customer satisfaction through a process of creating motivated and customer-oriented employees".

2.2 From Internal Marketing Based on Transactional Marketing to Internal Relationship Marketing

The definition of IM highlights the use of transactional marketing techniques and tools in motivating and satisfying employees in the workplace. Ahmed and Rafiq (1995) emphasized that the IM is based on marketing techniques such as marketing mix with 4Ps (Price, Product, Promotion, Place), segmentation, market research ... Concerning the application of the marketing mix to internal marketing, Ahmed and Rafiq (1995) argue that, given the intangibility of the product marketed (i.e the idea: "the employee is considered an internal consumer" and " awareness by employees of the importance of customer orientation"), it was proposed to add two concepts " Process" and "Participants" to the 4Ps of traditional marketing, in order to ensure inter-functional interdependence necessary for the production of an excellent service. More specifically, the application of marketing mix to IM can be translated as follows:

• *Product:* Corresponds to work (Flipo, 2000; Berry and Parasuraman 1991).

• *Price:* Refers to the psychological cost of adopting new working methods.

• *Communication-Promotion*: Motivating employees and influencing their attitudes and behaviors are important aspects of IM that require the adoption of communication strategies. More specifically, the effectiveness of communication with employees depends on the coordination between different media and communication techniques with employees.

- *Place:* it refers to the location and channels (or third party) that is used to deliver products to customers. In internal marketing, distribution refers to conferences, meetings, trainings, in which new policies and procedures are announced.

- *Processes:* These are the processes used in the IM to motivate and satisfy employees in the workplace to ensure client satisfaction and excellence in service offerings. These include the introduction of quality circles, reporting methods ...

- *Participants:* These are the people involved in the production and delivery of the product and those who receive the product and who can influence the customer's perception; especially the employees and managers of the company.

Internal marketing also uses the relational approach for its implementation. Morgan and Hunt (1994) counted ten forms of relationship marketing based on exchange relations between the company and its partners, among others, the exchange relations between the company and its employees through the internal marketing. Dwyer et al. (1987) consider the relationship marketing as "all marketing activities aimed at the establishment, development and maintenance of trade relations." The exchange relations must not be limited to a relationship between the company and the customer but rather to a relationship between the company and all its where the objectives of both parties meet (Sin et a1., 2005).

Relationship marketing has a process character (Gronroos, 2004). Palmatier (2008) considers the relationship marketing as "the process of identifying, developing, and maintaining relational exchanges in order to improve performance." So the goal of the companies behind adopting a relationship marketing approach is improving performance.

In this paper, we adopt relationship marketing as an approach to analysis the exchange relationships between employee and company. In this perspective, the implementation of tools and techniques of relationship marketing in internal marketing allows us to well study the concept of Internal Relationship Marketing and to distinguish it from internal marketing based on transactional marketing. To this end, we will name the articulation between relationship marketing and internal marketing, *"Internal Relationship Marketing" (IRM*) and this in order to distinguish it from internal marketing based on transactional marketing.

2.3 Internal Relationship Marketing as a Process of Managing the Exchange Relationships Between Employee and Company

According to berry (1983), internal marketing involves using marketing techniques inside the organization in order to satisfy the employee. It aims to consider the employee as internal consumers and work as a product. Javadein et al., (2011), indicates in this sense, that employee satisfaction is very beneficial for the organization, particularly in terms of quality service offerings and the creation and the retention of a sustainable competitive advantage. IM is seen as "a relationship development process in which staff autonomy and know-how combine to create and circulate new organizational knowledge that will challenge internal activities which need to be changed to enhance quality in market place relationships" (Ballantyne, 1997: 354). In this way, the IM aims to create a motivating work environment that fosters employee cooperation, creativity and innovation. Such a climate affects the actions and behaviors of employees that are likely to influence directly or indirectly customer satisfaction.

Thus, Gounaris (2010) indicated that the organization can satisfy its external customers, by the satisfaction of its internal customers. Employees are a valuable resource for the company to ensure its competitive advantage. For these reasons, companies are encouraged to strengthen their relationships with employees through high-level partnership contracts that will ensure effective relationships between employees themselves, and between different departments and functions of the company.

In this context, several questions may be raised: how can firms develop effective processes for structuring and managing internal relationships? What is the nature of the partnership between the company and the employees? What tools and mechanisms are needed for its implementation? The works of Ahmed and Rafiq (2002, 2003) provides answers to these questions. These answers can be divided into two parts: firstly, relational marketing is, according to the authors, an adequate theoretical framework for studying these problems. In fact, the relational approach presents an alternative framework to the transactional approach of marketing which formed the basis of the thinking of internal marketing. Secondly, internal marketing contributes to the achievement of high-level partnership contracts through three tools: understanding, trust and commitment (Ahmed and Rafiq, 2003). These mechanisms participate in the establishment, the development and the maintenance of a successful exchange relationship within the organization.

Theron and Terblanche (2010) announced the presence of four core values in the relationship marketing literature: commitment, trust, satisfaction and communication. They constitute the relational determinants of internal relationship marketing (El Alaoui Amine et al., 2012, EL Alaoui Amine et al., 2013).

The construct trust-commitment has been the subject of several works in relationship marketing literature. In fact, Blois (2003) considers commitment and trust as the distinctive characteristics of a relationship. Sheth (2000, p: 619) argues that "commitment and trust have emerged as blocks for the construction of a theory. The relational theory commitment- trust of Morgan and Hunt (1994) has been particularly influential. Their model "Key Mediating Variables" (KMV) is an important contribution to understanding relationship marketing".

Organizational trust is seen as a "behavioral intent manifested in the willingness to be vulnerable to the exchange partner" Mayer et al. (1995: 712). Organizational trust plays an important role in strengthening employment relationship (Dirks and Ferrin, 2001). It is a determinant of employment relationship quality. Whitener (1998: 393) indicates that "employees can develop a relationship of trust with at least two referents, including supervisor and general representatives of the organization". thus, the type of trust depends on the referent chosen.

Organizational Commitment is described by Meyer and Allen (1991) as "a psychological state that characterizes the relationship between employee and organization, and that has implications for the decision to remain within the organization". The authors distinguished between three forms of engagement: Continuance commitment, affective commitment and normative commitment.

1. Continuance commitment which refers to an awareness of the costs associated with leaving the organization

2. Affective commitment which refers to the employee's identification or strong emotional attachment and involvement in the organization;

3. Normative commitment which reflects an obligation to continue belonging to the organization.

Communication is defined as "the provision of relevant and timely information among actors" (Anderson and Narus ,1990). It is considered as one of the fundamental elements of internal relationship marketing, since it creates a favorable working climate marked by the sharing and the dissemination of information between the company and its employees.   Several research have proven the relationship between communication, trust and commitment (Morgan and Hunt, 1994 ; Caceres and Paparoidamis,2007 ; Zeffane et al. ,2011). According to Morgan and Hunt, (1994) communication is one of the important antecedents of trust-commitment relationship. More precisely, communication directly influences trust and indirectly commitment through trust. In this sense, Zeffane et al. (2011) have argued that employee commitment and loyalty is formed through organizational trust.

Given that IRM aims to satisfy customers through employee satisfaction, the establishment of a climate of trust within the company contributes to increase job satisfaction. Locke defined job satisfaction as "a pleasant or positive emotional state resulting from an individual's assessment of his or her work or work experience" Locke (1976, p. 1300). Empirical studies have shown that job satisfaction is directly and significantly related to organizational trust (Ahmadi et al., 2011, Meral, et al., 2016). Specifically, trust is an antecedent of job satisfaction (Mulki et al., 2006). Also, satisfied employees develop cognitive links with the organization (commitment) and have less intention to leave a company (Iverson and Maguire, 2000). In this sense, Dirania and Kuchinke, (2011) have shown that job satisfaction is a very good preacher of organizational commitment.

To this end, IRM is a process of managing the exchange relations between employees and company. This process is composed of a causal chain starting with communication, then organizational trust, organizational commitment and finally job satisfaction (El Alaoui Amine et al., 2012, El Alaoui Amine et al., 2014). The different components of this chain represent relational determinants that ensure the success of relationship between the company and its employees.

The goal of companies behind the adoption of the IRM is to improve the overall performance of the company and particularly employee job performance.

3. Job Performance

The concept of job performance has long suffered from insufficient conceptualization. In fact, most academic work has focused on the study of performance evaluation criteria and techniques, as well as on its individual determinants (motivation, involvement, satisfaction, etc.), but have shown little interest in the definition and the conceptual status underlying the construct (Charbonnier et al., 2007). Since the 1990s, works have been carried out on job performance (Campbell, 1990 ; Borman & Motowidlo, 1993 ; Rotundo, Sackett, 2002).   Campbell (1990) suggests defining job performance as "a set of behaviors or actions that are relevant to the objectives of

an organization" (1999: 402). Similarly, Motowildo presents a definition that represents a significant advance: "job performance is defined as the total expected value to the organization of the discrete behavioral episodes that an individual carries out over a standard period of time" Motowildo (2003, p: 39). According to Charles-Pauvers et al. (2007), this definition has several indications. Firstly, individual performance refers to behaviors that the organization estimates and expects from its employees. These behaviors positively influence the achievement of organizational objectives (productivity, creativity, profitability, growth, quality, customer satisfaction) and what the individual deploys over different periods of time. Secondly, these definitions favor the distinction between the individual's behaviors beneficial to the organization (performance) and the expected results of these behaviors (effectiveness). However, if we evaluate only the results of an individual, we risk ignoring the situational factors that help or hinder the realization of work by the employee (availability and quality of equipment and resources, strategic and operational decisions beyond the control of a person, market context) (Charbonnier et al., 2007).

Job performance is seen as a multidimensional concept, since it is composed of several categories of homogeneous or similar behaviors that facilitate or hinder the achievement of organizational goals (Charles-Pauvers 2006, 2007, Charbonnier et al., 2007). In this context, since the 90s, several studies have attempted to provide multi-factor models to determine the behavioral properties of the job performance. However, two models have been widely used. These are the multi-factorial model of Campbell (1990) and the job performance model of Borman and Motowildo (1993). First, Campbell's multi-factorial model (1990) identifies eight behavioral dimensions of job performance. These are: 1 / skills in job-specific tasks; 2 / skills in non-specific tasks; 3 / written and oral communication; 4 / efforts in activity; 5 / maintenance of a personal discipline; 6 / contribution to the performance of the team and colleagues 7 / supervision 8 / management and administration. According to Charbonnier et al., (2007), this classification seems to be operational for the establishment of employee assessment procedures, as it is fairly general and flexible in order to be adapted to the different categories of jobs in a company. They highlight, on the one hand, the psychological links between the individual, his work and his organization, and on the other hand the individual skills during the exchange relationship.

Second, the job performance model of Borman and Motowildo (1993) distinguishes between task performance and contextual performance. This distinction has been used by several empirical studies that supported the model of Borman and Motowildo (1993) (Van Scotter and Motowidlo 1996, Johnson et al., 2009, Dalal et al., 2009, Rich et al., 2010, Ahn et al, 2018).

Task performance covers prescribed behaviors, i.e a set of work activities that are traditionally described in the classifications and / or job and skills references. Technical or task performance refers to what Borman and Motowildo, (1993) call "the technical core" of an organization or a job. It concerns the execution of tasks and activities that contribute directly or indirectly to the transformation of resources into products for economic exchange (Borman and Motowildo, 1993). Technical or task activities vary considerably from one job to another and include two types of activities: firstly, transformation of raw materials into goods and services produced by an organization (for example: sales, machine operation, education, etc..). Secondly, activities that support the technical core such as procurement, planning, coordination, maintenance ... This means that tasks are directly linked to the technical core or indirectly by supporting execution of a technique (Motowidlo & Van Scotter, 1996; Poropat, 2002). These activities are most often concerned with research and business practices in performance appraisal.

Task Performance depends on knowledge skills, abilities, motivations and other related factors involved in performing prescribed tasks (Ang et al., 2007).

Contextual performance is an enlargement of performance evaluation beyond a task performed by an employee (Rotundo, & Sackett, 2002). This is behavior of individuals involved in organization effectiveness through their effects on psychological, social and organizational context of work. Coleman and Borman (2000) qualify contextual performance as a citizen performance that supports the global environment in which the technical heart can function. Motowidlo (2000) conceptually studied "contextual performance" and "Organizational Citizenship Behaviors" (OCB). They refer to " behaviors of an individual who is left to his or her free choice, not directly or explicitly recognized by formal reward system, and which, as a whole, promotes the efficient and effective functioning of the organization" (Organ 1988, P: 4). It was introduced in the literature prior to the concept of contextual performance by Organ and colleagues (Bateman & Organ, 1983). However, Motowidlo (2000) reported that both concepts have a similar behavioral content, so much so that the author wondered whether the two labels are really necessary for similar areas of behaviors. The behavioral content of OCBs is multidimensional. It is composed of five elements (Organ ,1988; Organ et al., 2006): altruism,

conscientiousness, civic virtue, courtesy, sportsmanship.

Williams & Anderson (1991) clustered the five components of OCBs in two categories of behaviors depending on the beneficiary. These are Organizational Citizenship Behaviors oriented individual (OCBi) and Organizational Citizenship Behaviors oriented organization (OCBo).

Thus, the distinction between task performance and contextual performance allows pinpointing and properly framing the employee job performance. On the one hand, task performance is explained by employee's ability and experience, whereas contextual performance is predicted by personality measures. On the other hand, task performance refers to organizational effectiveness, while contextual performance promotes the efficient functioning of the organization. That is why the evaluation of job performance through the combination of contextual and task performance is important especially in the services sector where the performance of employees depends on their qualifications and skills in the work, but also on OCBs that contribute to a better service offer.

4. Contribution of Internal Relationship Marketing to Job Performance

Ivens and Mayrhofer (2003) indicated that among the success factors of relationship marketing are: hardware and software. Hardware constituted by structures and instruments presenting the content of actions carried out. Software based on relational principles that govern behaviors of a company towards its stakeholders and especially employees.

The effectiveness of relationship marketing contributes to increase company's overall performance (Ismail, 2009, Ismail and Alsadi, 2010) specifically employee job performance (Lings et al. 2009) Moreover, IRM affects employees' attitudes and behaviors that have a direct impact on employee performance (Saknarong et al., 2013, Mohiuddin Babu, 2017).

IRM is seen as a tool for realizing company's internal orientation (Hales 1994, Varey and Barbara 1999, Carter and Gray, 2007, Abbas and Riaz, 2018). This orientation is based on exchange principles between employees and organization. Internal exchange is examined in human resources literature in terms of equity theory (Adams, 1963) whereby employees evaluate their jobs by comparing their inputs and outputs. Carter and Gray (2007) report that inputs are related to effort, loyalty to the organization and compliance with organizational policy. The outputs include compensation, benefits and intangible rewards such as status, recognition of work well done and the feeling of accomplishment. For a company, the offer of employment and working conditions are products that will be marketed to employees under a contract of employment. However, in this contract of employment, the employer is both buyer and consumer, which makes it difficult to manage employee-organization relationship (Hales 1994). From this perspective, Carter and Gray (2007) underscore that employees are forced to adapt their individual goals to those of the organization. On the other hand, the company through its managers must make sound decisions that meet company's needs and employee's expectations. Literature in human resources management and marketing suggests that managers must carefully balance and gauge the inputs and outputs to maximize employee performance (Freedman and Montanari 1980; Guest and Conway 2002). All compensation and benefits decisions have a direct impact on employee attitudes and behaviors, as well as their job performance and, therefore, organizational effectiveness and efficiency over the long term (Carter et al. Gray, 2007).

Keller et al. (2006) indicates that the introduction of IRM in a company has a positive effect on employee attitudes to their work and to an organization, as it promotes developing employee emotional attachment to a company. Saknarong et al. (2013) adds that IRM influences employee attitudes and behaviors to improve job performance. More specifically, IRM contributes to increase organizational commitment and employee satisfaction, as well as OCB (Carter and Gray, 2007, Shiu and Yu, 2010, Saknarong, 2013, Abbas and Riaz, 2018).

At the empirical level, several studies have tried to verify the existence of links between IRM and employee job performance. Cano and Sams (2009) studied the role of emotions in the success of social services. The results suggest that emotional intelligence mediates relationship between emotion in work and stress in work which in turn has positive effects on job performance. The authors indicated that adoption of an IRM approach is necessary to better match the organization's products (i.e. work) to internal clients (i.e employees), and hence, improving offer quality to external customers (job performance). Also, Chen & Liu (2012) analyzed the relationship between IRM, organizational commitment, participation in work, job satisfaction and job performance of elderly care facilities employees in Taiwan. They found that 1 / IRM positively affects organizational commitment and participation in work, 2 / job performance is positively influenced by participation in work, job satisfaction and IRM. Saknarong et al. (2013) argues that IRM contributes to increased employee job performance and service excellence through creating organizational commitment and employee job satisfaction.

Previous research has shown that IRM has a positive impact on task performance. This is the case, for example, of Yao et al. (2013) who studied, with 617 employees of petrochemical companies, how IRM can influence empowerment and employee job performance, specifically tasks performance. They found that companies use IRM as an effective way to improve a level of psychological employee empowerment and thereby increase employee tasks performance.

Some studies have focused on the impact of IRM on specific components of employee job performance including (OCB) and task performance (Borman and Motowidlo, 1993). Chang et al. (2012) identified the existence of a positive effect of IRM on OCB. These results are in line with research findings of Yoon & Suh (2003). Organ et al. (2006) points out that OCBs carried out by employees play a crucial role in promoting organizational performance. Moreover, OCBs contribute to reducing business costs, conserving resources and improving staff cooperation.

5. Conceptual Model Proposal

The adoption of an IRM approach within the company encourages the improvement of employee job performance (Mishra, 2010; Yao et al., 2013). Indeed, effective communication between company and employees, and among employees themselves, promotes a climate of organizational trust and therefore development of organizational commitment and job satisfaction (El Alaoui Amine et al., 2012). These attitudes and behaviors contribute to increase employee job performance.

However, as mentioned earlier, IRM and employee job performance are multidimensional constructs. The first is composed of four variables (communication, organizational trust, organizational commitment and job satisfaction) while the second is made up of two variables (task performance and OCB). In the following, we will try to study the links between each variable of IRM and those of job performance.

5.1 Communication and Performance at Work

Previous research has shown that communication within a company promotes increased employee job performance (Ang et al., (2007), Yildirim, 2014). Berry and Parasuraman (1991) consider that internal communication consists of various key aspects without which the necessary quality to empower the organization's personel to deliver sound performances wouldn't exist (Roşca ,2017). we propose:

Proposition 1: Communication positively influences employee job performance.

Communication helps improve individual tasks performance (Zhang & Huai, 2016). In fact, tasks are usually indicated in formal job responsibilities. However, task execution requires employee mastery of skills, knowledge and attitudes (Ang et al., 2007). Cross and Cummings, (2004) reported that good communication between the company and its employees helps to solve business problems by accessing quickly to the right person. Also, "communication is a means through which the task and the resources needed to carry out an assignment, the roles and duties and the expected results are made known to the subordinates which makes work easier for better performance. Managers need to communicate with employees regularly to get feedback and offer suggestions in other to prevent confusion about future job assignments; this will help improve workers performance and organizational productivity" (Femi, 2014, p: 80). Thus, we propose the following:

Proposition 1-1: Communication positively influences task performance.

Communication also contributes to the development of OCBs. Yildirim, (2014) empirically verified, in textile sector, the impact of organizational communication on OCBs. The author concludes that effective organizational communication is not only important for setting up channels between managers and employees but also necessary to implicitly contribute to the overall performance of the organization through OCBs.

Proposition 1-2: Communication positively influences Organizational Citizenship Behaviors.

5.2 Organizational Trust and Job Performance

The development of communication links also allows a group of employees in a company to create a favorable working climate. This climate is motivating to collaborate with other employees and superiors and encourage organizational trust relationships . Thus, the entailing positive environment supports job performance. Also, trust in face-to-face teams has been determined to have a direct positive influence on performance (Coovert et al. ,2017),and organizational citizenship behaviors (Dirks and Ferrin 2001). These results have been supported at both the individual (Costa 2003) and team (De Jong and Elfring 2010; Coovert et al. (2017)) levels. The following hypothesis is proposed :

Proposition 2: Organizational trust positively influences job performance.

The establishment of an organizational trust climate encourages development of task performance (Zhang & Huai, 2016). Many researchers have shown that organizational trust is an antecedent of task performance (Dirks & Ferrin, 2002, Colquitt et al., 2007).

Proposition 2-1: Organizational trust positively influences task performance.

Dirks & Ferrin (2002) argue, on the basis of a meta-analysis, that organizational trust and particularly trust in leaderships positively influence OCBs. This result is supported by the research of Singh & Srivastava's (2016) who investigated the impact of several organizational factors (perceived organizational support, procedural justice, and communication) as determinants of organizational trust, and their impact on OCB. They found that the presence of organizational trust is positively associated with all dimensions of OCBs. The authors recommend that organizations should facilitate process leading to organizational trust, so that employees will be better engaged in extra-role behaviors (OCB) resulting in increased individual and organizational effectiveness.

Proposition 2-2: Organizational trust positively influences organizational citizenship behaviors.

5.3 Organizational Commitment and Job Performance

Empirical studies have shown a positive and significant relationship between organizational commitment and job performance (Darolia et al., 2010, Jamal, 2011, Fu Deshpande, 2014). Indeed, the relationship between organizational commitment and job performance is positive and stronger for sales employees than for non-sales employees. Stronger correlations between organizational commitment and job performance were also found for collectivist compared to individualistic cultures (Jaramillo et al. 2005).

Proposition 3: Organizational commitment positively influences job performance.

Employees who are highly committed in their work and in carrying out tasks not only focus their physical effort on pursuing task-related goals, but are also cognitively vigilant and emotionally connected to work. These employees achieve a better performance in job (Felfe et al. 2008, Rich et al. 2010). we propose:

Proposition 3-1: Organizational commitment positively influences task performance.

On the other hand, committed employees have a stronger tendency to conduct beneficial behaviors that may go beyond the formal tasks or expectations of an organization (Wang and Wong, 2011). In addition, compared with less committed employees, highly committed employees are more likely to contribute to their organization with positive behaviors and to help organization development (Greenfield et al., 2008). This means that organizational commitment is an important antecedent of OCBs (Barzoki & Ghujali, 2013).

Recently, Bakhit Al Zefeiti and Azmi Mohamad (2017) studied the influence of organizational commitment on work performance in the context of Omani governmental organizations. The empirical results indicate that all organizational commitment subscales (affective, normative, and continuance) have a significant impact on work performance dimensions, contextual and task performance. Therefore, we propose the following:

Proposal 3-2: Organizational commitment positively influences Organizational Citizenship Behaviors.

5.4 Job Satisfaction and Job performance

Research on relationship between job satisfaction and job performance has been conducted since 1940s (Brody, 1945). In fact, the idea that job satisfaction leads to better performance is supported by Vroom's (1964) work which is based on the idea that performance is a natural product of meeting the needs of employees. Many organizational theories are based on the idea that organizations that are able to make their employees happy will have more productive employees (Davar & RanjuBala, 2012).

Proposition 4: Job satisfaction positively influences job performance.

Although the various facets of tasks are generally prescribed in employment competency framework, addressed to any employee (satisfied or unsatisfied in his / her work), a satisfied employee will tend to perform his/ her tasks timely and with efficient and effective manner, compared to an unsatisfied employee.

Proposition 4-1: Job satisfaction positively influences task performance.

However, based on the theory of social exchange, assuming that individuals seek to balance what they give and receive in a social exchange, a satisfied employee will be more likely to help others and develop voluntary behaviors and OCBs compared to an unsatisfied employee (Hee Yoon and Suh, 2003, Edwards et al 2008, Barzoki & Ghujali, 2013).

Proposition 4-2: Job satisfaction positively influences organizational citizenship behaviors.

Based on the review of the literature developed throughout this work and the four research proposals presented

above, we have established a conceptual model linking internal relationship marketing to job performance (Figure 1).
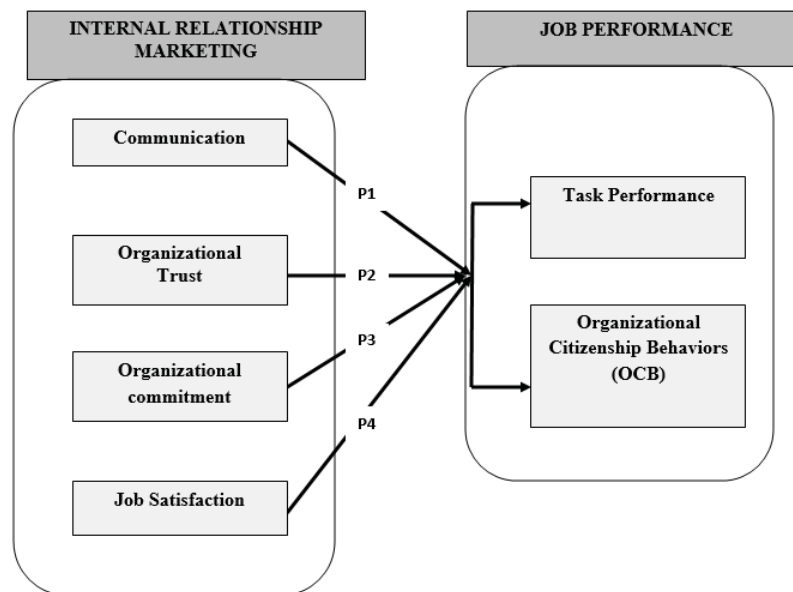

Figure 1. Conceptual model linking Internal Relationship Marketing to job Performance

6. Research Contributions

This paper has many contributions: First, our research contributes to the field of human resources, through the presentation of a mechanism for improving job performance. This mechanism is based on employee positive behaviors and attitudes such as: communication, organizational trust, organizational commitment and job satisfaction.

secondly, in marketing field, our research highlights the relevance and usefulness of IRM in improving job performance. In fact, instead of spreading resources on various practices to evaluate and improve a variety of attitudes, behaviors and motivation, it may be interesting for companies, to focus resources on IRM.

Third, in managerial practice, employee performance is generally assessed on the basis of objective criteria commonly grouped in task performance. In our model, in addition to objective criteria, employee job performance can be evaluated on the basis of subjective criteria such as OCBs.

Fourth, research on OCBs has placed limited emphasis on mechanisms of development of these behaviors. In this context, our research brings new knowledge to this field by highlighting their process of creation and growth.

Fifthly, our conceptual model contributes to research on employee-organization relationship, through the proposal of a win-win tool for developing such a relationship. For employee, IRM promotes a motivating work atmosphere and work enthusiasm which contributes to a good employee perception of the organizational relationship and organizational member interaction. On the company side, adopting IRM approach encourages employee to increase his job performance which has significant effects on financial and organizational performance of the company.

7. Conclusion and Suggestions for Future Research

In this work, we tried to establish from an analysis of the existing literature, the links between internal relationship marketing and job performance. IRM is seen as the process of establishing, maintaining and strengthening relationships between organization and employees. This process is based on relational determinants that ensure the sustainability of relationships, namely: communication, organizational trust, organizational commitment and job satisfaction.

The analysis of the literature review allowed us to show that the implementation of IRM favors the development of employees' job performance, specifically task performance and contextual performance (Organizational Citizenship Behaviors). Effective communication between company and its employees, as well as among

employees themselves, promotes a climate of organizational trust and therefore the development of positive attitudes and behaviors including organizational commitment and job satisfaction. This process with its various components positively influences task performance and OCB.

