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This issue covers various areas of importance such as Investor Satisfaction with Brokerage Firms, Impact Assessment of Velocity Model of Efficiency on Employee Efficiency, Obstacle for Business in Generating Electricity Through Solar Energy, An Evaluation of Factors Determining Earnings Management In Nigeria, Impact of Sales Territory Design and Salesforce Performance on Sales Organization Effectiveness, Rethinking Human Resources for Social Innovation in Business, The
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Prof. (Dr.) Gurinder Singh
Editor-In-Chief
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Investor Satisfaction with Brokerage Firms: A Study of the Stock Market in an Emerging Country

*M. Sadiq Sohail **Majid F. Al-Otaibi

In the domain of marketing, research on customer satisfaction have been widely conducted. In terms of purchase decision-making process, stock investors are also engaged in significant portion of the process given the wide variety of products available in today’s financial markets. The aim of this study is to examine the criteria used by retail investors’ in selecting brokerage firms and illustrates across different segments of investors. By having an understanding of investor behaviour, brokerage firms will be better positioned to serve customers and improve their quality of services. While studies on investor behaviour have been conducted in the past, these have been mainly from perspective of financial analysts; the focus has been finance specific areas such as portfolio decision-making, the structure of the financial markets, and the movements of stock and bonds.

Key words: Investor satisfaction, financial markets.

1 Introduction
Since the dawn of 2000, the capital market in Saudi Arabia, has recorded phenomenal growth. The main driver of this has been reforms in the capital market. Growth has been taking place at an accelerated pace, resulting in transformation in both the primary and secondary segments of the capital market. The major beneficiaries of the market developments have been the investors.

On a more precautionary note, investors are considerably affected by investing in stocks, which are considered as having risks (Murphy, 2004). Often, individuals who invest in stocks, face a lack of professional skills, which hamper them in collecting appropriate information for managing their investments (Wang et al, 2006). These retail investors are susceptible to making errors resulting from adverse valuations of financial and non-financial investment attributes (Hirshleifer, 2001). Compared to the neo-classical market efficiency theories (Fama, 1970), the behavioural finance theories (Hirshleifer, 2001) argued that investors are largely illogical when it comes to taking investment decisions. These illogical decisions are because they do not have clear policies on investments and are unable to react to regulatory intervention (Wang et al, 2006). Most retail investors take a short term perspective, and trade aggressively, which cause several socio-economic consequences, most noticeable in the developing economies (Solomon, 1999).

In the past, a retail investing in Saudi Arabia was limited to visits to stock exchanges or brokerage houses, limiting access to stock market trades. However, now, participation in market trade is possible through many of the online trading terminals. The different aspects of trade like delivery and settlement takes place in an efficient, quick and transparent manner. Capital market have thus attracted investors by offering enticing opportunities for getting good returns in the form of dividends and capital gains.

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A large number of retail investors use the services of brokerage firms. Ascertaining satisfaction of brokerage firms is necessary from the point of view of customers as well as brokerage firms. This study examines the determinants of satisfaction of investors on their brokerage firms in Saudi Arabia.

The major objectives of the study are twofold. First is to determine the level of satisfaction on different investor services. The second objective is to identify the factors determining the investors’ satisfaction on the brokerage firm.

The aim of this study is to examine the criteria used by retail investors’ in selecting brokerage firms and illustrates across different segments of investors. By having an understanding of investor behaviour, brokerage firms will be better positioned to serve customers and improve their quality of services. While studies on investor behaviour have been conducted in the past, these have been mainly from perspective of financial analysts; the focus has been finance specific areas such as portfolio decision-making, the composition of the financial markets, and the exchange of stock and bonds (Shim et al, 2008). Other studies have examined the psychology of investing in stocks. One such study examines the relationship between asset holdings and household characteristics (Crockett and Friend, 1967). An earlier study by Bernstein (1980), made a first attempt to understand the relationship of basic psychological concepts to investment. However, a limitation of this study was that it was only a descriptive study, and needed further empirical support. Shiller (1987) studied the feelings and reactions of both Japanese and US investors after the fall out of the crash of worldwide stock market crash in October 1987. The results of this study concluded that events in the US were the primary cause for the crash in the Japanese market, but that the process of crash of both markets remained the same.

However, there is a paucity of research in the understanding the process of how investors select brokerage firms. It appears that researchers in investor behaviour have neglected the importance of services provided by brokerage firms. Brokerage firms provide some very valuable services, which are of crucial importance, and leads to individuals making a successful investment and gaining returns in stocks and commodities. For a brokerage firms, it is imperative to provide the right services in order to achieve success (Thompson, et al, 1985). Therefore, the mix of the right portfolio of services and their quality is an important criteria, which helps individuals to select a brokerage firms. As individual investors have different needs of service requirement and evaluate quality on different parameters, the selection criteria of brokerage firms can be one of an effective basis for segmenting investors. Given that there are different segments of investors, it is of paramount importance to determine the profile of investors in the different segments. This will lead to identifying the some demographic and psychographic variables, which will be basis for describing and developing profiles of investors in the identified segments.

2 An Overview of Capital Market In Saudi Arabia

The Saudi capital market has been consistently recording growth. The total value of Shares traded in Tadawul (the only Stock exchange in Saudi Arabia) reached a figure of SR 1,929.32 billion in the year 2012 (SR, is the local currency, Saudi Riyal; SR3.75 pegged at 1US$ at the time of study). 42.11 million Transactions were executed during the same period, which is 2012. At the end of the year 2012 Tadawul All Share Index (TASI) closed at a level of 6,801.22 points compared to 6,417.73 points for the previous year, recording a gain of 383.49 points or 5.98 percent. Further, the total market capitalization by the end of the year 2012 rose to SR 1,400.34 billion (US$ 373.42 billion), which is an increase of 10.19% from the previous year.

The top 10-brokerage firms serving investors are listed in Table 1. This Table also shows the trade volume and percentage of trade for each of the brokerage firm.
3 Review of Literature and Development of Conceptual Framework

A growing body of literature built in undertaken in recent times suggests that providing customer satisfaction leads to a firm’s success (Gronroos, 1990; Eriksson and Vaghult, 2000). In a broad context, customer satisfaction is determined by developing models of consumer satisfaction. Customer satisfaction begins by providing some very rudimentary facilities (Venkitaraman and Jaworski, 1993), which fulfill the basic needs of a customer in a financial market, investment firm or a bank. Customer satisfaction is the gap between his/her perception of a service and the evaluation of the actual service itself. If the service exceeds the expectations of the customer, the customer is delighted. In the context of investor satisfaction, availability of preliminary information, collection and processing of information influences the degree of customer satisfaction in a competitive marketplace (Holbrook and Hirschman, 1981; Engel et al, 1995).

The consequence of customer dissatisfaction with a service provider is also significant. A customer is likely to give a positive word of mouth to a limited customer, say about three to five people, when there is a positive experiences, but if there is dissatisfaction, he is likely to give his negative word of mouth communication to say, seven to twenty people about the negative experience (Kan, 1995). This rule would also apply to individual stock investors. Investor satisfaction with the availability of basic mechanisms of a market structure has an effect on the sustainable development of stock market (Baker and Aslem, 1973). From a stock market point of view, we can say that investor satisfaction relates to a satisfactory experience of the investor with the process of market, the transaction systems in place, provision of brokerage environment and other constituents of market structure.

In the context of online securities brokerage services, Yang and Fang (2004) undertake a study to examine the reviews of brokerage firms by adopting the methodology of content analysis. Results of this exploratory research showed that there are similarities in the primary service quality dimensions between online customer satisfaction and traditional services however, the key factors leading to online brokerage service dissatisfaction is linked to information systems quality.

A study undertaken in Hong Kong, examines investors selection criteria of brokerage firms to have abeter understanding of investor behaviour, improvements in the quality of services and effective segmentation by brokerage firms (Chan et al, 1991). Another study undertaken in Bangladesh, examined the mechanisms of market structure, which lead to the satisfaction level of individual investors. The study concluded that investors lay a great deal of emphasis on effectiveness of investment analysis; ease of the transaction process, effectiveness in the management of information and timely risk management, in that order (Rashid and Nishat, 2009).

<table>
<thead>
<tr>
<th>Rank</th>
<th>Name</th>
<th>Trade volume in billions</th>
<th>Percentage of total trade (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AlJazira Capital</td>
<td>50.38</td>
<td>19.70%</td>
</tr>
<tr>
<td>2</td>
<td>Al Rajhi Financial Services Company</td>
<td>41.93</td>
<td>16.40%</td>
</tr>
<tr>
<td>3</td>
<td>NCB Capital</td>
<td>31.78</td>
<td>12.40%</td>
</tr>
<tr>
<td>4</td>
<td>SAMBA Capital &amp; Investment Mgmt.</td>
<td>25.22</td>
<td>9.80%</td>
</tr>
<tr>
<td>5</td>
<td>HSBC Saudi Arabia Ltd</td>
<td>20.89</td>
<td>8.20%</td>
</tr>
<tr>
<td>6</td>
<td>Saudi Fransi Capital</td>
<td>20.01</td>
<td>7.80%</td>
</tr>
<tr>
<td>7</td>
<td>Arab National Investment</td>
<td>14.77</td>
<td>5.80%</td>
</tr>
<tr>
<td>8</td>
<td>Riyad Capital</td>
<td>13.64</td>
<td>5.30%</td>
</tr>
<tr>
<td>9</td>
<td>Alistithmar Capital</td>
<td>7.83</td>
<td>3.10%</td>
</tr>
<tr>
<td>10</td>
<td>Derayah Financial Corporation</td>
<td>6.96</td>
<td>2.70%</td>
</tr>
</tbody>
</table>

Source: www.tadawul.com
4 Determinants of Investor Satisfaction with brokerage firms

Extant literature has identified determinants of investor satisfaction with brokerage firms. We review literature on these elements.

4.1 Reliability and Creditability
In the psychological literature, a vast body of research has examined the questions of attitude formation. With the introduction of the Internet as an emerging tool for the delivery of services, the issue of credibility and reliability has gained importance and attention of researchers. Most brokerage firms offer services through Internet. Credibility and reliability are two important determinants of investor satisfaction. Reliability and credibility are among the two prominent factors in evaluating quality, in the online context (Yang and Jun, 2002; Cox and Dale, 2001).

4.2 Investment Analysis
In order to ensure a successful stock investment, the investor will have to make a timely entry in the market, perform the information processing, make the right investment decision, and finally take a proper action of investment (Rashid and Nishat, 2009). Investment analysis is a broad concept and comprises management of companies, the economic scenarios, regulatory government environment and reforms, the industry outlook and other macroeconomic indices that include inflation, foreign direct investment (FDI), up to date stock market performance and gross domestic product (GDP) growth rate (Murphy & Soutar, 2004). The problem in an emerging country like Saudi Arabia is that investors are deprived of such insightful analysis. Therefore, we say that performance investment analysis function and its availability to investors will lead to investor satisfaction.

Prospective investors lack information on stock trading. To a retailer investor, norms of brokerage house and changes may appear complex. This poses challenges, for example, imposition of margin rules and changes in transaction costs hinder the flow of operation of an exchange (Merton, 1987; Brown, 2004). Hence, investors look for information analysis and rely on brokerage firms for many decisions. Successful brokerage firms adopt various initiatives to make it easy for investors, facilitate transactions, provide satisfaction and increase investor participation.

4.3 Information management
A function of brokerage firm is to provide information to its customers on all stocks... The key function that makes an individual a better investor is the availability of information provided by the brokerage firm (Loibl & Hira, 2009). Good management of information reduces behavioural irrationality (Hirshleifer, 2001; Ritter, 2003). Most investors in Saudi Arabia are small investors. Individually subscribing to information sources is not affordable. Some of the large brokerage firms in Saudi Arabia have their own market research department, which provides trading and investment advice. Some of these also provide portfolio and investment management services to their customers. Such information management initiatives by brokerage firms will influence investor satisfaction.

4.4 Special offers
Brokerage firms in Saudi Arabia often resort to providing ‘special offers’ to its clients. This promotional program offers reduced brokerage fees to its customers. In Saudi Arabia, such offers have become a competitive necessity. This is not only used by brokerage firms as customer relation management tool, but has also been effective in providing investors with satisfaction.

5 Research Model and Hypotheses
From the foregoing review of literature, the present study suggests a model that launching the relationship between the four factors and investor satisfaction. The study develops a conceptual model, which is presented in Figure 1. The model posits that investor satisfaction is positively influenced by the four of the constructs identified in the review of literature. The following hypotheses are proposed:

H1: Credibility and reliability of brokerage firms positively influences investor satisfaction in Saudi Arabia.

H2: Investment analysis functions performed by brokerage firms positively influences investor satisfaction in Saudi Arabia.


H4: Availability of special offers by brokerage firms positively influences investor satisfaction in Saudi Arabia.
in Saudi Arabia.

Figure 1 Research model

6 Methodology
6.1 Instrument design and measures of the survey
Having developed the model, we developed a survey instrument to test the model. The first part of the instrument focused on gathering demographic information. In the second part of the survey instrument, questions related to the research framework as depicted in Figure 1 were developed.

The constructs of the study were measured and the questionnaire items were all adapted from previous studies, which have been discussed in the aforementioned literature review. There were six items for the construct of credibility and reliability. Three other construct dimensions namely investment analysis, investment management and special offers had three items each. Investor satisfaction was measured using three items.

Responses of all the items were noted on a five-point Likert scale having a range of 1 to 5, with 1 equal to strongly agree, and 5 equal to strongly disagree. In order to improve the reliability and validity of the measurement items, we used the multiple-item measures for all the variables...

6.2 Sampling and data collection procedures
The population targeted for this study was all adult individuals undertaking investments or trade with brokerage firms in Saudi Arabia. A screening question was included to filter out those not qualified to answer the remaining part of the questionnaire. Due to the geographic vastness of the Kingdom and limitation of time, the population was confined to the adult individuals residing in the Eastern province of Saudi Arabia. The choice was because this province is largely representative of the Kingdom of Saudi Arabia. We used the non-probability technique of convenience sampling in the collection of data, by using convenience-sampling technique. Notwithstanding the limitation of this method of data collection, we had to consider this method a suitable due to difficulties in obtaining probabilistic samples in Saudi Arabia. This method is considered ‘a necessary evil’ for data collection in Saudi Arabia (Sohail et al, 2012). The procedures lay out by Salganik and Heckathorn (2004) were used in data collection.

During the first stage of data collection, part time MBA students who are also dealing with brokerage firms for investment and trading were approached and their voluntary participation was sought. These respondents were from the first author’s university. These students then randomly distributed questionnaires at five leading brokerage firms in the Eastern province of Saudi Arabia. The cities representing this province are Khobar, Dammam and Dhahran. All those individuals who were willing to participate were given the questionnaire. About 1000 questionnaires were given in this manner. In the first stage, there were 431 completed responses received. These questionnaires were checked for completeness. After checking the completeness, consistency, legibility and ambiguity, we discarded 86 questionnaires, leaving with 345 usable responses. The response rate of 34 percent compares favorably with results of previous studies in Saudi Arabia.

6.3 Survey responses and profile of the respondents
An overwhelming 87 percent of the investors were males and the remaining were females. This finding cannot be considered as surprising as traditionally, men rather than women have mostly undertaken investments and trades in stock markets. As for age, a majority of the respondents (46 percent) are in the age group of 30–40 years. There were 25 percent in the age range of 25–30. For the age group of 41–50, there were 18 percent of respondents. The distribution of sample is representative of the overall population distribution in the Kingdom.

Table 1: Profile of Respondents

<table>
<thead>
<tr>
<th></th>
<th>No of Respondents (n=345)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>301</td>
<td>87</td>
</tr>
</tbody>
</table>
As for the educational qualification, it can be seen that 49 percent of the respondents have undergraduate qualification. Finally, on the nationality of respondents, 98 percent of the respondents were Saudis, while only 2 percent were expatriates. Although Saudi Arabia has about 30 percent of expatriate population, their representation in the sample is small, as many brokerage firms place restrictions on expatriate trading. As for the occupation, 26 percent were government employees. Income, measured in Saudi Riyals (3.75 SR= 1 US $) is also shown in the Table. Table 1 provides an overview of these findings.

### 6.4 Reliability tests
We conducted the internal consistency of the research instrument by undertaking a reliability analysis.

Table 2 shows the descriptive statistics of the variables and reliability estimates.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Cronbach’s Alpha</th>
<th>Number of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliability and Credibility</td>
<td>3.889</td>
<td>.977</td>
<td>0.96</td>
<td>6</td>
</tr>
<tr>
<td>Investment Analysis</td>
<td>3.569</td>
<td>.948</td>
<td>0.94</td>
<td>3</td>
</tr>
<tr>
<td>Investment Management</td>
<td>3.568</td>
<td>.991</td>
<td>0.85</td>
<td>3</td>
</tr>
<tr>
<td>Special Offer</td>
<td>3.648</td>
<td>.918</td>
<td>0.87</td>
<td>3</td>
</tr>
<tr>
<td>Investor Satisfaction</td>
<td>3.339</td>
<td>.934</td>
<td>0.77</td>
<td>3</td>
</tr>
</tbody>
</table>
6.5 Hypotheses tests and discussion

Table 3 shows the results of the regression analysis. These results show that of the four factors investigated, three factors, namely, reliability and credibility, investment management and special offers, make a significant contribution to customer satisfaction (F-statistic for the regression model= 13.343, p-value less than 0.001). There is also a significant direct relationship between these three factors and investor satisfaction. One of the estimates, that is, investment analysis, however shows no significant relationship. We therefore conclude that Saudi retail investors tend to be satisfied with brokerage firms, if they provide reliable and credible services, good information management and give special offers. As the signs of the estimates are positive, it is evident that there is a high degree of investor satisfaction with these three factors. This finding of research undertaken in Saudi Arabia further lends credence and provides empirical support to the factors that contribute to investor satisfaction. A major contribution of this study is that the study has identified a more comprehensive list of determinants that lead to investor satisfaction. The study adds to a body of knowledge and builds on past studies, which had been investigated in different settings (Rashid and Nishat, 2009) or used incomplete set of variables.

Table 3: Summary of Multiple Regression Analysis

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Beta</td>
</tr>
<tr>
<td>(Constant)</td>
<td>0.472</td>
<td>0.943</td>
</tr>
<tr>
<td>Reliability and Credibility</td>
<td>0.235</td>
<td>0.412</td>
</tr>
<tr>
<td>Investment Analysis</td>
<td>0.139</td>
<td>0.184</td>
</tr>
<tr>
<td>Information Management</td>
<td>0.215</td>
<td>0.264</td>
</tr>
<tr>
<td>Special Offers</td>
<td>0.215</td>
<td>0.264</td>
</tr>
</tbody>
</table>

Dependent Variable: Investor satisfaction

The present study has several managerial implications as well. A first conclusion is that brokerage firms in Saudi Arabia intending to provide investor satisfaction should emphasise building an image of being a reliable and credible service provider. They should also focus on investment management as well as on using the promotional tool of special offers. Reliability and credibility of the brokerage firms is particularly important in affecting the investors’ satisfaction. This is relevant, in the context of the Saudi culture, where trust is an important factor in establishing and maintaining relationships. Brokerage firms must also generously undertake special offers in their promotional strategies. Retail investors in Saudi Arabia appear to be swayed by short-term incentives.

7 Conclusions and Future Research

This study has confirmed that measurement of the factors leading to investor satisfaction with brokerage firms in Saudi Arabia. Brokerage firms operating in the Saudi market and wanting to provide investor satisfaction should pay close attention to the findings of this study. This study, being a first of its kind in Saudi Arabia, makes a valuable contribution to the existing knowledge related to the Saudi stock market. However, as in case of several other empirical studies, there are some limitations. First, the study has not examined the possibility of any socio-demographic influences between the factors on the relationship and investor satisfaction.

A suggestion for future research is examine the effects of demographic and psychographic variables. For example, examining investor satisfaction in Hong Kong, Chan et al, (1991) segmented the market into four types of investors based on demographic and psychographic profiles. It will be interesting to undertake a similar study, given the cultural differences between Saudi Arabia and other countries.

Second, the sample for this study is while being representative, confined to only one of province, the eastern province of Saudi Arabia. It is suggested that future studies must examine larger samples from
across the Kingdom. This will ensure generalisability of findings. Third, the study had a limited number of women participants. With numerous options for online trading, an increasing number of women are engaged in trading activities. The scope of future studies can be enhanced.