Future research directions can be suggested including, the empirical validation of our research proposals. Conducting a quantitative study through an employee and leadership survey can be very helpful. In this context, it is proposed to carry out an empirical study in the service sector in which the participation of employees is one of the main characteristics of the service. Also, conducting qualitative studies will be important. This kind of study will help identify other factors and variables, besides IRM, that can improve employee job performance

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Leadership Strategy, Behavioural Focus and Firm Performance: A Review of Literature

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Abstract

The strategic management literature has laid emphasis on the role of leadership at several phases of the strategic management process. The literature has however not addressed the construct of leadership strategy as well as integrating it into the mainstream literature on strategic management. Researches already done to link leadership with performance have been biased in terms of the scope of focus on the dimension of performance and at the same time have registered methodological and conceptual challenges affecting the generalization of findings. In this paper, the authors integrate the extant literature on leadership with that on leadership strategy and identify issues that call for an expanded scope on the construct of leadership. The paper reviews extant conceptual, theoretical and empirical literature and raises diverse issues that present a case for a new theoretical model suitable to extend the current understanding on leadership and the phenomenon it brings about in organization into new frontiers in management. This paper proposes an integrated theoretical model for linking leadership strategies and firm performance while providing for the role of leadership paradigms, leadership behavioural focus and firm capabilities. The emerging theoretical propositions and implications for future research are discussed.

Keywords: leadership, leadership strategy, leadership behavioural focus, firm capabilities, leadership paradigms, firm performance

1. Introduction

The strategic management literature has laid emphasis on the role played by leadership at several phases of the strategic management process which entail strategy formulation, choice and implementation, (Pearce, Robinson & Mital, 2007). One specific area across these that has been seen to link with leadership is that of change, a key theme in strategic management studies. Operationalization of the change management in an organization is executed through a well thought-out leadership process in a firm. Fitzroy and Hulbert, (2005) support this view and add that leadership is critical in the success of this process. While Thompson and Strickland (1993) hold the view that management devises an organization's strategy towards enhancing an organization's performance, scholars such as Pearce, Robinson and Mital, (2012) on the other hand, iterate that leaders need to spur commitment to embrace change by clarifying the strategic intent, building an organization and shaping its culture.

Whereas crafting and implementing a strategy for the business are management functions, it is clear that among all the things that managers do, few affect the organization's performance in a more lasting way than the manner in which the management team handles the tasks of charting the organization's long-term direction through leadership so as to produce the intended results. There are emerging indications that leadership comes in the process of strategy implementation because it exerts the facilitation needed to drive implementation forward and keep improving on how the strategy is being executed and that strong leadership is always essential for effective strategy execution (Pasmore, 2014). Traditionally, leadership has been discussed in the context of the functions of management and specifically related to the provision of direction towards the achievement of the organizational goals, (Thompson & Strickland, 1993).

There are important aspects of leadership which have been generated from the traditional perspective touching on the use of power, influence, leadership styles, characteristics and behaviours. Whereas in this traditional perspective, these cited aspects have been given some theoretical and conceptual attention, the developments in

strategic management theory and practice are indicating that they portend a higher potential than displayed in the traditional perspective (Pasmore, 2014). Thus, Northouse (2010) argues that leadership has gained the attention of researchers worldwide where different theoretical approaches have been developed to explain the complexities of the leadership process. Some researchers conceptualize leadership as a behaviour or a trait, whereas others view it from an information-processing perspective or relational standpoint. Yukl, (1994) is of the view that leadership has been studied using both qualitative and quantitative methods in many contexts, including small groups, therapeutic groups and large organizations. Collectively, the research findings on leadership from all those areas depict a process that is far more sophisticated and complex than the often-simplistic view presented in most scripts on leadership thus raising the need to study it with a view to highlighting the combined role played by leadership strategies and behaviour in driving a firm's performance (Rowe, 2001).

This is justified by the fact that even though according to Sinding *et al* (2014), leadership has fascinated people for centuries, it was only with the advent of the industrial revolution era that the construct of management and leadership in organizations became a topic in itself. In addition, there are disagreements regarding the construct of leadership stemming from the fact that it involves a complex interaction between the leader, followers and leadership situation which has seen some researchers define leadership in terms of personality and physical traits, while others believe that leadership is a temporary role that can be filled by anyone. There is however a common thread among the different conceptualizations of leadership based on the aspect of social influence. Moreover, Day, Gronn and Salas (2004) posit that even though existing literature on leadership development largely focuses on leadership skill development, and while this body of research examines directly observable behavior of leaders, what has not been adequately explored is the deeper, hidden self-knowledge that motivates people to act as leaders and further develop their leadership skills, which requires a behavioral lens towards its understanding. The outcome of this has attracted the attention of the behavioral scientists from the organization behavior stream that have started to single out strategic leadership as a point of focus in explaining firm strategic behavior. Pasmore, (2014) observes that, even though leaders have demonstrated awareness to the value of a well-defined business strategy, few of the leaders have given attention to aspects of leadership suitable to drive successful strategy implementation in organizations. According to Ali, Elmi and Mohammed, (2013), leadership strategy as a construct has been proven to be among the best remedies for addressing the aspects of success factors in an organization's strategy implementation process.

1.1 Statement of the Problem

The extant literature on leadership has been faulted for a number of reasons. The foremost of these has been that touching on the conceptualization of the leadership as a construct in that there has been lack of consensus in the understanding of the construct, persistent confusion regarding aspects that characterize the leadership process such as effective leadership, distinctions between leaders and those who are not leaders. Despite the widespread acknowledgment of the importance and value of leadership, several researchers agree that it is striking that the concept lacks coherence and agreement, (House & Aditya, 1997; Bennis, 1998; Bergsteiner, 2005). Additionally, there is still much debate as to what is leadership even though considerable theoretical and empirical leadership research efforts have been conducted, (Jens, 2015).

Secondly, in spite of the vast literature on the construct of leadership and its process, there is a scarcity of attention towards extending the same effort to explore an important aspect of leadership that deals with leadership strategy. It is only recently that practitioners have begun to recognize this gap and suggestions are being made towards consolidating these suggestions to form part of the existing rich literature on leadership. The concept of leadership strategy has not been given theoretical attention and details about its nature remain scanty. Only recently have researchers begun to address leadership even though it is yet to be incorporated into the theoretical work in leadership studies so that it can inform practice and empirical work, (Northouse, 2010). There is a need to consider the perspectives brought on board by the practitioners and attempts be made to integrate the experiences from practice into the mainstream set of literature on leadership as an essential construct in strategic management. It is our contention that given the increased attention on the role of leadership in the strategic management process, there is a need for scholars to identify attributes of leadership that should be aligned with the strategic management process both at formulation and implementation of strategies. Exploration of the nature of leadership strategy stands to align the construct of leadership and its phenomenon with the strategic management process in a way that will enhance the possibilities and attempts of linking the strategic management process with firm performance.

Thirdly, there has been limited research that has specifically addressed the relationship between leadership behavior and organizational performance. According to Dionne, Yammarino, Atwater and James (2002), there

has not been clear conceptualization of the outcomes on whether leadership can be categorized as a determinant of an organization's performance. Methodological issues have also emanated from operationalization of the construct of performance as many researchers only refer to financial and non-financial performance measurements while ignoring employee and customer satisfaction as a measure of a firm's performance (Norton, 1999).

In view of the above calls, this paper seeks to extend the current state of knowledge on the construct of leadership by exploring the nature of the construct of leadership strategy and the practical and empirical implications it raises for organizations and the subsequent firm strategic behavior. The paper has three objectives, namely to review the extant theoretical and empirical literature on leadership strategy, behaviour and performance; to identify emerging issues that call for a theoretical model linking the constructs; and to propose a theoretical model linking leadership strategy, behaviour and performance.

The current paper is considered to make a significant contribution to both general and strategic management studies. In undertaking this study, the paper responds to several gaps that require scholarly attention. First, the paper undertakes to fill the existing gap regarding the construct of leadership strategy that has not been given adequate attention in both theoretical and empirical literature. By integrating the work of Pasmore (2014) into the mainstream literature on leadership and strategic management, the paper integrates experiences gained from practice with the extant theoretical literature not only on aspects of leadership but also on strategy implementation where leadership has been suggested to play a critical role (Weihrich & Koontz, 1994).

Secondly, the contents of the paper are significant in integrating the diverse pieces of knowledge on leadership that appear somewhat scattered. Whereas the theoretical literature is relatively old and rich in content, there are more insights on the current developments and academic discoveries on leadership that need to be integrated into this extant work (Burns, 1978; Avery, 2004; Fitzroy & Hulbert, 2005). In this paper, the authors identify the inherent complementarities between the various schools of thought that have characterized the study of leadership and propose a blended set of theoretical literature in leadership studies. Doing so enables scholarship to consolidate the gains that have been made by the diverse scholarship attempts which stand to benefit future scholarship.

Thirdly, there has been a set of issues raised with regard to the link between the construct of leadership and that of performance. From a theoretical standpoint, the paper contributes towards addressing this link by adopting dimensions of leadership strategy as an intangible asset that brings potential to influence firm performance in dimensions that are broader than the narrow perspective that has leaned towards financial measurement. From an empirical point of view, there has been a limitation based on scope arising from the number of constructs that have been used in the leadership performance link thus leading to empirical results that have been inconclusive thus leading to unresolved problems (Fenwick & Gayle, 2008). This paper has comprehensively considered the emerging phenomenon from leadership strategy leading to performance and proposed several constructs that mediate and condition the phenomenon as the basis for the proposed theoretical framework and propositions. The framework and propositions advanced provide a direction for future research in a way that integrates several constructs in a single study.

2. Conceptualization of Key Constructs

The constructs forming the basis of the study include leadership strategies, leadership behavioural focus, and leadership paradigm and how they are interlinked to aid in value creation for enhancing firm performance. This study will endeavour to outline the conceptualization of the outcomes of leadership in organizations through the construct of performance and attempt to give solutions to the methodological issues emanating from the operationalization of performance as a construct.

2.1 Leadership

In order to address the concerns set by this paper, the constructs explaining the phenomenon brought about by leadership when deployed in organizations will be considered. In order to understand the phenomenon itself, it is imperative to start with the construct of leadership. Leadership as a function of management is associated with exerting influence to provide direction. Despite the lack of a conventional definition of the concept of leadership, it is generally agreed that for leadership to occur, there must be an individual having the ability and using that ability to influence others to work towards the achievement of a greater common goal. Leadership has been viewed as a process of social influence where a group of people is organized and guided on how they act towards a set purpose or direction (Chemers, 1997). Yukl (2002) supports this view by defining leadership as the process of influencing others to do what needs to be done and guiding them on how to effectively do it in addition to the process of enhancing individual and collective efforts to accomplish the shared objectives. Bratton, Granton and Nelson

(2005) observe that even though Yukl's definition emphasized on the aspects of communication skills which are attributed to successful leaders, it tends to focus on the dynamics and surface features of leadership as a process of social influence.

More critical accounts of leadership tend to focus on the hierarchical forms which give rise to power relationships. In an effort to describe what leadership is, Bruce and Kathleen (2006) defined a leader as one or more people who selects, equips, trains, and influences one or more follower(s) who have diverse gifts, abilities, and skills and focuses the follower(s) to the organization's mission and objectives causing the follower(s) to willingly and enthusiastically expend spiritual, emotional, and physical energy in a concerted and coordinated effort to achieve the organizational mission and objectives. Leadership has also been defined as the use of power and influence to direct the activities of followers towards goal achievement and direction which can affect followers' interpretation of events, the organization of their work activities, their commitment to key goals, their relationships with other followers and their access to cooperation and support from other work units (Colquitt, Le-Pine & Wesson, 2009).

There is also an additional perspective which indicates that leadership is an interaction between members of a group where leaders act as agents of change and persons who can affect other people's acts. Accordingly, leadership occurs when one group member modifies the motivation or competencies of others in the group. It is this perspective that holds implications for the role of leadership strategy as required in the strategic management processes, (Gibson, Ivancevich, Donnely & Konopaske, 2009).

From the various descriptions so far explored, it is observable that (i) The leadership definitions here imply that it involves the use of influence and that all interpersonal relationships can involve leadership; (ii) Leadership involves the importance of being a change agent, being able to affect followers' behaviour and performance; (iii) leadership focuses on the accomplishment of goals. An important concern from the above consensus on what leadership entails is on how the leadership process is able to achieve the expectations arising from these areas of consensus. The goal achievement part of leadership is a critical point of consideration for strategic management in view of the entire processes that characterize strategy formulation, strategic choice and strategy implementation to achieve the vision of a firm. The authors are of the view that meeting these expectations requires leadership strategy. The extant literature however remains silent to a relatively high degree on this construct of leadership strategy.

2.2 Leadership Strategy

So far the authors were able to trace some description of the construct of leadership strategy from the work of Pasmore, (2014) that has responded to the existing gap in knowledge regarding the construct. In this work, there is an acknowledgement of the fact that leadership is critical to the strategic management process which requires a strategy to be able to drive the strategic management process as organizations focus on moving towards their desired future direction. This perspective is in line with the theoretical and practical roots of the concept of leadership in management that classifies it under the broad function of management in providing direction, (Weihrich & Koontz, 1994). The perspective seems to bear resemblance to the stream that has given attention to transformational leadership studies that seeks to align group members' efforts with organizational goals by appealing to their motivational drives as the achievement of the group goals rests upon the contributions of the members (Cavazotte, Moreno & Bernardo, 2013). However, this stream of scholarship has not addressed the aspect of leadership strategies.

According to Pasmore (2014), leadership strategy bears similarity with business strategy in terms of the process that result in the formulation of a strategy. Pearce and Robinson, (1997) argue that the process culminating in strategy formulation entails a situational analysis of both the internal and external conditions together with a projection of organizations desired future, which is in line with the work of Ansoff (1965) that focuses on a strategic planning gap as strategists compare the current vis-a-vis the desired future situations. The strategy comes in place to respond to the identified gap existing between the current situation and the desired future state. In a similar way, a leadership strategy is based on a thorough analysis of the current situation and an informed view of the future of the organization's future performance. The strategy then provides a series of recommendations to close the gap between the current situation and desired future in terms of human resource required capacity for both formulation and implementation of an organizations strategy as it addresses the journey towards its future. Due to this capacity aspect of the strategy, a leadership strategy addresses five dimensions: quantity of leaders, the quality of leaders, skills and behaviour, collective leadership capabilities, and the leadership culture.

The dimension of leadership quantity relies on the organization structure adopted in the firm. The strategic management literature as well as that on organization theory acknowledges the critical role which the

organization structure plays in executing the demands of a strategy as evidenced from the work of Chandler (1962), Child (1972), Miles and Snow (1978). The construct of the structure specifies certain dimensions that distinguish an organization from another as well as breathing life into the abstract chart in terms of organizational processes such as communication, organizational development and change (Robbins, 2004). From the dimensions of the structure, a leadership strategy specifies the number of leaders needed, as indicated by current and projected formal leadership positions depicted on an organization chart in terms of the number, level, location, function, business unit, and reporting relationships.

Arising from the quantity dimension is the need to specify the required qualities that the leaders to occupy positions spelt out in the chart must have, to demonstrate their readiness and preparedness to execute the requirements of the strategy. The Upper Echelon theory points out that attention needs to be given to the attributes of TMT that are considered critical to driving the strategic agenda of the firm as it moves towards its future in terms of selection characterized by demographics, diversity, background, experience level and cognitions, (Ngugi & Kilika,2018; Oduor & Kilika, 2018)

The third dimension of the leadership strategy deals with the skills and behaviour that are needed to implement the business strategy and create the desired culture in terms of skills, competencies, and knowledge base. The implementation phase of strategy requires compatibility between the demands of a strategy and the prevailing firm culture. Since in most cases this culture demanded by a strategy may not be in existence, it will be incumbent upon the leadership team vested with the responsibility of implementing the strategy to unleash behaviours that create and sustain a culture that is compatible with the demands of the strategy being operationalized.

Consistent with the above three dimensions is the need for collectiveness in the process of executing a strategy. There is also the issue of strategic decisions as one of the identified characteristics brought about by a new strategy that calls for collectivism in the way a strategy is implemented (Hofer & Schendel, 1978; Pearce & Robinson, 1997). One of the purposes of defining a mission is to provide unanimity of purpose and call for commitment and support from all functions and hierarchical levels of the organization. The leadership strategy responds to this by calling for a collective leadership, which is demonstrated by the capability of leaders acting together in groups and across boundaries to implement strategies, solve problems, respond to threats, adapt to change and support innovation in a bid to enhance performance.

The last dimension touches on the need to create the desired leadership culture, including the leadership practices in use, such as collaboration across boundaries, engagement of employees, accepting responsibility for outcomes, creating opportunities for others to lead, developing other leaders and learning how to learn among others. This is necessary as leaders alone cannot get all the work needed to generate results done but have to rely on the efforts of others. Thus leaders have to create a culture by which others are empowered and motivated to participate and contribute their efforts in a way that is directed towards the attainment of organizational goals.

Thus, a good leadership strategy takes these dimensions into account and makes explicit how many leaders are needed, of what kind, where, with what skills, and behaving in what fashion individually and collectively to achieve the total success being sought. The leadership strategy therefore is a construct that allows leadership to permeate all levels and functional areas of an organization such that it is felt in every area of an organization. Due to this, there is hence the need to explore the aspect of how the leadership in place as enabled by the leadership strategy engages in appropriate behaviours that will inspire followers to direct efforts towards the strategic goals of the organization as spelt out in its vision. Even though leadership behaviour has been substantially discussed in the extant literature, we explore aspects of this extant literature with a view to aligning it with the construct of leadership strategy.

2.3 Leadership Behavioral Focus

The construct of leadership behavior is one that historically emerged from some of the early approaches into the construct of leadership. Two perspectives arise from this historical path as observed from the works of Lussier (2010) and Certo (2009). The approach by Lussier, (2010) indicates that the leading research is no longer concerned with the trait theory paradigm but rather the behavioral theory paradigm. It is important to realize that a leader's behavior is based on their traits and skills even though the behavioral theorists focus on behavior. Under this paradigm, the manager's attitudes and leadership personality traits directly affect his or her behavior and how to relate with employees.

Certo (2009) on the other hand, warns that the failure to identify predictive leadership traits led researchers in the area of leadership to turn to other variables to explain leadership success. The behavioural approach looks at what good leaders do rather than looking at the traits leaders should possess. Under the structure behaviour, the

leadership activity delineates the relationship between the leader and the leader's followers or establishes well-defined procedures that followers need to follow so as to perform their tasks. Structure behaviour is helpful to leaders as it enables them minimize follower activities that do not significantly contribute to attainment of the organizational goal. This calls for leaders to exercise care, and not to go overboard and discourage follower activity that will contribute to achievement of the organizational goals. Consideration behaviour on the other hand, entails a leadership behaviour that reflects friendship, respect, mutual trust and warmth in the leader-followers relationship. This type of behaviour encourages a good human relationship between the leader and the followers.

Based on these works, other scholars have undertaken to expound on the two aspects of behavior for practical application. Farris (1988) identified task-oriented behaviors and relations-oriented behaviors which are almost the same as job-centred behaviour and employee-centred behaviour respectively. Leaders guided by task-oriented behaviors are synonymous with reaching goals and help their employees achieve their goals by defining roles, establishing goals in addition to the methods of evaluations, direct followers, setting time and demonstrate how the goals are to be achieved. As a rule, task-oriented leaders use a one-way communication method to clarify what, who and how of doing things so as to achieve an organization's goals. Northouse, (2010) indicated that task-oriented leaders coordinate, plan, and schedule work-related activities. They motivate their employees and provide them with the required equipment, supplies, and technical assistance for completing the task. Task-oriented behaviors are known to clarify roles and objectives, monitoring individual performance and operations, and short-term planning (Yukl, O'Donnell, & Taber, 2009). Clarifying behaviors include assigning tasks, defining job responsibilities, and setting performance standards. Monitoring behaviors include checking progress and quality of work. Planning behaviors entail determining what staff require in an effort to reach the organization's goals and objectives. Relations-oriented leaders, on the other hand, are more concerned with developing interpersonal relationships and involve a two-way communication method through social and emotional support while bringing employees' comfort among themselves, their co-workers, and their situations (Northouse, 2010).

Relations-oriented leaders demonstrate an understanding of their employees' problems. They help to develop their employees' careers and provide their employees with enough information to do the job, they allow individual autonomy in work, and they show appreciation. Yukl (2006) explains that relations-oriented leadership behaviors include supporting, developing and recognizing behaviors. On the other hand, it is argued that supporting behaviors include accepting others and developing concerns and confidence for the needs of others. Developing behaviors provide potential benefits to new, inexperienced supervisors, colleagues, peers, or subordinates. Recognizing behaviors show praise and appreciation to others who have contributed to effective performances, significant achievements and important contributions to the organization.

Considering these observations, two issues may be generated from the literature, namely what leadership behaviour is and how the leader undertakes to deploy the respective behaviour in view of the strategic goals that have to be achieved. In response, we note that leadership behaviour has to be considered in terms of what the leader systematically focuses on and repeatedly does to cause others to act in a way that leads to the achievement of desired results. The behavioral theories to leadership suggest that leadership behaviour is a predictor of the leader's leadership influence and the best determinant of the leadership success. The behavioral school of management considers behaviour in terms of what one does and therefore their actions. In view of these, leadership behaviour is considered in this paper as a combination of the (i) leader's belief in what is the optimal action to trigger goal oriented follower behaviors based on a diversity of contingencies, (ii) the set of actions the leader systematically and repeatedly engages in so as to promote the legitimate interest of the organization. The belief part is important as the leader has to consider a wide range of contingencies in the context where leadership is deployed and implies that the leader will need to be alert to as many contingencies as possible.

2.4 Leadership Paradigm

Leaders are expected to provide direction and make choices that they deem most suitable to optimize results. This is a process that will require a leader to provide the direction and make choices based on important premises that not only offer justification but also optimize on a diversity of contingencies likely to enhance the likelihood of galvanizing follower support for the choices, thus calling for an understanding of the role of the leader's paradigm in leadership processes. Some scholars point that such paradigms evolve from the social, historical, cultural and political contexts the leaders find themselves in. Kuhn (1962) introduced this construct of paradigm in the context of scientific thinking which has been embraced in decision-making processes in management and by business researchers in an attempt to enhance objectivity in decision making. According to Kuhn (1962), a paradigm refers to intellectual perception or view, accepted by an individual or a society as a clear example,

model, or pattern of how things work in the world. A paradigm can be a useful construct for a study to aid interpretation and understanding especially in the context of leadership where the leader faces diverse contingencies inviting the need to understand their perception and interpretation of the context. Embracing the construct of paradigm gives an opportunity to explain how and why in one organization different leadership approaches may prevail due to the behaviours exhibited by the leaders depending on the diversity of contexts and situations that both the leaders and the units in the organization face.

Paradigms of leadership have therefore been embraced from the perspective of theories which have arisen out of studying a particular situation, for example business, public service or education, so as to emphasize different elements and values relevant to the nature and purpose of that organizational sector. Consequently, paradigms differ in their focus depending on where they situate leadership on any of the three areas such as the person, the position or the process. When leadership is located in personhood, the traits, attributes or competencies of a leader and the leader/follower relationship are central. In positional leadership, power, authority, role and hierarchy will feature with the emphasis on the leader within organizational systems. When leadership is seen as a process, interactions and reciprocity of relationships will be the prime focus of attention.

Avery (2004) proposed nine indices that have been used to differentiate among four paradigms: classical, transactional, visionary and organic. The nine indices include decision making, a range of staff's power, power distance between leader and the staff, key player of the organization, source of staff's commitment, staff's responsibility, situation of management and leadership in the organization, situation of diversity in the organization and situation of control in the organization. The classical leadership is considered the oldest paradigm with its origins in antiquity, and is still used in contemporary organizations (Avery, 2004). This paradigm reflected the prevailing view in the business literature until the 1970s when the human relations movement led to more of a focus on followers and their environment. Secondly, a transaction or exchange process is the basis of the commonly employed transactional leadership paradigm, (Evans & Dermer, 1974; House & Mitchell, 1974). It has been argued that the transactional leader recognizes subordinates' needs and desires and then clarifies how those needs and desires will be met in exchange for subordinates' work.

In the last three decades, visionary (transformational, charismatic) leadership has received increasing attention (House, 1977; Burns, 1978; Bass, 1985; Conger & Kanungo, 1987; Burns, 1998). It added a new dimension to organizational studies that entails the visionary aspect of leadership and the emotional involvement of employees within an organization. A visionary leader can create an impression that he or she has high competence and a vision to achieve success and in turn, subordinates are expected to respond with enthusiasm and commitment to the leadership objectives and may be recruited because they share the vision. Organic leadership is the fourth leadership paradigm and is relatively new to organizational studies in comparison to the other three, (Drath 2001; Avery 2004). Various scholars have argued that organic leadership is likely to blur the formal distinction between leaders and followers because it relies on reciprocal actions, where team members work together in whatever roles of authority and power they may have, not based on position power (Rothschild & Whitt, 1986; Hirschhorn, 1997; Raelin, 2003).

2.5 Firm Performance

Civelek, Çemberci, Artar, and Uca, (2015) point out that performance is a multidimensional concept that is used to determine the success of a business in terms of the level of achieving the objectives of a business. The short-term goals of firms include improving efficiency, reducing the level of inventories, and shortening the rate of turnover while the long-term objective entails increasing the market share and profitability. To be able to make a comparison between organizations and to assess their behaviors over time, financial measurements and market measurement criteria are used as instruments. When performance dimensions are mentioned in relation to operations, the first concepts that come to mind are sales and firm size. Then, the factors of effectiveness and efficiency are added to these two dimensions. Effectiveness is the degree of achieving the set goals of a firm. Efficiency is the ability of a firm to produce the desired outputs with minimum resources (raw materials, money, human resources).

On the other hand, Koçoğlu, (2010) looks at performance in terms of efficiency and effectiveness and defines firm performance as the process of achieving firm goals in an efficient and effective way. To measure firm performance, return on investment (ROI), market share, a profit margin of sales, growth rate of ROI, increase in sales, growth in market share, and competitive position is used as measurement criteria in the literature. It can be said that in the 2000s new dimensions such as utilization of inputs, quality, innovation, and quality of working life have been added to these factors and the scope of the concept of performance has broadened. Today, the dimensions of employee behavior, market share, product or market leadership, and public responsibility have

been added to this classification.

Bernardin, Kane, Ross, Spina, and Johnson (1995) offered a different perspective of performance indicating that it should be defined in terms of the outcomes of work because it provides the strongest linkage to the strategic goals of the organization, customer satisfaction, and economic contribution. Other definitions like that offered by Brumbanch (1988) considered performance to mean both behaviors and results. Behaviors emanate from the performer and transform performance from abstraction to action, not just the instruments for results, behaviors are also outcomes in their own right as the product of mental and physical effort applied to tasks and can be judged apart from results. There are also psychological and employee-centered views, such as that of Appelbaum, Bailey, Berg, and Kalleberg (2000) where performance is a function of employee ability, motivation, and opportunity. Rayner and Adam-Smith (2009) assert that it is not only a question of how performance is defined but also of who within the organization is, or are, responsible for defining performance standards. Often, it is the organization itself that determines performance and how it will be measured. Performance requirements are part of a strategic planning process, cascading top-down through the organization from senior management.

Thus, organizational performance refers to the ability of an enterprise to achieve set objectives such as high profit, quality product, large market share, good financial results, and survival at a pre-determined time using relevant strategy for action (Koontz & Donnell, 1993). Organizational performance can also be used to view how an enterprise is doing in terms of the level of profit, market share and product quality in relation to other enterprises in the same industry. Consequently, it is a reflection of the productivity of members of an enterprise measured in terms of revenue, profit, growth, development, and expansion of the organization. Understanding the effects of leadership on performance is also important because leadership is viewed by some researchers as one of the key driving forces for improving a firm's performance. Effective leadership is seen as a powerful source of management development and sustained competitive advantage for organizational performance improvement (Lado, Boyd & Wright, 1992; Avolio, 1999). Huczynski and Buchanani (2013) argue that for change to be successful, the soft human issues need to be integrated with hard structures and systems within an organization. This requires skilled change agents and an organizational culture which welcomes change and appropriate management system.

2.6 Issues Arising from the Conceptual Review

The reviewed literature on the constructs in the study raises several issues that need the attention of scholars in strategic management. The first issue regards the richness of the literature drawn from a diverse multidisciplinary background that has reflected general management, strategic management, organization theory and behavior. Based on this multidisciplinary underpinning, the constructs have been broadly conceptualized such that their defining nature is understandable and the set of operational indicators that display the characteristics of each clearly spelt out.

Secondly arising from the rich literature is a set of dilemmas that scholarship needs to address theoretically and empirically. We raise these dilemmas based on three considerations: scope of understanding of the constructs, the emergent phenomenon, and roles of the constructs in the emergent phenomenon. With regard to the current understanding of the constructs, even though it is noted that the diversity alluded to earlier leading to their descriptions and identification of operational indicators has offered an undisputed description, that state may not extend to all the constructs. We justify this argument based on the construct of performance where most attention has been given to the objective indicators. Considering the nature of the construct of leadership and that of leadership strategy, we argue that deployment of these constructs in a strategically oriented setting ushers into an organization a dispensation that marshals an entire organization into a unified system to solidly focus on a collective organizational vision that should reflect the contribution of all.

In view of this, and while most attempts to measure performance have focused on financial dimensions, there is consistency with arguments generated from Kontoghiorghes *et.al* (2005), Kilika (2012) and Hucnzski and Buchanan (2013),which call for the construct of performance to be expanded to link leadership directly to performance and include employees' participation. The deployment of the leadership strategy brings about a collective organizational effort as well as entrenching a performance-oriented culture that reflects on the behaviors of employees. The construct of performance needs thus to be expanded to show how the leadership in place has contributed to the organization in other dimensions besides financial but are of strategic importance to management such as the firm's preparedness for change, adaptation and learning capability.

With regard to the emergent phenomenon arising from the deployment of leadership strategy, it is observable that deployment of the construct of leadership strategy will usher a situation in which the organization will experience both intermediate and ultimate outcomes at both the leadership and employee levels. While at the

leadership level, the intermediate states brought about will touch on the leadership behaviours that the leaders will exhibit in directing workers towards the attainment of the organizational vision, at the employee level, there is a possibility of generating employee capabilities that will act as required competencies that an organization benefits from due to the proper deployment of the leadership strategy. Looking at the dimensions of the leadership strategy, it is possible to isolate a number of attributes that can offer an organization the opportunity to derive employee based competencies: the leadership culture that embraces employee engagement, empowerment and learning to learn and the capabilities aspect that emphasizes among other things, solving problems and supporting innovation (Pasmore, 2014). Therefore based on this logic, the phenomenon that results from the deployment of leadership strategy needs to provide for the role of generated firm based employee capabilities.

In the same breath, while considering the phenomenon, the contextual setting of the deployment of the leadership strategy needs to be given attention. Pasmore (2014) in addressing the origin and role of the leadership strategy underscores the role of analysis of the situation prevailing which an organization responds to through the adopted business strategy. Arguing from the nature of strategic decision making where the role of the external context is considered to play an important role, it is our view that the phenomenon involving deployment of a leadership strategy needs not ignore the role of the external context faced by the firm. We further observe that, if the leadership strategy is considered as a resource, it would be necessary to incorporate aspects of the external context where the firm operates so as to mitigate the limitations that have been associated with the resource-based perspective in failing to integrate environmental considerations (Goeltz, 2014).

2.7 Review of Relevant Theories

The conceptual discussion has tried to link leadership strategies, behaviors and firm performance and calls for an examination of relevant theories emanating from this phenomenon. In view of this observation, the paper considers these constructs and explains each as to demonstrate how they fit in a phenomenon that is anchored on the postulates of the relevant theories. The arguments of this paper are anchored on several theories that focus on leadership strategies, behaviour, and firm performance. The theories under this study include Leader-Member Exchange (LMX) theory, Contingency Theory, Transformational Leadership theory and finally the Path-Goal Theory.

2.7.1 Leader-Member- Exchange Theory

Leader-Member Exchange (LMX) theory conceptualizes leadership as a process that involves interactions between leaders and followers and can be well explained within the leadership-making model of Graen and Uhl-Bien (1991). The LMX theory works in two ways; first, it describes and secondly, it prescribes. In both instances, the central concept is the dyadic relationship that a leader forms with each of their subordinates. Descriptively, LMX theory suggests that it is important to recognize the existence of in-groups and out-groups within a group or organization. Extant research indicates that employees who have high-quality LMX relationships with their supervisors end up with more positive work attitudes and higher performance than those who do not. However, it is also true that when employees feel like their supervisors are favoring some employees over others; it is likely to undermine the positive effects of LMX even among employees who have high-quality exchanges with their supervisor, (Hsiung & Bolino, 2017). The postulates of this theory are considered relevant in strategic management in that they address an important aspect that regards the how of strategy implementation which is the focus of the leadership strategy. It can, therefore, explain components of leadership behavioral focus.

2.7.2 Contingency Theories

To complement the LMX theory, Fiedler's contingency theory comes in handy to explain that the performance of a leader depends on two interrelated factors: the degree to which the situation gives the leader control and influence that is the likelihood that the leader can successfully accomplish the job, and the leaders' basic motivation that is whether the leader's self-esteem depends primarily on accomplishing the task or on having close supportive relations with others. With respect to leaders' basic motivation, Fiedler believes that leaders are either task-motivated or relationship-motivated. These basic motivations are similar to initiating structure/concern for production and consideration/concern for people. Fiedler's theory is also based on the premise that leaders have one dominant leadership style that is resistant to change. Fieldler suggests that leaders must learn to manipulate or influence the leadership situation in order to create a 'match' between their leadership style and the amount of control within the situation at hand, (Sinding, *et al*., 2014).

2.7.3 Transformational Leadership Theory

According to Burns, (1978), transformational leadership involves the engagement of a leader and followers in a

mutual process to higher levels of morality and motivation. Transformational leadership can be defined on the basis of the impact it has on the followers' motivation and performance (Bass, 1985). Bass asserted that transformational leaders garner trust, loyalty, respect and admiration from their followers. Transformational leadership aims at changing the culture of an organization, state or nation with a new and compelling vision for the entity, and it does this by marshaling the appropriate support to make that vision the new reality. Gomez-Mejia (2008) observes that transformational leadership is a type of leadership that inspires organizational success by profoundly affecting followers' beliefs in what an organization should be, as well as their values, such as justice and integrity. This style of leadership creates a sense of duty within an organization, encourages new ways of handling problems and promotes learning for all organization members, (Boberg & Bourgeois, 2016; Cheng & Sheu, 2017; Muralidharan & Pathak, 2018).

2.7.4 Path-Goal Theory

Lastly, Path-goal theory is about how leaders motivate subordinates to accomplish designated goals. Drawing heavily from research on what motivates employees, the path-goal theory was developed by Evans, (1970) and House, (1971). The theory specifies four leadership behaviors; that is a directive leader, supportive leader, participative leader, and an achievement-oriented leader. A directive leader establishes expectations for followers, determines targets to attain, organizes tasks, sets deadlines and schedules and closely monitors progress. A supportive leader is warm and friendly and shows concern about the problems and needs of the subordinates. A participative leader actively elicits subordinate input and opinions and uses them when making decisions that affect the group. This is similar to a democratic leadership style. An achievement-oriented leader is primarily concerned with motivating people by setting challenging goals, coaching subordinates to perform at the highest level, and rewarding those who meet or exceed their targets, (Gomez-Mejia, 2008; Northouse, 2016).

2.7.5 Model of Leadership Strategy

The model was proposed by Pasmore (2014) due to the role leadership plays in strategic management practices involving adapting to change, implementing strategic plans and preparing for an uncertain future. The model is premised on the observation that even though leaders are aware of the value of a well-defined strategy, few of them, however, give attention to the leadership that will be required to implement strategies that call for changes in the direction or capabilities of the organization. This situation leads to two important concerns that need to be addressed :(i) can the next generation of leaders in an organization be counted upon to step up once in position? (ii) What can organizations do to avoid the risks associated with inadequate leadership and better prepare their current and future leaders for changes that are unforeseen? In view of these concerns, the concept of leadership strategy was proposed in the model for the purpose of identifying an important factor for charting through the turmoil through the quality of the organization's leadership talent. The model attempts to describe what leadership strategy is and does in an organization as well as how it links with an organization's business strategy.

In an attempt to describe what leadership strategy is, Pasmore (2014) pointed out that leadership begins with individuals in leadership but does not end there. There is need to understand leadership culture which is defined by collective actions of formal and informal leaders acting together to influence organizational success, i.e. it is not simply the number and quality of individual leaders that determines organizational success, but the ability of formal and informal leaders to pull together in the support of organizational goals that ultimately makes the difference. Thus leadership is both the leaders themselves and the relationships among them-pointing to collective or connected, distributive, interdependent or boundariless leadership system.

The Model indicates that in describing the leadership of an organization, at a minimum we should consider:(i) quantity of leaders needed as depicted in the organization structure; (ii) the qualities desired in selection(demographics, diversity, background, experience level) the skills and behaviors needed to implement the business strategy and create the desired culture;(iii) the collective leadership capabilities of leaders acting together in groups and across boundaries to implement strategies, solve problems, respond to threats, adapt to change, support innovation; (iv) the desired leadership culture, including the leadership practices in use such and collaboration across boundaries, engagement of employees, accepting opportunities for others to lead, developing other leaders, learning how to learn. Thus a leadership strategy makes explicit how many leaders an organization needs, of what kind, where, with what skills and behaving in what fashion individually and collectively to achieve the total success an organization seeks.

2.7.6 Theoretical Issues

This theoretical literature reviewed raises a number of issues. One of the clearest manifestations of the theories is how several constructs related to leadership are anchored on the postulates of the theories. The constructs are those of leadership behavior, leadership paradigm, and leadership strategy. The LMX theory is clear on how it roots

certain leadership behaviors and so is the path-goal theory. The contingency theory also addresses aspects of leadership styles while transformational leadership theory addresses aspects of the leadership paradigm. The model on leadership strategy by Pasmore has paid attention to the construct of leadership strategy. Secondly, it is also notable that there are complementarities among the theories in their arguments. The LMX theory and the contingency approach can be said to focus on leadership behavior even though they use different terminologies in their descriptions. In the same breath, the contingency theory in its attempt to focus on leadership styles raises implications for leadership paradigms. The transformational leadership theory, even though does not directly mention the aspect of a paradigm yet advances arguments that promote adoption of one the paradigms identified in the work of Avery, (2004).

An important point of observation is that touching on a leadership strategy. Whereas extant literature has for long remained silent on this construct, using the arguments drawn from the model proposed by Pasmore (2014), we trace leadership strategy from the construct of leadership using the perspective adopted by Gibson *et.al* (2009) and link it with the strategic management process through the process of situational analysis. Strategic management emphasizes carrying out a situational analysis so as to generate an appropriate strategy that matches the organization's internal systems with the external context. In the same breadth, once the strategy is developed, an organization needs to carry out a leadership situational analysis to establish the leadership requirements for effectively implementing each strategy which becomes the point of focus of the leadership strategy and an identification of its components.

There has also been an attempt to apply the theories in empirical work with evidence indicating that some constructs have been drawn from these theories. Among the constructs that have been used in empirical studies include innovative behaviour and humorous leadership; leadership styles and organizational performance; leadership behaviours and firm performance; behaviour and leader-follower dyads; leadership behaviours and employee performance; leadership behaviours and managing change; business strategy and firm performance; competitive strategies, performance measurement and firm performance. From the studies, it is worthwhile to note that most of the theories focus more on leadership styles and very few on leadership behaviors. LMX Theory has emphasized the dyadic relationship and in-groups relationships, contingency theory has used leadership situation and motivation basis as the variables, transformational leadership theory has used followers motivation and performance as the key variables while the path-goal theory emphasizes four leadership behaviors: directive leader, supportive leader, participative leader and an achievement-oriented leader (Graen & Uhl-Bien 1991; Robbins, Judge & Sanghi , 2009; Northouse, 2010).

2.8 The Case for a Theoretical Model

In order to extend the extant rich literature on leadership, we identify several points that emerge as issues from the reviewed literature to support a case for the development of a new model putting into consideration leadership strategy, leadership paradigm, behavior and performance. The first of these points arises from the diversity of indicators that both the conceptual and empirical literature proposes for operationalizing the constructs. Whereas the proposed indicators have derived from conceptual and theoretical backgrounds, the exact behavior of the constructs is best understood when examined from practice in which case it becomes imperative for scholars to theorize and model a relationship among the constructs to be empirically investigated using their relevant indicators. From the reviewed literature, it was pointed out that different concepts of leadership have been employed in different studies thus producing findings that make it virtually impossible to make direct comparisons. Further, there are gaps and unanswered questions arising from levels of leadership that have not been distinguished. A new theoretical model offers an opportunity to theorize and put forward propositions at the abstraction level that can be empirically investigated as hypotheses with factual data (Nachmias & Nachmias, 2004).

The second point of consideration arises from the dimension of the scope that has been given to both the conceptualization and empirical focus in the understanding of leadership, the emergent phenomenon, and nature of relationships and contexts of study. In terms of conceptualization, two constructs need attention: leadership strategy and performance. Even though leadership strategy has been traced from some of the leadership perspectives, the version proposed by Pasmore is far more comprehensive and specific for application and calls for consideration in attempts to model relationships that seek to understand the path leading from strategy to implementation of those strategies. Doing so can also offer an impetus towards further explanations on lingering questions touching on strategy implementation- performance link. The construct of performance has varied perspectives and much of the attention has been given to objective measures at the expense of qualitative measures. Some of the outcomes of leadership are qualitative in nature and there is a need to integrate these dimensions in future research to provide a more comprehensive perspective on performance as attempts are

made to link leadership with performance. This is in line with calls that have been made raising the need to re-examine the leadership-performance relationship whereby one of the identified problems is that relating to the quality of performance measurement (Luliya *et al*, 2013). When selecting the measurements of performance, previous researchers have employed financial measurements or non-financial measurements, rather than employing both kinds of measures in order to enhance the validity of the research.

In terms of the context, the reviewed empirical work has focused more on the advanced economies limiting the scope of generalization of the findings. There are opportunities offered by globalization in the emerging economies. In view of this, there is a need for geographical expansion of the scope so far given to including other contexts which require that new models be suggested to provide for a way of measuring the behavior of the constructs in different contexts (Obiwuru *et al*, 2011; Pundt, 2015; Collette, 2016).

In terms of empirical work, we find that a gap exists in terms of the number of the variables that have been used in a single study. This has a bearing on the direction future research should take in that scholars need to embrace a broad conceptualization of leadership such as that offered by Avery (2004) on the four leadership paradigms. This will broaden the scope of the leadership perspective measures. From the empirical review, we identify several streams that have been adopted in research. The first stream is that attempting to link leadership to firm performance. For example, Awulosi *et al* (2015), Albert *et al* (2015), Koech and Namusonge (2012), Obiwuru *et al*, (2011) and Fenwick and Gayle 2008) have tried to link leadership styles and firm performance. Others like Pundt, (2015), Karamat, (2013), Collete, (2016), Julia, (2015), Kisiangani and Emily, (2015), Veronicah, (2011) and Gift and Frans, (2006) have tried to link leadership behavior and performance.

The second stream has focused on leadership behaviours and paradigms where many scholars have critically examined the effectiveness of leadership paradigms and behaviors (Analoui, 1999; Avery, 2004; Drath, 2001; House & Aditya, 1997; Kakabadse & Kakabadse 1999; Shamir *et al*. 1993; Shamir & Howell, 1999; Yukl, 1999). The state of the findings arrived at indicates that the leadership-performance relationship is full of difficulties and has many unsolved problems, including methodological ones such that conclusions cannot be drawn about the extent to which leadership behaviors and styles facilitate the improvement of organizational performance.

Thirdly is the stream that has implicitly attempted to consider some of the aspects of leadership strategy. Extant studies have explored the strategic role of leadership to investigate how to employ leadership paradigms and use leadership behaviour to improve organizational performance (Judge, Bono, Ilies & Gerhardt, 2002; Judge & Piccolo, 2004; Keller, 2006; McGrath & MacMillan, 2000; Meyer & Heppard, 2000; Purcell, Kinnie, Hutchinson & Dickson, 2004; Yukl, 2002). This has been premised on the argument that intangible assets such as leadership styles, culture, skill and competence, and motivation are seen increasingly as key sources of strength in those firms that can combine people and processes and organizational performance (Purcell *et al*., 2004).

Fourth, is the stream focusing on leadership paradigms where much prior research has examined the assumed leadership-performance relationship, but it has examined a restricted number of leadership paradigms (e.g. visionary and transactional paradigms) while ignoring the potential role of other paradigms (e.g. classical and organic paradigms). Bernard Bass' (1985) distinction between transformational and transactional leadership is one such example. Scholars have criticised Bass's (1985) theory of transformational leadership, finding that there is no one best way of thinking about leadership, rather than different kinds of leadership reflect social and historical roots, depending on the context (Avery, 2004; Bryman, 1992; Drath, 2001; Shamir & Howell, 1999; Yukl, 1999). This implies that different leadership paradigms could affect performance differently, depending on the context. Thus, when researching the leadership-performance relationship, the context needs to be taken into account and more paradigms need to be considered. Previous studies led to the expectation that leadership paradigms will have direct effects on customer satisfaction, staff satisfaction, and financial performance. In general, however, the effects of leadership on organizational performance have not been well studied, according to House and Aditya's review of 1997, who criticized leadership studies for focusing excessively on superior-subordinate relationships to the exclusion of several other functions that leaders perform, and to the exclusion of organizational and environmental variables that are crucial to mediate the leadership-performance relationship. Another problem with existing studies on leadership is that the results depend on the level of analysis. Other scholars have also suggested that leaders and their leadership style influence both their subordinates and organizational outcomes (Tarabishy, Solomon, Fernald & Sashkin, 2005).

3. The Proposed Theoretical Framework

In view of the above arguments, moving forward with the attempts to integrate leadership with studies in strategic management, the authors are of the view that a new model is required to offer that direction. The required model needs to be premised upon the pillars of leadership strategy, leadership behavioral focus,

leadership paradigm, the context of leadership and firm performance. In theory building, scholars have the challenge of not only identifying the constructs that build a phenomenon, but also the role played by each construct in the phenomenon and the likely impact on the phenomenon. Thus, we propose a new model linking leadership strategy with firm performance in the context of leadership behavioral focus, firm capabilities, leadership paradigm and the firm context. The model is summarised in figure 1.

3.1 Leadership Strategy and Firm Performance

The proposed phenomenon is initiated by the deployment of leadership strategy as the antecedent factor. The leadership strategy as proposed by Pasmore (2014) derives from the business strategy adopted by the firm to optimize on external conditions availed by identified opportunities that must be responded to in order to enhance survival of the firm. The construct has been operationalized in a way that when deployed, it permeates all the facets of an organization in reflecting the role it should play as pointed out by Pasmore (2014) that leadership is greater than an individual leader so as to usher interdependence, networking, collectiveness and connected leadership in the entire organization. Understood from this perspective, the deployment of the leadership strategy will usher a situation in which one of the key defining characteristics of strategic decisions of multifunctional consequences starts to be felt in the organization.

This state will realize a state of an organizational system that solidly pursues its vision and unites to realize its promise in terms of actual performance. Borrowing from the postulates of the RBV, the state of the system created may be regarded as an intangible strategic resource for the organization that bears all the attributes of strategic resources under the VRION Framework so as to deliver superior performance to the organization. The performance construct has been widely measured using objective indicators mostly financial in nature, yet due to the nature of the leadership strategy construct that creates a people based organizational system will deliver results that go beyond the financial results. Such measures will include dimensions of organizational health such as flexibility, adaptability, readiness for change and inbuilt capability to meet competitive challenges (Kontoghiorghes *et.al,* 2005; Kilika, 2012; Hucnszyki & Buchanan, 2013).

Deployment of the leadership strategy is for the purpose of offering direction that focuses on the attainment of the desired level of performance by the management through implementation of the firm's business strategy. Given that the leadership will pervade the entire organization, the leaders at the diverse levels and functions will exercise influence through actions that will select, equip, train, develop abilities and skills that focus on the mission of the organization(Yukl,2002; Bratton *et.al*, 2005; Bruce & Kalliteen, 2006) and by the proper use of power, ensure leadership modifies and motivates the competencies availed towards achievement of the organization mission (Colquitt *et.al*,2009; Gibson *et.al*, 2009). Therefore, we propose that:

> ***Proposition 1: Deployment of the organization's leadership strategy that is drawn from a firm's business strategy will positively affect the various dimensions of the firm's performance.***
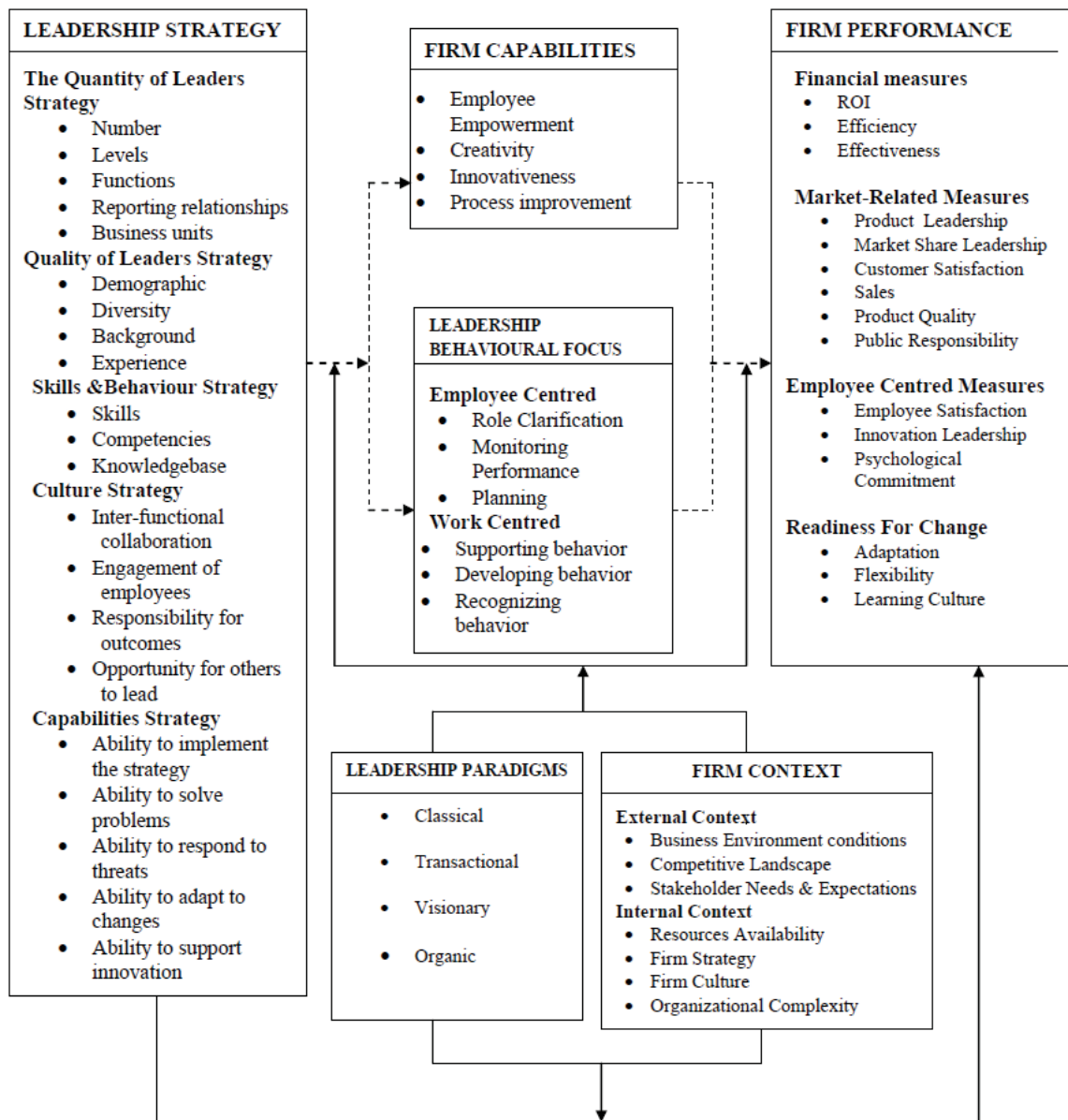
Figure 1. Theoretical Model Linking Leadership Strategy, Behavioural Focus and Firm Performance

3.2 The Role of Leadership Behavioral Focus and Firm Capabilities

Deployment of the leadership strategy is a practical process that requires the leadership in place across the levels and functional areas of the organization to display a diversity of leadership behaviors as they focus on the long-term direction espoused in the business strategy. We argue that the deployment of the leadership strategy will give rise to two forms of competencies that an organization requires to sustain its superior performance, namely leadership behavioral focus and firm capabilities. The literature on leadership behavior points out that the leadership behavior exhibited by the leader is based on leadership traits that are linked to the personality of the leaders (Certo 2009; Lussier, 2010). A close association can thus be identified between the leadership behavior and the deployed leadership strategy in the dimensions of leadership capabilities and the quality of leadership.

In both dimensions, the strategy will facilitate identification of the combination of personal attributes as well as the diversity requirements for driving the agenda of the business strategy being implemented. Therefore, it is logical to conclude that the leadership behavior derives from the nature of the deployed leadership strategy. In addition, the dimension of the leadership strategy focusing on leadership culture and capabilities strategy has

aspects that have implications on the management of the workforce. The aspect of leadership culture emphasizes engagement, empowerment and that of learning how to learn while that of capability provides for problem-solving and innovation which when deployed will create competencies for the organization through its workforce. Thus the leadership strategy can be argued to be responsible for the emergence of capabilities the organization enjoys through its workforce. Thus, we propose that:

> *Proposition 2a: There is a correlation between the deployed leadership strategy and the leadership behavior exhibited by the leaders implementing a firm's strategy.*

> *Proposition 2b: The deployed leadership strategy is correlated with the firm's workforce capabilities.*

The leadership behavior regards what the leaders consistently exhibit in their actions so as to win the support of the followers towards attaining the desired performance outcomes by the organization. Given the diversity of contingencies that characterize the managerial situations in and outside the organization, the leader who is conscious about the long-term direction will engage relevant behaviors that can range from focus on the task or the employee and build relationships or networks that will intrinsically motivate the workforce to direct their commitment towards the mission of the organization (Northouse, 2010). The behaviors that the leader will focus on and engage so as to marshal a collective organizational effort towards goal realization are what will enable the leadership strategy to achieve the desired level of superior performance. The deployment of the leadership strategy and emergence of the appropriate leadership behaviors are likely to create an internal state among the workforce that creates an important human resource capability for driving the strategic agenda for the firm.