References
Impact assessment of Velocity Model of Efficiency on Employee Efficiency

*Jugal Kishore Vashist **Preeti Dwivedi

The purpose of this paper is to evaluate the impact of the Velocity Model of Efficiency (VME). VME, developed by the authors, is tested on the employees to assess the impact of use of the model in improving employee efficiency by working according to VME. This research is inductive, as it develops a theory. VME is explained to 100 respondents and it has been practiced by them over a period of two years and then 44 responses are recorded based on the survey method with structured close ended questionnaire. McNemar test is used to analyze the results of impact of the model on employee efficiency. There is a significant difference in performance before and after the use of the model. Employee reported a perceptible improvement in the efficiency after adopting and applying the Velocity Model of Efficiency in workings. Respondents used lesser time to execute the assignments with higher productivity after implementing the VME in the day to day workings. The paper contributes to improvement in efficiency of small number of employees which is yet to be tested on the larger number of employees from different fields of working. The application of model can be further tested in the uncontrolled environment of self-monitoring by the employees. VME is very simple to understand and apply which will positively influence the performance of the people, particularly when there is more expectation for output in the limited available time. This paper introduces the concept of Velocity Model of Efficiency (VME) and VME advocates the speed along with the right direction for increasing the efficiency. It also introduces the manner in which velocity can be achieved by practicing accessibility, information and standardization.

Keywords – Employee efficiency, Employee effectiveness, Organisation performance

Introduction

Increasing need for excellence, quality, optimum productivity, efficiency and effectiveness has brought in lot of competition in the organizations and complexity in the mind of the human resources working for those organizations. Today, every organization needs to be contemporary to balance and sustain with the contemporary nature of business. Organizations are required to help the employees in their development in order to compete with the contemporary organizations. Everything is destined to change in human life and society. But some changes occur in the natural course as social evolution takes place, while some changes are planned and implemented deliberately to alter the given state which may not be as satisfactory as it is desired to be. Some people and their groups resist change while others adopt it willingly; thus, some lead the change while others follow it. But change also involves uncertainty about its outcomes. It is inevitable that some consequences of change may be beneficial while others may be harmful. Some effects of change may leave some neither better off nor worse off than before. Actual consequences in terms of beneficial or harmful effects become visible only after the process of change has been completed and its effects are experienced. From this point also process of change may be distinguished into two types: Instantly completed process and process completed over a period of time. Most of the time change and its process are qualitative in nature, though its effects may be amenable to quantification. Naturally, analysis of change and its effect may require a method which is capable of taking cognizance of its qualitative nature. McNemar evolved the method which deals with the impact of change as a non-parametric phenomenon.

Authors have developed the Velocity Model of Efficiency (Annexure 1), which has been tested on 44 participants over a period of two years and then the responses were recorded to test the efficacy of the Velocity Model of Efficiency (VME).

Literature

Efficiency is defined as the ratio of output and input while the effectiveness is defined as the achieving the level of the expected output by applying a particular system. There is no guarantee that efficiency and effectiveness can be achieved simultaneously because in fact, both represent different levels of performance, however, an efficient organization handles both of them well, and uses the most efficient way to pursue maximum effectiveness (Kaur, A.,...
& Singh, K, 2011). Efficiency and effectiveness plays key role across all industries for the success of the organizations. Vashist and Dey (2016) have also stated that efficiency and effectiveness of the mode of transportation plays a crucial role in modal selection by automobile & components, electrical & electronics, capital goods and fast moving consumer goods (FMCG) industry.

**Employee Efficiency & Effectiveness**
Burma (2014) stated that if the human resources do not have sufficient activity then probability of success will be low even if the organization is financially strong. Low effectiveness of human resources means that the organization slogs on reaching the targets set for profitability level and the future. Effective, creative and receptive manpower guarantees the achievement of both short-term and long-term organizational goals (Hossein Dana, Jamshid & Hossein Zeynallpor, 2012). The importance of human resources is even greater under a strategic management approach. Without motivated and well-trained experts, organization cannot implement substantial, sustainable and viable strategies that contribute to the growth of the company in its competitive environment (Vaduva, 2012).

Efficiently pivots on human who may improve his quality and quantity of work, develop new plans, solve his problems creatively, increase his labor force and discover ways to reduce costs. Human is both the object and agent of efficiency. Efficiency increases GDP, enhances competitiveness and results in improved life (Hossein Dana, Jamshid & Hossein Zeynallpor, 2012). It was found that an effective management of human resources gives chance to the employees to contribute productively and effectively to the overall accomplishment of the organization’s goals and objectives (Burma, 2014).

Organizations comprise important elements such as technology, human resource capital and management. Human resource is considered as the most important element and effective component of economic activity and trade because improving efficiency and achieving organizational aims depend on rational and correct functioning of these resources (Pouryazdan, M., Soltani, H., & Lari, M. A., 2015). There is nothing as useless as doing efficiently that which should not be done at all (Peter F. Drucker).

**Factors influencing Employee efficiency & effectiveness**
Mehrabian, F., Farmanbar, R., & Mohamadian, S. K., (2013) found that factors such as empowerment, environmental conditions, organizational culture, motivation, leadership style, transparency and documentation of services, creativity and innovation, supervision and control and staff training were the most influential factors enhancing manpower efficiency. Motivation connects the employees to their works and at the same time they are more productive and successful on their works (Burma, 2014).

Nowadays, the success of institutions is evaluated by their effective communication. Communication is the power of competition in service and production. Production of information and sharing of the same with the all the stakeholders including employees and managers, constitute the main structure of communication inside the institution (Burma, 2014). Information sharing between and within the work groups is critical in meeting organizational goals. Measuring the flow of information within an organization helps in determining the overall connectivity that exists among its members. Organizations should aim at supporting formal and informal structures to encourage information flow among its members (Hatala, J. P., & Lutta, J. G., 2009).

Even the highly skilled employees will not effective if they are not motivated to perform, however, and human resources management practices can affect employee motivation by encouraging them to work both smarter and harder (Huselid, 1995). Hossein Dana, Jamshid & Hossein Zeynallpor (2012) found that there is a significant positive correlation between the three factors of good wage and salary payment, adequate organizational culture, good employee-management relations and the rate of manpower efficiency.

Team building is a popular intervention technique which focuses on the social climate and interpersonal relationships present in the group. Team building is of great use in helping group members to develop the capability to utilize group members’ knowledge and skill effectively (Hackman, J. R., & Morris, C. G., 1975).
The four cultural components, viewed as managerial traits of empowerment, trust and trustworthiness, mentorship and consistency coexist at all times regardless of the type of culture. Managers must put mechanisms and other support systems into place that gives employees the opportunity to flourish and empower themselves, which increases their own effectiveness as well as that of the organization (Kane-Urrabazo, C., 2006). Socialization often begins through orientation programmes and is reinforced throughout employment. It is during this time of orientation that the organization’s principles and values can be communicated and instilled into the behaviors of new employees (Trevino, L. K., & Nelson, K. A., 1999).

Review of Methodology
McNemar test has been developed to evaluate the significance of the effect of the change. Like Sign & Signed Rank Test, it has been proposed for use in cases where either nominal or ordinal scale is used for measurement. A holistic view of the test and its method suggests that it may be considered to be one of the tools or instruments that are available for the application of comparative method of analysis.

The test has basically been developed for application to cases where the status before and after has to be analyzed in order to evaluate the effect of change introduced either as a part of research/experimental design OR it occurs/occurred autonomously. The before and after syndrome involves the lapse of time but the test may be extended and applied to cases even at a given of time, like the comparative method, if one involves no change whereas the other involves change or change of specific nature.

Like Sign and Signed rank test, the McNemar test is also designed for inter-related samples. Each individual/item has two responsibilities, one for before and another for after. This may be considered as separate but interrelated samples. Each subject/sampled item may be used as its own control factor, while the evaluation involves ordinal or nominal scale of measurement.

One may also think of transforming cardinally measured values into nominal values. For example: High & low income levels; Movement from one income level to another and this may be helpful in evaluating the prediction of say Pareto’s law of income distribution. The law states that the lower the income that one has more difficulty in moving to higher income group. At two points of time, one may examine the frequency of persons who moved from one to another or remained in the same group under the impact of say, target oriented employment generation program.

McNemar test has been extensively used in many fields i.e. Voters progress and choices among the candidates before and after canvassing commences and after it ends; Benefits derived from the acquisition of management degree and diploma through distance mode education; Development benefits of a project to different segments of population of the command area; Benefits of migration to the economy of destination; Effect of education on the ideological commitment of students; Effect of marketing strategy on the sales of the company and so on. Addington, J., and Addington, D. (2007) used McNemar’s test to determine the prevalence of substance use and its impact on outcome 3 years after presentation for a first-episode of psychosis.

The McNemar test has been used to compare present and future training demand. Agut, S., Grau, R., and Peiro, J. M. (2003) used McNemar test to find the competency needs among managers from Spanish hotels and restaurants and their training demands. Whitely, W., Dougherty, T. W., and Dreher, G. F., (1991) used McNemar to examine the relationship of career mentoring to the promotions and compensation received by 404 early career managers and professionals working in a variety of organizations.

McGill, P., Bradshaw, J., and Hughes, A., (2007) used McNemar test to study the impact of extended training in positive behavior support on staff knowledge, causal attributions and emotional responses. McNemar was also performed to see the significant difference in terms of the willingness to share information within an organization (Raban, D. R., & Rafaeli, S., 2007). It is obvious that these are illustrations of cases where people acted as their own control factors and a nominal scale of Yes/No OR presence/absence OR order scale like high & low were used.

Research Methodology
Procedure
To test the significance of the effect of an observed change, a 2x2 table having 4 cells, has been set up.
The cells contain the frequencies of responses from the same individuals, indicating whether the person has or has not been influenced by the introduction of a factor/influence designed to affect him/her. In this case, the factor/influence is implementation of VME by the randomly selected respondents. The diagonal frequencies show the frequencies of those who have shifted their positions under the influence of the factor/change at work. The off diagonal frequencies show the number of those who have not shifted/ altered their state/position after introduction of change or emergence of new factor at work. This gives two way classifications of the responses into 4 cells.

If the frequencies in the diagonal cells are denoted by A & D and those in off diagonal by B & C, the table may appear as given below as Table I:

<table>
<thead>
<tr>
<th>Before / After</th>
<th>-</th>
<th>+</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>-</td>
<td>C</td>
<td>D</td>
</tr>
</tbody>
</table>

Where diagonal cells show the cases in which change occurs between before & after states. The off diagonal cells show the frequency of responses involving no change in two states. The direction of change is twofold i.e. from positive to negative or from pro/for to against/anti. Alternatively, the alteration in the position may be from negative/anti/opposition to positive/for/pro. Accordingly, the table has been headed by - & + at the top and + & - at the sideways. The test apparently overlooks the direction of change and magnitude of the change, though the change is measured by the cell frequencies.

All respondents who indicate a change in their responses from before & after status are thus tallied in the diagonal cells. If the response is altered from +ive to –ive, frequencies are depicted in top left cell as A. All responses, involving change from –ve to +ve are shown in the right hand bottom diagonal cells as D. As against this, if there is no change from + +ve and so remain +ve, then it is shown in off diagonal cell as B. Similarly, if there is no change from –ve & so remain –ve after change, the frequencies are clubbed under off-diagonal cell as C. Thus A+D shows the total number of responses involving changes while B+C is the total of no changes.

**Assumption of Null Hypothesis:**
It is assumed that change is random, implying that (A+D)/2 will move from –ve to +ve while the other half will move from +ve to –ve. So Null Hypothesis (Ho) is that expected number of frequencies of both these cases shall be equal and hence

\[ E(x) = P_1X_1 = (A+D)/2 = P_2X_2 \tag{1} \]

Where \(X_1\) & \(X_2\) are the respective values (frequencies) of two cases of changing from + to – and – to + respectively; \(P_1\) & \(P_2\) are probabilities of change in the specified direction respectively.

The statistical significance change, irrespective of its direction, is evaluated by \(\chi^2\) (Chi Square) since the cell frequencies are not small (<5) and \(\chi^2\) is meant for large sample. If cell frequencies are small, then like in case of sign test, Binomial Distribution may be used.

However O & E are observed and expected frequencies. The formula for \(\chi^2\) (Chi Square) used is as follows:

\[ \chi^2 = \sum (O_i - E_i)^2 / E_i; \text{ where } i = A, D \tag{2} \]

The range of summation is only over A & D rather than all cells because the purpose of study in this case is the evaluation of the significance of change rather than no change. But the off-diagonal frequencies pertain only to no change in the status before and after the introduction of VME.

Substitution of the values of \(O_i\) & \(E_i\) in equation (2)

\[ \chi^2 = (A - (A+D)/2)^2 / ((A+D)/2) + (D - (A+D)/2)^2 / ((A+D)/2) \]

\[ = (A-D)^2 / (A+D) \tag{3} \]

The distribution has 1 degree of freedom. The sampling distribution under \(H_0\) is therefore, expected to approximate the \(\chi^2\) distribution.

**Yates Correction for Continuity**
The above approximation of sampling distribution of \(\chi^2\) may need some correction for continuity because the continuous \(\chi^2\) distribution is used to approximate an observed discrete sampling distribution. There is no continuity of values between change and no change. Both these are qualitative attributes and just classifying the responses. If all the expected frequencies are small and less than 5, the above approximation becomes still crude. This error may be plugged by Yates’ correction is effected then with this correction, the formula becomes
**Data Analysis and Results**

The VME is tested on 44 respondents who shared their perception about the impact of application of VME on their efficiency. 26 respondents felt that a significant improvement while 6 respondents found a reduction in efficiency. 7 respondents were equally efficient while 5 were equally inefficient before and after the implementation of VME. The results are reported in the Table 2.

<table>
<thead>
<tr>
<th>Before / After</th>
<th>-</th>
<th>+</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>A (6)</td>
<td>B (7)</td>
</tr>
<tr>
<td>-</td>
<td>C (5)</td>
<td>D (26)</td>
</tr>
</tbody>
</table>

Table 2: Contingency Table of Frequencies of Responses of the Survey

Sample data has been randomly selected; the sample consists of matched pair of frequency counts; Data are at nominal level of measurement and each observation can be classified two ways i.e. (a) According to category, distinguishing values with each matched pair, (b) According to another category with two possible values; Sum of the frequencies of dis-concordant/different categories are greater than equal to 10; and The contingency table procedures are based on independent data. For 2x2 contingency table consisting of frequency counts that results from matched pairs, we do not have independence and for such case, we use the McNemar test of Significance

**Null Hypothesis**

There is no perceptible change in the efficiency of the employees after implementation of the Velocity Model of Efficiency (VME).

**Alternative Hypothesis**

There is a perceptible change in the efficiency of the employees after implementation of VME

Calculation of Chi-Square ($\chi^2$)

$\chi^2 = \frac{(\text{Mode} \ (A-D) - 1)^2}{A+D}$

$= \frac{[\text{mode} \ (26-6) - 1]^2}{26+6}$

$= \frac{361}{32}$

$= 11.28$

$\chi^2$ value from the table at 0.05 significance level and 1 degree of freedom is 3.841.

**Interpretation**

The calculated $\chi^2$ value of 11.28 > Table Critical Table value of 3.841 i.e. there is a significant difference in the values because calculated value exceeds the critical value. It means that the Null Hypothesis is rejected i.e. there is a perceptible change in the efficiency of employees in a period of two years after adopting the Velocity Model of Efficiency.

**Discussions**

The goal of implementing the VME in the employees is to challenge their present way of working and demonstrates the benefits of the working with velocity model of efficiency. VME aroused the interest of the employees since it led to increase of their performance in the organisation. During the study, employees have indicated that VME has number of perceived advantages to them. VME has helped them to challenge their paradigm and imbibe the efficiency in their personal life also. The respondent employees were able to execute their jobs with lesser time and more effectively by following the VME. Most important advantage of VME is that it met the majority of performance objectives of the employee. Majority of the respondents acknowledged that it needed shorter time to reach performance objectives. A study done by Hossein, D. J., & Hossein, Z. (2012) also found that models of efficiency help the employee in fulfilling the outcomes within the allotted resources. Employees also felt that they would like to recommend the VME to their fellow employees and even relatives.
since they are convinced that it will improve their outcomes within the limited resources of time.

Despite all the advantages of VME, there are few disadvantages and limitations of VME. VME is a dynamic model which needs to be revisited at regular basis. Many employees appreciate the standardization over reasonably longer period of time and VME does not provide any such time line for updation. Authors feel that in the fast changing global scenario, it will not be appropriate suggest a static model, therefore, dynamism of the VME is one of the crucial characteristics for improving the efficiency. VME does not specify the quantum of accessibility, information and standardization because it leaves it to the jurisdiction of the group instead of individual assessment. Group cohesiveness is an important pre-requisite for the success at the organisation level. The contents could turn out to be too lengthy and over loaded with information if they are not properly designed.

Conclusions
The performance of the employees was improved after VME implementation. VME resulted in increasing cross-functional synergies, building stronger teams and enhancing trust, care and mutual understanding of the respondents. There was an improvement in acquiring of the knowledge and quantification of the same; dissemination of quality information and transfer of individuals’ expertise among the team member. VME also helped the respondents in organizing themselves, their systems and surroundings. It was also experienced that VME has challenged existing paradigm of respondents and implementation of the VME has led to shift in their paradigm. The organisation performance is the sum total of individual employee performances, therefore, it is expected that VME shall have positive correlation with organisation performance, though it is yet to be measured. The velocity model of efficiency has huge potential to raise the efficiency standards of the employees to next level of performance but it will show better results in the organisation if implemented across all the group members. All the employees need to undergo the proper training of the VME for embracing the model to improve efficiency because this model has synergetic effect also.

References
Annexure 1: Velocity Model of Efficiency (VME)

**Definition:**
Velocity Model of Efficiency, created by Vashist and Dwivedi in 2014, is a model which helps in enhancing Employee Efficiency (EE) resulting in improvement of organization performance. In VME, velocity refers to the measurement of the employee’s rate of working and the direction followed towards the goal i.e. speed of working of each individual and the path followed to achieve the common goal of an organisation. Velocity in any organisation can be achieved by doing the activities: First time right and within scheduled time.

**Conceptual framework:**

![Velocity Model of Efficiency (VME)](image)

**Implementation:**
VME is implemented by following AIS, i.e.

1. **Accessibility**
   As per the Velocity Model of Efficiency, there should be 360 degree accessibility. All the stakeholders should be accessible to each other, without any inhibition. VME includes both internal as well as external stakeholders. Internal stakeholders refer to all the employees from top management to ground staff. External stakeholders refer to customers, vendors and regulatory authorities. Methods to achieve Accessibility are:
   1.1 Mentor A Day (MAD): A method to enhance cross-functional synergies
   1.2 Team Cohesiveness Activities (TCA): A method for building stronger teams.
   1.3 Stakeholder Relationship Management (SRM): A method to enhance trust, care and mutual understanding

2. **Information**
   It is imperative to have correct and updated information & action plan for use of information. As per VME, there should be optimum quality and quantity of information. Methods to get quality Information are:
   2.1 Learning & Contribution (L&C): A method to assess the acquired knowledge and quantify the relevance for achieving the common goal
   2.2 Share Your Knowledge (SYK): A method to disseminate the quality information
   2.3 Train The Team (TTT): A method to transfer the individual expertise among the team

3. **Standardization**
   As per VME, standardization refers to reducing inconsistency, eliminating redundancy and minimizing response time for any course of action. Steps to achieve Standardization are:
   3.1 Self Organisation (SeO): An individual organises self as per the VME format
   3.2 System Organisation (SyO): An individual organises one’s system as per the VME format
   3.3 Surroundings Organisation (SuO): An individual organises one’s surrounding as per the VME format
Obstacle for Business in Generating Electricity Through Solar Energy- Insights From An Industry

*K. Jayaraman **Choo Pao Ling

Purpose – The objective of this case study is to have an in-depth understanding of the nature of problems in Malaysia’s solar industry from the perspectives of an American giant solar module manufacturer based in Malaysia, a Company F.

Design/methodology/approach – This case study has used induction approach started with interviewing eight leaders of Company F. The interview questions is designed and interview was conducted between one to two hours in each interview session.

Findings – After the eight interview sessions at Company F, some of the pain areas in generating electricity through solar energy have been identified. Firstly, high subsidy on conventional sources of electricity cost in Malaysia has affected solar energy power generation. Secondly, solar system installation is capital intensive, requires a high capital or investment cost that makes it less attractive. Finally, the public awareness about solar energy power generation is low.

Research limitations/implications – This case study is relevant to Malaysia’s solar industry providing some recommendations to the known issues for slow adaptation of solar energy as electricity generation source.