Due to the permeation of leadership across all levels and functions of the organization and creation of an organizational system that unites behind the achievement of the vision of the firm, the state created is likely to drive a high sense of ownership by the workforce of the organization's journey to executing the work involved in each strategy. In such a situation, high levels of empowerment, creativity, innovativeness, commitment, identity with the strategy and the firm will be experienced. These two aspects of leadership behavioral focus and the firm's capabilities created through the workforce are considered as necessary conditions for sustaining the desired superior performance from the deployed leadership strategy. We argue that even though the leadership strategy impacts on firm performance, the sustainability of the impact is dependent upon the leadership behavioral focus and the workforce-related capabilities created. Thus:

> *Proposition 2c: Leadership Behavioural Focus mediates the relationship between deployment of leadership strategy and firm performance*

> *Proposition 2d: Workforce developed capabilities derived from the deployment of a leadership strategy will mediate the relationship between the deployed leadership strategy and the emerging firm performance.*

3.3 The Role of Leadership Paradigms and Firm Context

The business strategy adopted by a firm form the basis for the organization's leadership strategy both of which have a common characteristic in that they depend on the external context of the firm for success. The context is of relevance to a strategist at several levels: strategy deployment phase and performance phase. At the deployment phase, the strategist is concerned with the engagement of the right behaviors based on the contingencies within the organization and the external environment. How the leader perceives the external environment in order to draw important cues that should dictate the behaviors to engage in so as to optimize on the opportunities availed becomes important. From a cognitions perspective, the external context becomes relevant in shaping the leader's selection criteria of what cues to select and the relevant paradigm to embrace based on where leadership should be optimally situated in order to respond to the demanding situation faced in the implementation of each strategy and the combination of workforce-related competencies to build among the workforce.

At the performance level, the external context has been seen as a source of constraint to a smooth process of strategy implementation due to the unpredictability and surprises that it may bring (Goeltz, 2014). There is therefore the need for ensuring congruence between the strategy being implemented and the conditions of the external context towards successful implementation of strategies. Managers should be prepared to identify the surprises in the context and adjust the strategy accordingly so as to enhance the level of consonance between the demands of the external context and the strategy being implemented. This has implications for the leadership in that they have to be alert, pick the necessary cues and adjust their strategies accordingly. From these arguments based on the constraints of the external context and the expected role of the leadership in the organization, we propose that:

Proposition 3a: The relationship between the deployed leadership strategy and behavior and firm competencies will be moderated by the leadership paradigm embraced by the leaders implementing the firm's business strategy.

Proposition 3b: The mediated effect of leadership behavior and firm capabilities on the relationship between leadership strategy and firm performance will be moderated by the leadership paradigm embraced by the leaders implementing the firm's business strategy.

Proposition 3c: The leaders' perception of the firm's external context will moderate the relationship between the deployed leadership strategy and the leadership behavior and firms capabilities.

Proposition 3d: The leaders' perception of the firm's external context will moderate the mediated effect of leadership behavior and firm capabilities on the relationship between the deployed leadership strategy and the Firm's performance.

Proposition 3e: The leaders' perception of the firm's external context will moderate the relationship between the deployed firm leadership strategy and the corresponding firm performance.

Proposition 3f: The leadership paradigm embraced by the leaders implementing the firm's business strategy will moderate the relationship between the deployed leadership strategy and the corresponding firm performance.

4. Conclusion

The purpose of the paper was to explore the nature of the construct of leadership strategy and highlight the features of the phenomenon it brings about in the firm's strategic behavior. The construct was argued to have its place in strategic management through the process of strategy implementation and was argued to play an important role in implementing a firm's business strategy. Both constructs share a common characteristic in that an organization has to perform a situational analysis to identify gaps that need to be responded. On the part of leadership strategy, the identified gaps and the manner in which they are responded to form the substance of the dimensions of the leadership strategy. The leadership strategy when deployed in an organizational setting, it brings about a phenomenon whose intermediate consequences are the leadership behavioral focus by the leadership of the organization and the set of generated employee capabilities that derive from the strategy. The paper argued that, when the leadership strategy is deployed to implement a strategy, it will lead to the performance of an organization which is mediated by the behavioral focus, generated capabilities and conditioned by the leadership paradigm that the leaders embrace and the context the firm finds itself in.

The contents of the paper highlighted the nature of the various constructs that feature in the phenomenon brought about by the deployment of the leadership strategy. The paper presented the conceptual understanding of each construct by identifying the operational indicators as well anchoring each of the constructs on a multidisciplinary based theoretical framework drawn from contingency theory, LMX Theory, Transformational leadership theory, Leadership Strategy Model. The paper demonstrated that the theories that anchor the constructs are complementary in several ways and highlighted those areas along which the complementarities manifest through the constructs that describe the emergent firm strategic behavior. In addition, it was demonstrated that in spite of the clarity of the understanding of the constructs, there are limitations in the scope of understanding of the construct of performance in regard to how it reflects the totality of the nature of the construct of leadership and the need to expand the scope of the indicators to the construct of performance while relating it to leadership strategy. Besides the existing dilemmas in empirical work leading to inconclusive findings owing to limitations in conceptualization and theorizing, the emergent gaps have been captured and relied upon to suggest a theoretical model for addressing the gaps in future scholarship. The proposed framework provides a comprehensive attempt to understand the phenomenon brought about by the deployment of strategic leadership strategy in directing firm strategic behavior so as to show the role of the strategy, its intermediate and ultimate outcome of performance and the factors justified from the literature as conditioning this phenomenon.

In view of the above, the authors suggest that the proposed theoretical model can be a suitable basis for mounting future research based on the constructs, their operational indicators and the direction of relationships through the set of propositions. The future attempts will, however, need to develop suitable measurements and contexts for study as the effort moves from the abstract state arrived at by this study to the empirical state. The authors cite the lack of testable empirical data to validate the claims of the propositions as limitations which future scholarship can overcome by developing measurement instruments, applying them to collect primary data and application of robust statistical techniques to confirm the hypotheses.

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Small and Medium-Scale Agro-Produce Entrepreneurship and Promotion of Non-Oil Exports from Nigeria

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Abstract

The study undertook a critical appraisal of marketing communications' tools for the promotion of non-oil exports by small and medium-scale agro-produce entrepreneurs in Nigeria. It was motivated by the problem of low performance of the non-oil export sub-sector in the country. This is in spite of government's incentives and the introduction of African Growth and Opportunity Act (AGOA) in May 2000 by the United States of America, which was to improve export of products particularly in agriculture from Sub-Saharan Africa to the United States. The focus of AGOA was to enhance the economic growth of countries in Sub-Saharan Africa through export leverages rooted in the reduction of tariffs and non-tariff barriers. The specific objectives of the study were to: determine the effect of internet-marketing communications media as tools for promoting small and medium-scale farming entrepreneurs' non-oil exports from Nigeria; and ascertain the effect of social-media communications as tools for promoting small and medium-scale farming entrepreneurs' non-oil exports from Nigeria. Survey research design was adopted in the study. The sample frame comprised small and medium-scale agro-produce farmers drawn from three States representing the three-former regional structure of the country. Data sourced were statistically analyzed. Results indicate that both internet marketing and social media communications were not yet significant for promoting non-oil exports by small and medium-scale farming entrepreneurs from Nigeria, because of other serious diluting variables like poor products' quality, packaging, processing, storage and other systemic bottlenecks. It was then recommended that the Governments in sub-Saharan Africa, particularly Nigeria, should introduce and educate small and medium-scale agro-produce entrepreneurs wishing to go into non-oil exports, among other things, to improve their products' qualities to meet international markets' standards, before employing internet and social media marketing communications to create global awareness and demands for them.

Keywords: small-scale farming entrepreneurship, non-oil exports, internet-marketing, social- media marketing

1. Introduction

A critical review of Nigeria's revenue base reveals that the non-oil export sub-sector has continued to perform dismally since the 1970s till date. In spite of the various policies, strategies and reform programmes of government, the contributions of the sub-sector has been disheartening and far below expectations. Worse still, agriculture which served as the mainstay of the economy before the discovery of crude oil in the late 1960s has been relegated to the background and characterized by low productivity (Abogan, Akinola and Baruwa, 2014). This makes it difficult for small and medium-scale agro-produce entrepreneurs to contribute meaningfully to the nation's economic diversification policy and its non-oil exports drives, despite the introduction of the African Growth and Opportunity Act (AGOA) in May 2000 by the United States of America. AGOA was designed as an economic policy by the US government to assist in the export of products particularly in agriculture from Sub-Saharan African countries to the United States of America (Scheneidman and Lewis, 2012). The focus of AGOA was to encourage the economic growth of Sub-Saharan Africa countries through export leverage in the reduction of tariffs and non-tariff barriers as an incentive towards boosting trade relations with the United States of America (Akanji, 2007).

However, since its introduction, the AGOA has not really worked for the sub-Saharan African countries due to some systemic and structural problems inherent in those countries. Hence, the non-oil exports of countries like Nigeria, a key player in the region, is still abysmally low (Schneidman and Lewis, 2012). These include

problems of poor products' standardization, low standard of processing, packaging, transportation and other physical distribution challenges, to meet international standards, especially the expectations of the US consumers and market.

2. Statement of the Problem

According to Eze, Ehikwe and Odigbo (2016), despite the fact that small and medium scale enterprises (SMEs) are the engines of economic growth in most developed and developing countries, they are usually the worst hit during periods of economic crises as was witnessed in Nigeria during the 2012 national flood disaster or during economic recessions, as being witnessed in the country since 2015.

It was in order to assist African countries come out of such economic doldrums that the US government under Bill Clinton in year 2000, came up with a palliative policy called the African Growth and Opportunity Act (AGOA), aimed at boosting Africa non-oil exports especially to the US, in order to engender economic growth, employment generation and crime reduction in Sub-Saharan African countries. Unfortunately, export of agricultural produce from the concerned countries has not played a significant role in the accomplishment of their non-oil exports, with a contribution of less than 1% of AGOA exports. This is notwithstanding the fact that the agricultural sector has the largest potential to contribute to the national economies of sub-Saharan Africa. Nigeria is one of the countries whose non-oil exports have contributed very poorly under the AGOA programme (USITCT D, 2011; AKanji, 2007). Small and medium-scale farmers in the country, who account for over 85 percent of the country's agricultural output are the worst hit. Hence, this study is a critical appraisal of the effect of internet-marketing communications media and social-media communications as tools for promoting small and medium-scale farming entrepreneurs' non-oil exports from Nigeria, in order to fill the gaps in the contributions of non-oil exports to the optimization of AGOA benefits to Nigeria.

3. Objectives of the Study

The broad objective of the study is to appraise the effect of marketing communications as a tool for promoting small and medium-scale farming entrepreneurship for enhanced non-oil exports from Nigeria. The specific objectives include:

i. To determine the effect of internet-marketing communications media as tool for promoting small and medium-scale farmers non-oil exports from Nigeria.

ii. To ascertain the effect of social-media communications tools as vehicles for promoting small and medium-scale farmers non-oil exports from Nigeria.

4. Research Questions

The following research questions guided the study:

i.   Will internet-marketing communications media be significantly effective as tool for boosting small and medium-scale farmers non-oil exports from Nigeria?

ii.   To what extent will social-media communications tools serve as vehicles for boosting small and medium-scale farmers non-oil exports from Nigeria?

5. Hypotheses

The following null-hypotheses were tested in the study:

i.   Internet-marketing communications media will not be significantly effective as tool for boosting small and medium-scale farmers non-oil exports from Nigeria.

ii.   Social-media communications tools will not significantly serve as vehicles for boosting small and medium-scale farmers non-oil exports from Nigeria.

6. Literature Review

6.1 Theoretical Framework

The theoretical construct for this study hinges on the diffusion of innovation theory propounded by Everett Rogers, a professor of communication studies, in 1962. The theory seeks to explain how, why and at what rate new ideas and technology could be effectively introduced to a populace (Rogers, 2003). The theory explains how an innovation, idea, behaviour, or object especially a new technology-based idea is perceived and treated when introduced for the first time to a people (Pandey et. al., 2002). In doing this, the role of the media as well as interpersonal communication in providing information and influencing opinion and judgment of the target populace is critical for success (Lazarsfeld et. al, 2004).

In explaining the diffusion theory, Rogers (2003) observed that there are four main elements that influence the spread of a new idea: the innovation, communication channels, time and a social system. Rogers (2003) proposes that these five main elements influence the spread of a new idea. *An innovation* is an idea, practice or object that is perceived as new by an individual or other unit of adoption (the words innovation and technology are used as synonyms). *Communication* is a process in which participants share new information with one another in order to reach a mutual understanding. *Communication channels* allow the transfer of information from one unit to the other. Communication patterns or capabilities must be established between parties as a minimum for diffusion to occur.

The passage of *time* is necessary for innovations to be adopted; new innovations are rarely adopted instantaneously (Rogers 2003). *Adopters* are the minimal unit of analysis and include individuals, organizations, institutions, businesses, schools, hospitals, etc within a social system.
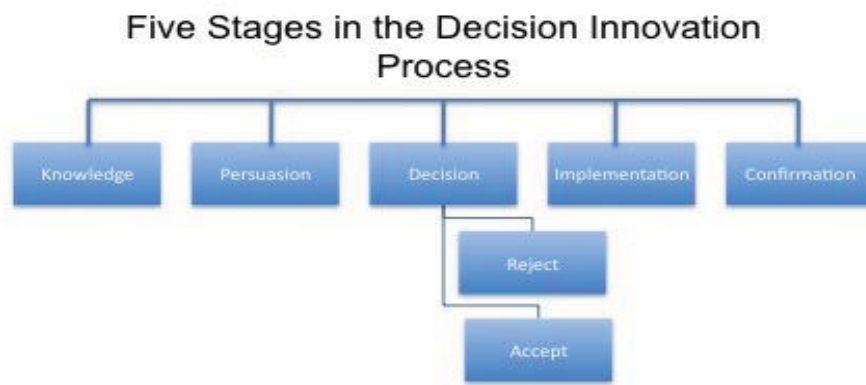

Figure 1. Stages in the diffusion decision-making process

Source: Rogers, E. M. (2003), Diffusion of innovations (5th edition). New York, NY: Free Press.

According to Rogers (2003), new ideas possess a degree of uncertainty and thus are perceived as risky. Therefore, individual can reduce such uncertainty by obtaining information about the new innovation. Diffusion occurs through a five–step decision-making process: - awareness, interest, evaluation, trial, and adoption. However, in a later study Rogers (2003) modified the terminology of the five stages to - knowledge, persuasion, decision, implementation, and confirmation. However, the descriptions of the five new categories are similar to the first five earlier outlined (See figure 1 for the new categories).

Rogers (2003) identified five (5) categories of adopters: the innovators, early adopters, early majority, late majority, and laggards. These categories of adopters are depicted in figure 3. According to Rogers, the individuals within a social system do not adopt an innovation at the same time. Individuals are classified into adopter categories on the basis of the time it takes them to make final decisions to adopt a new idea, as shown in figure 2.
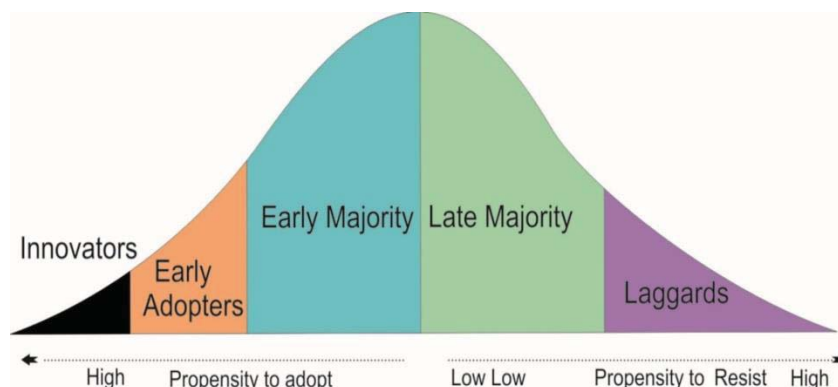

Figure 2. Five categories of adopters and their degree of influence

Source: Rogers Everett M. (2003), *Diffusion of Innovations*, 5th Ed., Free Press, New York, p221.

Rogers model then described five conditions that affect the adoption process of a new innovation or technological idea to include - Relative Advantage, Compatibility, Complexity, Observability and Trailability. Relative Advantage explains the degree to which the new idea is perceived as more beneficial by adopters comparative to other alternatives. That is to say, is the new technology perceive to be better than the old one? The greater the perceived relative advantage of the new idea, the more rapid its rate of adoption by the target audience (Bell, 2003; Katz & Lazarsfeld, 2005).

Compatibility means the degree to which an innovation is perceived as being fit to the potential adopters' cultural and social norms, values, past experiences, present needs, style (Valente, 2006). When an idea is incompatible with people's values, norms or practices it will not be adopted as quickly as one that is compatible with their values, norms or practices.

Complexity relates to the extent to which the innovation is easy to used and understood by the adopters. New technologies that are perceived to be easier to be used and less complex to understand possess higher possibility of adoption by potential users (Rogers, 2003). In other words, complex ideas or difficult-to-apply ideas are most likely to be shunned by the target audience. On the other hand, Trailability means the degree to which an innovation adopter can test and assess the innovation before fully adopting or implementing it or rather, the degree to which an innovation may be experimented by the users on a limited basis prior to committing to its actual usage. An innovation that is trialable represents less uncertainty to the individual who is considering it. Finally, Observability translates relates to the level to which the results of innovation are visible to others in the social system. Observability has significant effect on the rate of adoption by the target audience (Schiffman and Kanuk, 2004).

6.2 Nigeria's Non-Oil Export Profile: A Historical Review

According to the Central Bank of Nigeria (CBN), before independence and in the early 1960s, agriculture was the main stay of the Nigerian economy and the country's chief foreign exchange earner. It accounted for well over 80 percent of the export earnings, 75 percent of employment; 65 percent of the GDP and about 50 percent of the total government revenue. Agriculture contributed 50% to the nation's GDP in 1970 and 34% in 2003 (CBN, 2007). In the 1960's Nigeria's export trade was dominated by non-oil products such as groundnuts, palm kernel, palm oil, cocoa, rubber, cotton, coffee, copra, beniseed, hides and skin, cattle and many more. This was complimented by solid minerals like tin ore, columbite and gems. These products accounted for over 66% of nation's total exports earnings up until the early 1970s when the oil boom set in. In fact, reports had it that cocoa was the dominant export product at that time, contributing about 15% of total exports in 1970. Unfortunately, however, during the oil boom era which began in 1973/74 and continued till the 1980s, the country's export basket was dominated by earnings from oil (Ogunkola et al., 2008).

Meanwhile, towards the early and mid-1980s, a global oil glut caused a deep distress to the nation's economy with a drastic reduction in its foreign exchange earnings from oil export. By then, agriculture has been significantly abandoned, contributing quite insignificantly to the country's non-oil export basket. Since, then the people of Nigeria have found it difficult to re-discover the magic wand of the agricultural sector of the 1960s and 1970s. The massive increase in oil revenue, followed by massive investments in socio-economic infrastructure led to the migration of many able-bodied young men and women from the hinter land to the urban areas and cities, leading to a new-found western lifestyle characterized by white-collar job syndrome and total abandonment of farming. Thus, despite the various governmental policies, strategies and reform programmes, the contributions of the agriculture sub-sector to the country's total foreign exchange earnings since the past twenty years have been dismal and disheartening.

According to reports, the output of export crops grew at an average annual rate of 4.7% in 1950– 1957 and 7.4% in 1960–1965, then declined by 17.3% in 1970–1975. The transformation of Nigeria from a net exporter of agricultural produce to a large-scale importer of the same commodities was particularly marked during the period 1973–1982. The efforts to reverse these trends seem to be yielding little or no results, as oil continues to dominate the country's exports. Non-oil exports share of Nigeria's total exports have remained under 5% for most years since the introduction of the structural adjustment programme SAP in the 980s (Abogan, Akinola and Baruwa, 2014).

Although agriculture no longer serves as the leading contributor to Nigeria's gross national product and leading foreign exchange earner due to the discovery and phenomenal growth in petroleum sector of the economy, agriculture is still the dominant economic activity in terms of employment and linkages with the rest of the economy. Agriculture still accounts for one-third of the nation's GDP, and remains the leading employment sector of the vast majority of the Nigerian population, as it employs two-third of the labour force (Chigbu, 2000).

However, its contribution to non-oil exports remains abysmally poor and unsatisfactory.

6.3 Youths and Small and Medium-Scale Agro-Produce Entrepreneurship for Non-Oil Exports in Nigeria

Eze, Odigbo and Ehikwe (2016) observed that a Central Bank of Nigeria's 2014 report documented that 80 per cent of Nigerian youths were without jobs in between 2012 to 2014 (CBN, 2014). This is despite repeated figures released by the National Bureau of Statistics indicating that the Nigerian economy was experiencing positive growth rate within that period. The National Bureau of Statistics (NBS) on its own admitted that 54 per cent of Nigerian youths were unemployed in 2012. This was contained in the "2012 National Baseline Youth Survey Report" issued in Abuja by the NBS in collaboration with the Federal Ministry of Youth Development (NBS, 2013). Figure 3 in this text from Rise Network (2013), shows that the country's overall unemployment rate in 2011 was 23.9 percent, with youths' unemployment accounting for over 50 percent of that.

The concomitant effect of the growing level of youth unemployment in Nigeria, is the exacerbation of hopelessness, restiveness and feelings of frustration amongst the youths, often precipitating acts of violence and conflicts in the country. This is happening in the face of high population growth rate amid unsatisfactory economic performance which compounds the problem of youth's unemployment in the country (Eze, Odigbo & Ehikwe, 2016; Omeje, 2005). Omeje (2005) adds that there is a markedly unfavourable imbalance between Nigeria's population growth rate and its economic performance. He advised that the expansion of the economy to create employment opportunities for young school leavers and graduates through export-based small and medium-scale farming entrepreneurship could be one of the viable answers to the problem. This is because massive youths' unemployment in any country heightens the risk of anti-government and anti-establishment behavior in society. The frustration and vulnerability of the youths make it possible for them to be recruited, inspired or hired for violence with relative ease by disgruntled and dubious politicians and religious fanatics. In the midst of mass misery and poverty, violence is also seen and promoted as an economic opportunity for luring the jobless youths by some terrorist organizations. This phenomenon resonates with the greed versus grievance theory of Paul Collier & Anke Hoeffler (2002).
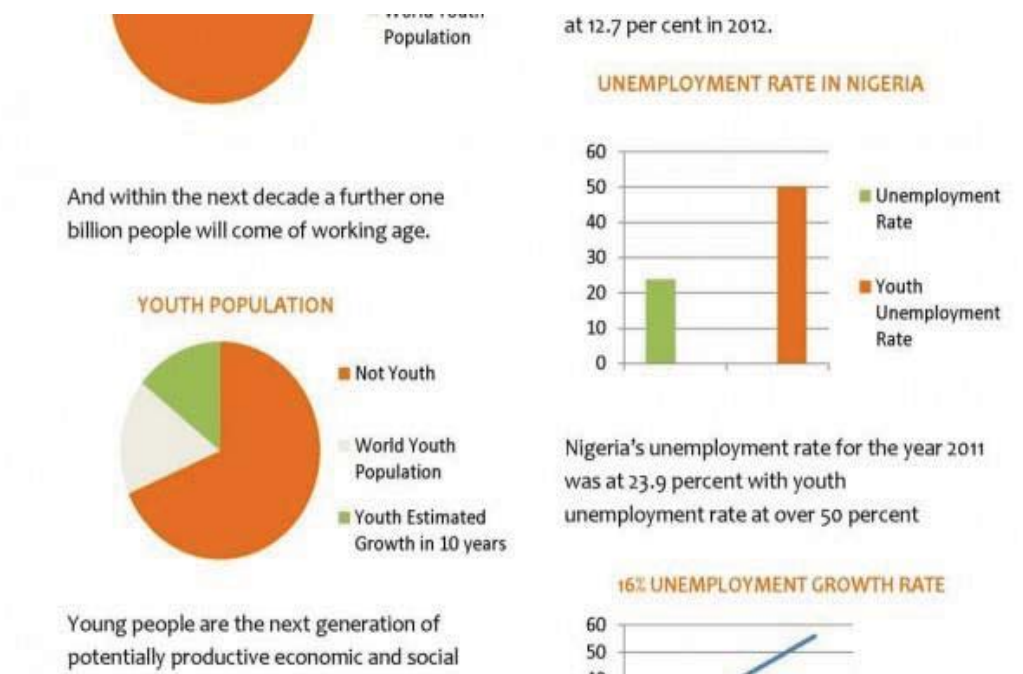

Figure 3. Source: Rise Network (2013), Youth Unemployment In Nigeria: Shocking Statistics, Facts And Why The Future May Not Be So Bright After all
http://risenetworks.org/2013/05/16/youth-unemployment-in-nigeria-is-there-hope-for-nigerian-youth/

It was mindful of this disturbing fact that the incumbent Nigeria President, Gen. Muhammadu Buhari, announced in 2015 that he was going to launch a massive graduates' agricultural programme. That his government will collaborate with States and Local Governments to innovatively fund *youths* in commercial agribusiness *programmes and l*aunch *Agricultural* Support *Programmes* that will drive *agricultural* land

development and mechanization *(Nigerianmonitor, 2015; Newsheadline,* 2015)*.* However, as at the time of this report in 2017, the programme still remains in the drawing board.

6.4 Internet and Social Media for Non-Oil Exports in Sub-Saharan Africa

Internet marketing or eMarketing is any marketing done online via websites or other online tools and resources. In trading or marketing terms, it refers to the application of marketing principles and techniques via electronic media and more specifically the Internet. The terms eMarketing, Internet marketing and online marketing, are frequently used interchangeably, and thus, often considered synonymous (Odigbo, Ugwu Ogbu & Ekemezie, 2017).

Social media marketing on the other hand, is the application of internet community platforms like Twitter, Facebook, LinkedIn, Instagram, WhatsApp, YouTube, Wiki sites, Four Square, Instant Messaging and others to reach out to target audiences. African farmers wishing to go into export can use it to find customers, businesses, promote products and services, in the social communities they are seeking recommendations from their foreign social friends. Social media are media that facilitate communication and sharing of information through social networks (Odigbo, Ugwu Ogbu & Ekemezie, 2017).

7. Methodology

Survey design was adopted in the study. Data were sourced through structured-questionnaire administered on farmers selected from three regions of the country: North, South-West and South-East in accordance with the three-former regional structure of the country. The study population was 80,000 farmers. A sample size of 270 farmers was judgmentally determined and proportionally apportioned at 90 per region. Representative sample States chosen from the three regions were: Benue State reputed as the food basket of the nation, from the North; Ebonyi State from the South-East and Ondo State from the South-West. Purposive sampling technique was also employed in administering the questionnaire. 254 of the questionnaire copies administered, representing 94.07% were returned by the respondents. The data sourced were analyzed with the chi-square (X^2) statistical tool.

8. Data Presentation and Analysis

8.1 Demographic Profiles of the Respondents

Data from the field indicate that 63.78% of the respondents were male, while 36.22% were female. 14.71% were in the age bracket of 21 to 30 years, 34.25% in the age group of 31 to 40 years; 36.61% were in the age range of 41 to 50 years, while the remaining 14.96% were 51 years or above. 48.42% had First School Leaving O'Level certificates; 19.29% had National or Higher National diplomas; 19.92% had First degrees, while the remaining 15.35% had postgraduate degrees. 20.08% specialized in tubers production, 14.57% were cocoa farmers, 11.81% were palm oil processors and marketers, 20.47% were into the production of various kinds of cereals, 4.72% were cashew nuts marketers, 4.33% were into the sales of various kinds of African spices and sheanuts, while the remaining 24.01% were into other unclassified farming types (see figure 4 below for a graphical presentation of the respondents' farming specializations).
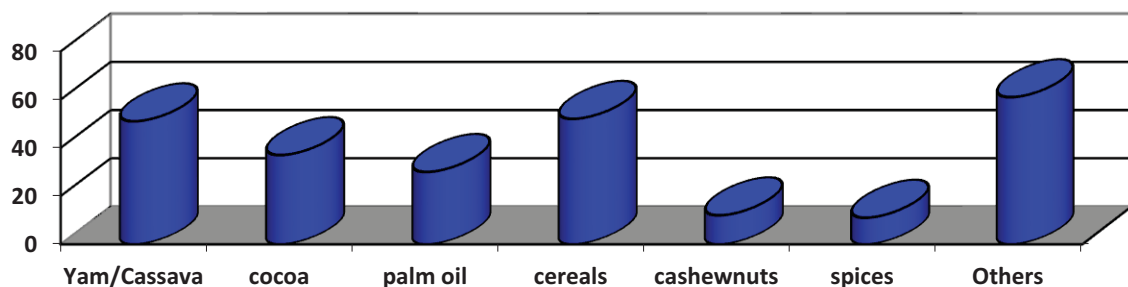

Figure 4. Respondents' farming specializations

Table 1. Respondents' levels of belief on the effect of internet-marketing communications media of E-mails as tool for promoting small and medium-scale farmers' non-oil exports from Nigeria

Options	Frequency	Percent
Strongly Agree	37	14.57%
Agree	33	12.99%
Undecided	35	13.78%
Disagree	71	27.95%
Strongly Disagree	78	30.71%
Total	254	100%

Source: Field survey, 2017.