Originality/value – This case study is genuinely taken valuable opinions and suggestions of some renowned solar manufacturer leaders in Malaysia and worldwide. Outcome of this case study would help Malaysia to increase the usage of solar energy by achieving high rate of green energy applications.

Keywords: Solar energy, Malaysia Electricity demand, Solar PV system

Paper type: Case study

1. Introduction

It is a global issue that energy demand growth is higher than electricity generation. In Malaysia, the expected grow in electricity demand growth rate at 3.1 percent versus electricity generation growth rate at 2.9% (Suruhanjaya Tenaga, 2014). Electricity demand growth is heavily influenced by prevailing economic conditions due to industrial and commercial sectors, the two largest electricity users in Peninsular Malaysia. Malaysia depends heavily on natural gas and fossil fuels as source of energy which gives uncertainties in prices, facing depletion issue, more severe in creating environmental pollution such as climate change (Mohamed Gaafer Elnugoumi, 2012). It is dominant by coal and natural gas at 94 percent and only five percent is from hydro followed by one percent from renewable energy in the year 2014. To meet the future growth of energy demand, it is planned to implement a nuclear power plant starting the year 2025 contributing 10 percent of energy mix and importing Sarawak hydroelectric plant starting the year 2014 to cope up the projected volatile energy supply from coal and natural gas. Renewable energy remains contributing only three percent as projected and is not able to provide base-load requirements (Yahaya, 2014). Malaysia is going to need more energy as our economy continues to grow and meeting the energy demand is the main concern. In Malaysian context, the main challenge is the declining gas production which has an impact on the power generation.

1.1 Research Problem

The fluctuations in crude oil price and climate change are driving significant changes in how energy and electricity specifically, is generated, transmitted and consumed in Malaysia. In this regard, renewable energy resources are becoming attractive for sustainable energy development in Malaysia. It is because renewable sources of energy are abundant in Malaysia, the significant ones being solar as Malaysia is gifted with sunshine throughout the year with about 4.0-4.9 kWh/m2/day of solar radiation (Shafiea et al., 2011). Solar companies are facing global challenges in sustaining the solar PV module and system business by venturing into domestic, commercial and industrial usage of solar energy. Solar Energy is not a common feature in Malaysia to generate electricity. Hence, this study is to understand Company F as producer’s point

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of views on solar energy usage as substitution to conventional energy for commercial and domestic purposes. Company F is U.S based multinational company having manufacturing facilities in Malaysia and Ohio, U.S. It is the leader of producing solar PV modules and system provider and market it globally. Unfortunately, Company F has not penetrated into Malaysian market in the form of solar energy electricity generation. Therefore, this study is undertaken as a case study of Company F to identify from the experts of the Company F, their obstacles to penetrate into local Malaysia market of solar PV installation.

1.2 Research questions
This study attempts to answer the following research questions:

1. What are the current service offerings on solar energy in Malaysia by Company F?
2. What are the existing demand-supply equations for electricity generation and how the equations change in future?
3. What are the future plans to meet the demand requirements of solar energy in Malaysia and global market?
4. Why the sun exposure is not optimally utilized in Malaysia by the solar energy companies?
5. Why Malaysia is not leading in solar industry like other developed and developing countries?
6. How different the costing of electricity and solar energy electricity power in estimation?

2. Solar Industry
At global market of solar PV industry, Figure 1 indicates that the top three largest markets as of year 2014 are China (13.1 GW), Japan (9.4 GW) and USA (6.9 GW) have installed the solar power generations.

Malaysia contributes for 6 percent of world solar module production while China (65%) and Japan (9%) as shown in Figure 2. Solar products manufacturing industries in Malaysia is largely driven by Foreign Direct Investment (FDI) supported by United States, South Korea and Japanese solar companies. Largest destinations for solar products export market are the United States, China, Japan and Taiwan. The key factors in attracting these foreign investments in Malaysia are the attractive tax break-ups and availability of workers at a relatively low labour cost (Song, 2015).
Solar PV system that generate electricity is not widely adopted by Malaysia with merely 200MW of solar PV system installation nationwide through feed-in tariffs programme. The bank financing availability for homeowners in the year 2013 encouraged the take-up rates of feed in tariff (FiT). However, comparing to hydro projects or securing long term supply of feed-stock for biomass projects, the entry administrative barrier such as obtaining approvals from numerous government agencies to the solar project is minimum (Song, 2015). Reviewing all the solar industry players, Company F has been identified as the Malaysia’s major player who is highest volume manufacturer based on the current state of Malaysia’s solar modules manufacturing capacity. Hence, this study has chosen Company F as a case write up to study the insights of solar industry in Malaysia from the perspectives of a solar module manufacturer.

### 3. Research Methodology

This study was carried out applying interpretive philosophy associating to qualitative research (Denzin & Lincoln 2005). Interpretive research conducted from an experience-near perspective in that the researcher does not start with pre-determined theories based on previous studies but rather seeks to allow facts developed from discoveries in the fieldwork.

This research begins with analytic induction to gather data and information from interviews and field visits. It is started with interviewing eight leaders of Company F as research respondents from various head of departments included Site Operation, Site Service and Facilities, Manufacturing Engineering, Human Resources, and Quality and Reliability.

#### 3.1 Interview Questions for the interviewees

Interview Question had constructed based on Stanford Institute for higher Education Research. Refer to Interview Protocol at Appendix A for survey protocol and questions details consisted a few survey section.

### 4. Case Analysis

After the eight interview sessions with the leaders of company F on nearly 1.5 hours duration each on the average. Cause and Effect Diagram was used to identifying the cause of low demand of solar energy power generation in Malaysia. It is great value in assisting analysis by categorizing many potential causes of problems or issues in a systematic way and helps identifying root causes.

Below are the outcome of discussion into research questions and cause and effect diagram.

#### 4.1 Interview interpretation to Research Questions

1. What are the current service offerings on solar energy in Malaysia by Company F?

Currently, Malaysia is 100% exporting of solar productions, same goes to Company F. This made Malaysia the third largest solar producer in the world. Majority of the products are exported and only small amount of installation involved that is also through FiT introduce by Malaysian government.

In terms of installation, Company F do not do any special marketing on their product locally. However, Company F do have a few projects that get executed...
such as 75kW rooftop solar PV at Suruhanjaya Tenaga building, and another solar PV rooftop on Hospital building at Sungai Petani, Kedah. Recently, a few projects that been completed at the school. So, those are the small projects that about 12kW up to 15-20kW in size.

2. What are the existing demand-supply equations for electricity generation and how the equations change in future?

The existing demand-supply equation for electricity generation is heavily relying on fossil fuel generated power. Looking at the Malaysia energy mix for electricity generation, coal and natural gas are the two main energy sources used in power generation projected until 2030. In opposite, renewable energy includes among other palm oil wastes, mini hydro and solar PV is expected to increase 3% or installed capacity of 700MW by 2020 but no significant growth throughout till 2030 as shown in Figure 3.

![Figure 3: Electricity Generation Mix by fuel](source)

It is expected that solar industry will continue to experience market imbalance between supply and demand where production capacity exceeds global demand, and directly putting pressure on pricing. In Malaysia, the coal and natural gas is subsidized by the government making electricity price are one of the lowest in the world. This makes no motivation on to move forward to solar energy now. With grid parity is approaching fast by the continuous decrease of solar cost globally, the solar industry is reviewing the outlook of future energy consumption. As of now, focus is on centralized power plant which is utility scale instead of rooftop applications. The great potential of growth opportunity had shown in decentralized power generation, specifically in commercial installations that give flexibility to all public having solar energy electricity generated by own (Solaria, 2015).

3. What are the future plans to meet the demand requirements of solar energy in Malaysia and global market?

Malaysia government has a plan to bring up additional 4 GW of a renewable energy in 15 years times by 2030. At the same time, Company F will continue working on cost reduction by technology breakthrough in increasing conversion efficiency is the core focus to be rival and meeting future demand. Just imagine today Malaysia had installed up to 200 MW and in next 15 years, they’re going to be 4 GW installations that believe to be majority come from solar energy and it’s going to be a significant milestone.

4. Why the sun exposure is not optimally utilized in Malaysia by the solar energy companies?
Detail explanation is derived using cause and effect diagram in the next section. Malaysia market demand for solar energy as a whole is still low, and power generation installation is still in small scale that gone through FiT programme. Instead, it is pointed out here that Malaysia is still behind for solar energy adoption comparing developed countries and neighbouring countries such as Thailand, China, and India due to the government policy and direction for its energy mix of power generation.

5. **Why Malaysia is not leading in solar industry like other developed and developing countries?**

The main factor why Malaysia is not outperform in solar industry is due the heavily subsidized sources of electricity that make it not reaching grid parity and drives low demand. In comparison, Europe countries and the United States had gain wide adoption on solar energy is due their diesel and gas price are expensive same goes to India coupled with strong government policy that driving massive solar PV installation. In summary, price factor has low attraction for Malaysian to adopt solar energy as new type of source. Malaysia Government policy is not strong enough to promote renewable energy with only FiT programme alone. Low level of Public awareness and wrong perception toward solar energy is another challenge in Malaysia for solar industry to move forward.

6. **How different the costing of electricity and solar energy electricity power in estimation?**

Globally, solar energy electricity had reach grid parity whereby the price of solar energy electricity had match or gone lower comparing market price of conventionally generated electricity. It is predicted that with continuous effort working on cost reduction by solar products providers, the price will fall to match even with subsidize conventional electricity or below. With current module cost at RM0.50-0.60/W, eventually it will go at sub-MR0.40/W in 5 years times. For example, currently Malaysia is paying over RM 0.30/kWh at subsidized price. When the subsidy is removed then public may have to pay about RM 0.50-0.60/kWh.

### 4.2 Cause and Effect diagram

Some of the pains areas of solar energy power generation in Malaysia have been identified explained using cause and effect diagram for solar energy used as a power generation in Malaysia displayed in Figure 4. The major issues identified are: insignificant government support at present, high subsidy on conventional sources of electricity, high initial investment cost and less public awareness.

#### 4.2.1 Man

As Malaysia is the world third largest solar products producer, indirectly a talent pool of solar modules manufacturing process is created. In order to grow more talent in manufacturing process, there is joint effort among solar panels manufacturers so-called collaboration with competitors and also Talent Corporation Malaysia Berhad (TalentCorp) to create solar education institution.

It is said that to set up a solar power plant, manpower and talent pool are not ready right now. There are limited education institution that offers solar technology and design as part of the curriculum that focusing more on solar system installation such as Selangor Development Centre, University Technology Malaysia, and some Politeknik but it is not well known. There is also on-going discussion with University Kebangsaan Malaysia and University Science Malaysia to develop solar technology curriculum to focus on technology instead of just solar system installation. In addition, there is a plan to establish Solar Centre of Excellent in Kulim and in Malaysia as the new concept for talent management.

To groom up talent pool, it is not difficult and doable in between short time of period. Knowledge can be transfer from current conventional power plant management on managing and maintaining a solar power plant, it is demonstrated easier and not complicated like conventional power plants. Importing experts from oversea especially from the U.S. and Germany can be done to involve in training programmes, dialog and forum session, as well as giving counselling to the
Figure 4: Cause and Effect Diagram for Solar energy used as power generation in Malaysia
local people. Even import talent such as scientist from around the world to assist in solar energy development in Malaysia.

4.2.2 Machine and Infrastructure
Malaysia had basic infrastructure established that nicely built such as road and transportation for materials movement, and power grid that widely spread across the country to funnel solar energy generated power back to the grid. Other than basic infrastructure needs, a complete solar ecosystem and supply chain in Malaysia is yet to develop. Local parts sourcing and provider for balance of systems' components is needed, such as solar modules' raking, cabling, invertor, and combiner box. This group of materials suppliers is missing and when it is establish, definitely will drive the solar system cost down at the same time create revenue for Small Medium Enterprises. Next is the need local sourcing of installers/developer that can do large scale projects confidently. This is small side of solar industry that can be improve through experience once there is more projects to familiarize with solar power plant installation and do it effectively.

4.2.3 Cost and Financial
For small scale residential and commercial solar PV system rooftop installation, high initial or investment cost is needed but the return of investment is 5 years with FiT programme and 10-15 years is without which is pretty encouraging. Nevertheless, for large scale solar power plant installation, it is relatively lower investment compare to nuclear and hydro power plant. Coupled with the cost of solar PV system will be low enough eventually to capture larger market share as the price go down continuously over the years as shown in Figure 5.

Malaysia do not reach grid parity because of the subsidy running at over RM 0.30/kWh, until the subsidy is remove then maybe the cost will go up to about RM 0.50-0.60/kWh. Eventually when solar energy come down at levelized cost of energy (LCOE) of about RM0.2/kWh then it is rival and definitely it will be very attractive. Figure 6 shows that solar energy price is rival and already cheaper than diesel, it’s matching to natural gas and nuclear but it’s slightly more expensive than coal. Hence, solar energy has a meaningful value proposition with fixed initial cost and low operating costs. Because Solar PV system is still new, bank is not fully understand the risk that’s why they want to charge a higher interest rate to cover for the risk factor.

In Malaysia, financial institution started to grant more solar loan for installation such as EXIM, Maybank and CIMB. There is also a programme called SURIAKU that provide financial support for those keen to do solar project. Company F has a strong financial background and with it vertically integrated PV solution, it including Project Financial that provide bankability to customers.
4.2.4 Materials and Technology

In Malaysia market, solar industry is on PV photovoltaic (PV) which is generating from the photon from the sun, directly convert sunlight into electricity. PV also have different technologies including poly/mono crystalline silicon and also thin film. Majority of the household residential installation projects mainly on poly crystalline silicon PV which is more efficient for rooftop application in the past.

Company F produce thin film solar modules using integrated manufacturing process that only take less than 2.5 hours/module as one of their competitive advantage comparing to conventional crystalline silicon batch technology that have multiple staging of products form in wafer, solar cells and eventually in solar modules form which may takes days and months to get the modules assembled. Thin film has its own unique application, where it is very efficient in larger scale system such as grid connected bulk power systems, large commercial/industrial rooftop (example of the size of Tesco Kulim is doing that). Reason for Company F strategy focusing on larger scale PV power plant projects and majority projects are either at Europe or the U.S., due to the adoption of building solar power plant in Malaysia is still slow today. Company F marketed solar modules at sub-20 conversion efficiency, along with the breakthrough technology it can raise to 50% eventually and the whole energy portfolio will be change.

Maintenance of solar PV system that claimed to be costly and unreliable, as well as lack of experience technician to do so base on past experience are not valid anymore. With the advancement of technology and mature solar system and products, minimum maintenance is need just like normal power electrical components such as invertor, combiner box that run to fail.

Solar power plant’s operation and maintenance cost is relatively low comparing to coal, natural gas, and hydro power plant. This is the biggest selling point and advantage of having solar PV power generation plant. For example one of Company F projects in Agua Caliente, U.S. about 300MW, the whole site only require 7 person to operate & maintain. Comparing to gas turbine, it may need 100 of people to do so.
4.2.5 Social and Environment

Company F have done a lot of effort in promoting solar PV system to the public and government officers through CSR programmes to the local communities and institutions. The company participation in International Genetically Engineered Machine IGEM exhibition and Tech Dome Penang, the Science Discovery Centre greatly helped in educating public on green energy.

Company F had broad influence with its heavy involvement in government agency linked meeting. Company F Malaysia Vice President is appointed as Malaysia Industry-Government for High Technology (MIGHT) EXCO and advisory member, Chairman of American Malaysian Chamber of Commerce- Malaysian Alternative Renewable Industry (AMCHAM-MARI).

Common environment health hazardous concern on solar PV system is radioactive. This should be little concern as it is not like nuclear that will generate radiation. By understanding the energy generation of solar PV system, the module just absorb the spectrum of the light and convert it into energy then go through the cable. There is no radioactive or hazardous by-products generated into the environment that may hurt the people or even tree and animal. To prove it is environmental friendly, Company F had plant some vegetables crops under its solar PV system test site around the Kulim facilities.

Solar power plant environment impact maybe on deforestation to build solar power plant which required a huge land size and it is no different from other type of power plant set-up. In Malaysia, it is more suitable to do a smaller scale power plant as long as the identified area is near to the grid & connected. Besides, the heavy metal and manufacturing process by-product will create environment issue and impact surrounding and neighbourhood if no properly manage which subjected to high investment in waste treatment and management.

4.2.6 Methods

There are plenty of ways and methods being execute and also some are in on-going discussion to bring up the solar energy power generation be it for residential usage. One of it is feed-in tariffs that will plan to remove by 2017, it is expected like other countries that it is not a long term policy to sustain by using public money to support small group of installation. Net Meter approach is in plan to replace FiT where the amount of electricity generation that feed into the grid will pay at the same price as electricity price.

Government had target to achieve 4GW installation of renewable energy by 2030 including using hybrid solution and miro-grid solution to help remote area able to have electricity. Hybrid solution is the co-exist of both fossil fuel power generation as well as solar PV installation where in day time, the solar PV power generation is use and switch to fossil fuel source at night. This can save cost of electricity operation in rural area and enable 24/7 electricity usage. Whereas micro-grid is using a standalone grid that separated from existing grid due to the far distance away from the main grid.

5. Recommendations

There were concrete suggestions made by the leaders of Company F during the interview. The recommendations provided by them are classified into different categories in the form of government’s role and Solar products producers’ role in Malaysia for possible installation of PV power generation plans.

5.1 Government’s role

California has demonstrated to the world is that it is becoming the world biggest solar PV system installed capacity by the year 2015. California has mandate of 25% of its energy mix which needs to come from renewable energy, targeted to achieve 50% by the year 2030. On the other hand, Europe is the typical example of how feed in tariff (FiT) fails to sustain in the long term solar market once the government stops the FiT programme. Due to the retail electricity price is higher at Europe which makes it significantly more beneficial to promote the use of electricity generated by the solar PV system. For a start Malaysia can mandate to have at least 20% of renewable energy in energy mix. This move can be coupled with gives incentive to those who purchase locally manufactured solar products. The energy supply process in Malaysia is highly regulated for private companies, without FiT facilities. It is suggested that the government could deregulate some of the policies and simplify the process of energy purchase application. Furthermore, allowing Employees Provident Fund (EPF) contribution withdrawal for the use of renewable energy purchase as one of the options for
financing in the installation of solar PV system. It is also suggested that government to start gradually reduce the subsidy of the coal and natural gas as part of developing plan to move Malaysia into the developed country. Early education on solar energy is needed in primary or secondary school syllabuses to create great awareness at the early stage.

5.2 Solar products producers’ role
Solar products producers are striving hard in consistently bringing down the cost per watt of the solar PV system to achieve grid parity. In Malaysian context with highly subsidized fuel price, solar producers are suggested to work on lowering cost per watt to match subsidized price of fuel instead of non-subsidized market price. To bring down the solar system cost, each component providers of system need to work in an integrated manner.

With the current market behaviour which required a quick return on investment with low cost investment, solar product manufacturer needs to invent highly advanced solar system that can capture maximum sun exposure. One of the suggestions is using disposable concept on solar PV system that yield higher initial conversion efficiency with quick return on investment in less than five years even with shorter lifespan and fast degradation power are desired. Solar PV system that floating in the air with 30,000 ft. above the sea level. The other suggestion is to have partnership with local developers to install solar power plant, as it is going to be costly to establish Engineering Procurement Construction (EPC) on its own due to Malaysia’s market share which is currently small. Moreover, manufacturers need to come up with an eye-catching slogan as part of the branding and marketing strategies that uniquely portrait the company image and promoting solar energy in order to capture more market shares.

6. Conclusions
Out of this case study the emerging findings are, there is virtuous future scope of solar energy power generation, converting sun light into electricity. For conventional fossil fuels, there are no scope for future as the result of the fossil fuel price are in the upward trend consistently and price becoming expensive and volatile, fossil fuel demand may go down eventually.

There is a high skill set in technology, production and empowerment from Company F for providing excellent infrastructure capability with modern equipment coupled with new products and development services. However, the company is not able to converge the potential skillset in talent management, to increase the volume of business in terms of solar PV system installation in Malaysia. Although, Malaysia has a great potential for solar PV installation to a larger scale power plant with the current existing infrastructure and manufacturing process talents.