Data on table 2 reveal that only 14.57% of the respondents strongly agreed that internet-marketing communications media of E-mails will be significantly effective as tool for promoting small and medium-scale farmers' non-oil exports from Nigeria. 12.99% equally agreed with that; 13.78% were not quite sure; 27.95% disagreed with that, while the remaining 30.71% strongly disagreed with the point. See figure 5 below for a graphic picture of these results.
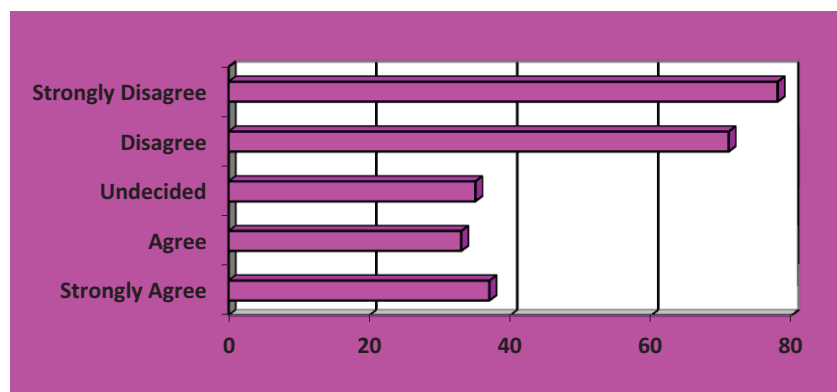

Figure 5. Respondents' levels of beliefs on the effect of internet-marketing communications media of E-mails

Table 2. Effect of internet-marketing communications media of websites as tool for promoting small and medium-scale farmers non-oil exports from Nigeria

Options	Frequency	Percent
Strongly Agree	41	16.14%
Agree	43	16.93%
Undecided	33	12.99%
Disagree	67	26.38%
Strongly Disagree	70	27.56%
Total	254	100%

Source: Field survey, 2017.

Data on table 3 reveal that 16.14% of the respondents strongly agreed that internet-marketing communications media of website marketing will be significantly effective as tool for promoting small and medium-scale farmers' non-oil exports from Nigeria. 16.93% equally agreed with that; 12.99% were not quite sure; 26.38% disagreed with that, while the remaining 27.56% strongly disagreed with the point. See figure 6 below gives a graphic picture of these results.
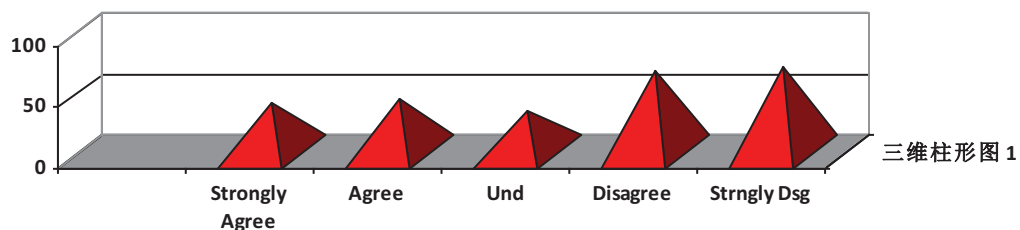

Figure 6. Effect of internet-marketing communications media of websites…

Table 3. Respondents' views on effect of social-media non-video communications networks as vehicles for promoting small and medium-scale farmers' non-oil exports from Nigeria

Options	Frequency	Percent
Strongly Agree	34	13.38%
Agree	42	16.53%
Undecided	33	12.99%
Disagree	67	26.38%
Strongly Disagree	78	30.71%
Total	254	100%

Source: Field survey, 2017.

Data displayed on table 3 indicate that 13.38% of the respondents strongly agreed that social-media non-video communications networks will be significantly effective as vehicles for promoting small and medium-scale farmers' non-oil exports from Nigeria. 16.53% of the respondents equally agreed with that; 12.99% were not quite sure; 26.38% disagreed, while the remaining 30.71% totally disagreed with the point. Figure 7 below for a graphic picture of this result.
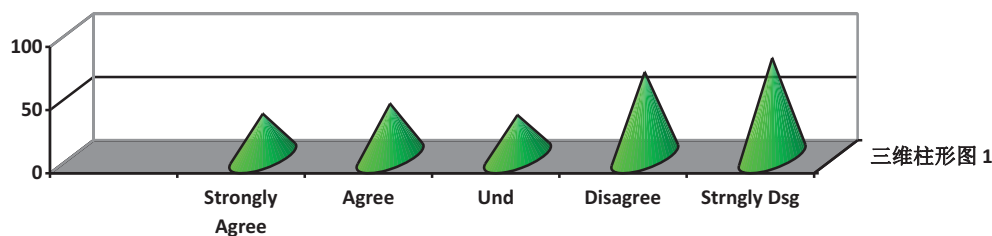

Figure 7. Effect of social-media communications tools as vehicles for promoting small and medium-scale farmers' non-oil exports from Nigeria

Table 4. Respondents' views on effect of social-media video communications networks as vehicles for promoting small and medium-scale farmers' non-oil exports from Nigeria

Options	Frequency	Percent
Strongly Agree	45	17.72%
Agree	56	22.05%
Undecided	31	12.99%
Disagree	63	24.80%
Strongly Disagree	59	23.22%
Total	254	100%

Source: Field survey, 2017.

Data on table 5 indicate that 17.72% of the respondents strongly agreed that social-media video communications networks like the YouTube will be significantly effective as vehicles for promoting small and medium-scale farmers' non-oil exports from Nigeria. 22.05% of the respondents equally agreed with that; 12.99% were undecided; 24.80% disagreed, while the remaining 23.22% strongly disagreed with the point. Figure 8 gives a graphic picture of these results.
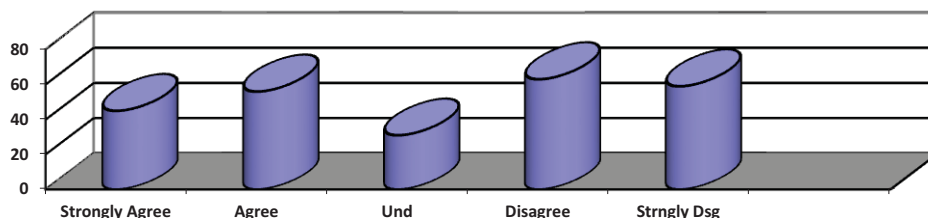

Figure 8. Effect of social-media video communications networks as vehicles for promoting small and medium-scale farmers' non-oil exports from Nigeria

DATA ANALYSIS

The data procured in this study were analyzed with the statistical tool of Likert's 5-points scale.

Test of Hypothesis 1:

Ho: Internet-marketing communications media will not be significantly effective as tool for boosting small and medium-scale farmers non-oil exports from Nigeria.

Hi: Internet-marketing communications media will be significantly effective as tool for boosting small and medium-scale farmers non-oil exports from Nigeria.

Test Statistics = Measure of Central Tendency (Mean)

DECISION RULE:

If Mean < 2.5, the Respondents Disagree

If 3.5 < Mean ≤ 2.5, the Respondents are Undecided

If Mean ≥ 3.5, the Respondents Agree

Table 5. Effect of internet-marketing communications media

S/N	Questions	SA	A	Ud	D	SD	Mean	Decision
2	Effect of internet-marketing communications media of E-mail as tool for promoting small and medium-scale farmers non-oil exports from Nigeria	37 (185)	33 (132)	35 (105)	71 (142)	78 (78)	2.53	Undecided
3	Effect of internet-marketing communications media of websites as tool for promoting small and medium-scale farmers non-oil exports from Nigeria	41 (205)	43 (172)	33 (99)	67 (134)	70 (70)	2.68	Undecided
	GRAND MEAN =						2.60	Uncertain

Result Interpretation: Research Objective 1 is tested with questions on tables 1 and 2 on the Likert's table. Question 2 on whether internet-marketing communications media of E-mail will be significantly effective as tool for promoting small and medium-scale farmers non-oil exports from Nigeria produced a Mean of 2.53 which is < 3.50, hence, the farmers were uncertain. Question 3 on whether internet-marketing communications media of websites will be significantly effective as tool for promoting small and medium-scale farmers non-oil exports from Nigeria, also produced a Mean of 2.68 which is < 3.50, hence, the farmers were again uncertain. These two results cumulatively produced a grand mean of 2.60, thereby indicating that the farmers are not yet certain that the application of internet marketing media will boost their non-oil export, and thus, acceptance of the null-hypothesis which says that: "Internet-marketing communications media will not be significantly effective as tool for boosting small and medium-scale farmers non-oil exports from Nigeria."

Test of Hypothesis 1:

Ho: Social-media communications tools will not significantly serve as vehicles for boosting small and medium-scale farmers non-oil exports from Nigeria.
Hi: Social-media communications tools will significantly serve as vehicles for boosting small and medium-scale farmers non-oil exports from Nigeria.
Test Statistics = Measure of Central Tendency (Mean)

DECISION RULE:

If Mean < 2.5, the Respondents Disagree

If 3.5 < Mean ≤ 2.5, the Respondents are Undecided

If Mean ≥ 3.5, the Respondents Agree

Table 6. Effect of social media marketing communications channels

S/N	Questions	SA	A	Ud	D	SD	Mean	Decision
4	Effect of social-media non-video communications networks as vehicles for promoting small and medium-scale farmers' non-oil exports from Nigeria	34 (170)	42 (168)	33 (99)	67 (134)	78 (78)	2.55	Undecided
5	Effect of social-media video communications networks as vehicles for promoting small and medium-scale farmers' non-oil exports from Nigeria	45 (225)	56 (224)	31 (93)	63 (126)	59 (59)	2.86	Undecided
	GRAND MEAN =						2.71	Uncertain

Result Interpretation: Research Objective 2 is tested with questions on tables 3 and 4 on the Likert's table. Question 4 on whether social-media non-video communications networks will be significantly effective as vehicles for promoting small and medium-scale farmers' non-oil exports from Nigeria produced a Mean of 2.55 which is < 3.50, hence, the farmers were uncertain. Question 5 on whether social-media video communications networks will be significantly effective as vehicles for promoting small and medium-scale farmers' non-oil exports from Nigeria, also produced a Mean of 2.86 which is < 3.50, hence, the farmers were again uncertain. These two results cumulatively produced a grand mean of 2.71, thereby indicating that the farmers were not yet certain that the application of social media networks marketing communications will boost their non-oil exports, and thus, acceptance of the null-hypothesis which says that: "Social-media communications tools will not significantly serve as vehicles for boosting small and medium-scale farmers non-oil exports from Nigeria."

9. Summary of Findings and Their Implications

A summary of the results of this study indicate that:

i.   Internet-marketing communications media will not be significantly effective as tool for boosting small and medium-scale farmers non-oil exports from Nigeria.

ii.   Social-media communications tools will not significantly serve as vehicles for boosting small and medium-scale farmers non-oil exports from Nigeria.

The implications of these results is that the applications of internet-marketing communications media and social-media communications networks are not enough for the boosting of Nigeria's small and medium-scale farmers non-oil exports. These results agree with the findings of Schneidman and Lewis (2012), that the challenges inhibiting most sub-Saharan countries from successful non-oil exports include poor products' quality, low standard of processing, packaging, transportation and other physical distribution requirements that needed improvement to enhance the value of both their primary produce and secondary products for export. So, these problems and more increases their inability to meet the expectations of the international markets and consumers.

Thus, there is need for a technical training and capacity building of the farmers in products' standardization, market research, information gathering, market intelligence for improved international business success. The essence is to guarantee quality that will meet the expectations of consumers in the international markets (Kimberlie and Wallace, 2004). The storage and packaging challenges for agricultural produce is yet another problem confronting exporters from sub-Saharan Africa. The recent experience where a container load of yams from Nigeria, shipped to London all got rotten before they got there is a case in point ( ). Time and timing is of essence here, because of the short shelf-life of agricultural produce.

10. Recommendations

Based on the findings of this study it is recommended as follows:

i.   Governments in Sub-Saharan African countries like Nigeria should organize periodic national training campaigns for farmers in the country, in order to boost their capacity for non-oil exports to the international markets.

ii.   The small and medium-scale farmers should band themselves into cooperatives in order to attract micro-credits from funding organizations. This will also help them to gather market intelligence and information cooperatively, at lesser costs to each of them.

iii.   Governments of countries in Sub-Saharan Africa, including Nigeria, should also form agencies whose duty it will be to educate and supervise farmers wishing to go into export on how to improve their products' qualities, packaging, processing, storage, standardization, sorting and grading, to meet international markets' demands.

iv.   Farmers in Sub-Saharan Africa, including Nigeria, should also be enlightened and well-tutored on how to employ modern marketing communications media like the internet and social media in creating awareness and demands for their products.

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The Level of Disclosure of Intellectual Capital at Jordanian Development Banks

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Abstract

This study aims at identifying the level of disclosure of intellectual capital at the Jordanian development banks. The study sample composed of a hundred individuals working at the National Bank to Finance Small Projects around the different governorates of the Hashemite Kingdom of Jordan. A questionnaire has been prepared and distributed over the study sample. ninety five Questionnaires have been retrieved; valid for the statistical analysis purposes with a percentage of (95%).

The study results showed that the level of disclosure of intellectual capital with all its dimensions (human capital, customer capital and structural capital) at the Jordanian development banks was of a high level. The results also showed that there is a high level of awareness performed by the Jordanian development banks' employees in regard to the necessity and importance of the intellectual capital's disclosure.

The study was concluded with a number of recommendations among which were that the Jordanian development banks shall take notice toward increasing their workers' awareness regarding the importance of intellectual capital's disclosure, as well as applying this study over commercial and Islamic banks for the purposes of carrying out a comparison between them and the development banks.

Keywords: disclosure of intellectual capital, national bank for small enterprise development, Hashemite Kingdom of Jordan

1. Introduction

Interest in disclosure and transparency laws is increasing nowadays especially in money market as information plays a critical role in affecting the decisions of dealers in financial markets whether these decisions were related to sales or purchases or alike. (Tong, 2007)

Laws of disclosure and transparency are connected to the corporate governance which has become one of the most important aspects being applied in companies listed in the financial market, especially after losing many investors their trust in the financial market due to the misuse of financial statements played by companies' managers and auditors through not disclosing the data of financial and accounting reports and statements which in turn led to the expansion of global financial crises proved by the failure of huge companies. (Qabajah, 2008)

There are several studies that were concerned with the level of the disclosure of intellectual capital and its relation with governance. For example, the study of Abdifatah and Nazli (2013) clarified the existence of a positive effect for governance on the quality level of disclosure of intellectual capital in Malaysian Companies.

There are studies that handled the intellectual capital as a share in the partnerships' capital. This was explained in the study of Al-Hafiz (2012) which emphasized that the intellectual capital is considered the most valuable assets of the company; it also allocated for the individual human capital a capital share just like the financial shares of partners as well as transformed the human capital from the labor participation to the capital participation.

This study will identify the level of disclosure of intellectual capital at the Jordanian development banks.

2. Problem of the Study

Not disclosing data and information related to the companies' financial reports is considered a way of manipulation, due to being incomplete, the matter that demonstrates the managerial and financial position of the company in an unreal image which makes it subject to accountability later on.

Intellectual capital is considered one of the most important information and data that supposed to be disclosed by companies and banks due to the importance of its components which are considered an integral part of the company's performance. Based on this, not disclosing the intellectual capital is considered as an insufficiency in the company's different reports in general and at the commercial banks in particular.

Based on this, we can define the problem of the study by the following main question:

What is the level of disclosure of intellectual capital at the Jordanian development banks?

Out of this question we have the following sub-questions:

1- What is the level of disclosure of human capital at the Jordanian development banks?

2- What is the level of disclosure of customer (relation/ external) capital at the Jordanian development banks?

3- What is the level of disclosure of structural (organizational/ internal) capital at the Jordanian development banks?

3. Objective of the Study

This study mainly aims at identifying the level of disclosure of intellectual capital at the Jordanian development banks.

Out of this main objective we have the following sub-objectives:

1- Identify the level of disclosure of human capital at the Jordanian development banks.

2- Identify the level of disclosure of customer (relation/ external) capital at the Jordanian development banks.

3- Identify the level of disclosure of structural (organizational/ internal) capital at the Jordanian development banks.

4. Importance of the Study

The importance of the study stems from the importance of the intellectual capital which forms the basis of the company, and the higher the level of development of the intellectual capital is the better the performance of the company becomes in different aspects.

Therefore, addressing the level of disclosure of the intellectual capital aspects and identifying the commitment of developed banks to this disclosure contribute in increasing the credibility of the bank and in increasing its competitiveness, which leads to its development and sustainability.

This study benefits all the parties dealing with the developed banks through clarifying the intellectual capital aspects that are disclosed within the banks' reports, which in turns makes them feel safe and confident in dealing with banks.

5. Hypotheses of the Study

Ha1: The level of disclosure of human capital at the Jordanian development banks is high.

Ha2: The level of disclosure of customer (relation/ external) capital at the Jordanian development banks is high.

Ha3: The level of disclosure of structural (organizational/ internal) capital at the Jordanian development banks is high.

6. Methodology of the study

The descriptive analytical approach has been applied through preparing a questionnaire has been distributed over the study sample composed of the workers at the Jordanian development banks.

The population and sample of the study

The study population includes all the Jordanian developed banks. The study sample was chosen randomly; it is composed of hundred individuals working within the National Bank to Finance Small Projects.

Methods of Collecting Data

The data of this study has been collected through depending on the secondary sources of books, university transcripts, websites, and Arabic and foreign scientific journals, as well as the primary sources represented by the questionnaire being distributed over the study sample. A hundred random questionnaires were distributed to individuals working in different accounting departments at the National bank to Finance Small Projects in the different governorates of the Hashemite Kingdom of Jordan. (95) Questionnaires have been retrieved, valid for the purposes of statistical analysis with a percentage of 95% out of the total distributed questionnaires.

The used statistical methods

The data has been analyzed using the SPSS statistical program. Cronbach's Alpha test has been used to test the internal consistency of the study tools' questions. Moreover, statistical descriptive methods have been applied, represented by percentages, repetitions, arithmetic mean, and standard deviation, as well as inferential statistics were used through using (One sample t-test) in order to test the study's hypotheses.

Methods to measure the study's variables

The study's variables have been measured through the scale of relative importance of arithmetic means. Table (1) shows this scale:

Table 1. The scale to indicate the relative importance

Level	Strongly agree	Agree	Medium level	Disagree	Strongly disagree
Scale	5	4	3	2	1

The scale of relative importance of the arithmetic mean has been determined as follows:

Relative importance = $\underline{\text{the substitute maximum} - \text{the substitute minimum}}$ = $\underline{5 - 1}$ = 1.33

The number of levels   3

There are three levels: low, medium and high. According to this:

- Low level: when the arithmetic mean value is from1 till 2.33

- Medium level: when the arithmetic mean value is more than 2.33 till 3.66

- High level: when the arithmetic mean is more than 3.66 till 5

7. Previous Studies

The study of Mohammad (2015) aimed at identifying the level of disclosure of the different categories of intellectual capital in the companies' annual reports in Kurdistan for the years 20011-2014. The study sample was composed of 100 most profitable companies in different sectors in Kurdistan. This study used the Content Analysis as a framework to test the annual reports of the sample companies for the purpose of presenting an overview about the human capital reporting practices in Kurdistan. The results showed that the level of disclosure of intellectual capital in the companies' annual reports in Kurdistan was of low level.

The purpose of the study of Mansor et al. (2014) was to determine the level of disclosure of intellectual capital among the companies listed in Malesia, besides investigating the effect of intellectual capital's information over the market capital. To reach the goal of the study a sample has been chosen composed of 185 companies listed in Malesia stock market, consisting of five industries; information technology, consumer products, industrial products, trade and finance. The level of disclosure has been measured through preparing the intellectual capital disclosure indicator composed of 30 items distributed over the three dimensions of intellectual capital (human capital, structural capital and relations capital).

The results of the study showed that nearly 69% of the study sample's companies perform the disclosure of intellectual capital. The results showed as well that there is an effect for the intellectual capital information over the market capital.

The study of Córcoles (2013) identified the importance of disclosure of intellectual capital in governmental universities in Spain. To reach the study's objectives, the analytical descriptive approach has been applied through preparing a questionnaire and sending it by email to a sample made of the members of social councils in the public universities in Spain whose total number was (247) individuals.

The results of this study showed that there is a high importance for the Spanish governmental universities act of presenting information about their intellectual capital to fulfill their needs of information. The results clarified that there are lots of intellectual capital's information that shall be disclosed among which are the academic and professional qualifications of the teaching and research cadre, the scientific productivity, the educational qualifications and abilities, the efforts of innovation and development, the intellectual property and quality management.

The study of Al-Sa'idi et al. (2013) aimed at identifying the most effective dimensions of human capital over the management of organizational change. The human capital's variable was composed of the following dimensions (knowledge, capability, skills and experience). To achieve the study's objectives a questionnaire has been prepared to collect the primary data. A purposive sample has been chosen composed of (60) members of the faculties' councils in Karbala University. The answers were subject to the statistical analysis. The results showed

that there is an effect for the human capital dimensions jointly and separately over the management of organizational change. The dimension of experience came in the first rank regarding its effect on the management process of organizational change followed by the dimension of skills then capability and finally knowledge.

The study of Mousavi et al. (2012) sought identifying the importance of disclosure of intellectual capital. To achieve the study's goal, the theoretical literature was relied on through handling the concept of disclosure of intellectual capital, its hypotheses and its relation with the market capital.

The results showed that the disclosure of intellectual capital is important and that the most important factors that determine the level of disclosure of intellectual capital are the level of transparency in the competitive markets, the organizational barriers and the auditors' conservativeness.

Dao et al. (2009) carried out a study related to the determiners of the decision of intellectual capital disclosure in the companies' annual reports in Australia. To fulfill the study goal a sample composed of (125) companies listed in the Australian stock market have been chosen. The content of these companies' reports has been studied and analyzed.

The results of the study demonstrated that the size of the company and the type of industry play an essential role as determiners of the intellectual capital disclosure. The results showed as well that there is no relation between the level of disclosure of intellectual capital and information variance.

Bhasin (2011) conducted a study that aimed at identifying the level of disclosure of intellectual capital in the companies listed in the stock market of India during the period of 2007-2009. The study depended on the Content Analysis through studying the reports of 16 companies in the sector of information technology.

The results of the study showed that there is a low level of disclosure of intellectual capital in the information technology sector in India. Moreover, they showed that the intellectual capital's components are relied on for the internal management purposes of the company without concentrating on the stakeholders from outside the company.

The study of Al-Safar (2008) aimed at identifying the effect of human capital over the banking performance in Jordan considering it as the most important component within the organization. It includes the following dimensions (the workers' knowledge, the workers' skills, the workers' experiences, the workers' spirit and the workers' ability of innovation). To achieve the goal of the study the researcher depended on personal interviews as well as he conducted a questionnaire to collect the primary data, the questionnaire was distributed over a sample of 200 workers in banks' branches in Irbid. 188 valid questionnaires have been retrieved on which the statistical analysis has been applied. The results of the study showed that there is an effect for all the human capital dimensions over the banking performance. The dimension of innovation was in the first rank regarding its effect on performance followed by knowledge, then experiences, then skills and lastly the spirit.

What is distinguishes the present study about the previous studies:

This study is distinguished among other studies by dealing with the subject of intellectual capital at the Jordanian development banks whereas through our review of previous studies we see that there are no applied studies within the development banks and that most of the studies were applied within commercial banks on the local, Arabic and foreign levels.

8. Theoretical Framework of the Study

The concept of intellectual capital was first handled in a practical manner in the management and accounting literature during the seventies of the last decade. It was expected that this term will become more important by the beginning of the third millennium, forming a key element in creating the organization's future wealth and its sustainability. (Al-Ali, 2003)

(Gruian, 2011) clarified that if we want to accurately identify the concept of intellectual capital, we should distinguish it from the physical capital and human capital where the physical capital is represented by the resources that appear in this organization's budget like real estate, equipment…etc. whereas the human capital is represented by the skills, creativity and accumulated experiences of the human element in the organization.

(Mention, 2012) sees the intellectual capital as the collection of available skills within the organization which are distinguished by their wide knowledge that enables the organization to become an international one through fulfilling the needs of clients, customers and external factors.

From the perspective of (Karabay, 2011) the intellectual capital is the ability to implement skills in the most critical situations. It includes the organizational knowledge and knowledge industry as well as the knowledge

gained by training and experience, add to this the knowledge of how to run a business, avoid crisis, finding the needed information and how to obtain them.

According to (Awad & Ghaziri, 2004), they find that the intellectual capital is composed of a group of members who use their minds more than their hands as for they have the experiences, values and knowledge as well as their ability to innovate in order to change the organization in which they work.

From the researcher's perspective, the intellectual capital of an organization is represented by an elite of workers who have a number of intellectual and organizational abilities more than others, and those abilities enable them to produce new ideas or develop old ones which enable the organization to expand its market share, maximize its strengths and position it in a way that enables the organization of seizing the appropriate opportunities. The intellectual capital is not limited to a particular administrative level and does not require the availability of an academic certificate.

9. The Intellectual Capital Components

Jawad (2009) explains that the intellectual capital is composed of three main components:

First: the structural (internal) capital: it includes the organization's ability to meet the market requirements and to stimulate the development of initiatives by taking into account new expectations and recognizing the new ideas, concepts and adaptive tools.

The structural capital is composed of the management processes, information systems, the organizational structure, the intellectual property and any other intangible assets owned by the organization but don't appear in its balance sheet. (Roos, 2001)

Second: the relations (external) capital: it includes all the information related to customers and their relation with the organization such as fulfilling their needs, marketing effectiveness and taking care of them. It is also composed of the basic competitive abilities, market intensity and customers' loyalty (Chen & Lin, 2004) .

Third: the human capital: it includes knowledge, skills, qualifications and the other aspects represented by the individuals, gained throughout their lives and used in developing the organization's products. Human capital is characterized by being one of the intangible assets owned by employees like knowledge, skills, education and experience (Forbes, 2005) .

Al-Maani et al. (2011) added a fourth component for the intellectual capital which is the psychological capital represented in optimism, confidence, hope and resistance.

The Importance of Disclosure of Intellectual Capital in the Financial Statements

Accounting disclosure is an accounting principle that requires not removing or concealing any essential information that can be used in the decision making. Thus, financial statements should include explanatory reports, additional lists and accompanying statements, together with the management report and the accounting auditor's report, along with the accounting policies used, inventory details and depreciation methods (Al-Sayid, 2009) .

Disclosure is the provision of accounting information to those concerned in the form of statements and data that differ according to the desired benefit to be achieved and affected by the different parties benefiting from this information on the one hand and their different cultural level and knowledge of the reality of economic circumstances on the other hand (Al-Qadi, 2000) . The principle of disclosure is linked with the emergence of joint stock companies, moreover; obligating them to publish their financial statements periodically, where the managements of these companies provide the necessary information to their investors, shareholders and lenders, represented in reports related to the results of their operations and financial position for the purpose of disclosing the essential information that occurred during the period, so the beneficiary parties have the chance to make their economic decisions based on that disclosure (Hanan, 2006).

Financial statements are considered a communication tool through which companies can show all what they have in its real value. The demonstration of intellectual capital in those statements leads to the following (Al-Sha'bani, 2011):

1- Intellectual capital forms a tool for the management efficiency on how it is using the physical resources and intangible resources in the company.

2- The disclosure of intellectual capital components in the financial statements through the following tools:

- It is a mean to enhance the relations between parties inside and outside the company as for it helps to increase the disclosure which in turns is reflected on enforcing the company's reputation.

- It is a mean of self-development through identifying the most important flaws in the company's performance and providing the ways of training and education to resolve these flaws.

The practical application of the study:

The study tool reliability:

The reliability of the study's results has been tested through using Cronbach's Alpha test. The following table shows the results of this test for all the study's dimensions:

Table 2. Results of Cronbach's Alpha test

Dimensions	Cronbach's Alpha value (%)
Human capital	80.92
Customer capital	87.62
Structural capital	75.78
Intellectual capital dimensions collectively	**90.26**

Table (2) shows that the values of Cronbach's Alpha coefficient for the study's questionnaire were 80.92% for the questions related to the human capital, 87.62% for the questions related to customer capital and 75.78% for the questions related to the structural capital. Moreover, the value of the intellectual capital dimensions collectively was 90.26%. This shows a strong consistency between the study questions where (60%) is considered as the limit.

Description of the personal characteristics of the study sample:

The following table shows the personal characteristics of the study sample:

Table 3. Description of the personal characteristic of the study sample

No.	Variable	Category	Repetition	Percentage (%)
		Community college diploma	14	14.7
1	**Academic qualification**	Bachelor degree	76	80.0
		Master degree	5	5.3
		PhD	-	-
Total			95	100
		General director	-	-
		Vice director	4	4.2
2	**Position**	Accountant	8	8.4
		Internal auditor	6	6.3
		Head department	5	5.3
		Others	72	75.8
Total			**95**	**100**
		5 years or less	70	73.7
3	**Years of service**	6 – 10 years	23	24.2
		11 – 15 years	2	2.1
		16 years or more	-	-
Total			**95**	**100**
4	**Disclosure of intellectual capital is an important mean to develop the banks operations and increase its competitiveness**	Yes	89	93.7
		No	6	6.3
Total			**95**	**100**

From table (3) we see the following:

1. Academic qualification: most of the sam ple members carry a (bachelor degree) (76) individuals with a percentage of (80%), followed by the individuals who have (community college diploma) (14) individuals with a percentage of (14.7%), lastly came the members who have a (master degree) (5) members with a percentage of (5.3%).

2. Position: Most of the sample's members have (others) positions other than the ones mentioned in the questionnaire (72) members with a percentage of (75.8%), followed by the members who work as (accountant) (8) members with a percentage of (8.4%), followed by the members who work as (internal auditor) (6) members with a percentage of (6.3%), then come the members who work as (head department) (5) members with a percentage of (5.3%), finally come the members who work as (vice director) (4) members with a percentage of (4.2%).

3. Years of service: most of the sample members have 5 or less years of service at the bank (70) members with

a percentage of (73.7%), followed by the members of 6-10 years of service at the bank (23) members with a percentage of (24.2%). The members who have 11-15 years of experience were (2) members with a percentage of (2.1%).

4. Disclosure of intellectual capital is an important mean to develop the banks operations and increase its competitiveness: most of the sample members agreed that the disclosure of intellectual capital is an important mean to develop the banks operations and increase its competitiveness. The number of members who agreed on this was (89) members with a percentage of (93.7%) of the total sample. (6) Members of the sample didn't agree on this aspect with a percentage of (6.3%). This shows that most of the sample members have a sufficient awareness about the importance of disclosure of intellectual capital.

10. Discussing the Study's Dimensions

To discuss the study's dimensions the arithmetic means of the sample's members responses have been calculated for the purpose of measuring their tendency toward the study's tool items in general. The results were as follows:

The first dimension: (the disclosure of human capital):

Table 4. The arithmetic means of the sample members' responses related to the disclosure of human capital (N=95)

No.	Item	Arithmetic mean	Standard deviation	Agreement level
1	The bank discloses the academic qualification of its workers in its financial reports.	3.789	0.9988	High
2	The bank cares about disclosing his employees' experience in its financial reports.	3.726	0.9044	High
3	The bank discloses the number of its workers in its financial reports.	3.937	0.8850	High
4	The bank discloses the employees' turnover in its financial reports	3.674	1.0152	High
5	The bank takes into account the occupational safety and health and works on incorporating its basis in its financial reports.	4.053	1.0755	High
Rate as a whole/ human capital		**3.836**	**0.9758**	**High**

From table (4) we note the following:

- The answers of the sample members regarding the questions related to the disclosure of human capital headed towards agreement where the lowest value of arithmetic mean was (3.674), this shows approval in relation to question no. (4) "The bank discloses the employees' turnover in its financial reports". The highest arithmetic mean's value was (4.053) which indicate approval regarding question no. (5) "The bank takes into account the occupational safety and health and works on incorporating its basis in its financial reports".

- The rate of arithmetic means was (3.836) which demonstrate the approval regarding the disclosure of human capital. In general, the Jordanian development banks seek disclosing the items related to the human capital within their financial statements.

The second dimension: (the disclosure of customer capital):

Table 5. the arithmetic means of the sample members' answers regarding the disclosure of customer capital (N=95)

No.	Item	Arithmetic mean	Standard deviation	Agreement level
6	The bank discloses the academic qualification of its workers in its financial reports.	4.011	0.9839	High
7	The bank discloses its reputation in its financial reports	3.947	0.9268	High
8	The bank discloses the employment policies in its financial reports	3.726	0.9276	High
9	The bank discloses its market share in its financial reports	3.726	1.0462	High
10	The bank pays a special attention to its clients and explains its policy toward them in its annual reports.	3.884	0.9770	High
11	The bank participates in the community service activities and includes them in its annual reports	4.042	0.9666	High
12	The bank participates it the environmental activities and includes them in its financial reports.	3.884	0.9438	High
13	The bank cares about disclosing the level of its clients' satisfaction and determining the nature of the provided services in its annual reports.	3.926	1.0339	High
Rate as a whole/ human capital		**3.893**	**0.9757**	**High**

From table (5) we note the following:

- The answers of the sample members regarding the questions related to the disclosure of customer capital headed towards agreement where the lowest value of arithmetic mean was (3.726), this shows approval in relation to questions no. (8) "The bank discloses the employment policies in its financial reports" and no. (9) "The bank discloses its market share in its financial reports". The highest arithmetic mean's value was (4.042) which indicate approval regarding question no. (11) "The bank participates in the community service activities and includes them in its annual reports".

- The rate of arithmetic means was (3.893) which demonstrate the approval regarding the disclosure of customer capital. In general, the Jordanian development banks seek disclosing the items related to the customer capital within their financial statements.

The third dimension: (the disclosure of structural capital):

Table 6. the arithmetic means of the sample members' answers regarding the disclosure of structural capital (N=95)

No.	Item	Arithmetic mean	Standard deviation	Agreement level
14	The bank cares about disclosing its patent in its financial reports.	3.800	1.0169	High
15	The bank discloses its culture in its financial reports	3.832	0.9414	High
16	The bank cares about disclosing the information systems and networks in its financial reports.	3.905	1.0322	High
17	The bank lists in its financial reports the researches and developments that have been applied and planned for.	3.821	0.8503	High
18	The bank shows in its financial reports the management operations that take place within the bank.	3.790	0.9213	High
Rate as a whole/ structural capital		**3.829**	**0.9524**	**High**

From table (6) we note the following:

- The answers of the sample members regarding the questions related to the disclosure of structural capital headed towards agreement where the lowest value of arithmetic mean was (3.790), this shows approval in relation to questions no. (18) "The bank shows in its financial reports the management operations that take place within the bank". The highest arithmetic mean's value was (3.905) which indicate approval regarding question no. (16) "The bank cares about disclosing the information systems and networks in its financial reports".

- The rate of arithmetic means was (3.829) which demonstrate the approval regarding the disclosure of structural capital. In general, the Jordanian development banks seek disclosing the items related to the structural capital within their financial statements.

Testing the study hypotheses:

To test the statistical acceptance of the hypothesis, (One Sample T-Test) has been applied. The hypothetical mean value (3) was considered as the hypothesis acceptance criterion at ($\alpha = 0.05$). The results were as follows:

The results of testing the first hypothesis:

Ha1: the level of disclosure of human capital at the Jordanian development banks is of high level.

Table 7. The results of applying (One Sample T-Test) over the dimension of human capital

Dimension	Arithmetic mean	Standard deviation	Evaluation level	T	The statistical significance
The disclosure of human capital	3..836	0.7369	High	11.055	0.000

From the previous table we see that the (T) value regarding the questions related to the level of disclosure of human capital was (11.055) with a statistical significance of (0.000) which is a positive statistically significant value at ($\alpha \leq 0.05$). Moreover, the value of the arithmetic mean was (3.836) with a high level of approval. Based on this, the null hypothesis is rejected and its alternative is accepted: "the level of disclosure of human capital at the Jordanian development banks is of high level".

The results of testing the second hypothesis:

Ha2: the level of disclosure of customer (relations/ external) capital at the Jordanian development banks is of high level.

Table 8. The results of applying (One Sample T-Test) over the dimension of customer capital

Dimension	Arithmetic mean	Standard deviation	Evaluation level	T	The statistical significance
The disclosure of customer capital	3..893	0.7148	High	12.182	0.000

From the previous table we see that the (T) value regarding the questions related to the level of disclosure of customer capital was (12.182) with a statistical significance of (0.000) which is a positive statistically significant value at ($\alpha \leq 0.05$). Moreover, the value of the arithmetic mean was (3.893) with a high level of approval. Based on this, the null hypothesis is rejected and its alternative is accepted: "the level of disclosure of customer capital at the Jordanian development banks is of high level".

The results of testing the third hypothesis:

Ha3: the level of disclosure of structural (organizational/ internal) capital at the Jordanian development banks is of high level.

Table 9. The results of applying (One Sample T-Test) over the dimension of structural capital

Dimension	Arithmetic mean	Standard deviation	Evaluation level	T	The statistical significance
The disclosure of structural capital	3..830	0.6804	High	11.882	0.000

From the previous table we see that the (T) value regarding the questions related to the level of disclosure of structural capital was (11.882) with a statistical significance of (0.000) which is a positive statistically significant value at ($\alpha \leq 0.05$). Moreover, the value of the arithmetic mean was (3.830) with a high level of approval. Based on this, the null hypothesis is rejected and its alternative is accepted: "the level of disclosure of structural (organizational /internal) capital at the Jordanian development banks is of high level".

The conclusion of these results shows that the results of the current study are different from the results of the study of Mohammad (2015) which clarified that the level of disclosure of human capital in the companies' annual reports in Kurdistan is of low level. Moreover, the results of this study also differ from the study of Bhasin (2011) which clarified the existence of a low level of disclosure of the intellectual capital in the information technology sector in India. Whereas the results of the current study comply with the study of Mansor (2014) which reviled a percentage of 69% of the intellectual capital disclosure within the companies in Malesia, as well as the study of Córcoles (2013) which showed the existence of a high importance for the Spanish governmental universities to provide information about their intellectual capital for the sake of fulfilling their needs of information, in addition; the results of the current study complies with the results of the study of Mousavi et al (2012) which emphasized the importance of disclosure of intellectual capital through following the theories of intellectual capital.

11. Results

This study aimed at identifying the level of disclosure of intellectual capital at the Jordanian development banks. The following results were concluded:

1- The level of disclosure of human capital at the Jordanian development banks is of high level.

2- The level of disclosure of customer (relations/ external) capital at the Jordanian development banks is of high level.

3- The level of disclosure of structural (organizational/ internal) capital at the Jordanian development banks is of high level.

4- Most of the members working at the Jordanian development banks have a high level of awareness toward the importance and necessity of disclosure of the intellectual capital's items from the perspective that it forms the basis of conducting the banking operations.

12. Recommendations

1- The necessity of Jordanian development banks to increase the awareness of their employees concerning the importance of disclosing the intellectual capital in their financial statements through holding the necessary training courses.

2- The need to pay attention to the human capital in the Jordanian development banks by identifying their needs and accept all the ways that contribute to their development and increase their job growth.

3- The need to work on consolidating the relationships with customers continuously through knowing their

desires and the use of different assessment methods that express their views towards the staff of the bank and the provided banking services.

4- The need to pay attention to the organizational structure of the bank through the modernization of the information network of the bank and working on the development of its objectives and vision according to the needs of sophisticated dealers.

5- Applying this study over commercial banks and Islamic banks for the purpose of conducting a comparison between them and the development banks.

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The Science and Technology Parks (STPs) Evaluation Model Approach to Eco-Innovation Key Indicator

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Abstract

Science and Technology Park (STP) is one of the most important innovation policies to develop the regional economy. To manage the STPs successfully, a standard evaluation system as a reference is needed. However, there is no consensus about the definition of successful STPs due to their different goals and regions. Hence, it is necessary to establish a reference framework to evaluate the success of different STPs and it is essential to assess their main goals as the competitive advantage by a set of innovation indicators. This study developed a research model to evaluate the competitiveness of STPs by analyzing the impact of innovation subjective externalities based on the Global Innovation Index (GII) and approach to the eco-innovation key indicator. This STP evaluation model is adopted and tested by two different fuzzy analyzing and examines the survey forms and questionnaires that have been filled by some STP experts and as a case study all the evidence has been gathered and analyzed from "Caohejing Hi-Tech Park" in Shanghai and the results evaluated the competitive advantage via innovation policies and performances and the rating rank contents some innovation main dimensions, key indicators and factors and also the important result as eco-innovation development and diffusion.

Keywords: science and technology park, innovation evaluation, eco-innovation, competitive advantage, fuzzy, global innovation index, diffusion

1. Introduction

The Science and Technology Park (STP), is a powerful complex to develop the regional innovation to be set up as a techno-polis.(Wikipedia, n.d.-b) In recent years a good number of researches involved in evaluating the STPs to find the best way willing to compare different STPs structures. But as a consequence, many factors extend on a large set of dimensions affecting the STPs and this feature makes STPs particularly difficult to be properly evaluated or compared. Hence, a standard STP evaluation index is extremely needed to cover the entire subjects in policies and performances.(Ferrara, Lamperti, & Mavilia, 2016)

The innovation is the main indicator of the STP evaluation to cover and promote many other factors.(Diez-Vial & Montoro-Sanchez, 2016) Measuring innovation outcome is a powerful dimension for STPs to evaluate the capabilities.(Zeng, Xie, & Tam, 2010) However, the most important characteristic of the innovation outcome measurement approach is eco-innovation development.(Specht, Zoll, & Siebert, 2016) Hence, a reference framework system is deeply necessary to measure the innovation outcome related to eco-innovation development result.

This research aims to capture a multi-dimensional evaluation model by discussing the nature of STP according to the innovation measurement. This innovation large scale, based on global innovation index (GII) is obtained to evaluate the effectiveness both of the innovation policies and innovation performances. This model as a comprehensive framework measures the innovation input to output growth upon improving the eco-innovation development as a strong competitive advantage. The feedbacks of an STP in Shanghai - China as the case study considered the effectiveness of innovation output on STPs competitiveness.

In recent years many pieces of research tried to illustrate the STP evaluation methods, also there are some STP evaluation handbooks encouraged by governmental commissions (e.g. European Commissions1, OECD2, etc.)

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[1]www.ec.europa.eu

but following this kind of paper-based methods would take so much time, cost and administrative affairs. Some other traditional STP evaluation methods just redefine the limited definitions without proposing a practical model of evaluation. We are trying to illustrate a practical index with the prompt method and also accurate result in measuring the outcome key dimensions as the key goals. This index is a multi-level dynamic system, involving various indicators to follow the objectivity systematic principles.(Xu, Wang, & Wang, 2011)

In section 2 (Literature Review), we follow the introduction by literature review to discuss and dominate the previously published papers and survey the precedent attempts at STPs evaluation. In section 3, as the methodology and measurement tools, the main dimensions and comprehensive subjects for STP evaluation is considered. In section 4, the experimental result of the surveys and questionnaires will explain. In section 5, as the Discussion, is the main part of our research model to analyze the result and compare with other scholars. In section 6, concludes the research and we finally signed the paper by section 7 as the references.

2. Literature Review

2.1 Background

"Science and Technology Parks" (STPs) play important role in creating the innovation to grow the competitive advantages. STPs are designed to offer a number of shared services, utility, and product resources, such as incubators and collaboration facilities to industrial and research plants(Kolahi, 2015) to add value, reduce costs, improve the environment, and achieve innovation sustainable development.(Wu, Wang, Hong, Piperopoulos, & Zhuo, 2016) The convergence of policies, performances, and facilities play a key role in the STPs for facilitating the communication, knowledge flow, new businesses creation and internationalization.(IASP, n.d.) The "International Association of Science Parks"[3] and "Association of University Research Parks"[4] are two main associations related to the STPs.

In many scholars, the literature on STPs has the title of "Regional Innovation System" due to regional input to output characterized by cooperative innovation.(Tsai & Chang, 2016) This cooperation and interaction in STPs is emphasized because internal innovation also needs to obtain from universities and other regional firms and it is highly concentrated on competitive regions to the positive impact the competitiveness.(D. Minguillo, Tijssen, & Thelwall, 2015) The STPs innovation strategies as knowledge and information technology enhance the competitive advantages.(Yang & Ying, 2015) The potential of competitive advantage of locating in STPs increases due to outcome benefits and innovation circulation development.(Ruiz-Ortega, Parra-Requena, & Garcia-Villaverde, 2016) As a result, the innovation outcome in the STPs is a positive impact on competitive advantage,(D. Minguillo et al., 2015) and the eco-innovation development is a high factor in innovation outcome.(Kbar & Aly, 2015)

2.2 The main Dimensions that Affect the STPs

It is necessary to establish a multi-criterion evaluation system as a reference framework to compare the effectiveness of dimensions to the STPs.(Drawoska, 2011) The most prominent scholars show that some dimensions have been determined such as Policies, labor markets environment benefits, the availability of network infrastructure, business start-up rate and market, entrepreneurial knowledge and R&D and finally the innovation(Alvarez, 2014) that are main effective dimensions on the potential of creating competitive advantages in STPs. These dimensions can improve all other dimensions of STPs and help to increase the total result of innovation.(Aliahmadi, Sadeghi, Nozari, Jafari-Eskandari, & Najafi, 2015)

But some existing literature reveals considering the arguments lead us to the innovation output and lack of a clear evaluation of STPs makes difficult to understand their innovative output.(Liberati, Marinucci, & Tanzi, 2015) One of the main important indicators in innovation output is the eco-innovation and regard to common innovation benefits defined through identified criteria to evaluate.(Stosic, Milutinovic, Zakic, & Zivkovic, 2016)

1) Policies: The innovation policies from regional government initiated the innovation without central or regional government's support(Yim, Cho, & Kim, 2015) to shift orientation the regional public and social advantages.(Clark, 2014) To strengthen the efforts of policies is by the innovation evaluation system to raise the innovation motivations.(Liu & Guan, 2016) A good and perfect evaluation model is to cover the policy innovation to mix with the performances and make a tool to measure the STPs innovation.(Jordan & Huitema, 2014)

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[2]www.oecd.org

[3]www.iasp.ws

[4]www.aurp.net

2) Human Resource: Regarding human capital theory, human resource quality is adapted to regional innovation strategy.(Li, Qin, Jiang, Zhang, & Gao, 2015) The rapid development of innovation should focus on social benefits, job creation and human resource management.(Donate & Guadamillas, 2015) The human resource also is beneficial to strengthening the advantage of regional innovation.(Chang, Tsai, & Henderson, 2012) Human resource affection measures to examine the STP location decision. The firms enjoy stronger employment growth in university STPs.(Wright, Liu, Buck, & Filatotchev, 2008)

3) Network: The STPs are the network-based complex enhance the global innovation by network(Rycroft, 2007) and relationship increases the innovation by infrastructures and network promotion(Vasquez-Urriago, Barge-Gil, & Rico, 2016a) to diffuse knowledge on a reciprocal basis.(Díez-Vial & Fernández-Olmos, 2015) The knowledge obtained from universities by network will make innovation carried out by firms located in the STPs especially that firms located in central positions of the local firm-network like an intermediate brokerage in the innovation flows.(Diez-Vial & Montoro-Sanchez, 2016) The STPs structured innovation network, promote the creation of new businesses and internationalization.(Wu et al., 2016)

4) Market: STPs are as a bridge between innovation strategy and market value. The marketing issue, sales growth, and profitability are more in STP than off-park firms.(Löfsten & Lindelöf, 2002) The product-based firms linked to STPs know that the business network value is rather than single activities.(Corsaro, Ramos, Henneberg, & Naudé, 2012) STPs are the results of the marketization and commercialization by innovative activities,(Zou & Zhao, 2014) foreign investment(Zhang & Sonobe, 2011) creation and global markets.(Liberati et al., 2015) In the STPs the innovation partners acquire new ideas to create a new competitiveness advantage(Chen, Chen, & Lan, 2016) to add value through product innovation in the market.(Nishitani & Itoh, 2016)

5) Knowledge: STPs promote knowledge activities as Research and development (R&D), Research and technology (R&T) and researching results commercialization.(Chun, Chung, & Bang, 2015) The knowledge investment in the STPs increase the positive impact of regional R&D collaboration, patenting and innovation factors(David Minguillo & Thelwall, 2015). The R&D cooperation between industries and universities are rather than research institutes. A knowledge base STP is following the goal of knowledge commercialization as the output.(Jongwanich, Kohpaiboon, & Yang, 2014)

2.3 Innovation Evaluation

For measuring the innovation, the most important step is to measure the regional innovation cooperation(Avermaete et al., 2003) and efficacy of innovations to identify strengths and weaknesses in functions(Mahroum & Alsaleh, 2012) It also defines the intended results of the innovation-based strategic objective as quality，quantity, efficiency and success.(Stosic et al., 2016) During the innovation process, a new change in regional innovation output to eco-innovation as a new behavior and culture has an important position.(Tsai & Chang, 2016)

2.3.1 Innovation

Locate in an STP promotes innovation,(Vasquez-Urriago, Barge-Gil, & Rico, 2016b) so in order to path for the STPs, we should consider the policy and the performance evaluation index system from several aspects such as innovative resources input, innovative cooperation process, and output.(Jiang, 2015) Firms without innovation efforts do not benefit from a park location. To achieve a high innovation return from STPs should measure the output, enhance the culture of innovation diffusion and also increase the intangible benefits of innovation flow(Vasquez-Urriago et al., 2016b) due mainly to a more diverse flow(Vasquez-Urriago et al., 2016a) and to guide the formers, investors and policymakers.(Formica, 2009)

2.3.2 Eco-Innovation

The most important result of innovation output is to create social profit value and eco-innovation as the competitive advantage.(Herrera, 2015) Social benefits are covered by new products, processes, and services to lead the business and innovation together to create job, stability, and also reduce the overall negative impact on the environment.(Stosic et al., 2016) Eco-innovation is a social innovative output toward new "ecological" ideas to contribute the sustainable developments(Wikipedia, n.d.-a) and share the strong knowledge-based economy and latest technologies. Hence, a proper eco-system plays an important role in creating innovation by identifying the real value of innovation to achieve the STPs optimal goal achievement.(Kbar & Aly, 2015) Eco-innovation development should be in direction of eco-innovation diffusion.(Karakaya, Hidalgo, & Nuur, 2014) Socio-economic outcomes of eco-innovation has main effects of eco-innovation activities for society and the economy, that includes changes in employment, turnover by export of products from eco-industries, circular economy and employment. (See Note 1)

2.3.3 The Global Innovation Index (GII)

One of the challenges in the multi-dimensional innovation assessment is the innovation development(Stosic et al., 2016) to emphasize competitiveness (Martinsuo & Poskela, 2011) and to cover goals beyond the innovation output. (Gamal, Salah, & Elrayyes, 2011) Porter in 1990 noted that the STPs are different because the difference of some policies or performances in the nations(Sadeghi & Sadabadi, 2015) so, not only an index to compare the STPs in a country, but also we need a new index which is amenable to global comparisons.(Manrique & Velásquez, 2011)

The Global Innovation Index (GII) is an annual ranking of 141 countries economy to compare their level of innovation derived from several sources to create a system in which innovation factors are continually evaluated. (WIPO, 2015) GII provides a multi-criteria tool and a rich database to promote long-term output growth.(GII, 2015) To measure the innovation the majority of methods are assessing just the performances without policies, but GII is a global ranking to compare countries by their level of success in innovation based on both policies and performances, input-output indicators and subjective-objective data. GII is suitable to evaluate the STPs in complex and wide countries (as like as China).

2.4 The STPs in China

From 1990 under the Torch program, China established and developed more than 80 STPs on 53 china's metropolises due to the concentration of high technology Small and Medium Enterprises (SMEs).(Hu, 2007) Shanghai as the most populous metropolis in China with more than 24 million population (2014) is a global business hub(Wikipedia, n.d.-c) with more than thirteen technology-industrial zones that two science-technology parks in this group are the biggest one as "Zhangjiang Hi-Tech Park" and "Caohejing Hi-Tech Park".

We had some interviews by the Zhangjiang Hi-Tech Park experts. This park specializes in research of life sciences, software, semiconductors, and information technology. In some circles, the park is also known as China's Silicon Valley.(Wikipedia, n.d.-d) This park with Caohejing Hi-Tech Park focuses on the development of information industry, new materials, environmental protection, new energy, and other industries, while the introduction of a high level of supporting services.(caohejing-Park, n.d.) The "Caohejing Hi-Tech Park in Shanghai" in China based on the literature, have been weighted by outcomes of the innovation by considering the total dimensions and effectiveness.

3. Methodology and Measurement

In every evaluation methodology, the appropriate choice of measurement will depend upon the scorecard framework based on the impact of main dimensions and the key indicators.(Perrin, 2002) Regarding the previous studies, the best method to evaluate the STP is to prepare a multi-criteria innovation index as an evaluation framework. Our new model is including some innovation metrics, investigating innovation indices, dimensions different innovation indicators and factors to consider this idea. Our method offers an effective way of research by administered surveys and interviews (face-to-face) as follows:

3.1 The Initial Interviews (First Step)

At first the three science parks of "ZhongGuanCun Science Park" in Beijing, "Zhangjiang Hi-Tech Park" and "Caohejing Hi-Tech Park" in Shanghai was selected to do some initial interviews refer to related experts who are: The administrative committee of "ZhongGuanCun Science Park" in Beijing, Business development center of "Zhangjiang Hi-Tech Park" and project supervisor in "Caohejing Hi-Tech Park" in Shanghai.

In all interviews five categories determined as the main influencing dimension to innovation in the STPs: Policies, Human Resources, Network, Market and knowledge. However, many innovation evaluation indices (See Note 2) was studied to find the innovation outcome factors to follow the goal of eco-system in the STPs and Global Innovation Index (GII)[5].

The entire dimensions have been prepared based on GII innovation scopes due to a fruitful development perspective by innovation input and output. However, some weakness of GII includes indicators that go beyond the traditional measures of innovation (GII, 2015) and also it cannot make a strong relationship among indicators representing input and output.(Sohn, Kim, & Jeon, 2016) Hence, we have decided to add "eco-innovation development" in the output as one of the main new STP goals of eco-system and also make a strong chain between innovation input and output by fuzzy AHP process and DEA process.