References


An Evaluation of Factors Determining Earnings Management in Nigeria

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Earnings management has been a source of concern to the relevant stakeholders in financial reporting in the recent time. Consequences of the practice range from loss of investments to total collapse of the affected firms and ultimately, loss of jobs. Hence, the main objective of this study is to evaluate factors determining earnings management in Nigeria. Specifically, the study assesses the impact of capital market reform on the earnings management and examines how: firm’s size; institutional shareholding; board size; independence of the board of directors; and auditors’ independence, influence earnings management drive of the managers. The study employed secondary data that covered the period between 2009 and 2013. The data obtained were subjected to panel estimated generalised least square method of regression analysis. The study revealed that firm size, board size, independence of the board; exert significant influence at 5% level of significance on managers’ drive to engage in earnings management. The study therefore recommends among others that The Nigerian Security and Exchange Commission should as a matter of policy direct every listed firm to have a stated minimum number of independent directors on its board of directors; and concludes that such measure will reduce earnings manipulation in Nigeria.


JEL Classification Code: M 41.

1. Introduction

Earnings management has become a global phenomenon, with its negative impacts on humanity which has generated a lot of interest among professionals and academics. Researchers have carried out many studies to unravel the causes and motivation for the earnings management. However, various efforts from different locations at different times have reported varying findings as to the nature and strength of relationship between various factors and the managers’ earnings management behaviour. The Nigerian Security and Exchange Commission (SEC) also became concerned with the incidence of manipulation of financial reports and initiated some reforms in 2011; according to Arunma (2012) the reform includes mandatory adoption of International Financial Reporting Standards (IFRSs) for the listed firms and focus on improved disclosure of information in the financial reports.

Almost every country of the world has had its own experience of earnings management and its consequences. Even if there was any country which had not witnessed any case of earnings management, such a country could not claim to be insulated from the effects of earnings manipulations in other countries since there is economic interdependence between countries of the world. Such interdependence of world economies was evident in the recent past economic meltdown that started in the United States of America and reverberated in other countries of the world. The meltdown was occasioned by the collapse of Lehman Brothers, a United States bank in September 2008 and later spread to every part of the world.

Earnings management occurs when managers use judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers (Healy & Whalen, 1998).

Many countries of the world have suffered huge consequences for acts of earnings management and these include loss of investments, total collapse of the affected firms, loss of jobs and loss of revenue to the government among others. Earnings management traverses every country of the world, for instance in the United States of America, there are so many popular cases of accounting fraud like WorldCom capitalization of routine expenses; Enron accounting manipulation; Waste Management’s Distorted Accounting Methods for Depreciation and Amortization Expenses; and HealthSouth, a case of Accounting Manipulations in the Healthcare Industry.

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In developing economies, we can also mention several cases of collapses, some of which include the Alpha Merchant Bank Ltd, Savannah Bank PLC, Societe Generale Bank Ltd, All States Trust Bank PLC, African International Bank PLC, African Petroleum (all in Nigeria), The Continental Bank of Kenya Ltd, Capital Finance Ltd, Consolidated Bank of Kenya Ltd and Trust Bank of Kenya among others (Akpan, 2007).

In Nigeria, however, the most notable corporate fraud is the case of Cadbury Nigeria PLC. The company was found in October 2006 to have falsified its financial and accounting reports by inflating its profit figure by billions of Naira (Mmadu & Akomolafe, 2014). The company lost billions of Naira to the fraud which also drew series of litigations from the shareholders. The fraud borders on inflation of accounting profit and breach of several provisions of Nigeria code of corporate governance for corporate organizations. The breach include The CEO, finance executive and other executive directors paying themselves offshore remunerations without the authorization of the Remunerations Committee and not recording the remuneration in the company’s financial report and account. So, the company’s executives filed with the Commission its annual report and accounts for 2002 to 2005 which contained untrue and misleading accounting numbers.

Another similar case to Cadbury’s is that of Afribank Nigeria PLC. African Bank’s financial statement showed high profits amid accusation by its former managing director that the board of directors colluded with its auditors to cook the books (Suleman & Tosin, 2007). It is suspected that other big companies in Nigeria and other African countries may be doing the same thing in order to influence their share prices and attract investments.

In Nigeria, Generally Accepted Accounting Principles (GAAPs) guide the accounting practices and corporate governance in the country. Every corporate organization in Nigeria is expected to comply with the provisions of the relevant laws, circulars and IFRSs in its financial dealings and reporting.

Lack of uniformity in findings from researches and escalation in financial malpractice in Nigeria became a source of inspiration to this study to evaluate factors determining earnings management in Nigeria. In order to achieve the main objective, the study specifically evaluate the impact of the Security and Exchange Commission (SEC) reforms on earnings management; the nature and degree of influence of Size of a firm on its managers’ drive to engage in earnings management; the extent and nature of influence of the institutional shareholding on managers’ drive to engage in earnings management; the effect and level of impact of Size of board of directors on managers’ willingness to engage in the act of earnings management; the nature and degree of influence of independence of the board of directors on managers’ drive to engage in earnings management; and the effect and level of impact of auditors’ independence on managers’ willingness to manipulate earnings. Relevant hypotheses were formulated and tested in relation to specific objectives.

2. Conceptual and Theoretical Frameworks

2.1. Historical Development of Accounting Reporting Standards in Nigeria

In Nigeria, the development of accounting and accounting standards could be traced to the then Association of Accountants of Nigeria - AAN (now ICAN). The AAN was formed on the 17th of November 1960 and granted official recognition on 28th September 1965, under the Federal Parliament Act number 15 of 1965, to regulate accountancy profession in the country. History suggests that ICAN was responsible for the formation of the Nigerian Accounting Standard Board (NASB) before it was taken over by government in 1985. Thereafter, followed by the development of Statement of Accounting Standard (SAS). The development of a Statement of Accounting Standard is time consuming, painstaking and requires the involvement of members of the Council and the public at large. First, a topic for standardization may be chosen in response to certain suggestions of the business community, member organizations or members of the Council. A steering Committee consisting of at least six experts drawn from the public, private and professional sectors of the economy is set up. It is the responsibility of the Secretariat to prepare a point’s outline paper for consideration by the Steering Committee. The point outline paper states in broad terms all the various aspects of the topic that the Committee wishes to cover. It is at this stage that a thorough examination is made of all local regulations, laws, current practices and standards promulgated in other countries. After the approval by the council of the
points outline paper, a preliminary Exposure Draft is produced by the Secretariat for consideration by the Steering Committee. It takes, on the average, about six Steering Committee meetings to produce a Draft that is recommended to the council for consideration. The Council, at a technical session that lasts about three days, held usually outside Lagos, thoroughly considers and finalizes the document. An approval is given for publication and exposure to the public if two third of Council members vote in favor of its exposure. The period of exposure to the public is three months within which comments are invited from those interested in the subject matter. The Exposure Draft may be modified in the light of the comments received before it is issued as a Statement of Accounting Standards (SAS). Where the comments received are at variance with the basic thrust of the Exposure Draft, then a public hearing may be held for respondents to present and defend their positions. So far the Board has held three such hearings on the following subjects. Similarly, International Financial Reporting Standards (IFRS) came to bear in Nigeria. International financial Reporting standards are single set of globally accepted high quality accounting standard. They are issued by the International Accounting Standards Board (IASB) in London, U.K. The Board consists of 14 members from around the world.

In order to allow for effective implementation of IFRS adoption in Nigeria, the former regulatory body in charge of monitoring the reporting system was in 2011 restructured from Nigerian Accounting Standards Board (NASB) to Financial Reporting Council of Nigeria (FRC). Financial Reporting Council of Nigeria is now the body corporate solely responsible for the issuance, monitoring and review of Accounting and Auditing Standards in Nigeria. The council is empowered under section 52(1) of the Act to adopt and keep up-to-date accounting and auditing standards, and ensure consistency between Standards issued under International Financial Reporting Standards as provided under Part VII of FRC Act 2011 which dealt with review and monitoring of standards. Henceforth, the council (FRC) will only be reviewing, monitoring and issuing Standards to ensure consistency with the requirements of IFRS-Framework. Thus, all the standards to be issued or reviewed by the council should be in consistent to IASB guidelines for global reporting, given due consideration to our peculiar customs, business environment, laws and level of economic development (FASB 2002 and NASB 2003).

2.2. IFRS Adoption and Earnings Management in Nigeria

The Nigerian Accounting Standards Board (NASB) was established with the responsibility of producing national accounting standards to be followed and applied in the preparation of financial statements in Nigeria. However in 2011, the Financial Reporting Council of Nigeria was established by the Financial Reporting Council of Nigeria (FRCN) Act No. 6 of 2011. It is important to note that while the NASB functioned mainly to produce national accounting standards, the FRCN majorly adopts international accounting standards and monitor the compliance with these standards in the preparation of financial statements to achieve fair presentation.

The major argument for the adoption of the International Accounting Standards in Nigeria is the need to act in line with global best practices in financial reporting. These international standards are issued by the International Accounting Standard Board (IASB). The specific benefits that were promised to be derived from the adoption of these standards include high quality financial statements, international comparability of financial statements, improved foreign direct investments and reduced earnings management.

The international accounting standards were expected to reduce the earnings management opportunities that could be explored in the preparation of financial statements using the old national standards in Nigeria in several ways. This expectation was realizable due to the explicit rules for the recognition of provisions, the emphasis on the recognition of the economic substance of transactions over their legal forms and the requirement for fair presentation of the information contained in the financial statements.

Subsequent to the adoption of international Accounting Standards, empirical evidence point to the fact that earnings management has reduced in Nigeria. Onalo, Lizam & Kaseri (2014) assessed the quality of banks financial statement information using earnings management, timeliness of loss recognition and value relevance as proxies for quality. The study found adoption of International Financial Reporting Standards (IFRS) to be associated with minimal earnings management.
Yahaya, Kutigi & Mohammed (2015) studied the effect of the adoption of International Financial Reporting Standards and earnings management behavior of listed Deposit Money Banks in Nigeria. The study concluded that the restrictions to incurred losses under IFRS significantly reduced the ability of banks to engage in earnings management. However, Onalo, Lizam & Kaseri (2015) compared the extent of earnings management in Nigerian and Malaysian Banks since the two countries adopted IFRS in the same year. The study specifically investigated aggressive discretionary accrual, discretionary loan loss provisions, earnings smoothing, loan loss provision earnings management pattern, loan quality and earnings management goals as measures of overall earnings management. It was found that regardless of the reporting standards, Nigerian banks extensiveness in earnings management is far reaching compared to Malaysian banks. Though it was noted that IFRS reduced earnings management of both Malaysian and Nigerian banks, IFRS alone is not adequate in minimizing or eliminating earnings management of corporate firms.

Earlier, Rudra & Bhattachargee (2012) noted that while the quality of IFRS is higher than most domestic accounting standards, higher-quality accounting standards may not warrant lower earnings management. This view concurs with Tendeloo & Vanstraelen (2005) that concluded that mere adoption of IFRS is not sufficient to guarantee a better quality of accounting information through reduced earnings management.

2.3. Theoretical Framework
This study rests on economic and financial theory, according to Cormier & Magnan (1996), research supports the economic and financial theory assumption that managers make accounting choices to maximize their personal interests and well-being. An accounting choice that is economically beneficial for managers will be preferred to manage earnings because they generally do not require disclosure and often will not be questioned by an auditor (Islam, Ali & Ahmad 2011).

Economic and financial theory assumes that managers are, by nature, rational and opportunistic in the pursuit of their personal interests (Cormier & Magnan 1996). These interests are determined by the terms set out in contracts between managers and the company, as well as in contracts between the company and specific external parties such as suppliers, lenders, governments and regulators. Many of these contracts are based on earnings or other financial information issued by the company. For example, senior executives often receive bonuses based on accounting income; and debt often has covenants that state minimum working capital amounts, establish maximum debt-to-equity ratios or restrict dividends based on the amount of retained earnings. An accounting choice that is economically beneficial for managers will be preferred over a choice with negative repercussions: it is assumed that the manager will adopt a strategic approach in his or her accounting choices (Islam, Ali & Ahmad, 2011).

3. Methodology and Data Analyses

3.1 Earnings Management Estimation
The study used discretionary accrual as a proxy for earnings management. The model developed by Dechow, Sloan & Sweeney (1995) was adopted to estimate the extent of earnings management. Dechow et al. (1995) model is popularly known as Modified Jones. They modified the model developed by Jones (1991). Jones (1991) developed a model to detect earnings management in the period in which it is hypothesised that earnings are managed, the model partition the total accruals into discretionary and non-discretionary accruals with discretionary component denoting earnings management.

\[ NDA_{it} = \alpha_i[1/A_{it-1}] + \beta_1i[\Delta REV_{it}/A_{it-1}] + \beta_2i[PPE_{it}/A_{it-1}] + \epsilon_{it} \] ………………… (1)

Jones (1991) used ordinary least squares regression for equation (1) to generate firm specific coefficients for \( \alpha_i, \beta_1i \) and \( \beta_2i \). These coefficients were then used to estimate the level of non-discretionary accruals for each sample firm as specified in the above equations. The level of discretionary accruals was then estimated by Jones (1991) using the following model to estimate the extent of earnings management:

\[ DA_{it} = TA_{it}/A_{it-1} - ( \alpha_i[1/A_{it-1}] + \beta_1i[\Delta REV_{it}/A_{it-1}] + \beta_2i[PPE_{it}/A_{it-1}] + \epsilon_{it}) \] ………..……(2)

\[ TA_{it} = DA_{it} + NDA_{it} \] ………………………………………….. (3)

However, Dechow et al. (1995) modified the model to eliminate the conjectured tendency of the Jones Model to measure discretionary accruals with error when discretion is exercised over revenues, thus they proposed the following model:
\[ \text{NDA}_{it} = \text{TA}_{it} - (\alpha_{i} + \beta_{1i} \Delta \text{REV}_{it} + \beta_{2i} \Delta \text{REC}_{it} + \beta_{3i} \Delta \text{PPE}_{it} + \epsilon_{it}) \]  

Where, for (1), (2) (3) and (4),

- \( \text{TA}_{it} \) = Total accruals in year \( t \) for firm \( i \);
- \( \Delta \text{REV}_{it} \) = Revenues in year \( t \) less revenues in year \( t - 1 \) for firm \( i \);
- \( \Delta \text{REC}_{it} \) = Net receivables in year \( t \) less receivables in year \( t - 1 \) for firm \( i \);
- \( \text{PPE}_{it} \) = Gross property, plant and equipment in year \( t \) for firm \( i \);
- \( \epsilon_{it} \) = Error term in year \( t \) for firm \( i \).

\( \alpha, \beta_{1}, \beta_{2} = \) Firms-specific parameters

\( \text{DA}_{it} \) = Discretionary accruals in year \( t \) for firm \( i \)

\( \text{NDA}_{it} \) = Non-discretionary accruals in year \( t \) for firm \( i \) (\( \text{TA}_{it} - \text{DA}_{it} \))

3.2 Model Specification

In order to be able to determine the nature of relationship and the strength of association between the estimated discretionary accruals (earnings management) and the explanatory variables of consideration of this study, the following models were modified to suit the objectives of the study.

\[ \text{ADA}_{it} = \beta_{0} + \beta_{1} \text{size}_{it} + \beta_{2} \text{INSTSHARE}_{it} + \beta_{3} \text{BOARDSIZE}_{it} + \beta_{4} \text{BOARDINDP}_{it} + \beta_{5} \text{AUDINDP}_{it} + \epsilon_{it} \]  

Table 1 below contains the variables, their validity sources and measurements.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Variables</th>
<th>Definition</th>
<th>Type</th>
<th>Measurement</th>
<th>Construct Validity Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>SIZE</td>
<td>Measure of firm’s size</td>
<td>Independent</td>
<td>Natural log of total assets</td>
<td>Llukani (2013), Sheu and Abubakar (2012), Okolie (2014) and Swatiska (2013).</td>
</tr>
<tr>
<td>3</td>
<td>INSTSHARE</td>
<td>Institutional Shareholding</td>
<td>Independent</td>
<td>The ratio of equity shares of the firm held by institutional investors to the total shares outstanding.</td>
<td>Sheu and Abubakar (2012)</td>
</tr>
<tr>
<td>4</td>
<td>BOARDSIZE</td>
<td>Board size</td>
<td>Independent</td>
<td>Number of directors on the board scaled by firm size</td>
<td>Swatiska (2013).</td>
</tr>
<tr>
<td>5</td>
<td>BOARDINDP</td>
<td>Degree of non-executive directors participation on the board of directors</td>
<td>Independent</td>
<td>The ratio of non-executive directors to the board size</td>
<td>Sheu and Abubakar (2012) and Swatiska (2013).</td>
</tr>
<tr>
<td>6</td>
<td>AUDINDP</td>
<td>Auditors’ Independence</td>
<td>Independent</td>
<td>Natural Log of the Audit Fees Paid by the company.</td>
<td>Okolie (2014)</td>
</tr>
</tbody>
</table>

Source: Authors’ draft, 2016
While:

\[ \beta_0 = \text{Intercept}; \]
\[ \beta_1, \beta_2 \text{ and } \beta_3 = \text{Gradients/Slope}; \]
\[ i = \text{firm } i; \]
\[ t = \text{Year } t; \]
\[ \text{Wit = Composite error term } (\varepsilon_{it} + u_i); \]
\[ u_i = \text{Cross-section error term}; \]
\[ \varepsilon_{it} = \text{Combined cross-section and time series error term}; \]
\[ \Delta = \text{Change operator (between year } t-1 \text{ and year } t); \]

The data collected for this study were analysed through panel estimated generalised least square, the model was set with random effects, this is because Hausman test statistic is not statistically significant hence we cannot reject the null hypothesis that random effects model is consistent and more appropriate for the current study. Table 2 below contains the information on the Hausman test.

### Table 2: Hausman Test

<table>
<thead>
<tr>
<th>Hausman Test</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Statistic</td>
<td>4.85</td>
</tr>
<tr>
<td>Probability</td>
<td>0.4345</td>
</tr>
</tbody>
</table>

**Source:** Authors’ computation as extracted from results from STATA 11.2, 2016

Secondary data were used in this study; financial variables that were employed in the study were sourced from the relevant financial statements and prospectus of the selected companies from the Nigerian Stock Exchange, Nigerian Security and Exchange Commission and websites: africanfinancials.com, nse.com.ng, sec.gov.ng, nigerialogy.com/about-nigeria/Nigerian-annual-reports/ and various companies’ websites.

The population of the study includes all the Nigerian listed companies between 2009 and 2013. As at the end of the last quarter of 2013, a total of one hundred and ninety (190) firms were listed on the floor of the Nigerian Stock Exchange (The Nigerian Stock Exchange, 2013) out of which twenty seven non-financial services firms whose annual reports as at the end of the year were available for the five consecutive years of the study period (2009-2013) were selected. The sampled companies cut across different sectors that include Conglomerates, Construction/Real estate, Consumer goods, Healthcare, industrial goods, oil and gas and service sectors. A total of one hundred and ninety (190) firms were listed as at the end of the year 2013, out of which fifty-seven (57) were financial services firm (Banks and Insurance firms) while one hundred and thirty-three (133) were non-financial services companies (The Nigerian Stock Exchange, 2013).

Consistent with previous studies (Islam, Ali & Ahmad, 2011 & Llukani, 2013), financial services firms were excluded from the sample due to their distinct industry characteristics. Such characteristics could create estimation issues if financial services firms were combined with non-financial services firms in the analyses. Some of the characteristics include: strict regulatory constraints within which financial firms operate which limits discretion on how they run their businesses and how much capital they need to set aside to keep operating; another characteristic relates to accounting rules for recording earnings and asset values in financial firms which are different from accounting rules for other firms.

The above sampling procedure is summarised as follow:

Population of the study 190 firms (Listed on the floor of the Nigerian Stock Exchange)

Less: Financial firms 57
Less: Unavailable reports 101 (Firms whose reports were not available)
Less: Outliers 5/27 (Firms whose data were exceptionally large)

Above procedure led to a sample size of 27 firm with which 135 firm-year were generated.