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[5]www.globalinnovationindex.org

3.2 The Surveys (Second Step)

We prepared a questionnaire presented two main groups of studies composed of our case study. The first group investigates the ranking and determines the seven key dimensions in the STPs according to GII scopes. The second group insists on new innovation output indicator as eco-innovation development. Upon the feedback also the question reports and forms finished with asking their views, weakness or advantage of our evaluation index. The surveys sent to the abovementioned experts of the three parks who had interviewed before. After their modification proposals, the approved result of the dimensions is shown in Table 2 (in Results), and the key indicators of STPs organized as shown in Table 3 (in Results), as the criterion index.

Table 1. The evaluative scales

AHP Scale affection (9 points)		Likert-Type scale affection (5 points)		Parentage scale affection (5 points)	
Qualitative variables	Quantitative Value	Qualitative variables	Quantitative Value	Qualitative variables	Quantitative Value
No affect	1	No affect	0	No affect	$0<V\cong20\%$
Minor affect	3	Minor affect	0.5	Minor affect	$20\%<V\cong40\%$
Neutral	5	Neutral	1	Neutral	$40\%<V\cong60\%$
Moderate affect	7	Moderate affect	1.5	Moderate affect	$60\%<V\cong80\%$
Major affect	9	Major affect	2	Major affect	$80\%<V\cong100\%$

In Table 1, every qualitative variable evaluated by five-level response anchors $V = (v1, v2, v3, v4, v5)$ relative to affection with five points quantitative value and nine points for AHP scale. After finalizing the scorecard and the impact, the questionnaires sent to 10 experts in "Caohejing Hi-Tech Park" in order to define the affections. All the experts selected in the position of the CEO, HR manager, R&D manager and etc.

3.3 The Analysis (Third Step)

After gathering hand-collected data of the questionnaires and also data were collected using semi-structured interviews, all the non-parametric statistical calculation has been analyzed to identify the weights and efficiencies of the STPs by MATLAB. Two different fuzzy methods as AHP and DEA are selected to separately make the framework for analyzing, modeling, and optimization the uncertainties.

The Analytic Hierarchy Process (AHP) is a structured technique for analyzing the best goal and understanding of the problems of the goals. It provides a rational framework to structure and quantify the elements and also to relate the elements to overall goals and alternatives. In addition, Data Envelopment Analysis (DEA) is the method of productive efficiency in operations management where a set of measures is selected relating multiple outputs to multiple inputs to be estimated. The AHP issued the weights of the efficiency of innovation inputs and outputs separately and then in another process of DEA we linked the innovation input indicators to the output goals. Finally, we concluded by comparing the results in two different methods.

4. Results

In "Caohejing Hi-Tech Park" from 10 questionnaires in total refers to the experts, 5 answered survey forms actual gathered of which three were valid as the statistical society. (The most problem is that all the experts are in high administrative position and not accessible).

Table 2. The main dimensions

A.	INNOVATION INPUT	B.	INNOVATION OUTPUT
I1	Policies	O1	Knowledge & tech outputs
I2	Human Resource	O2	Creative outputs
I3	Network	O3	Eco - Innovation Development
I4	Market		
I5	Knowledge		

In Table 2, The dimensions according to the replied questionnaires have constructed, and at the first survey, all the experts confirmed the "eco-innovation development" as a necessary goal. But in interviews, they insisted that this goal needs some infrastructures as green early stage investments and also environmental and energy R&D outlays. They mentioned the result will available as Eco-innovation related patents, academic publications and media coverage in the science section. In the technology section, it will be available as Exports of products from eco-industries, circular economy.

Table 3. Criterion, the key Indicators relative to the main dimensions

Ii	1st Level, Dimensions	Ai	2nd level – Indicators	Oi	1st Level, Dimensions	Bi	2nd level – Indicators
I1	Institutions (Policies)	A1	Policy	O1	Knowledge and technology outputs	B1	Knowledge Diffusion
		A2	Laws			B2	Knowledge Creation
		A3	Ease of Business			B3	HR knowledge development
I2	Human Resources	A4	Education	O2	Creative outputs	B4	Intangible Assets
		A5	High Educated labors			B5	Creation
		A6	Employment policies			B6	Online Creation
I3	Infrastructure	A7	ICTs	O3	Eco - Innovation Development	B7	Eco – social process
		A8	General Infrastructure			B8	Eco – Environment
		A9	Ecological Sustainability			B9	Eco – technological term
I4	Market	A10	Investment				
		A11	Credit				
		A12	Trade and Competition				
I5	Knowledge	A13	Knowledge Linkages				
		A14	Knowledge performance				
		A15	Knowledge Absorption				

In Table 3, Regarding the GII and studies about the eco-innovation, all 24 indicators set the dimensions A1-A15 for innovation input, and B1-B9 for innovation output. Then a 24×24 matrix has prepared but in the first consideration, the experts pointed that this questionnaire (matrix) is huge and baffling (For example in O1 the B1, B2, and B3 are in the same goal group). Hence we ignored the output indicators because our main goal is considering the main output goals, not output indicators. So we constructed the frameworks as innovation input and innovation output separately, and analysis structured for inputs by indicators and for outputs by dimensions.

4.1 Analysis by AHP Method

According to the replies in questionnaires, after adjusting the data by AHP scale relative affection 1-9 points, the pairwise comparison matrix outcomes by equation (1). "A" is the alternatives based on i:

$$A_{AHP}{}^{i} = \sum_{j=1}^{n} a_{ij}\, w_j \tag{1}$$

Table 4. AHP method for innovation outputs

$$\begin{bmatrix} 1 & 1/2 & 1/4 \\ 2 & 1 & 1/2 \\ 4 & 2 & 1 \end{bmatrix}$$

Pairwise Comparison Matrix →

	O1	O2	O3
O1	1.00	0.50	0.33
O2	2.00	1.00	1.00
O3	3.00	1.00	1.00
Sum	6.00	2.50	2.33

Standardized Matrix							
	O1	O2	O3	*Total*	*Average*	*Weight*	*Cons.*	*Average*
O1	0.17	0.20	0.14	0.51	0.170	**18%**	3.01	*C = 3.02*
O2	0.33	0.40	0.43	1.16	0.388	**38%**	3.02	*CI = 0.01*
O3	0.50	0.40	0.43	1.33	0.443	**44%**	3.03	*RI = 0.58*
Sum	1.00	1.00	1.00	3.00	1.000	**100%**		*CR = 0.01578326*
CR= 0.01 is True (CR <=0.1)							

In Table 4, according to the replies in questionnaires, after adjusting the data by AHP scale relative affection 1-9 points, the alternatives in terms of all criteria by equation (1) resulted in the weight of O1 is 18%, O2 is 38% and O3 is 44%.

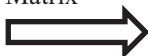$$\Lambda_{max} = \sum_{j=1}^{n} \frac{(S.V)}{n.wv_j} \tag{2}$$

And:

$$CI = \frac{\Lambda_{max}-n}{n-1} \tag{3}$$

The AHP method for innovation output is by CR as:

$$CR = \frac{CI}{RI} \tag{4}$$

In equation (2), "V" is the value of "i"th output and "j"th input. Regarding to "CI" equation (3), if the final value of innovation output "CR" is no higher than 0.1, as equation (4) all the process is approved. (Saaty, 1980).

Table 5. AHP method for innovation inputs

$$\begin{bmatrix} 1 & 1/9 & 1/4 & 1/7 & 1/8 \\ 9 & 1 & 2 & 2 & 1 \\ 4 & 1/2 & 1 & 1/2 & 1/2 \\ 7 & 1/2 & 2 & 1 & 1 \\ 8 & 1 & 2 & 1 & 1 \end{bmatrix}$$ Pairwise Comparison Matrix $\Rightarrow$

	I1	I2	I3	I4	I5
I1	1.00	0.11	0.25	0.14	0.13
I2	9.00	1.00	2.00	2.00	1.00
I3	4.00	0.50	1.00	0.50	0.50
I4	7.00	0.50	2.00	1.00	1.00
I5	8.00	1.00	2.00	1.00	1.00
Sum	29.00	3.11	7.25	4.64	3.63

Standardized Matrix									
	I1	I2	I3	I4	I5	Total	Average	Weight	Consistancy	Average
I1	0.03	0.04	0.03	0.03	0.03	0.17	0.034	**3%**	5.05	C = 5.05
I2	0.31	0.32	0.28	0.43	0.28	1.61	0.323	**32%**	5.09	CI = 0.01
I3	0.14	0.16	0.14	0.11	0.14	0.68	0.136	**14%**	5.04	RI = 1.12
I4	0.24	0.16	0.28	0.22	0.28	1.17	0.234	**23%**	5.04	
I5	0.28	0.32	0.28	0.22	0.28	1.36	0.273	**28%**	5.04	
Sum	1.00	1.00	1.00	1.00	1.00	5.00	1.000	**100%**		CR = 0.01100954
	CR= 0.01 is True (CR <=0.1)									

In table 5, in inputs separately condition, the same method and is tested by CR value. The data were normalized using the hybrid method of DEA. The affection weights matrix had set up by the values of questionnaires in finding the affection value of outputs on inputs.

4.2 Analysis by DEA Method

Data Envelopment Analysis (DEA) method is useful for weight restrictions conditions when judgement values are in the form of additional constraints on the input and output weights. These constraints reduce the flexibility of weights and improve the deviation in the DEA model. The optimum weight of the input-oriented multiplier in DEA method extends the same modification to the output-oriented model in terms of variable input and output weights (multipliers model). If all weight restrictions are separated the multiplier model correctly identifies the optimal weights. But, problem arises when at least one weight is linked. In this case the optimal weight is not in the best comparison. (Podinovski, 2016)

Hence, we should approach to separate the innovation input and output is possible because the first identified and the smooth surface are fitted.(Sreedevi, Vimala, Rameswari, Sateesh, & Professor, 2016) But we should make a powerful link by the DEA fuzzy method to find the weight and affection of inputs to output as a strong bridge.

If "V" is the value of "i"th output and "j"th input, "W" is the normalized weight and "O" is the optimum weight, Then:

$$\text{Final } W = \sum_{i=1}^{n} W_i \ \sum_{j=1}^{n} V_{ij} / O_{ij} / n \tag{5}$$

The total weight of inputs and outputs calculated and adjusted by equation (5), the final W represents the optimum weight as the decision-making unit under the assessment.

Table 6. Ranking result by Optimization

	I1			I2			I3			I4			I5			Total	
	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	A15		
O1	0	0.5	0.5	1.5	1	1	0.5	0.5	0	1	1	0.5	1	0.5	0.5	10	0.18
O2	0.5	1	1	2	2	2	1	1	0.5	2	1.5	1	2	2	1.5	21	0.38
O3	1	1	1	2	2	2	1.5	1.5	1.5	2	1.5	1	2	2	1.5	23.5	0.44
Sum	1.5	2.5	2.5	5.5	5.0	5.0	3.0	3.0	2.0	5.0	4.0	2.5	5.0	4.5	3.5	54.5	Total
0. V.	2.8	4.6	4.6	10.1*	9.2	9.2	5.5	5.5	3.7	9.2	7.3	4.6	9.2	8.3	6.4	90	100

In Table 6, The optimum weight = Total weight*100/54.5(%) and A4 in I2 is 10.1 as the optimum indicator. The weight for O1 is 18%, O2 is 38% and O3 is 44% as well as the weights by AHP method.

Table 7. Ranking result by Normalization

O1	0.00	0.05	0.05	0.15	0.10	0.10	0.05	0.05	0.00	0.10	0.10	0.05	0.10	0.05	0.05	1.00	18
O2	0.02	0.05	0.05	0.10	0.10	0.10	0.05	0.05	0.02	0.10	0.07	0.05	0.10	0.10	0.07	1.00	38
O3	0.04	0.04	0.04	0.09	0.09	0.09	0.06	0.06	0.06	0.09	0.06	0.04	0.09	0.09	0.06	1.00	44
Sam	0.07	0.14	0.14	0.33	0.28	0.28	0.16	0.16	0.09	0.28	0.24	0.14	0.28	0.23	0.19	3.00	100

In Table 7, we estimated the final percentage weights of the output dimensions and also the final normalized weights of input indicators, to the sum of the criteria as innovation outcomes the total weights of the indicators equaled one.

5. Discussion

The total results of the correlational analysis show that the weight of affection of the main dimensions in both fuzzy methods of DEA and AHP are the same and the weight of input indicators should be flexible enough because some regional differences and relatives regard to regional economic benefits. All the studies hereby as a knowledge-based discussion have been presented:
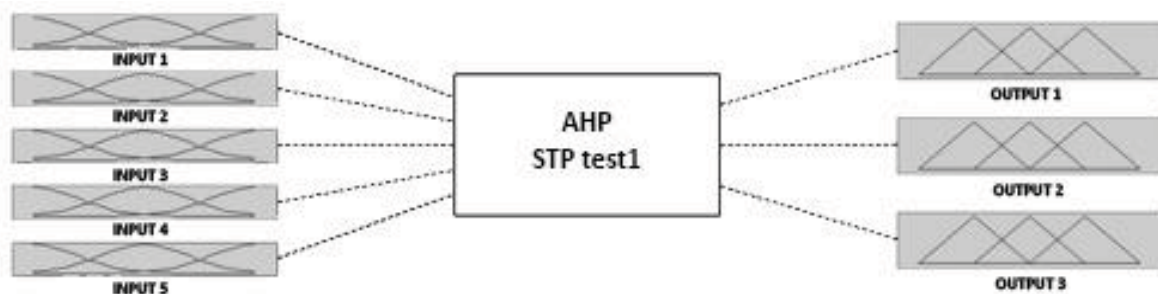
Figure 1. AHP method for innovation inputs

Regardless the traditional STPs measuring systems, in MATLAB structured model as Fig 1., the main dimensions categorized the innovation process by input and output according to the GII scopes with eco-system main goals. The effective dimension in innovation inputs is the Human resources (I2) and in the outputs is the eco-innovation development (O3) with the highest impact for competitive advantage. The analysis also results that the Institutions and Policies (I1) is in the less affection, however some interviewees in Beijing mentioned that in innovation input, the policy is more important. It shows that how much the weights of the index should be flexible in every environment. One unanticipated finding that some experts mentioned is the "eco-innovation diffusion" that should add to the indicator in the further studies (after totally the goal of eco-innovation will achieve).
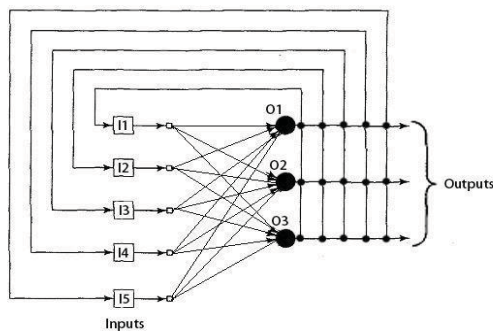
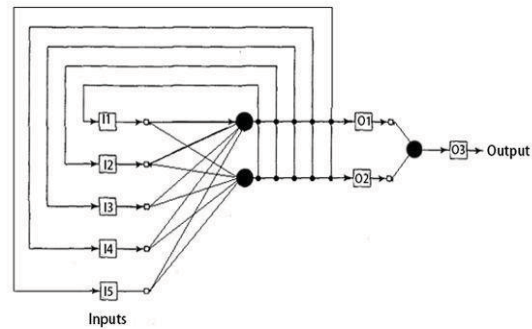Figure 2. All the outputs in one layer   Figure 3. The outputs in two layers

Regarding interviews, the initial structure of the regional Innovation System from inside-out to outside-in is characterized by cooperative innovation as Fig.2(Shukla, Gupta, Dubey, & Thakur, 2016) but with respect to the experts view, a new approach for the STPs model should be able from inside-out to outside-in with two layers in output that eco-innovation will be the result of the two another outcome dimensions as Fig.3.
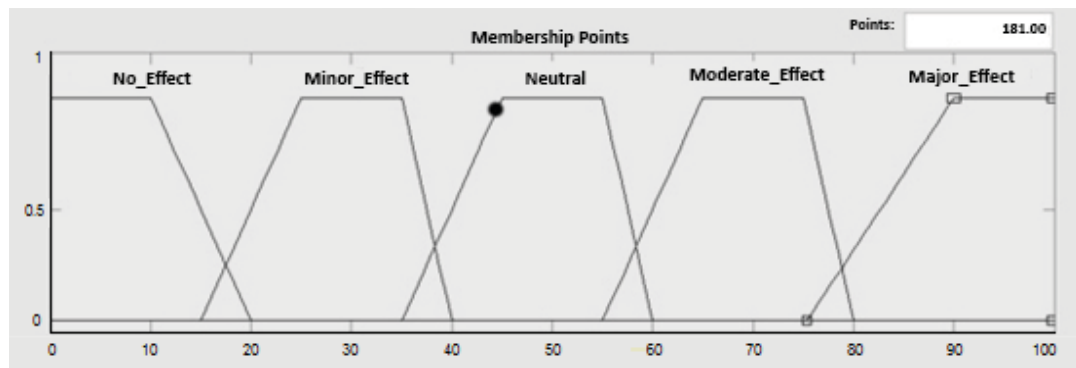

Figure 4. The most important indicator by MATLAB Result

According to Figure 4, the most effective indicator in innovation inputs is "Education" (I4) with the optimum weight of 10.1, in MATLAB, the conclusion of weights (between max 1 and the min 0) and outcome variables issued by percentage to decide easier.

Table 8. The factors of indicators

A.	Innovation Input	
1	Political Effectiveness	
2	Law effectiveness	
3	Ease of Business	# Commercial policies (Customs, Tax exemption, Tariff rate)
4	Education Effectiveness	# Investment on education
5	High quality Educated	# Researcher, engineer, Manager, Business provider (Marketer), # Experts (Academic or experimental and training)
6	Employment policies	# Develop opportunities for university students, # Employment in well paid high sector jobs, # Females Employed with advanced degree
7	ICTs Effectiveness	# ICT access, # Government's online service, # Communications, computer and information services
8	General Infrastructure	# Electricity output, # Logistics performance
9	Ecological Sustainability	# environmental certificates
10	Credit	# Ease of getting credit
11	Investment	# Ease of investment absorption, # Ease of protecting investors
12	Trade and Competition	# local competitiveness, # Domestic market share, # Improving Export power, #Accessibility to the market information and data, # Commercializing, # Market development
13	Knowledge economy	# Formal training (especially for the start-up companies), # Gross expenditure on R&D(GERD) , # Knowledge Investment, # Royalties and license fees payments
14	Knowledge Linkages	# Government collaboration, # Industry sections collaboration, # High ranking universities cooperation, # State of cluster development, # Relationship with other enterprises, # Joint venture / strategic alliance deals
15	Knowledge Absorption	# Accessibility to the technology resources and information, # High-tech imports

B. **innovation outputs**

16	Knowledge Creation	#Patenting and licensing activities, #Scientific and technical publications, #Total computer software spending, #High-tech and medium-high-tech output
17	Knowledge Impact	#Growth rate of GDP per person engaged, #New business density, #Quality certificates
18	Knowledge Diffusion	#High-tech exports, #Foreign direct investment net outflows, #R&D, Technology and knowledge transferring
19	Intangible Assets	#Trademark and branding, #Business and organizational models creation
20	Creation	#Cultural and creative goods exports, #Cultural and creative services exports, #Global entertainment and media output
21	Online Creation	#Generic top-level domains (gTLDs), #Dynamic Website monthly edits
22	Eco – Environment	# Innovation economy (Capital, investment and financial supports), # Investment for innovative ideas, # Internationalization (innovation that compete internationally), #Innovation opportunities realized in firms, # Innovation Policy (Small business development through incubators), #Modification the SPT Operational management team
23	Eco – social process	# Culture of Innovation (Awareness of innovation beneficial effects), # The social benefits, # Sustainable job creation
24	Eco – technological term	# knowledge economic development, # Numbers of (Technological - based)company start-ups

In Table 8, the main factors that the experts concentrated as the different forms of linkage activities and implications of relevant evidence and the scope for promotional policies. They insist the main benefit of eco-innovation is the social advantages for the located hi-tech enterprises. In addition, we discovered that "Caohejing Hi-Tech Park" has the transportation problem due to located inside the Shanghai (not in the suburb).
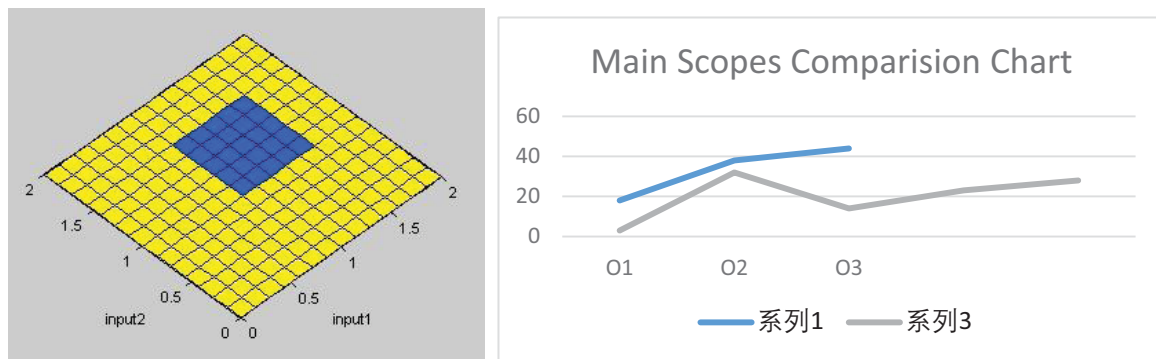
Figure 5. The MATLAB Result of achieving of the goal in Caohejing Hi-Tech Park

The results in Figure 5 shows all pairwise matrix and results present that "Caohejing Hi-Tech Park" has a good score with a significant impact on innovation development and effective value toward eco-system. Finally all of our studies and interviews confirmed by experts and interviewees that the main further competitive advantage in STPs is the ability and capacity of creating innovation by "eco-innovations diffusion". The high-tech clusters in regional economies are presenting an obstacle of realistic assessments of policy and performances relevance.

6. Conclusion

Concluding, the new goal of the STPs is to develop the innovation process to a proper eco-innovative system by a novel analytical approach. The hypothesis of this study was undertaken to design a multi-criterion reference framework to measure the effectiveness of the key indicators to achieve the eco-STP system. According to relevant surveys and literature, we associated main key dimensions that are assessed by comparison of different scales and one of the more significant emerges from this study is a new method that has been adopted the traditional scorecards with GII scopes and has established to add the eco-innovation development as a final key.

Overall, the current study is based on a small sample by analyzing an STP in Shanghai and we tried to provide a functions-based operational System by fuzzy methods (AHP and DEA) and finally, we are witnessing that the eco-innovation system is the base of STP competitive advantage evaluation. This study strengthens to separate the innovation process by input and output and also to make a strong comparison link between them by fuzzy evaluation of their affection.

In summary, the top-three dimensions of STPs based on the regional innovation outcome are "Knowledge and technology outputs", "Creative outputs" and "Eco-Innovation Development" and the main input indicators that are influencing the effectiveness are the "education" in "Human resources" dimension, "Investment" in "Market" dimension and also the "Knowledge linkage" in "Knowledge" dimension.

The final conclusion as the general overview of the literature associated some interesting results that the main benefit of an eco-STP system is to ecological ideas and Culture of Innovation, the stable social benefits (job creation), internationalization, industry cluster effect and finally to share the strong knowledge-based economy and latest technologies (eco-innovation diffusion). It was also understanding that the eco-innovation as a new competitive advantage for the located hi-tech enterprises is effective.

Future research should concentrate on the investigation of "diffusion of eco-innovations" that actually corresponds to the next research paths.

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E-commerce Development in Bangladesh

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Abstract

The whole world is experiencing the major transformation in retail business, and Bangladesh does not differ from the global trend. The e-commerce in Bangladesh is still a young and emerging industry; it is growing fast. In this paper, we have presented the characteristics of Bangladesh e-commerce, its past and present development based on secondary data from different sources. Also, a questionnaire-based survey conducted to know the perception of online consumers and their previous shopping experience. The study highlighted the challenges and areas for perfection in the e-commerce market in Bangladesh. The article comprises a suggestion for improvements in marketing activities for the Bangladesh online stores.

Keywords: e-commerce, Bangladesh, consumer attitude

1. Introduction

E-commerce or Electronic commerce has brought revolutionary changes in the business. The inception of internet technology made it possible. The whole world is experiencing a tremendous transition in business, now a day's internet is used as a tool for business. According to data statistics, 52% of the world population are internet users (Internet W. S., 2018). That gives us an indication of how e-commerce is going to make an impact on the future or currently impacting on our business and social life. E-commerce business principle can apply in all business models, i.e., B2B (Business to Business), B2C (business to consumer), C2C (Consumer to Consumer) and C2B (Consumer to Business). Last two decades the world has noticed incredible growth in e-commerce. In 2017, the worldwide e-commerce sales amounted to 2.3 trillion USD and projected to raise 4.88 trillion USD by 2021 (eMarketer, 2018).

In Bangladesh e-commerce still in developing phase, though it has started in the late 1990s (e-cab, 2016). During that time, small numbers of non-resident Bangladeshi used e-commerce services to send gifts and books to their dear one in Dhaka capital city of Bangladesh. Later in the year 2001-2008, it has experienced little growth due to lack of knowledge and infrastructure. The situation has started changing in 2012-2013 when two e-commerce site akhoni and ajkerdeal introduce themselves to the online consumers. It has received good appreciation from the consumers mainly in Dhaka. The outcome of the E-com venture not only enticed business entrepreneur to invest and hit the market from Bangladesh but also from abroad as well. Some foreign investor like Olx, daraz, and kaymu joined the competition along with local (Rashed, 2017). There has been decent growth in e-commerce in the last couple of years; some e-commerce service provider launches their service. A site like rokomari.com, who have adopted a similar business strategy like Amazon started selling books. Currently holding the top position in the industry and began expanding their business into other product categories. Bikroy.com is another example; they adopted the unique business model. They provide both buying and selling options for the consumer goods in their platform. FMCG and grocery sector also step into the e-commerce industry othoba.com, pickaboo and chaldal.com represent respective areas. Renown business conglomerate and business group of the country shown interest to join in e-commerce trade. Online food delivery services also got a very positive response from food lovers. Due to high traffic congestion and inadequate driving condition consumers prefer to order food online then visit the restaurant. Hungry Naki and Food panda two very well known delivery e-commerce platform in Dhaka and Chittagong (export.gov, 2017).

The growing popularity of online shopping and increased number of internet users showing great prospect of e-commerce development in Bangladesh. The application of e-commerce will be different in Bangladesh than it

is in China, Europe and America because of the social and cultural difference, overwhelming popularity of traditional business models, typical consumer behaviors, and consumer expectations.

2. The Objective and Methodology

The objective of this study to get a clear picture of the past and present situation of e-commerce in Bangladesh. How it evolves over the years, current status, infrastructure development, government policy and consumers perception about e-commerce all these issues will be address and discussed.

Our study is primarily based on secondary data. The data and information have collected from government reports, website, newspapers, online blogs, Journals, and Research paper, etc. We have conducted a small survey to get the primary data to learn about consumer's perception of e-commerce. Dhaka and Chittagong are two major cities that have seen significant development of e-business. So our questionnaire is distributed to that areas and data are collected from local consumers.

This paper analyzes those data that present in reports and survey. We also discussed the various factors that have a substantial impact on E-commerce development in Bangladesh. Our aim is to help the businesses that want to expand e-business in Bangladesh. Provide them with a better understanding of Bangladesh's e-commerce development, distinctiveness, and hurdles. The understanding of e-consumer behavior, preferences, and expectations are enormously crucial for businesses people, to ensure that they can apply the appropriate strategy when expanding e-commerce in Bangladesh.