### 3.3 Data and Descriptive Statistics

Table 3 below contains the information on distribution of the data.
Table 3: Descriptive Statistics

<table>
<thead>
<tr>
<th>Variables</th>
<th>Observations</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAC</td>
<td>135</td>
<td>0.120547</td>
<td>0.1137191</td>
<td>0.0019872</td>
<td>0.623</td>
</tr>
<tr>
<td>Firm Size</td>
<td>135</td>
<td>7.278451</td>
<td>0.6814797</td>
<td>6.191376</td>
<td>8.914067</td>
</tr>
<tr>
<td>Board Ind.</td>
<td>135</td>
<td>0.7376333</td>
<td>0.1171274</td>
<td>0.5</td>
<td>0.9333333</td>
</tr>
<tr>
<td>Board Size</td>
<td>135</td>
<td>1.197925</td>
<td>0.2693026</td>
<td>0.6819481</td>
<td>1.87403</td>
</tr>
<tr>
<td>Inst Share</td>
<td>135</td>
<td>0.0715192</td>
<td>0.0330148</td>
<td>0.0</td>
<td>0.1433802</td>
</tr>
<tr>
<td>Aud Ind.</td>
<td>135</td>
<td>0.5797799</td>
<td>0.0278505</td>
<td>0.5172791</td>
<td>0.6618217</td>
</tr>
</tbody>
</table>

Source: Authors’ computation as extracted from results from STATA 11.2, 2016

Discretionary Accruals range from 0.0019872 to 0.623 with mean of 0.1205 and standard deviation of 0.1137. These show that the data tend to cluster around the mean value of the series.

Firm size was observed to have minimum value of 6.191376 and maximum value of 8.914067 with a mean value of 7.278451 and standard deviation of 0.6814797 suggesting that the data reasonably tend to the mean value of the series.

Board Independence was observed to range from 0.5 to 0.93333 while its mean value was observed to be 0.7376333 with standard deviation of 0.1171274. This suggests that the data cluster around its mean value.

Board Size was observed to have minimum and maximum of 0.6819481 and 1.87403 respectively. The mean value is 1.197925 and the standard deviation is 0.2693026; this implies that the data is clustered around the mean point of the series.

Institutional Shareholding has minimum point of 0 and maximum point of 0.1433802. The mean value was observed to be 0.0715192 while the standard deviation is 0.0330148; this observation suggests that the data tend to the mean point.

Auditor Independence was observed to have a minimum and maximum value of 0.5172791 and 0.6618217 respectively. The mean value was discovered to be 0.5797799 while the standard deviation is 0.0278505; this implies that the data cluster around its mean value.

Robustness Tests
Some robustness checks were carried out on the data, the table 4.1 and 4.2 contain information on collinearity tests.

Collinearity Diagnostics

Table 4.1: Pairwise Correlation

<table>
<thead>
<tr>
<th>Variable</th>
<th>Firm Size</th>
<th>Board Ind.</th>
<th>Board Size</th>
<th>Inst Share</th>
<th>Aud Ind.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm Size</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Board Ind.</td>
<td>0.0398</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Board Size</td>
<td>0.2005</td>
<td>0.1564</td>
<td>1.0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inst Share</td>
<td>0.3650</td>
<td>-0.0414</td>
<td>-0.2598</td>
<td>1.0000</td>
<td></td>
</tr>
<tr>
<td>Aud Ind.</td>
<td>-0.3663</td>
<td>0.0707</td>
<td>-0.2272</td>
<td>-0.2438</td>
<td>1.0000</td>
</tr>
</tbody>
</table>

Source: authors’ computation as extracted from STATA 11.2 results, 2016

Table 4.2: Variance Inflation Factors

<table>
<thead>
<tr>
<th>Variable</th>
<th>VIF</th>
<th>SQRT VIF</th>
<th>Tolerance</th>
<th>R-Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>1.37</td>
<td>1.17</td>
<td>0.7318</td>
<td>0.2682</td>
</tr>
<tr>
<td>Inst. Share</td>
<td>1.39</td>
<td>1.18</td>
<td>0.7192</td>
<td>0.2808</td>
</tr>
<tr>
<td>Board Size</td>
<td>1.31</td>
<td>1.14</td>
<td>0.7655</td>
<td>0.2345</td>
</tr>
<tr>
<td>Board Ind.</td>
<td>1.04</td>
<td>1.02</td>
<td>0.9609</td>
<td>0.0391</td>
</tr>
<tr>
<td>Aud. Indep</td>
<td>1.26</td>
<td>1.12</td>
<td>0.7936</td>
<td>0.2064</td>
</tr>
<tr>
<td>Mean VIF</td>
<td>1.27</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: authors’ computation as extracted from STATA 11.2 results, 2016

Table 4.1 contains the results of correlation analysis; the pairwise correlation shows that no explanatory variable has strong correlation with one or more other explanatory variables; this implies that the data is free from the problem of multicollinearity. A further analysis of the variance inflation factors corroborate the result from pairwise correlation analysis, the highest inflation factors is 1.39 suggesting that multicollinearity is not a problem in the data.
Serial Correlation Test

Table 5: Serial Correlation Test
Wooldridge test for autocorrelation in panel data

H0: no first-order autocorrelation
F(1, 26) = 0.599
Prob > F = 0.4458

Source: authors’ computation as extracted from STATA 11.2 results, 2016

The table 5 above contains the information of the Wooldridge test for autocorrelation in panel data, the test statistic is 0.599 while its probability is 0.4458. The test statistic is not significant at any reasonable level of significance and the null hypothesis of no first-order autocorrelation cannot be rejected. This implies that the model is free from the problem of serial correlation.

Heteroscedasticity Test

Table 6: Heteroscedasticity Test
*Breusch-Pagan Lagrange Multiplier Panel Heteroscedasticity Test

| Source: authors’ computation as extracted from STATA 11.2 results, 2016 |
| Lagrange Multiplier LM Test | = 104.51829 |
| Degrees of Freedom | = 26.0 |
| P-Value > Chi²(26) | = 0.00000 |

4. Presentation and Discussion of Result

4.1 Discretionary Accruals

The result of discretionary accruals obtained through regression, using modified Jones model (Dechow, 1995) are presented in the table below for further analysis to enable us assess the impact of the capital market reforms on earnings management drive of the managers.

Table 7: Earnings Management (Discretionary Accruals)

<table>
<thead>
<tr>
<th>S/N</th>
<th>Firms</th>
<th>Absolute Values of Discretionary Accruals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2009</td>
</tr>
<tr>
<td>1</td>
<td>ABC Transport</td>
<td>0.2073</td>
</tr>
<tr>
<td>2</td>
<td>AG Leventis (Nig.) Plc</td>
<td>0.1582</td>
</tr>
<tr>
<td>3</td>
<td>Airline Services and Logistics Plc</td>
<td>0.0257</td>
</tr>
<tr>
<td>4</td>
<td>Ashaka Cement Plc</td>
<td>0.1069</td>
</tr>
<tr>
<td>5</td>
<td>Berger Paints Nig. Plc</td>
<td>0.0872</td>
</tr>
<tr>
<td>6</td>
<td>Cadbury Nig. Plc</td>
<td>0.2198</td>
</tr>
<tr>
<td>7</td>
<td>CAP Plc</td>
<td>0.0514</td>
</tr>
<tr>
<td>8</td>
<td>Dangote Cement</td>
<td>0.0690</td>
</tr>
<tr>
<td>9</td>
<td>Dangote Flour</td>
<td>0.1532</td>
</tr>
<tr>
<td>10</td>
<td>Dangote Sugar Refinery Plc</td>
<td>0.0875</td>
</tr>
<tr>
<td>11</td>
<td>First Aluminium Plc</td>
<td>0.1783</td>
</tr>
<tr>
<td>12</td>
<td>Flour Mills of Nigeria Plc</td>
<td>0.0020</td>
</tr>
<tr>
<td>13</td>
<td>Guiness Nigeria Plc</td>
<td>0.0340</td>
</tr>
<tr>
<td>14</td>
<td>IHS. Nigeria Plc</td>
<td>0.6230</td>
</tr>
<tr>
<td>15</td>
<td>Julius Berger Nig. Plc</td>
<td>0.0663</td>
</tr>
<tr>
<td>16</td>
<td>Learn Africa Plc</td>
<td>0.1150</td>
</tr>
<tr>
<td>17</td>
<td>May &amp; Baker Nig. Plc</td>
<td>0.1061</td>
</tr>
<tr>
<td>18</td>
<td>MRS Oil Nig. Plc</td>
<td>0.1636</td>
</tr>
</tbody>
</table>
Hypothesis 1
Table 6 above presents the absolute value of discretionary accruals that were obtained through modified Jones model, this study does not concern itself on whether earnings were managed upward or downward, hence the signs were ignored for absolute values. The results contained in the table above shows that 74% (20 firms), 74% (20 firms) 74% (20 firms), 67% (18 firms) and 63% (17 firms) of the sampled firms had substantial level earnings management (above 5% of total assets) in the years 2009, 2010, 2011, 2012 and 2013 respectively. This shows some level of positive attitudinal change by the managers towards earnings management but the change is insignificant. Table 7 below contains the statistics of Mann-Whitney test, the test revealed that Z statistic and its probability are 0.184 and 0.8539 which means that earnings management before and after the reform are not statistically different. This finding implies that the 2011 capital market reforms had no significant impact on the quality of financial reports as the management practice that relate to earnings management cannot be said to have changed significantly overtime between the period before the reforms (2009-2010) and the period after the reforms (2011-2013). Average earnings management also reduced a bit in the year following the kickoff of the reform (2012) but rose again a year after. This result may be due to poor implementation framework. Based on these findings, the first null hypothesis (Ho1) that the capital market reforms of 2011 does not have significant impact on the earnings management drive of the managers cannot be rejected. Graphical representations of the above findings are in the figures 1 and 2 below.

Table 8: Mann-Whitney Test

<table>
<thead>
<tr>
<th>Period</th>
<th>Obs</th>
<th>Rank Sum</th>
<th>Expected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Reform</td>
<td>54</td>
<td>3713</td>
<td>3672</td>
</tr>
<tr>
<td>Post-Reform</td>
<td>81</td>
<td>5467</td>
<td>5508</td>
</tr>
<tr>
<td>Combined</td>
<td>135</td>
<td>9180</td>
<td>9180</td>
</tr>
</tbody>
</table>

Ho: adac(cid==1) = adac(cid==2)

\[ z = 0.184 \]
\[ \text{Prob} > |z| = 0.8539 \]

Source: authors’ computation as extracted from STATA 11.2 results, 2016

Figure 1: Average Discretionary Accruals

Source: authors’ computation as extracted from STATA 11.2 results, 2016


4.2 Discussion of Variables

After the discretionary accruals were derived, it was regressed on the variables of interest vis-à-vis firms’ sizes; institutional shareholdings; board size; independence of the board of directors; and auditors’ independence to know how earnings management relate with them. The study did not look at whether earnings management is upward or downward, the interest is to know whether managers involved themselves in the act of earnings management. So, the signs of the discretionary accruals were ignore and absolute values were used. Table below contains important facts from the regression.

\[
\begin{array}{|c|c|c|c|}
\hline
\text{Variable} & \text{Random Effects} & \text{Fixed Effects} & \text{Fixed Effects (Robust Standard Errors)} \\
\hline
\text{DAC} & 0.0343329 & 0.0279916 & 0.0343329 \\
\text{Firm Size} & 1.78 & 0.39 & 3.44** \\
 & 0.075 & 0.696 & 0.001 \\
\hline
\text{Institutional Shareholdings} & -0.2498319 & -0.1629522 & -0.2498319 \\
 & -0.65 & 0.24 & -0.65 \\
 & 0.514 & 0.814 & 0.516 \\
\hline
\text{Board Size} & -0.1116674 & -0.06481 & -0.1116674 \\
 & -2.54* & -0.83 & -2.82** \\
 & 0.011 & 0.409 & 0.005 \\
\hline
\text{Board Independence} & -0.2451875 & -0.2866479 & -0.2451875 \\
 & -2.62** & -1.83 & -2.27* \\
 & 0.009 & 0.071 & 0.023 \\
\hline
\text{Auditor Independence} & 0.0640559 & -1.236445 & 0.0640559 \\
 & 0.15 & -1.50 & 0.19 \\
 & 0.881 & 0.137 & 0.850 \\
\hline
\text{Constant} & 0.1660135 & 0.9111017 & 0.1660135 \\
 & 0.52 & 1.50 & 0.82 \\
 & 0.605 & 0.136 & 0.413 \\
\hline
\text{R-squared} & 0.3601 & 0.0701 & 0.3601 \\
 & 17.02 & 1.55 & 20.62 \\
 & 0.0045 & 0.1799 & 0.0010 \\
\hline
\end{array}
\]

** and * indicate that z or t statistic is significant at 1% and 5% level of significance respectively.

Source: authors’ computation as extracted from STATA 11.2 results, 2016

The regressions results revealed that institutional shareholdings, board size, board independence and auditors’ independence indicate negative relationships with earnings management while firms’ size showed a positive relationship with earnings management. It is also shown that firms’ size, board size and board independence are statistically significant while institutional shareholdings and auditors’ independence are not statistically significant at 5% level of significance. There is a need

Figure 2: Firms with Significant Discretionary Accruals

Source: authors’ computation as extracted from STATA 11.2 results, 2016
to exercise caution in the interpretation of the nature of relationship between auditors’ independence and earnings management. Although the sign of the coefficient in the table is positive, this will be interpreted as negative relationship with earnings management because it is assumed that when the fees paid to an auditor become so large, his independence of mind may become threatened, so a growth in the auditors fees mean a reduction in his independence.

**Hypothesis 2**

A significant and positive relationship was found between firms’ size and earnings management. It was discovered that a 1% increase in firm’s size would yield a 0.03% increase in the level of earnings management by firms and vice versa. The relationship was found to be statistically significant at 5% level of significance. Hence, the study cannot accept the second null hypothesis (Ho2) that firm size does not have significant influence on managers’ drive towards earnings management. This outcome may be linked to the fact that big firms’ executives usually have a very cordial relationship with the firms auditors, this relationship may lead to a reduced audit procedure and eventually some activities escape undiscovered or even when discovered, the auditors may compromise and fail to report on them. Huge audit fees paid by some big firms could also threaten the independence of an auditor hence, the opportunity for the executive to manipulate earnings. Also the drive by the executive to impress the potential investors in the market can encourage managers of big firms towards positive earnings management. These findings are consistent with that of Degeorge, Patel, and Zeckhauser (1999) who found that large companies manipulated the earnings of the company to avoid the negative earnings. However, the finding is at variance with that of Persons (1995), Kim, Liu and Rhee (2003) and Shehu and Abubakar (2012) who reported evidence of more earnings manipulation amongst smaller firms.

**Hypothesis 3**

An inverse and insignificant relationship was found between institutional shareholdings and earnings management. It was found that a 1% increase in the ratio of shareholdings of the institutional investors to the total outstanding shares will result in about 0.25% decrease in the earnings management by the firms and vice versa. This nature of relationship implies that the more of the institutional investors in a firm the better for such firm, it shows that the institutional investors may be better at monitoring the activities of managers and protection of their investments than individual investors. However, this relationship was found to be statistically insignificant at 5% level of significance, hence the study cannot reject the third null hypothesis (Ho3) that institutional shareholding does not have significant influence on the managers’ behaviour toward earnings management. This finding could be explained by the fact that institutional investors’ interests are usually substantial to give them some level of control over the activities of their investees. Also, institutional investors are usually equipped with good financial expertise and financial means to watch over the activities of the managers and thereby prevent or reduce the incidence of earnings management. This finding is consistent with that of Shehu (2011) and Klai & Ömri (2011).

**Hypothesis 4**

An inverse but significant relationship was found between board size and earnings management. It was revealed that if a board size is increased by one person, it would lead to about 11% decrease in the earnings management. The relationship was also discovered to be statistically significant at 5% level of significance. These imply that a relatively large board size is desirable for a firm. Hence, the study cannot accept the fourth null hypothesis (Ho4) that board size does not have a significant influence on the willingness of the managers to engage in earnings management. These findings could be explained by the fact that as firm’s board grows in size, its capacity to monitor and ensure good accounting practice grows with it as more hands join the existing once. Also, it will allow for transparency and exhaustive deliberation on any corporate issue rather than hasty decisions by a few people to the detriment of the larger shareholders. The findings are consistent with that of Beasley (1996).

**Hypothesis 5**

An inverse but significant relationship was found between independence of the board of directors and earnings management. It was revealed that an increase of 1% in the number of the independent directors on the board would lead to about 0.25% decrease in the earnings management and vice versa. It was also revealed that the relationship is significant at 5% level of significance. These findings
show that the more the number of the independent directors on the board of directors the better in terms of quality of financial reporting. Hence, the study cannot accept the fifth null hypothesis (Ho5) that independence of directors does not have significant influence on managers’ earnings management behaviour. These findings come as expected because independent directors are assumed to be free from the influence of the executive directors, they are appointed based on expertise and integrity and it is only rational that such people will want to bring their expertise to bear and also jealously protect their integrity. These findings are consistent with that of Roodposhti & Chashmi (2011), Olayinka (2012) and Swastiska (2013).

**Hypothesis 6**
An inverse and insignificant relationship was found between the independence of the auditors and earnings management. It was found that an increase of 1% in the auditors’ fees which means a decrease in the independence of the auditors by the same rate (1%) would increase discretionary accruals by 0.6% and vice versa. It was also found that the relationship is not significant at 5% level of significance. Hence the study cannot reject the sixth null hypothesis (Ho6) that auditor independence does not have significant influence on earnings management drive of the managers. This finding implies that when an auditor is free from any threat that can hinder him from carrying out his job diligently, auditing exercise could reduce the opportunistic behaviour of the managers and thereby increase the quality of financial reporting. The reason for this result could be linked to the fact that an auditor whose income from a client constitutes a very significant part of his total income may not want to lose such a client and may be ready to compromise; this result is consistent with Okolie (2014).

4.3 **Summary of Findings**
The findings of the study are summarised as follow:

i. Capital market reform of 2011 does not have significant impact on earnings management behaviour of the managers.

ii. Firms’ size has a positive and statistically significant relationship with earnings management;

iii. Institutional shareholding has a negative and insignificant relationship with earnings management;

iv. There is a negative and statistically significant relationship between board size and earnings management;

v. Negative and significant relationship was found between board independence and earnings management; and

vi. There is a negative and insignificant relationship between auditor independence and earnings management.

5. **Conclusion, Recommendations and Limitation**
Based on the research findings, the study concludes that firm size, board size, independence of the board of directors do exert statistically significant influence on the managers’ drives to engage in earnings management. Based on the findings, this study recommends that:

i. Relevant regulatory bodies like the Nigerian Stock Exchange, Security and Exchange Commission and Corporate Affairs Commission should pay more attention to the financial reports of big firms since this study revealed that they have more propensities and capacity to influence the audit procedures and consequently conceal some financial activities with a view to manipulate earnings opportunistically. This will ensure quality of financial reports of the big firms.

ii. Security and Exchange Commission should consider fine-tuning part B, paragraph 4.1 and 4.2 of its code of corporate governance for public companies which read: “The Board should be a sufficient size relative to the scale and complexity of the company’s operations...” and “Membership of the Board should not be less than five (5)” respectively. SEC should device criteria for determining the scale and complexity of operations and raises the bar of minimum board size for companies with large scale and complex operations. This is because the study reveals that too small board of directors might not be desirable. A board that is large enough will allow for exhaustive deliberation on any corporate issue rather than hasty decisions and will improve the quality of financial reports.

iii. The Nigerian Security and Exchange Commission (SEC) should review its code of corporate governance for public companies; stipulated minimum number of independent directors should be increased from one to ensure more independent boards and improved quality of financial reports.

It is believed that earnings manipulation could be reduced significantly in Nigeria if these recommendations are implemented.
References
Impact of Sales Territory Design and Salesforce Performance on Sales Organization Effectiveness: A Review of Studies

Zoha Fatima

Sales organization effectiveness is important for sales organizations. As the competition is increasing, its importance has increased. Sales organization effectiveness is influenced by a number of factors. Some studies have emphasized the role of salesperson factors in influencing sales organization effectiveness while others have stressed the role of sales organizational factors in improving the effectiveness of the sales organization. This paper takes into account the impact of sales territory design and salesforce performance on sales organization effectiveness. The paper analyses the impact of these two variables on sales organization effectiveness based on the review of previous studies. The findings of the review indicate that satisfaction of the salesperson with sales territory design and salesforce performance has a positive impact on sales organization effectiveness. The findings also revealed that salesforce control system play an important role in influencing sales organization effectiveness indirectly through sales territory design and salesforce performance. Based on these findings, implications and directions for future research are stated.

Keywords: Sales territory design, salesforce performance, salesforce control system, sales organization effectiveness

Introduction

In this competitive environment, companies are trying to differentiate themselves from other companies. Some companies are making efforts to improve salesforce ethical behaviour and customer oriented selling, while others are trying to increase salesforce motivation and selling skills by indulging in training and development programs for salespeople. All these efforts are directed at one goal – to increase sales organization effectiveness.