3. E-Commerce in Bangladesh

The economic growth of Bangladesh is quite steady and showing an upward trend. Last one decade it has shown significant improvement, even during the world financial recession the GDP growth was remarkable. Now it is considered one of the fastest growing major economies in the world with a GDP growth rate of over 7.1%. It also got the attention and emerged itself as one of the leading frontier marketplaces for global investors. In 2016, the IMF stated that it was the 2nd fastest-growing major economy in the world (Payal, 2017).

3.1 Internet Users and Infrastructure Development

Bangladesh has seen e-commerce inception in the late 90's and early 2000's. Even though there was a lack of infrastructure, internet facilities, and government policy but it received better appreciation from the consumers. In 2013, the government allowed to purchase and sale of goods and online services by using international credit cards (export.gov, 2017). Before that wireless internet service, WiMAX and 3G roll out some major cities and internet speed got faster. To some extent, that gave a major boost to the online business. Initially, the growth was not that significant, but it was promising. In 2016, the e-commerce industry recorded a 67% growth in the first three quarters, and the country's e-commerce transaction reached 3.59 billion takas (50 million U.S. dollars) (Xinhua, 2016).

Fastest internet connection and internet users are the key factors that help to boom e-commerce business. Last couple of years, Bangladesh experiencing tremendous growth in this sector. In 2016, the internet penetration rate was 13.2%, and the number of internet users was 21.39 million (internetlivestats, 2016). In 2017, the number increased triple times, the internet users raised to 80.43 million and the penetration rate was 48.4% (Internet w. s., 2018). According to Bangladesh telecommunication regulatory commission (BTRC), latest statistics (June 2018) shows that the number further increased to 87.79 million users and the penetration rate is 52.77% (BTRC, www.btrc.gov.bd, 2018). Figure 1 shows a graphical presentation of users and penetration rate.
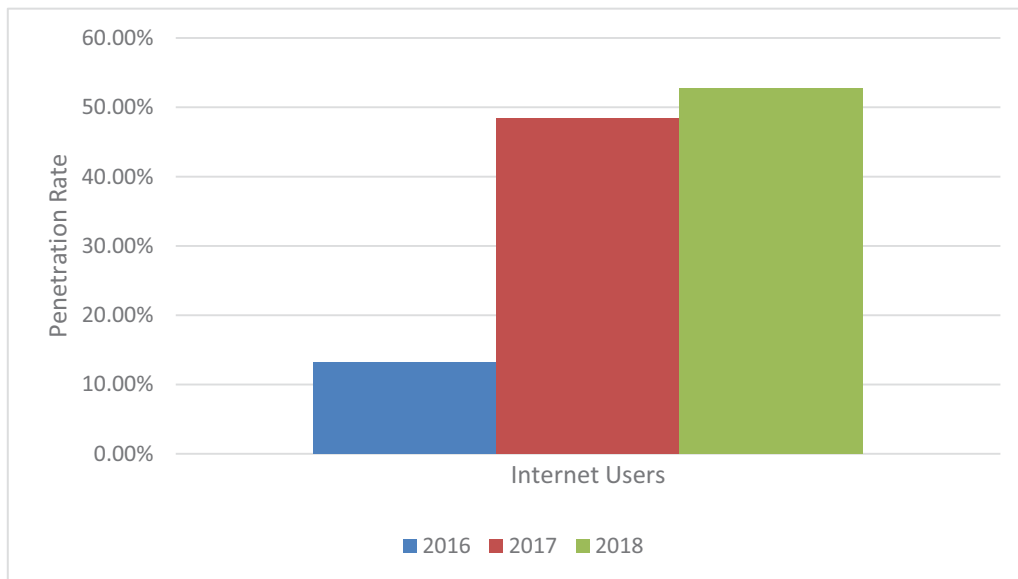
Figure 1. Internet users and Penetration rate

The statistic looks very promising and encouraging to the e-commerce traders and investors. The data also revealed that mobile internet users hold the majority of shares among a total number of users. Based on the latest data, 82.02 million users subscribe to the mobile internet, 0.081 million subscribe to WiMAX, and 5.685 million subscribe to ISP + PSTN connections. Figure 2 shows the breakdown of internet subscribers; the data source is the BTRC website (BTRC, www.btrc.gov.bd, 2018).
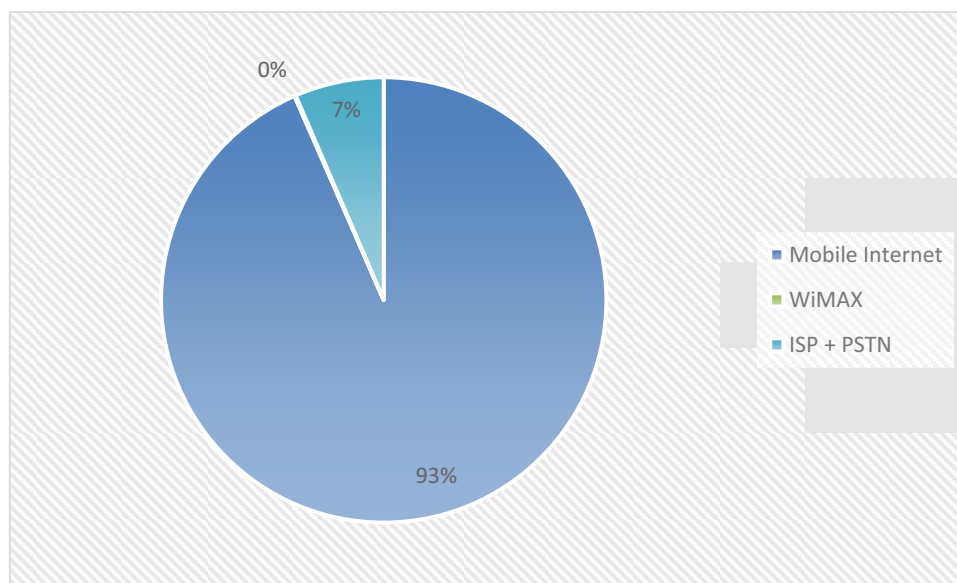
Figure 2. Total Internet Subscribers

In February 2018, mobile operators in Bangladesh launched 4G internet service in major cities, which subsequently introduced to all 64 districts (Shariar, 2018). The mobile operators are updating their infrastructures to provide un-interruptible internet and communication services. Recently the government has decided to test-run of the fifth generation (5G) mobile data service by July this year; the test will be run with the support of a leading telecom vendor Huawei (Dailystar, www.thedailystar.net, 2018). There is another news came out that the government is eying on to launch the fifth-generation wireless technology from 2020 (Hitler, 2018).

Another data statistics from BTRC shows that the total number of Mobile Phone subscribers has reached 150.945 Million at the end of June 2018 (BTRC, www.btrc.gov.bd, 2018). The gaining popularity of the Mobile and the increased numbers of Internet users are prerequisites for the E-commerce development. The government took multiple initiatives to provide high aptitude fiber-optic submarine cable bandwidth and state of

the art Internet Transfer facilities. Bangladesh Submarine Cable Company Limited (BSCCL) was formed in 2008 to run a smooth operation and provide better communication service. BSCCL is a party in both SMW-4, and SMW-5 Consortiums offer more capacity and redundancy in Submarine Cables for Bangladesh (BSCCL, 2018). The BSCCL annual reports indicate that in 2016 the total bandwidth capacity is increased to 500 GBPS, previously it was 200GBPS. Figure 3 illustrates to us the current bandwidth capacity and utilization scenario of Bangladesh. The data are retrieved from BSCCL annual reports (BSCCL, 2018).

Business Performance

The capacity and utilization level of bandwidth by the company is presented as follows:

Particulars	2016-17	2015-16	2014-15	2013-14	2012-13
Equipped Capacity (Gbps)	500.00*	200.00	200.00	200.00	200.00
Utilization (Gbps)	246.98	132.16	33.52	22.50	38.75
Capacity Utilization (%)	49.40	66.08	16.76	11.25	19.38

* Total System Capacity of BSCCL from SMW-4 and SMW-5 Submarine Cable is 1800 Gbps.

Figure 3. Bandwidth Capacity and utilization

(Image source: BSCCL annual reports 2016-2017)

In UNCTAD report, it is mentioned that internet users one of the leading indicators along with the other three factors to judge e-commerce growth and development. A recent report shows that there are more than 60 million active 3G users by December 2017(though the number rises to 87 million by June 2018), 40 million users actively use the internet every day and 10.87 million new sims added in 2017. The report also reveals that mobile transaction getting popular among consumers, average 891.42 crore taka mobile transaction per day in October 2017 (Md. Farhan, Khaled, & Mehrab, 2018). The whole scenario presents an excellent illustration of the current situation and its future growth. It is very lucrative and enticing for the possible investors. The recent acquisition by Chinese internet giant Alibaba has proved this assumption. It has acquired Bangladesh's one of the leading e-commerce venture "Daraz" Though the acquisition took places four other Asian countries as well (Dailystar, www.thedailystar.net, 2018). The figure 4 collected from The Daily Star online version and the image designed by Mr. Shahriar Rahman (www.thedailystar.net, 2018).
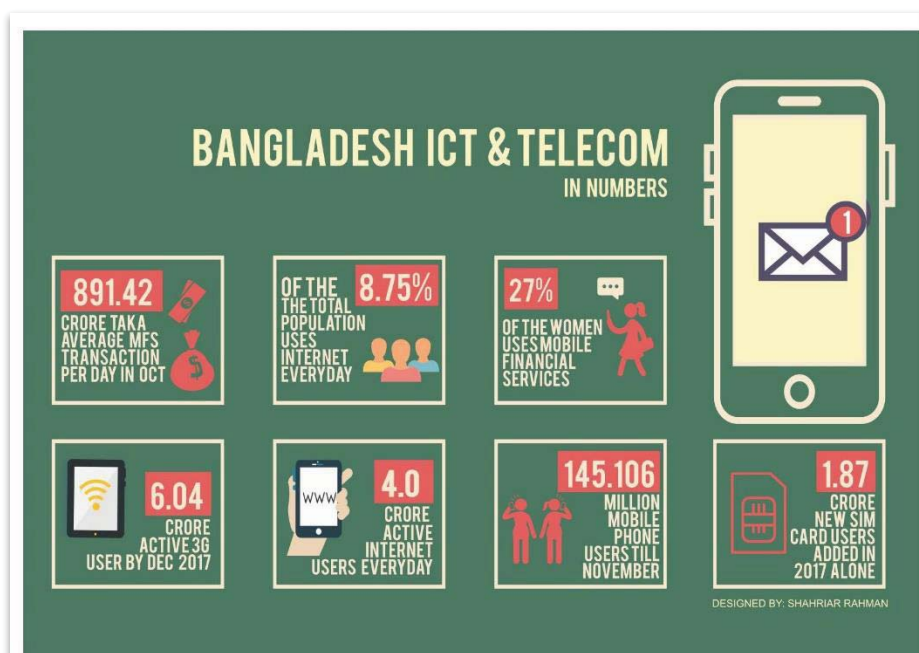
Figure 4. ICT and Telecom in Numbers

(Image source: The daily star)

3.2 Current Business Situation

According to e-commerce association of Bangladesh (e-CAB), the following three types of e-Commerce are popular in Bangladesh.

- Business-to-Consumer (B2C)

- Consumer-to-Consumer (C2C)

- Business-to-Business (B2B)

Business to Consumer has become popular in major cities in Bangladesh. A report published by e-CAB shows that E-commerce shoppers remained highly clustered. Dhaka, Chittagong, and Gazipur are three main cities that contribute 80% of the total shoppers. Dhaka (the capital city) draws the highest traffic 35%, Chittagong 29%, and Gazipur 15% respectively. Sylhet and Narayanganj other two cities that are showing promising growth (e-CAB, 2018). Another report shows that There are more than 2500 e-commerce websites and around 8,000 e-commerce pages on Facebook that operating business (export.gov, 2017) (Mohiuddin, 2014). UNCTAD B2C (business to consumers) E-Commerce Index 2016 shown that Bangladesh is one of the top 10 economies by the difference between the predicted and actual share of internet users buying online (UNCTAD, 2016). In November 2017, a report published by New Age (daily newspaper) it has mentioned that e-commerce sector expected to grow 70% and the market size is estimated $110-115 million compared to 2016, which was $65-70 million. Though e-commerce only contributes 0.7% of the country's total retail market (newagebd, 2017). The market is growing fast, and the sales volume is surging. The very recent report shows that the current e-commerce market size increased to $230-240 million and annual growth is 45-50% (Muhammad, 2018). According to Goldman Sachs, Bangladesh e-commerce market size will grow to $20 billion by 2020 (newagebd, 2017). If the current uprising trend persists, the prediction might become true or maybe more. Previously most of the traffic comes from the urban area, but recently some of the e-commerce sites extended their business in the rural area as well. The response is quite encouraging, "Customers from rural areas are also purchasing huge volumes of products, which is a new phenomenon for this kind of business" a former president of e-CAB Razib Ahmed said to the news agency (Muhammad, 2018). One of the major drawbacks of Bangladesh e-commerce business is delivery lead time, which is very high. A couple of product delivery companies noticed this and took the initiative; they build own warehouse for some companies that helping them to make faster deliveries.

Consumer to Consumer businesses are also rising, a significant amount of e-commerce websites are involved in C2C e-commerce. These sites are adopted eBay business model. They are individual and auction-based online marketplaces. Recently, the C2C sector has seen some merging, Telenor Group purchased CellBazar and Ekhanei.com purchased playeOLX (export.gov, 2017).

Business to Business is the model where a company conducts its trading and other commercial activity through the internet with business/trading partners. Generally, B2B engaged in providing manufacturing and supply-chain solutions. Few websites facilitate the B2B business in Bangladesh, for example, the Bangladesh Garment Manufacturers Employee Association (BGMEA) has deployed B2B e-commerce solutions for international RMG orders and procurement. Other websites feature business directories, trade deals, and information about suppliers such as Bangladesh Business Guide, Addressbazaar, and Bizbangladesh (export.gov, 2017). Some major e-commerce business sites name and website info listed in Table 1.

Table 1. List of e-commerce sites

Name	Website	Type of Business
Rokomari	www.rokomari.com	B2C
Ajker Deal	www.ajkerdeal.com	B2C
Daraz	https://www.daraz.com.bd/	B2C
Chaldal	https://chaldal.com/	B2C
Othoba	https://www.othoba.com/	B2C
Pickaboo	https://www.pickaboo.com/	B2C
Bagdoom	www.bagdoom.com	B2C
Clickbd	http://www.clickbd.com/	B2C
Priyoshop	www.priyoshop.com	B2C
Meenabazar	http://www.meenaclick.com/	B2C
Kiksha	www.kiksha.com	B2C
Sheba	https://www.sheba.xyz/	B2C
Ghoori	Ghoori.com.bd	B2C
Cellbazaar	https://cellbazaar.com/	C2C
Buysellbazar	http://buysellbazar24.com/	C2C
Kaymu	www.kaymu.com.bd	C2C
Bikroy	www.bikroy.com	C2C
Ekhane	www.ekhane.com	C2C
Addressbazar	http://addressbazar.com/	B2B
Bizbangladesh	https://bizbangladesh.com/b2b-trade	B2B
Busytrade	http://bangladesh.busytrade.com/	B2B

3.3 Law and Policy Framework

Internet security and trust are two fundamental to creating a favorable environment for e-commerce. That would comprise, legal and regulatory frameworks that assist paperless trade in goods and services, consumer protection, data privacy and protection, measures for cybercrime and market access. It is crucial to have strong policy and legal frameworks that should illustrate standard definitions of common keywords used in e-commerce, agreed-upon mechanisms of contract, finance and dispute resolution and should enable collaboration between different regulatory authorities.

The last couple of years, e-CAB is working with the government to formulate the draft guideline and national digital commerce policy. They organized more than 30 workshops to come up with e-commerce and local entrepreneur-friendly policy. Very recently, the government has approved the long-awaited National Digital Commerce Policy (www.thedailystar.net, 2018). The authority has mandated three crucial in the policy,

➢ It does not allow foreign investors to have a stake of over 49 percent in any e-commerce venture in Bangladesh.

➢ The e-commerce entities need to clearly state the details of the products they sell online, which include the product's quality along with its return policy.

➢ E-traders will have to sign a deal with the products' suppliers, delivery channels and payment gateways to ensure that customers' rights are appropriately protected, reads the policy.

The news brought massive relief to the e-commerce traders and will boost digital commerce and online shopping in the country. E-commerce businesspersons and traders hailed the new policy, believing it would turn up as a boon for domestic companies.

3.4 Online Payment

Products purchased over the Internet are often can be paid through online or offline. There are different ways to make the payment. Payment methods differ among countries and are a function of national financial regulations, credit riskiness, vendor strategies, and consumer preferences. It is quite challenging to choose a single payment method for measuring e-commerce payment readiness. Credit and debit cards are the most popular payment method worldwide in terms of online transaction purchase value (UNCTAD., 2017).

In Bangladesh, consumers are still reluctant to use the electronic mode of payment or online payment system. A survey report published in 2015 conducted by Kaymu, an online marketplace in Bangladesh. Their research shows that "Cash-on-delivery is the most commonly used payment method in Bangladesh, accounting for 95 percent of e-commerce transactions. Only 1 percent used credit cards, about 2 percent bKash or other mobile transactions and 2 percent banking channels" (Muhammad Z. I., 2015). Recent past the situation has improved a bit but still "cash on delivery" is the primary payment mode. Latest reports show that 90% payment made by Cash on delivery, 6% by MFS and 4% by Credit or Debit card. Figure 5 illustrates the current payment scenario.
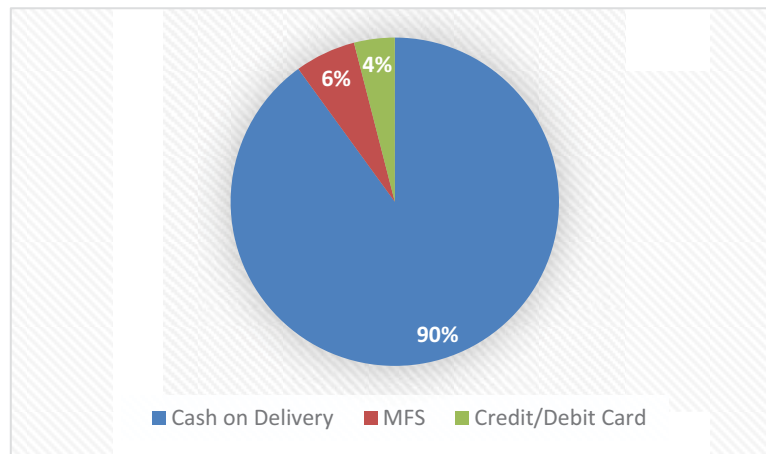
Figure 5. Online Shopping Payment Method

Government is keen to improve the payment system, earlier this year central bank approved a company to facilitate online payments and fund transfer between parties called "iPay." The startup will work like Paypal in the country. Other fintech company applied for government approval (A.K.M. Zamir, 2018). The technology still very new and will take time to get familiar among the consumers. However, analysts and policymakers are hopeful that it will get a similar response like MFS. Once get popular this will take mobile payment system to another era.

4. E-commerce in the Opinion of Bangladeshi Internet Users

A recent study found that Bangladesh currently enters to population dividend era. It means the percentage of young people will be the highest in the next 25 years. Currently, 65% of the total population of 168 million in Bangladesh is below the age of 35. It does not only make the country one of the largest (8th based on population) but also the youngest in the world (e-cab.net, 2017). It is a golden chance for Bangladesh to utilize e-commerce potential by providing a business-friendly environment. It will definitely change the economic landscape of the country. Goldman Sachs also did research and realized the potential of e-commerce in Bangladesh. They labeled it as one of the "Next Eleven" – a group of countries that have the prerequisites and capability to become key economic players in the twenty-first century (e-cab.net, 2017). Increasing urbanization and a larger middle class with higher disposable incomes – the ideal target group for e-commercial activities.

So far very few research has done to know about consumers perception of e-commerce in Bangladesh. (Rashed, 2017) Found that the majority of e-commerce buyers are young executives or students. He also mentions that the Bangladesh economy is scattering not only in Dhaka or Chittagong but also in villages, small cities with proper internet connectivity. (Syed, 2015) Found that aged between 20-35 years are more interested in shopping online. His survey reports show that 66% of his respondents already have the experience to buy a product online. (Mohammed & Tunazzina, 2015) Found that consumers prefer online shopping due to convenience in terms of less time consuming and hassle-free shopping. They also studied the relationship between family structure and likeliness to prefer online shopping. Their findings show that "when people do not have free time for shopping, especially in case of nuclear family or when both husband wives are employed, they prefer online shopping more than the people in the joint family."

To know about Bangladeshi consumer's perception of e-commerce/online shopping, we have conducted the questionnaire-based survey. Our data have been collected from Dhaka and Chittagong two major cities that most of the traffic comes from. Total 400 questionnaires distributed to the consumers but we have received 255 questionnaires. Five questionnaire removed from the analysis due to incorrect and missing answer. So the final number is 250, most of our respondents are aged 18 to 24 (88%), 174 are male respondents, and 76 are female respondents. Figure 6 and 7 present the demographics of the respondents.
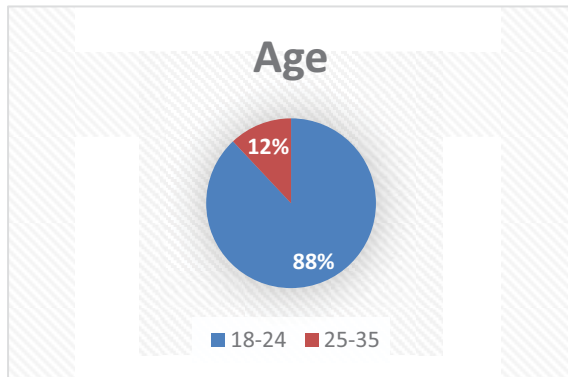
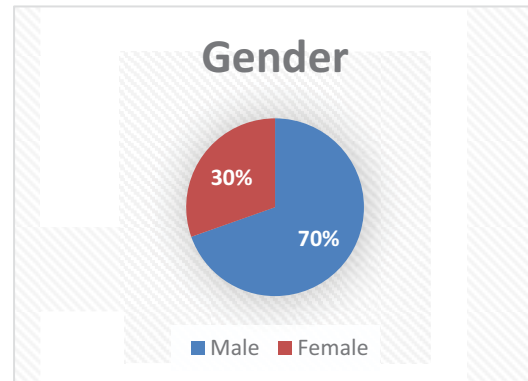Figure 6. Age of respondents   Figure 7. Gender of respondents

The questionnaire was consist of 8 question, and we have adopted Seven-point Likert-type scale from *strongly disagree (= 1) to strongly agree (= 7).*   Our findings show that 51% of respondents frequently buy products online and most of them are satisfied with the previous shopping experience. 54.8% felt that online shopping is convenient and 51.2% admitted the usefulness of the shopping. The result also shows that consumers enjoy shopping on the internet, 76.4% shown their comfort in buying products online. Though all the numbers are very encouraging surprisingly only 45.2% said that they would prefer to shop from the internet than the traditional channel in the future.

- Frequent online shopper- 51%

- Satisfied previous online shopping- 51.6%

- Online shopping convenient- 54.8%

- Online shopping useful- 51.2%

- Level of ease- 68%

- Level of comfort- 76.4%

- Easy and hassle-free- 53.6%

- Future shopping preference- 45.2%

Previous shopping experiences always have a significant impact on decisions concerning another purchase. Online shopping provides hassle-free shopping and saves valuable time. It facilitates access to a wide range of products with ease. It is convenient for them to roam around the virtual shopping world and choose their desired products. It is much more comfortable than visiting traditional brick and mortar stores. Therefore, building a long-term association with the client and transparent operation should be the primary business strategy. Client's pleasure and satisfaction with the purchase can be achieved with high-quality services. So, there should be a fast and easy interactive customer service system to answer all the question and queries. Good manners and behaviors will be the key to creating a relationship with clients.

5. Challenges

Bangladesh e-commerce is growing, and the market size is getting bigger. However, some obstacles are restricting the market growth and entrepreneurs having a tough time running their business.

- Lack of logistics and transportation System, restraining e-commerce traders to expand their business. That directly affects the delivery services, national road and highways are yet to be an international standard that facilitated the faster delivery services. The stagnant traffic hampers fast delivery of products in the city as well.

- The absence of government policy, traders, are misguided by several forums and managing bodies regarding business models, planning, and marketing. Lack of policy created a big understanding gap between entrepreneurs and consumers. Though recently the government has approved the e-commerce law and it needs to implement as soon as possible. That will clear all the confusion in the air and create a favorable environment for everyone.

- Shortage of capital, local entrepreneurs having a <u>tough</u> time to manage money and financial support. E-commerce still in development stage, so investors are not sure and certain about its growth. The government needs to step up and take the initiative to support those entrepreneurs.

- Trustworthy payment system, e-commerce in Bangladesh still have not earned the consumer's "Trust" that's why we see more than 90% payment made on delivery. Strict policy, reliable and safe payment system is the only way to overcome this issue. Another issue is a number of credit and debit cards users in Bangladesh; The number is deficient and insufficient. Bangladesh Bank has a huge role to play here; they should ask the public and private bank to take the initiative to encourage customers to use cards and lower the TXN cost for credit and debit card. Beginning of this year, we have seen the launch of the e-wallet or e-payment system; it will definitely help online and e-commerce payment.

- Integrate social media with an e-commerce platform; Facebook is the silent competitor of e-commerce. There are thousands of small merchants who are running their business through social media especially on facebook. Technology is changing fast and so does the consumers shopping behavior or pattern. Nowadays, consumers spent more time with their mobile phone than their laptop or desktop computers. So entrepreneurs need to understand the consumer's preference and act according to that.

- Lack of knowledge, Bangladeshi merchants and consumers yet to fully understand the benefits of e-commerce. ICT ministry, e-CAB, and BASIS have a considerable role to play here. They need to bring more expert and experienced persons in e-commerce to start campaigns to promote nationwide. Their collective efforts can make this a success.

6. Conclusion

The e-commerce in Bangladesh is still a young and emerging industry. In this paper, we have presented the characteristics of Bangladesh e-commerce, its past and present development. According to the report from UNCTAD, Goldman Sachs and other sources, Bangladesh e-commerce is growing with good pace and becoming competitive in Asian markets. In 2018, two major players in the global e-commerce industry Alibaba and Xiaomi announced their interest to run business in Bangladesh. From e-commerce business perspective it is excellent news for the government, consumers, and traders. This two company already established themselves as a global business leader, their experience and investment will be the significant boost for local e-commerce traders. It will definitely entice the other global players to come to Bangladesh and invest in the e-commerce industry. This paper we have pointed out some drawbacks of the current e-commerce industry, now policymakers need to shift their focus to those shortcomings, and act fast to take necessary measures to solve the problems. Besides that, they should provide healthy and level playing environments not only for local investors but also for foreign investors.

The number of websites/online stores and the number of online shoppers in Bangladesh growing steadily. According to our survey, the consumers of Bangladesh shown positive attitudes on e-shopping and at the same time expressed their concern about safety and privacy. So, e-commerce traders should take the initiative to build a long-term relationship with clients and earn their confidence, let them share their thoughts, create communities, listen to their opinions and use their ideas, more importantly, focus on the transparency of the operation. They should improve their marketing activities and develop a consumer-oriented strategy to entice more customers.

Recent time, global consumer's data privacy become a major concern. In our study, we found that both consumers and merchants have a lack of knowledge about the whole business system. So, the government has to play a prominent role here and ensure consumers data safety and provide the necessary platform to learn about e-commerce.

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