Sales organization effectiveness consists of a summary evaluation of overall organizational outcomes (Churchill, Ford, Hartley, & Walker, 1985). Total sales volume, market share, profitability, and customer satisfaction, compared with the major competitor and the sales unit objectives are the most popular measures of sales organization effectiveness. Other measures like assessment of costs, profit contribution, residual income and return on assets have also been used by researchers.

Studies have revealed that sales organization effectiveness is affected by several salesperson as well as organizational factors. According to Cravens, Piercy and Low (2006), sales management’s behaviour control strategy, compensation control, satisfaction with sales unit design and salesforce outcome performance are expected to influence sales unit effectiveness.

Increased attention has focused on the importance of sales territory design choices as determinants of the performance of salespeople and the effectiveness of sales organizations (Weitz et al., 1986). As territory design is a major determinant of salespeople’s opportunity to perform well, and their ability to earn incentive pay where incentives are linked directly to territory-level individual performance (Grant, Cravens, Low and Moncrief, 2001), it is likely to have an impact on sales organization effectiveness. The objective of this paper is to examine the impact of sales territory design and salesforce performance on the effectiveness of the organization. First, the paper defines sales territory design and salesforce performance. Second, it describes the framework for organizing the study. Third, it highlights the impact of sales territory design and salesforce performance on sales organization effectiveness based on the review of studies. Lastly the paper concludes with research implications and directions for future research.

Sales territory design

Sales territory design is concerned with sales unit managers’ decisions in allocating customers and prospects, products, geographical areas, and other work responsibilities to each salesperson assigned to the sales unit (Piercy, Low and Cravens, 2011). Effective sales territory design help salespeople to perform in a better way (Babakus, Cravens, Grant, Ingram and Laforge, 1996) and enhance their
contributions to sales organization effectiveness. Sales organizations which have a well-designed territory are more likely to be productive as compared to organizations with poorly designed territories. If territory design decisions are faulty, then it prevents optimal utilization of selling efforts, and can also have a negative impact on salespeople’s attitudes and performance (Piercy, Low and Cravens, 2004a).

The extent of the manager’s satisfaction with territory design indicates how well the territories are designed (Piercy, Low and Cravens, 2004a). This is an important measurement because managers’ assessment of sales territory designs helps to guide them in improving designs and results in greater satisfaction with designs (Piercy, Cravens and Morgan, 1999). Several factors which are beyond the control of salesperson can have an impact on territory design decision such as the size of the salesforce, buying power of the accounts, geographical dispersion of accounts, time required to service each account, and competitive intensity (Piercy, Low and Cravens, 2004a).

**Salesforce performance**
Performance is an evaluation of the salesperson’s behaviour considered in reference to that behaviour’s contribution in organization’s objectives (Churchill, Ford, Hartley, & Walker, 1985). Salesperson performance is of two types: Behaviour performance and outcome performance. Salesperson outcome performance and sales unit effectiveness are independent but related (Baldauf, Cravens and Grant, 2002; Piercy, Low and Cravens, 2011). Favorable outcomes achieved by salespeople lead to sales organization effectiveness. Outcome performance consists of the results (sales, market share, and new accounts) that salespeople produce which can largely be attributed to them (Anderson & Oliver, 1987). Outcome performance indicates the customer results that the salesforce contributes to the sales unit (Babakus et al., 1996). Without the salesforce, sales organization effectiveness cannot be achieved as it is the salesforce which interacts with the customers and brings revenue for the company.

**Framework for Organizing the Study**

**Review of Studies**

**Sales territory design and sales organization effectiveness**
Research studies are discussed below to enhance the understanding of the relationship between sales territory design and sales organization effectiveness.

In their study conducted on 58 chief sales executives and 146 sales managers in Australia, Babakus, Cravens, Grant, Ingram and LaForge (1996) found that good designs lead to sales organization effectiveness. This finding was significant for field sales manager sample but not for chief sales executive sample. This suggests that the territory design has a stronger impact at the level where managers are in direct contact with salespeople.

Emphasizing that field sales managers are more satisfied with sales territory design in most effective sales organizations, Piercy et al (1997) reported that in more effective sales organizations, territory designs are judged greatly superior in sales productivity, numbers of sales calls made, market potential, geographic size of territories, numbers of accounts in territories, the amount of travel acquired within territories and the assignment of salespeople to territories.

Grant and Cravens (1999) investigated the effect of salesforce performance, sales territory design, customer relationship strategy and organizational commitment on sales organization effectiveness. They found positive relationship between sales organization effectiveness and sales territory design.

In their study on 144 respondents in 62 different companies, Piercy, Cravens and Morgan (1999) found a strong positive relationship between satisfaction with sales territory design and sales organization effectiveness. The study revealed that sales territory design also has an indirect impact on
sales organization effectiveness via its impact on salesforce behavioural performance and outcome performance. Baldauf and Cravens (1999) also found that managers who are more satisfied with their unit’s sales territory design tend to have more effective sales units.

In the study conducted in Austria and U. K., Baldauf, Cravens and Piercy (2001) found positive impact of satisfaction with territory design on outcome performance and behaviour performance, emphasizing the indirect effect of satisfaction with territory design on sales organization effectiveness.

Emphasizing the role of territory design in influencing sales organization effectiveness, Tansu Barker (2001) reported that in more effective sales organizations, sales managers are more satisfied with market potential in their territories, sales productivity and the amount of travel required. Katsikea and Skarmeas (2003) in their study on 234 exporting firms found out that sales territory design differentiate the extreme groups of high and low export sales unit effectiveness. In their study in Greece, India and Malaysia, Piercy, Low and Cravens (2004a) found that design satisfaction is a strong predictor of sales unit effectiveness in all the three countries.

Piercy et al (2004b) suggested that there is a need of better sales territory design for sales organization effectiveness as design is positively related to effectiveness. In their study on 1000 field sales managers in 8 countries, Cravens, Piercy and Low (2006) found that territory design has a positive relationship with sales unit effectiveness for all of the countries except Nigeria. They found that impact of design on effectiveness was stronger as compared to the effects of behaviour control and incentive pay on effectiveness. Katsikea, Theodosiou and Morgan (2007) in their study on 146 exporters, found that export sales managers’ satisfaction with the export venture territory situation has a strong positive impact on both dimensions of export sales manager outcome and behavioural performance and a significant indirect effect on export sales organization effectiveness.

Investigating the antecedents of sales organization effectiveness in Bahrain, Greece, India, Malaysia, Nigeria, Saudi Arabia, and U. K., Piercy, Low and Cravens (2011) revealed that sales unit design has a positive relationship with sales unit effectiveness in Bahrain, India, Nigeria, and U.K.

Studies have found a positive relationship between satisfaction with sales territory design and sales organization effectiveness. Some studies have stressed direct relationship (Piercy, Cravens, Morgan, 1999; Grant and Cravens, 1999; Piercy, Low and Cravens, 2004a; Cravens, Piercy and Low, 2006; Piercy, Low and Cravens, 2011). While some studies have stressed indirect effect of sales territory designs on sales organization effectiveness via its effect on salesforce performance (Piercy, Cravens and Morgan, 1999; Baldauf, Cravens and Piercy, 2001; Piercy, Low and Cravens, 2004b; Katsikea, Theodosiou and Morgan, 2007). Most effective organizations are more satisfied with sales territory design (Piercy, Cravens and Morgan, 1997; Baldauf and Cravens, 1999).

**Salesforce performance and sales organization effectiveness**

Examining the impact of salesforce control on sales organization effectiveness, Cravens, Grant, Ingram, LaForge and Young (1992) in their study on 99 Australian sales organizations revealed that salesforce performance has a positive impact on sales organization effectiveness. Babakus, Cravens, Grant, Ingram and LaForge (1996) in their study on Australian chief sales executives and sales managers, found that salesforce performance is positively related to sales organization effectiveness. Findings by Grant and Cravens (1996) also suggest a positive relationship between salesforce outcome performance and financial effectiveness.

Investigating the differences in more and less effective organizations, Piercy et al (1997) found that in most effective organizations, selling performance, no selling performance and outcome performance are higher. High outcome performance is characterized by gaining high market share and generating sales revenue. Grant and Cravens (1999) emphasized an indirect role of behaviour performance in sales unit effectiveness. They stated that high behavioural performance leads to high outcome performance, which ultimately leads to sales organization effectiveness. Piercy, Cravens and Morgan (1999) found positive relationship between salesforce outcome performance and sales organization effectiveness.
Baldauf and Cravens (1999) in their study on 159 Austrian field sales managers found a positive relationship between behaviour and outcome performance and organization effectiveness. Several components of salesperson behaviour like adaptive selling, teamwork, sales presentations and sales planning were found to be highly linked with sales unit effectiveness while technical knowledge and sales support performance played a less important role in affecting sales unit effectiveness.

Using regression analysis to analyse data of 79 chief sales executives in Austria and 70 chief sales executives in United Kingdom, Baldauf, Cravens and Piercy (2001) found a positive relationship between salesperson outcome performance and sales organization effectiveness. They also reported indirect impacts of salesforce control system, territory design, and salesperson behaviour performance on sales organization effectiveness.

In their study on 174 field sales manager in Austria and Australia, Baldauf, Cravens and Grant (2002) found a significant positive relationship between salesperson outcome performance and sales organization effectiveness.

Katsikea and Skarmeas (2003) investigated how export sales organisations are differentiated from other export units with respect to key sales management aspects. Using multiple discriminant analysis to analyse data of 234 exporting firms, they found that export salespeople behavioural attributes such as sales planning, sales presentation, adaptive selling, sales support, technical knowledge differentiated the groups of high and low export sales unit effectiveness.

In their study conducted in Greece, India and Malaysia, Piercy et al (2004a) found that the coefficient for the outcome performance to effectiveness path is greater than the coefficient for the territory design to effectiveness path in Greece and Malaysia emphasizing the importance of outcome performance in affecting sales organization effectiveness. Piercy, Low and Cravens (2004b) found that behavior performance and outcome performance directly influences effectiveness.

In their study on effectiveness in export market ventures conducted on 146 exporters, Katsikea, Theodosiou and Morgan (2007) emphasized the positive association between outcome performance and sales organization effectiveness. The findings also revealed a significant indirect effect of export sales manager behavioural performance on export sales organization effectiveness.

Kester and Canales (2008) examined the activities that affected the effectiveness of the salesforce. Analysis of data of 108 field sales managers in Spain revealed that salesperson’s outcome performance is associated with higher salesforce effectiveness especially with financial effectiveness. Salesforce efficacy and manager satisfaction were used as measures of salesforce effectiveness.

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organization effectiveness (Piercy, Cravens and Morgan, 1997; Baldauf and Cravens, 1999). Studies have also revealed that salesforce performance has indirect effect on sales organization effectiveness through salesforce control system and territory design (Baldauf, Cravens, & Piercy, 2001).

Conclusion
The review of studies revealed that sales territory design and salesforce performance plays an important role in affecting sales organization effectiveness. The impact of territory design on sales organization effectiveness is mediated by salesforce performance. It means territory design affects salesforce performance which ultimately affects sales organization effectiveness. On the other hand, impact of salesforce outcome performance on sales organization effectiveness is mediated by behaviour performance, behaviour based control system and territory design. It means behaviour performance, behaviour based control system and territory design have an impact on salesforce outcome performance which has an effect on sales organization effectiveness.

Implications
The study holds implications for sales organizations as they can know how important sales territory design and salesforce performance are in affecting sales organization effectiveness. Sales managers can increase sales organization effectiveness by focusing on designing appropriate territory design and improving salesforce outcome performance.

Directions For Future Research
This study examined the impact of sales territory design and salesforce performance on the effectiveness of the organization. There are other factors such as salesforce job satisfaction, professional competence, customer orientation, ethical behaviour, sales support orientation, sales planning, job commitment etc which are likely to have a direct and indirect impact on sales organization effectiveness. The research in future should focus on examining the impact of these salesforce characteristics on sales organization effectiveness and find out the mediating factors affecting the relationship between salesforce characteristics and sales organization effectiveness.

References


Maria Pressentin

The importance of social innovation in rising, and what gave rise to socially impactful projects was the involvement of corporate organizations in the 1990s (i.e. corporate social responsibility, CSR) when many got involved in social causes in communities they operated and hence had a direct interest in their reputation and license to operate, with little thought in their bottom line investment. Since social innovation enterprises and projects require leaders with bold, creative traits, coupled with negotiation, facilitation and mediation skills for the most part due to the tri-party involvement of public, private and non-profit organizations and oftentimes also the tribes or townships locally that will have the change implemented on, it is only fitting to analyze those traits and skills more in depth, aiming to come up with a frame of competencies such leaders will need.

Thus, the focus on this paper will be to identify through, literature review, the leadership models and competencies that a socially innovative project, environment, entrepreneurs and corporate leaders need in order to sustain social impact and redeem the benefits in investing into the social. Finally, an action plan geared to rethink human resources strategy in implementing a high potential system to support social innovation efforts in an organization is offered. This paper challenges the 21st Century economy’s organizational thinking in terms of leadership practices, leadership skills needed, organizational culture shift, all in all the, areas of leadership and organizational culture adaptation that will affect the ROI of going-to-market in a new way to improve organizational performance via the social impact (or CSR) route.

Key Words: Social Innovation-Enterprise, Leadership Models-Traits-Competencies, Collaboration, Asia, Action Plan, Stakeholders.

Introduction

What is Social Innovation?

Phills Jr et al (2008) defines social innovation to be: “A novel solution to a social problem that is more effective, efficient, sustainable, or just than existing solutions and for which the value created accrues primarily to society as a whole rather than private individuals.”

They go on in affirming that social innovation is the best construct for understanding and producing lasting impactful social change. The example they use is of micro-financing in poor countries where it provides the capital for people to invest on activities to get them out of poverty (Phills Jr et al, 2008). Gunter Pauli has created an entire movement in promoting The Blue Economy which has inspired, especially the younger generation of entrepreneurs, to innovatively create businesses that cater for products answering to social/environmental needs with the key condition that all products are produced locally and consumed locally like the ‘mushroom project’ in China that provides not only food in the most economical way, but also has created and replicated businesses of this kind around the World just by transforming and reusing coffee that is, normally treated as waste by the developed countries, yet in these projects the used coffee is rather used as soil to grow mushrooms (source: website ‘The Blue Economy’). Social innovation projects is a field that concerns the social purpose organizations from the private, non-profit and public sectors, hence, its operating mechanics involve much of the dissolving of boundaries and brokering dialogues amongst the tri-party sectors (Editor’s note at The Center of Social Innovation, Stanford Graduate School, 2003 – adapted by and retrieved from Phills Jr, 2008).

It is important to note that there are explicit and implicit components in the social innovation arena. The two explicit components that assume roles are the function of projects impacting social cause and involvement of entrepreneurs with innovative ideas to solve those causes. The implicit role in the social innovation context is the leadership function, because in order for the projects or organizations involved on such entrepreneurial, innovative and social cause projects, there needs to be an element of sustainability since social causes entail a systemic change in the way things are running socially. Social innovation entrepreneurship and corporate social innovation leaders are typically getting

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themselves involved in complex processes of high intensity of interactions, interconnectedness, many stakeholders of different groups (NGOs, private for profit organizations, government and townships or tribes where the project will have an impact on), negotiating, mediating, coordinating, discussing, implementing and leading to a large extend the groups especially when they themselves or their organization they are representing as the main sponsor entrusts them to lead the project.

Social innovation can go from an idea, to legislation, from a social movement, an intervention to a combination of all of the above, thus, it is important to view this concept openly, as any member of society and organizations aiming to support positive impact in the social transformation can collaborate. It is important to note that social problems oftentimes are not well understood, moreover, situations become even more entangled when multiple parties are not involved from the different sectors. Hence, examination and revision of policies and practices that do not foster cross-sector collaboration need to happen to prevent the halting of ideas, values, capital and talent and to dismantle the walls on roles and relationships across the tri-party connections. We are talking about enabling leaders with heterogenic backgrounds coming from the tri-party (public, private, non-profit) resources constituted by entrepreneurs, managers, change agents, regulators, activists who are trying to make a difference in creating social value, therefore by understanding the foundational traits such leaders require to be involved in such collaborations, sets up a foothold for tri-party sectors to build upon those leadership skills and characteristics in support of effectiveness and success in collaboration.

Leadership Qualities & Competencies

Corporate Social Innovation – The Value Proposition

Framing the value proposition for impact investing on social causes seems to be a hot topic nowadays. Investors find themselves in a dichotomy of decision-making between doing impactful good to the society, which most think it should be just giving money away to charity or investing on projects that can hardly even redeem the initial invested capital, versus investing for ROI, primarily looking at profits instead of revenue, which then defocuses the motivation to do good but rather to focus on bottom line profits. Ausland (2012) discusses how the human brain is structured by the inability to simultaneously make decisions in investing that are motivated both by profit seeking and doing social good, he argues it is one or the other to generate maximum effectiveness. Ausland also suggests alternative strategies to counter this dichotomy of decision making to support the thinking and decision making to maximize both outcomes, in adding that there may be a trend in research and experiences to seek for an effective solution to achieve both to overcome the brain’s limitations through the field of impact bonds with the strategy of decisions in stages, markets in strata and revenues in tranches, yet still very experimental from the date of the paper. In conclusion, he argues pure investors demand profit, and pure grant-makers demand impact, the social impact investors want both, but will decide on what is on the offer, hence, it is a field yet in the study to strike the balance.

This leads back to the evolution of how social innovation came about. Its foundation stems from finding the shared value (Porter & Kramer, 2011). Porter and Kramer argue that when companies strategically create a new purpose through creating shared value with the society, moving beyond looking at trade-offs - profits for social good – shared value ‘recognizes that societal needs not just conventional economic needs, define markets’. Porter also insists that it is about how to divide the pie no matter the size and the purpose shared value actually opens doors for more collaboration and therefore creating abundance and increasing the pie, by paying to the societal unmet needs. In addition, Porter cautions that opportunities for co-creation do not substitute the core economic principals of competition and therefore the Five-Forces cannot be ignored at any point.

Shared value could reshape capitalism and its relationship to society. It could also drive the next wave of innovation and productivity growth in the global economy as it opens managers’ eyes to immense human needs that must be met, large new markets to be served, and the internal costs of social deficits as well as the competitive advantages available from addressing them. But our understanding of shared value is still in its genesis. Attaining it will require managers to develop new skills and knowledge; and governments to learn how to regulate in ways that enable shared value, rather than work against it.

Ramaswamy and Gouillart (2010) argue that ‘people are inherently creative and want to shape their own
experiences’, hence, creating the shared value is the what, but the how would be what these authors offer as the co-creation approach to process design and strategy generation. The co-creation on process design focuses on the interest of all stakeholder by leveraging their experiences and interactions with one another, as opposed to, the traditional ways of focusing on customer requirements and streamlining processes. The co-creation of process design is described as follows:

1. Identify all stakeholders touched by the process (employees, customers, suppliers, distributors, communities).
2. Understand and map out current interactions among stakeholders.
3. Organize workshops in which stakeholders share experiences and imagine ways to improve them.
4. Build platforms to implement ideas for new interactions and to continue the dialogue among stakeholders to generate further ideas.

Ultimately, they add that there are significant payoffs for firms and stakeholders which will involve revenues, profits, lowered costs and risks for the former and increased economic and psychological value for the latter.

The authors continue to say that there is a superior advantage to co-creating strategy, as the concept focuses on all stakeholders and how the ecosystem can maximize the size of the pie; maximizing the share of value captured by the firm becomes then secondary. Benefits include augmented engagement of stakeholders, leading to increased productivity, innovation and lowered costs and risks. Strategic goals are then just a starting point, whilst they are dynamic since the full strategy is emerged over time. Hence the value is created by constantly enhancing experiences for all stakeholders, who may generate motivation and commitment for the purpose, thus productivity rises. For all this to happen a new value chain benefiting all players in the ecosystem must exist, or at least envisioned, which then loops back to what Porter suggests on the concept of shared value with the society.

In conclusion, traditional leadership thinking needs to shift to the 21st Century Economy thinking and acting with revised leadership competencies and qualities, equipping managers of all types of organizations with skills to run the business, investments and room for social responsibility to flourish in those businesses.

The Shift in Organizations – The Need of Leadership Skills!
Across regions, the age of senior leadership is getting younger. Although their cognitive stamina seems to be higher, due to this younger generations’ opportunities to attend education and majority are now tertiary degree graduates, this is now a generation of consumers in the information era (or knowledge economy), thus, understanding their clients of similar demands and younger generations’ requirements. Nevertheless, a lack of deeper wisdom that comes from social skills stemming from years of making complex decisions as well as relationships prior to the existence of social media and other technological advancements in communication, remains a fact (Rock, 2013).

Leaders that have been educated in their organizational careers, cultivated by the industrial economy (20th Century), have necessarily to adjust their leadership styles to the modern and most current information economy (21st Century) requirements.

More and more organizations are moving towards forming teams that are virtual and smaller in size, team leaders are becoming more are more a part of a team instead of the commander or controller of it, organizations are building networks of partners and valuing stakeholders contributions through their strength of cooperation and synergies, instead of merely shareholders’ value maximization. The world of business is gearing for agility built from communities of strategic partnerships instead of the traditional more hierarchical customer-supplier relationships. Everyone needs to bring value, and each individual is essential to the success of others they impact, due to the massive opportunities of outsourcing for organizations to remain focused in their core competencies and offerings, as well as to bring value to their customers and to everyone that works with them.

To navigate successfully in the 21st Century, organizations need to move from slicing a piece of the pie from the market to creating new value for the customer, shifting mindsets from competing and dominating stemming from the 20th Century economy, to creating collaborative and innovative
efforts and teams, and finally, instead of creating central powers of total command and control in their workplace to being of service and engaging as well as empowering the people they work with, so as to be agile in the business today.

The competitive advantage in markets is becoming less and less relevant in the information economy, as oftentimes companies with low margins with difficulties in ascertaining value for the overall value chain end up competing through price wars, working in silos and not being able to sustain long term business with low margins, as the market is becoming too saturated with little entry barriers for most products and services, as many companies are generating a ‘me too’ type of business (Lurie, Nov. 2014).

Companies that collaborate in network type of businesses collaborate for similar goals and operate to increase the value of each relationship they make. It is a collaborative effort where each partnering relationship impacts one another with value brought within the network. No more slicing of the pie, but rather ‘let’s expand the pie for creating value for all of us’.

Leadership is an influencing process, to be effective the need to be focused in generating an environment where new value is built through collaboration of team efforts and engagement is abundant. Hence, empowering others to do their jobs by being more facilitators and coaches rather than controllers, coaches rather than supervisors and mentors, by serving the employees and giving them the development of knowledge and tools they need to achieve their goals and the goals of their organization for effective and profitable business to occur.

This will only happen when quantity and quality of conversations enable employee-manager to build trusted relationships through deeper meaningful connections. A most recent research has shown that 75% of people fewer than 30 years of age own a Smartphone, and 61% of all working people own a Smartphone. Our ability to connect has never been easier and more real in time, yet, are we all really connected? This research by the Ken Blanchard Companies on Employee Work Passion Survey (2013) has shown that most workplaces fail to provide true connection between people, because they feel unconnected towards each other, despite the 24/7 electronic connection. So where it matters most is the human connectivity that is not happening in the workplace: 81% of leaders do not listen and 82% of leaders do not provide appropriate feedback, whilst only 34% of employees meet their bosses once a week. 28% of the employees never discuss future goals and 70% of them wished they did. 36% never receive performance feedback and 64% wished they could talk to their leaders about problems at work with their colleagues. People that feel more connected to their colleagues and leaders are also more likely to feel good about their workplace and jobs, and are definitely more motivated to stay. They are also more motivated to act in a way that they care and want to support the organization and its people and clients, amongst many in the form of willingly providing discretionary time and effort that no additional monetary benefit can buy. Motivation is an intrinsic element that cannot be externally maintained by monetary or material benefits – in the end human connection matters! Fowler talks about the three basic psychological human needs of ‘ARC’ – Autonomy, Relatedness and Competence. People want to feel they have autonomy in the work they do and make decisions or choices, while being competent and reaching mastery at what they do is vital. She also talks about relationships or relatedness, which is the proof that humans are social beings and as our basic foundation, we need and want to have relationships that function and are supportive of us achieving the autonomy and competence in whatever we do (The Ken Blanchard Companies & the Pew Research Center, 2013 and Fowler, 2012).

Leadership Research Trends: Models, Traits, Jobs

A fairly new research subject – Responsible Leadership – is the result of global pressure for companies to be working more towards being socially responsible, some torn apart between what is more important and what is the right thing to do: focus on share holders needs or stakeholders needs, are still the key topic being discussed amongst the players and within this field of research.

Social responsibility is defined as “Corporate actions that signal a firm’s desires to advance the goals of identifiable of stake holder groups, such as, customers, suppliers, employees, the local community, non-governmental organizations, and some share holders (e.g. socially responsible investors), or to advance broader societal objectives, such as, enhancing different
aspects of social and environmental performance (e.g. diversity and the adoption of progressive work practices and sustainability).” (Siegel, 2014). For social responsibility actions and implementation to happen, there needs to be a direct relationship to leaders in the organization (CEO’s, VPs, directors, managers) hence there is close or even direct link to these two elements given the corporate leaders’ position to shape and influence policies. Yet, the relationship has been frequently ignored in the past in research on the crucial link that exists in the matrix of social responsibility, a firm’s strategy and implementation processes of those socially responsible actions. Unfortunately, when it comes to social responsibility and its leadership, the research topics have mostly surrounded the micro-levels of economic and financial returns and implications. Groves and LA Roca (2011) have conducted a study on the question of developing responsible leaders in organizations geared to establish or grow CSR, found by measuring the level of commitment or adoption to stakeholder values, finding that transformational leadership was mostly practiced, in such occasions. The implications are that for leaders to be more responsible, the authors suggest that they need to be developed through a comprehensive system of specific selection in recruitment, development of specific leadership skills and behaviors, reward and benefits systems revision, assessments that target value orientation, provide field experiences to partner with NGOs and their respective social projects.

Bass predicted that the leadership field is an area that would evolve on studies about personal traits and situations to leadership, gearing more towards focusing on the follower-centered approaches, whilst pure transactional organizations would give way to more transformation ones as leaders become more innovative, responsible flexible and adaptive (McCleskey, 2014). Cintron and Nichols discuss the effectiveness of using Situational, Servant and Team leadership styles in non-profit environment suggesting that MNCs have a lot to learn from non-profit in terms of involving volunteers with a mission and purpose at heart and mostly not based on salaries, while comparing the applicability of these leadership models in different organizations.

Several studies have compared similarities and differences on the following leadership models in their applicability in CSR companies or initiatives: Stuart & Gapp (2012) the application of Situational Leadership in CSR-SME environment and found that the model helped a CSR-SME demonstrate successful outcomes based on effective usage of leadership styles given the situations followers were in, thus consistent is maintaining the values of the CSR organization; Awan et al (2012) studied the effects of Servant Leadership on employee work performance and motivation in social non-governmental organizations finding the model directly correlated to the variables studied; Mulqueen compared Situational and Social Style leaderships, found them to be complimentary to each other.

Multiple studies have testing the viability of leadership models in the CSR, NGO, MNC and SME environments, much of the research have compared and contrasted models. In the environments of social enterprises, the most researched models have been Transformational Leadership, Servant Leadership and most recently Situational Leadership, all with its merits, some more applicable than others in certain areas (in terms of hierarchies distinction, relationships, and competencies driven) within the social organizations, yet, authors have agreed that all three types, despite its focus have one core theme in common: they are all focused on stakeholders’ benefits and therefore complimentary and applicable for any organization thinking and practicing social enterprising. Transformational Leadership (coined by Burns, 1978; further developed by Bass, 1985) is focused on creating the organization of the future by enacting a strong vision and direction to change the culture of the company or to raise moral and motivation, normally driven by strong charismatic leaders with strong vision and communication skills, who work with the follower on the vision and direction, by challenging them to take greater ownership in their roles – vision and culture driven. Servant Leadership (Greenland, 1970), described initially the morality of a leader having the inherent urge to serve instead of being served, thus a servant-leader serves first, so the employees become healthier, wiser, freer, more autonomous and more than likely they will become also servants to their employees, and serve others in the society so there is a ripple effect in the benefits of being served, with the morality to benefit all stakeholders first, self-reflection, focus on the integrity of the leader – ethics and moral driven. Situational Leadership theory, is the joint production of Paul Hersey (author of Situational Leader) and Ken Blanchard
(author of One Minute Manager) while working on “Management of Organizational Behavior”. The theory was first introduced as “Life Cycle Theory of Leadership”, when later renamed to Situational Leadership Theory. In the late 1970’s, both authors had developed their own models on the basis of Situational Leadership Theory, Hersey called it Situational Leadership Model and Blanchard et al. named it Situational Leadership II Model. The principal around the theory remains, there is no one best leadership style, but four, and a leader needs to flex and adapt his/her styles to the development level of the individual (stakeholder) towards a goal or a task. The ultimate goal of the leader is to give the appropriate amounts of combination of direction and/or support on each leadership style depending on the situation of the stakeholder in his/her development level in attaining the goal or task. The bigger the gap in competence and commitment of the stakeholder towards the goal or task, the more direction and support the leader needs to give, and the more competent and committed the stakeholder vis-à-vis the goal/task, the less directive and supportive behaviors are required from the leader.

Situational Leadership II places strong emphasis in collaborating as a partner between the leader and the stakeholder – teamwork - to jointly achieve the goals, where the stakeholder gains competence and commitment towards the goal and becomes self-directed and self-motivated and self-confident, on the goal, while the leader partners with the stakeholder on all four development levels: beginner, learner, capable/cautious and self-reliant, by matching appropriate leadership styles in every level. The 21st Century economy, for its demand of flatter organizations, smaller working teams, the need to influence without position power to manage up, down and all around, especially in matrices and cross-culturally, Situational Leadership II model has been prominently wide spread, for its practical usage and available training resources catered for organizational development.

Ultimately, the business case for organizations, MNCs and SMEs, to be more socially invested goes beyond just the benefit of expanding markets. As discussed, moving towards CSR has in the past exemplified corporations that targeted a better reputation and marketing. Companies truly socially innovative, are seen as innovators, young and entrepreneurial, despite their size and age of their CEOs and employees, and best of all, they are not regarded as companies that have are ‘not doing bad’ but are seen as companies that ‘are doing good’ to the society and environment. Organizations shifting their mindsets, heavily, are happening in the corporate world, who are becoming quite agile in rethinking their businesses, agile in learning and applying leadership skills in multiple hierarchies, and agile, not only, in the direction of doing business, but most of all, in shifting their mindsets and leadership direction. This shift has been contributed by two major pressures in the market:

1. The customers are more educated and well informed in decision making to purchase. They are demanding niche products and services, fair trade and green consumption.

2. The global and institutional pressures through legislation and persuasion for companies to be greener and more socially responsible, examples include: UN Clean Development Mechanism, Convention and Int. Trade for Endangered Species.

Illustration 1: Benefits linking innovation with corporate responsibility (Source: Tham, “Corporate Social Innovation”)

“When corporation signals its undivided commitment towards an ideal - an example being Interface, whose CEO Ray Anderson has pledged to bring his company towards zero environmental footprint - the public perception of the company shifts from one that is ‘not doing any evil’ (more reputation management) to ‘doing well and doing good’ (a market leader, both financially and socially).” – (source: Tham).

The substantial benefits are illustrated on the above graph (Illustration 1) as companies move along the continuum to focus their business more towards the top right hand corner in becoming more Corporate Social Innovators, the social and environmental ROI and business returns increase. Some examples of
companies that have gone through these changes include: The Virgin Group, Google.org, Citicorp, DHL, Danone, etc.

Typically, these although giant multinationals, their leaders and/or CEOs have an innovative and entrepreneurial mindset, and are visionaries of an ideal of the future, which is primarily a believe that is compelling, often a reality they would like to create for themselves to live in and what tends to happen is that they encourage the social entrepreneur to flourish within the organization.

The future for corporations to shift towards social innovation is bright, nevertheless, it demands a shift in thinking, mindset, decision making, and it takes the acceptance of initial risk of investment and potential halt on short term returns. The key still lies on the type of leadership in the organization.

In terms of the workforce impact, what will be predictable is to see more and more socially responsible individuals who wish to work for MNCs, to be more proactive in selection of their career path, organizations and leaders. We can expect incremental challenges in hiring and retaining talent, not only because they want to work for a company that pays well, provides diversity, learning and career growth opportunities but also because they care for their environment and communities they live in. As a professional consultant and executive coach in organizational change and development, I have personally seen this personnel shift in several industries. What seems to be quite attractive is for experienced talent from large MNCs to exit for smaller enterprises geared toward social purpose or impact. These larger MNCs that have not yet shifted business-market mindsets, find themselves having to make more of a difference in the society or environment, meanwhile suffering from a loss of talent to their competing start-ups who can today pay up to 10% more than MNCs, in Asian markets, just over 2 years of starting up. Example, Zalora, went from 20 – 2,000 employees in four years of starting up. However, MNCs that have gone out of their way to stay innovative, but mature in their business – for example Bloomberg – remain flat in their organizations, everyone, from any age and experience is encouraged to be developed and all ideas are heard, the company is still one of the fast growing ones, despite its forty year anniversary in 2015. We can also expect to see an internal creation of jobs, not necessarily titles or functions, but rather jobs that are of dual mind-set requirement: the traditional functions of HR, marketing, finance, L&D, but also adding traits such as being corporate but entrepreneurial and innovative at the same time.

Illustrations 2 and 3 below show leadership and managerial traits in NGOs, followed by a comparison table between leadership in the past and in the future for NGOs. Leaders in MNCs have similar trait requirements and role practice shifts only that the for-profit elements would be added: shifting from the past of sharing a small pie in the market due to competition, towards the future (happening today) of creating a bigger pie and abundance in markets with external partnerships e.g. outsourcing and strategic alliances, where sometimes these external stakeholders act as suppliers, other times as customers and others still as peer to peer partners. In addition, moving towards corporate entrepreneurship, leaders in MNCs need to be responsible business owners (or business unit owners), savvy negotiator, great communicators in order to attain autonomy and communicate top and down ideas and projects for investment and people’s buy-in. Eventually, the leadership skills of collaboration are all similarly required in all types of organizations, even in SMEs and start-ups, if their aim is also to grow and be sustainable.

Characteristics of leaders and managers

Managers
- Interested in what should be done and how it should be done
- Focused on the everyday running of an organisation, they seek results and efficiency
- They prefer a stable and predictable context
- They stand out due to their capacity for solving problems
- They make decisions based on data and diagnoses

Leaders
- They are interested in the long term (as well as everyday matters)
- They prefer flexibility and change to stability and control
- Their thoughts are mainly divergent
- They look for opportunities and external alliances
- They are more intuitive and visionary

Illustration 2: Leadership in NGO’s - adapted from PWC (2008-09)

Past Vs Present Leadership Practice

<table>
<thead>
<tr>
<th>Past</th>
<th>Future</th>
</tr>
</thead>
<tbody>
<tr>
<td>Few leaders at the top and many managers and technicians</td>
<td>Leaders at all levels. Leadership community.</td>
</tr>
<tr>
<td>Leadership through control of the different functional areas</td>
<td>Leadership through vision. Long term orientation.</td>
</tr>
</tbody>
</table>
Improvement of the quality and control of costs of consolidated initiatives | Generations of distinctive competencies and competitive advantages.
---|---
Reactive attitude and adaptation change | Anticipatory attitude. Generator of change.
Design of hierarchical organizational structures | Design of flat, collaborative organizations
Lead and supervise collaborators | Inspire and empower people. Facilitate teamwork. Create future leaders
Restrict information to those who make decisions only | Share information internally and externally
Act like a boss, control attitudes and processes | Act as a coach and mentor, create learning communities
Juggle the different internal and external demands | Promote change, and create an agenda for proactive change
Maintain the organizational culture | Make the organizational culture evolve

Illustration 3: Leadership in NGO’s - adapted from PWC (2008-09) and readapted from Nanus and Dobbs, 1999.

So, what are the entrepreneurial organizational characteristics to add to this list of essential evolution in companies? They would consist of:

- Creative ideas, allowing more play time and balance
- Less red tape and faster decision making
- Responsible ownership and less complacency
- Opportunity to fail quickly, adapt and fly – speedy learning curve
- Minimal hierarchy

The five points above allow room for empowerment of employees and best ideas, confidence and voice to show up...

“You gain strength, courage and confidence by every experience in which you really stop to look fear in the face.”

-Eleanor Roosevelt

“An mind once stretched by a new idea never regains its original dimension.”

-Oliver Wendell Holmes

Nevertheless, experience is the best-practice for building resilient leaders, as such, organizations will have to invest in providing opportunities for leaders and talents to learn from mistakes, and rise again after they fall.

Blanchard is a big proponent of leaders walking their talk. He argues that values based leadership is the foundation of integrity, and the way to spread to the mass in the organization. He suggests leaders ask the following questions in order to lead with integrity:

- “How can I integrate our core organizational values into the way my team operates?”
- “What are some ways I can communicate our values to my team over the next thirty days?”
- “How can I create greater personal alignment with our values on a daily basis?”
- “How can I recognize and reward people who actively embody the values?”

Inspiring leaders motivate us towards a common goal. Values-based may be less a type of leadership, and more a requirement of it.

Accenture has done a survey in 1999, where Marshall Goldsmith was supporting, and he shared that the survey and interviews, at the time’s high potential leaders, shared the importance they saw of these elements be skills taught in organizations for future leadership to emerge.

1. Thinking globally – understanding the legal and economic implications of globalization

2. Appreciating cultural diversity – not just geographical but also accepting and vouching for differences of backgrounds, education, and experiences.

3. Demonstrating technological savvy – in investments, usage of technology, maintain and recruit technically savvy people to grow the organization to the next era.
4. **Building partners** – build networks and share the pie, grow the pie with competitors, as ‘enemies’ in one product, service or market may be your customers or ‘friends’ in another.

5. **Sharing leadership** – be skillful in hiring and retaining talent. We are dealing with an era of knowledge workers, who oftentimes are experts and know more about subjects than the leaders do. The environment needs the leaders to be collaborative and work with the employees to achieve common goal. Old are the days of command and control with a leader sitting in a pedestal.

**Universal Leadership Concepts in Asia**

Residing, working as a leadership & change consultant in Asia, witnessing the amount of foreign investment increasing despite the recent economic downturn in the region, it is only fitting to explore what works and what does not in the leadership arena in this geography. Asia is said to have a cultural context with values focused primarily on: power distance, paternalism, collectivism, and social relations.

The essence of working in Asia is based on collectivism approach of groups and teams, whereas a certain emotional and social distance is preserved in the vertical relationships between supervisors and subordinates, in order to maintain their power distance, based on authority and control and to ensure compliance and respect by subordinates (Linden, 2012; Lam et al, 2013; Min et al, 2012).

GLOBE (Hoppe, 2007) has done a worldwide study on contextualizing leadership effectiveness, with the premise that this stems from societal and organizational norms, values and beliefs embedded in its people. Hence, the GLOBE study has established 9 cultural dimensions to ascertain differences and similarities of those embedded traits and practices in societies, built upon Hofstede et al’s findings on cultural studies. They are: Power Distance, Uncertainty Avoidance, Humane Orientation, Collectivism I (Institutional), Collectivism II (In-Group), Assertiveness, Gender-Egalitarianism, Future Orientation and Performance Orientation.

The major differences distinguishing GLOBE’s 9 cultural dimensions from Hofstede’s 5 dimensions lie on the addition of Humane Orientation (collective rewards of individuals for kindness and care for others); the split of Collectivism into Institutional (the collective reward of distribution of resources and action) and Collectivism of the In-Group (the expression of individual pride, loyalty and cohesiveness of belonging of an in-group of organizations or families, or teams); having adapted a combination of Masculinity and Individualism behaviors into Assertiveness (individual assertiveness, being upfront and confrontational in relation to others); Gender Egalitarian (where the collective reduces gender inequality); and finally Performance Orientation (the collective encourages and rewards performance improvement and excellence). These 9 dimensions permitted GLOBE to put a total of 60 of the 62 countries studied into country-clusters as presented in Illustration 1 below.

Illustration 4: Source Adapted from Hoppe, 2007, in House’s 2004 Research.

For the purpose of this segment of the paper, we will be paying special attention to the Southeast Asian and the Confucian clusters.

Illustration 4 below confirms the Confucian and the South East Asian clusters of Asian context of power distance, paternalism, collectivism, and social relations shown by the red circle around the different GLOBE cultural dimensions. The Asian double-cluster idea of effective leadership is one where the leader is charismatic-performance oriented, team-oriented, less participative, more humane, autonomous and protective of self and/or the group.
The Chinese leadership traits comprising of a paternalistic role of a father, of caretaker, is benevolent towards their subordinates and authoritative to exercise control and power, as depicted by GLOBE’s, 2004 research by House et al, described (Hoppe, 2007) – Illustration 5. Many of the leadership literature when depicting ‘Asian traits’ have put more emphasis on the countries of China, Hong Kong, Taiwan, Japan, and S. Korea and from the past decade with India included, since China and India are focused as next economic powers of the World. If we were to zoom in more closely into the Confucian societies depicted by GLOBE’s study (Illustration 1) within the same country of China, there are different political and economical systems and therefore, different leadership traits combined, all happening under the different scenarios of multicultural dimensions. For example, the special economic zones of Macau and Hong Kong (the former under Portuguese colonial rule of 450 years and the latter under 100 years of British dominance) are much more westernized in education than PRC itself. Again, the independent territory of China, but internationally known and recognized as the Republic of Taiwan is also very different from these previously mentioned Chinese political and economic systems, as they are characterized as being more traditionally driven societies, prone to Confucius teachings. Again, Singapore for example, with a large influence of the British in the past, the country is composed of 75% of Chinese ethnic group and the remaining 25% mixed between Malays, Indians and other cultures; especially with a growing expatriate community in the country, with English being the only official language spoken by all parties, hence linking all international and ethnic communities, the Asian society and leadership in Singapore is more colorful than one can begin to read about, as there are ethnic cultures to respect, the Singaporean country culture as a norm that most ethnic groups would understand and the corporate cultures for employees to adapt to, representing a unique and extremely colorful experiences culminating in this small country.

Nevertheless, perhaps the most widely researched Asian leadership traits are those stemming from the Chinese culture due to China’s raising economic importance globally. With that, it is worth paying attention to what some authors found.

According to Sheh (2003) the Chinese leadership approach can be depicted into 4 strands:

1. The Humanistic strand (Confucius, Mencius)
2. The Legalistic strand (Han Fei Zi)
The Legalistic strand is about ruling by fear, as it is believed that men are born evil, so strict rules and laws with the consequence of severe punishment are required, similar to the theory of Manger X Vs Y by Douglas McGregor, where the X Manager believes that people are inherently lazy and need to be systematically controlled to achieve their goals, whereas the Y Manager is more self-directed and self-reliant in attaining their goals, so leaders need to be more enabling than directive compared to X Manager. The Strategic strand focuses in the ‘art of war’ by using traditional war-combat strategies to manage people. The Naturalistic strand is the Taoist approach to leadership, as the successful leader is not necessarily the one that obtains all the credit, but one that is barely noticed, very nurturing, always present, the leader is one that is barely bothered by inner emotions. The Confucian leader is one that is compassionate and benevolent, and his/her aim is to be there for the followers because they matter, so protecting them is the leader’s core aim.

Between the Taoist (being present and nurturing) and the Confucian strands, similar Western models of the Servant Leadership, Situational Leadership and Transformational Leadership may be of resonance. In Servant Leadership the focus is on the followers and the leader shares the power with his/her main goal to serve the follower’s needs. Situational Leadership is Servant Leadership objectified with the focus of a situation/goal/task (Shin et al, 2011; Ramkissoon). With Transformational Leadership the leader connects, inspires and motivates the followers by several mechanisms and one important one is to be their role model and to understand their strengths and weaknesses (Sheh, 2003; Henry; McGregor).

What we see in the corporate world in Asia today is rather a combination of the Western and Asian principles of leadership approaches, sometimes more heavily influenced by the cultural dimension intensity in one society than another. Much of the leadership and behavioral studies in organizations in China are demonstrated by leader-led behaviors, and less of a bottom up approach of studying followers led behaviors, whilst behaviors in leadership are mostly studied in the relationships between organizations and employees. For example, in China transformation leadership from the West would have a certain degree of acceptance because of the link between the Chinese leader’s emotional competence of using empathy or benevolence (in Confucius strand), as discussed by Chen et al (2004), he continued that transformational leadership coordinated best with organizations that were development-focused, whilst transactional leadership coordinated best with economic-oriented organizations. Yao & Jiang (2008) further explored and found that organizations that are more rule and goal based, the use of transactional leadership would bring about higher performance than through transformational leadership, whilst organizations driven by innovation and humanistic supportive culture, transformational leadership would be more effective. Transformational leadership also seemed to adapt well in environments of R&D focused of innovation, as group information sharing and transparency was enabled, whilst in the very collectivist society of Japan, where decision-making is based on consensus mostly, transformation leadership approach was an active-proponent of the culture (Lam et al, 2012).

Nevertheless, researchers that have studied Chinese leadership traits agree that they are one of a kind for its additional traits of paternalistic nature. Studies in the Chinese leadership concentrated in PR China have been split in 2 types. One focused more on corporate China due to its Foreign Direct Investment: since China’s economic development boom began over 30 years ago, many Western companies have built branches and subsidiaries in the country, creating a corporate China that is today a culture that is mingled with Western leadership aspects. On the other hand, we have the SME companies in China that have stayed traditionally managed (yet a fast growing sector in China): mostly inspired by the Taoist and Confucius strands of leadership, led by owners of first generation entrepreneurship with absolute authority and autonomy in decision making in most matters in the company, hence followers exert absolute obedience towards their leader in SMEs, no matter how experienced or how long they have been in the company or reporting to the same leader. The leader in a paternalistic environment is the father figure of the organization.

The paternalistic trait of leadership was also found in several other societies that have adopted the Confucius strand: Japan, South Korea, Malaysia together with the Chinese and the overseas Chinese
societies around Asia. Research has proven that it is a trait that is well accepted when benevolence and protection combined are provided by the leader to the follower, thus, the higher the power distance created, the greater the accepted of the paternalistic leadership style in that organization (Liu, 2013).

Furthermore, paternalistic leadership seems to be present to a general extent, across continents and not necessarily simply related to the Confucius strand of leadership behaviors merely concentrated in the Chinese dominated societies. In a literature review by Pallegrini et al (2008), paternalistic culture of leadership seems to be present also in parts of South America, in India and in societies that are less egalitarian, predominantly with higher power distance.

In their China research, Farh et al (2000) had proposed a framework of paternalistic leadership based on 3 key elements: authoritarianism, benevolence and morality. Liu (2013) has further explored organizational culture as a key paternalistic leadership antecedents, specified in the Chinese cultural context of PRC’s SMEs. Based on Quinn’s et al (1991) types of organizational culture (Group culture, Developmental culture, Hierarchical culture and Rational culture) and Cheng et al’s (2000) paternalistic leadership style framework, Liu’s study found that benevolence is an attribute of leaders representing malleability and adaptability towards any of the 4 organizational cultures. Morality is adopted purposefully to create stable structures and strict rules; all organizational cultures, except for development culture, had a positive impact with morality, however none were significantly impacted. Morality in China is perhaps dropping due to the competitive environment in the markets, and with the boom of SME expansion in the country, companies tended to become more goals and productivity oriented than humanistic virtues and morality, to face past years’ economic crisis. On the other hand, authoritarianism has negatively impacted group and hierarchical organizational cultures, presumably because of the immigration of the different leadership and management concepts, whilst the SMEs’ performance and productivity measures have become more refined and resources have turned more decentralized. The authoritarian leadership style is, hence, being more and more rejected by organizations with strict rules and stable structures, also discussed in Farh et al (2000), who also argued that the 3 types of paternalistic leadership can be regarded as separate leadership styles all together as the benevolent style cannot coexist with the authoritarian style, whilst the authoritarian was highly correlated with the moral style. They further suggested that all 3 styles cannot co-exist in a single leader but possible to co-exist in a group of leaders in the same organization. Lu’s conclusion is that the authoritarian style is non-adaptable to the 4 organizational cultures, when benevolent is a most wanted style, then authoritarian cannot co-exist, which is the case for all 4 cultures and moral style is welcomed for hierarchical cultures. On a more recent research, Min (2012) found that authoritative leadership style could co-exist with the other 2, of benevolence and moral styles, if and only if the subordinates have understood that the authoritative leader means to show good intentions, whereby then trust is built and willingness to be led by this leader is exhibited.

Reiterating, the research by GLOBE, it has demonstrated that transformational leadership traits are most desired across cultures, when especially leaders exhibit aptitude in their social skills. In addition, despite the living facts of globalization, societal cultural differences have not minimized, especially when Hofstede’s 5 cultural dimensions are still very present when multiple cultures in a group are working together illustrated by the below case study in M&A consulting. Notably, research has shown that effective Western leaders in one particular Asian cultural setting do not become automatically effective in another Asian cultural environment. Effectiveness is dependent on the leaders’ ability to integrate the understanding of cultural differences and apply the appropriate leadership styles, in conjunction (Reilly et al). Goleman (1998) has explored the connection between leadership and emotional intelligence (the ability to have self-awareness and the awareness of others’ emotions, the ability to self-regulate and to manage others’ emotions). Goleman studied organizational leadership capabilities and determined 3 types of skills: technical, cognitive and emotional, whilst the latter was shown to be twice as important than the former 2, because it showed the ability for leaders to work effectively with others and to lead change, which was a critical ability required in all echelons of the organization; whereas technical and cognitive skills were argued to be most important at the entry level echelons or at the beginning of a role.
Goleman’s previous research (1995, 1998) has emphasized the importance of linking emotional intelligence to effective leadership. Yet, effective leadership in the GLOBE study may show up very differently in culturally different societal clusters, for example: in South-Asian cluster (Malaysia, Philippines, Thailand, India, Indonesia and Iran) transformational-charismatic and team-orientation are seen as most effective leadership styles; in Latin-Europe, charismatic-values-based, team-oriented and participative leadership are effective; the Anglo-cluster (the highest income cluster) had essentially the same effective leadership characteristic-needs with the addition of the leader having to be inspirational, visionary and able to appeal to the followers’ values. Subramanian et al (2013) advises that human resources professionals should consider applying proper recruitment policies and training implemented for organizational leaders as the implications of their studies have shown that leader-behaviors substantially influenced subordinates behavioral-outcomes in daily organizational interactions in Malaysia. Studies have reported that the Western model of emotional intelligence with attributes of openness and participative leadership may not be effective on a one-to-one basis in Chinese companies for the fact that Chinese expect hierarchy with their leaders and as such it is normal for them to show authority on their own interest and on for the collective well-being. To conclude, research has recognized that different national and organizational cultures will require that leaders adapt their leadership styles according to the citizenship of that society’s beliefs, traits and organizational citizenship values and practices need to be understood and adapted too (Reilly et al). There is no one-size-fits-all leadership style (Blanchard, 1985).

**Action Plan**

The purpose of this action plan is to submit a sequential thought-process, engagement of change guideline and playbook strategies to implement a new leadership language (or model) to activate the leaders involved in changing the culture of the organization and to help them engage stakeholders that will be impacted. This action plan is suitable, but not limiting to, deploying and implementing social innovation culture in an organization through rethinking HR strategies via setting up a high potential system beginning with the purpose rather than with the need of it. This plan’s thought process is relevant for any consultant assisting or advising companies in shifting cultures in creating effective leadership succession for new business orientation, such as social innovation, and for attaining the leadership skills and behaviors needed to sustain that new organizational culture and business direction.

Once the organization has the intention to shift business directions to social innovation, it is important to achieve advocacy amongst those that will be impacted, including all stakeholders within and external to the company.

Changing the culture of the leadership practice and behaviors may begin with the internal talent and stakeholders that are strategic or/and directly dependant on the change at hand. In order to retain this talent, as opposed to losing it, we need to nourish it by building a high potential system (HPS) that is conducive to cultural change with three key elements: ability, aspiration and passion to perform. Much research and practical consultancy insights have shown that over 50% of the talent in the industry leaves their companies in a period of five years, hence, companies are reluctant to spend on HPS, since there are no financial guarantees of the development invested and such development can be quite expensive, whilst benefiting potentially the next companies the talent is moving to, if not directly the competitor.

Fundamentally, companies fail in their HPS initiatives for the following reasons, so far, per industry observations:

1. Companies today are on short term checks and balances of revenue and profit, hence, long term investments on talent coupled with the ‘no money back guarantee’ reality of HPS, find themselves in dichotomy of what and how much to invest on talent.

2. Human Resources may not be fully doing the business partnership alignment of talent development needs analysis with their business leaders, setting up a strategy towards supporting company’s long term grown through HPS, and has certainly not achieved the voice and autonomy to pursue a long term HPS regardless senior leadership’s disagreements. Most of all, the HR understanding beyond business needs,
and having the courage to vouch for purpose, by challenging CEO’s and visionaries of the companies to stay ahead of their games with a more social innovative thinking has not been part and parcel of the HR functions.

3. The process of identifying the high potential talents is a combination of a choice of best performers (not best leaders or best performers with leadership skills) often as individual contributors, and too much labeling, resulting in the rest of the employees being ignored and not nurtured. Labeling a group as high performing talents and putting them in the pedestal program, often, becomes a title for life in the same company.

**Thought-Process**

There are three foundational questions to ask the company when planning to design and set up a HPS:

1. **Purpose**
   - What is the purpose of the HPS? Some examples could be:
     a. Be more socially responsible market player?
     b. Growth, entering new markets?
     c. Innovation?
     d. R&D?
     e. Profitability?
     f. Diversification?
     g. Succession planning?
     h. Change/creating a new culture?
     i. Strengthening the leadership bench
     j. Revitalizing moral in the organizations, etc…

   This will determine the Why of creating a HPS. Answering to the purpose, gets the buy in of the people better because there is a cause for greater good, it is about building a dream and better version of the future – this drives behavior and decision making (we call it gut feel). When purpose is articulated without thinking first about the how and the what, the shared valued can also be identified and objectified thereafter with a subsequent vision, followed by the how and what. People in the organization will buy your idea when they believe what you believe.

2. **METHOD**
   - Will your HPS catch ‘game changers’? How? What is the company prepared to do?
     a. The mavericks?
     b. The entrepreneurs?
     c. The innovators?
     d. The problem solvers?
     e. People that have a passion for innovation, problem solving, making a difference and may have gone against the mainstream and leadership often enough!
     f. Examples: YouTube co-founders (Steve Chen, Chad Hurley, Jawed Karim); Spotify co-founder (Daniel Ek); Netflix co-founder (Reed Hasting); LinkedIn co-founder (Reid Hoffman); Zappos founder (Tony Hsieh); Uber founder (Travis Kalanick); Data scientist behind Bitly (Hilary Mason); Experience concept design (Starbucks coffee experience); New technology design to access internet (Isabelle Olsson); Facebook co-founder (Mark Zuckerberg); Amazon founder (Jeff Bezos); Birchbox co-founders (Hayley Barna and Katia Beauchamp), etc.

   Define different bulks of talents to achieve the purpose and per segments of the business, e.g. game changing talents and talents of other sorts identified.

   Make sure the rest of the employee population, who are very necessary to run the day-to-day business and keep the foundation of the company stable are not alienated by the labeling, nurturing and attention.

   - How will the company keep the talents during and after HPS? Does the HPS generate:

   With the purpose come the jobs anchored and necessary to achieve the purpose, and the development program to achieve those jobs.

   - What is the future? Is it just one future? Multiple futures?
     a. What are the knowns and unknowns?
     b. What are the knowns in the unknowns?
     c. What are the unknowns in the knowns?
     d. What are the unknowns in the unknowns?

   Define different bulks of talents to achieve the purpose and per segments of the business, e.g. game changing talents and talents of other sorts identified.

   Make sure the rest of the employee population, who are very necessary to run the day-to-day business and keep the foundation of the company stable are not alienated by the labeling, nurturing and attention.

   - How will the company keep the talents during and after HPS? Does the HPS generate:
a. Aspiration: Will the talents aspire to be future leaders of this purpose?
b. Ability: Will the talents be able to lead effectively?
c. Passion: Will the talents be engaged?

• What frameworks will the HPS are using as design and engagement tools with the talents?
  a. 7 CEO’s
  b. 9 Box Methodology
  c. Assignmentology (GE)
  d. 7 Signposts of Potential
  e. Whole View Approach to Talent
  f. Other:
     i. Equal opportunity without labeling and selecting high potential talents and within a period of time performance is examined?
     ii. Stretch goals
• What principles will the HPS be using to communicate with decision makers, talents and stakeholders?
  a. Deep empathy
  b. Co-creation
  c. Prototyping

Different people will appeal to different communication medium. The medium is important to ascertain critical mass for buy-in, in order to generate a movement for cultural change passion, adoption and advocacy of all impacted. How fast will the chosen media principle reach and convert resisters and indifferent to advocacy? Is the HPS serving the stakeholder as customers?

• Matrices of the HPS?
  a. 70% - 20% - 10% --- how activities will the HPS allocate these percentages to in order to contribute for effective skills and experience assimilation and application?
  b. Is the development program creating a memorable experience: How will the HPS creators/leaders know?
  c. Is the HPS a HR project or a co-creation project with the CEO and business leaders?

d. How is the HPS design to sustain continuous:
   i. Performance
   ii. Learning agility
   iii. Values

3. Need
• What does the HPS need to be successful on?

Definition of success questions:

a. Link the success required on the HPS to the outcome the company wants to achieve to with the talents.
b. What programs will HPS offer to make it a success?
   i. What are the talents passionate about? – Start with why are they in your company in the first place and interview them what would keep them to stay?
   ii. Interview the top leaders in the company and align the passions between them and the talents for the HPS.
   iii. NOTE: this is a very personal process; it takes time and effort in analysis! The idea is to link the WHY of the current leaders and the potential future leaders – a consultant may need to help redefine the WHY of the company, i.e. the vision of the company before HPS happens. A good reference in doing visioning work is: “Full Steam Ahead”, by Stoner and Blanchard Berrett-Koehler Publications, Inc., 2011.

c. Obtain sign off from top leaders
d. Obtain buy in from all parties, including talent groups and employees to create energy and engagement – this is the next segment of the Action Plan: Change Engagement.

• By how much will the organization and stakeholders involved achieve a multiplier result (monetary and non-monetary) of:
  a. X 5?
  b. X 10?
  c. X 20?
  d. X 30?

This will determine the direction, areas, size and scope of investments

Ultimately, the sequence of working these three questions is fixed; thus, it must begin with answer
the Why, rather than the and the How. By answering to the Purpose first, the leader is sharing his/her believe and inviting others to believe. People work with energy and passion when they believe in a cause for themselves, not because there are benefits. For example: Dr. Martin Luther King was not successful in his movement because he had a plan, but because he believed, and others chose to let him lead… he did not pay salaries for the population to follow the movement.

Change Engagement
The only constant today is change, yet as humans, we prefer stability, as Mark Twain says: “The only person who likes change is a baby with a wet diaper”. Times of stability for us to think and re-strategize the next big change, as we have just gone through the last one – unfreezing-changing-refreezing – is less and less possible, as the refreezing period is shrinking for every organization, since industries are arduously experiencing consolidation, mergers and acquisitions, change in regulations, whilst recruitment firms are sourcing and head-hunting talent with a track record in managing change and exponential learning agility. Organizations need to stay adaptive, develop strategies to manage change through quality and frequency of conversations in understanding its peoples’ needs so as to respond to them.

Organizational change is complicated because typically change is announced, expected and implemented throughout the entire organization at once. Consider a person learning a new technical skill after a few years of seniority, usually, the person would initially take his/her time to master the new skill and drop in performance, before he/she picks up in performance again, as there is a learning curve until the competence and commitment is mastered. The same performance drop happens when the entire organization is told to master that new skill, only this time is an accumulated performance drop, with no one to pick up the slack. Effective change leaders are aware of these consequences of mass number of people being asked to shift behaviors in a cultural change and can help minimize the amount of time to achieve outcomes by improving the company’s capacity to start, implement and sustain changes successfully.

Changes are necessary when there are gaps between actual and desired events. The following are a set of questions designed to understand if change is necessary in an organization:

1. Is the organization on track to achieve its vision?
2. Are organization’s initiatives delivering the desired outcomes?
3. Are outcomes delivered on time?
4. Are outcomes delivered on budget?
5. Is the organization maintaining high level of productivity and morale?
6. Are organization’s customers excited about the company?
7. Are the stakeholders of the organization energized, committed and passionate?

Most leaders in organizations claim that managing change is not their strength and research has shown that 70% of organizational change fails mostly due to ineffective leadership.

Leaders of change know the reasons behind the need for change and are convinced it is right, but they oftentimes neglect to focus on managing the journey, through involving the people – stakeholders.

Most leaders announce the change with a directing leadership style and let the employees to implement it with a delegating style – the leaders tell everyone what they want to have done and disappear, thereby derailing the change since inappropriate styles are being used.
Illustration 6: Extracted from Leading People through Change Model (Source: Ken Blanchard Companies)

In order for change leaders to go through the journey through expanding involvement and influence of the people impacted to gain buy-in as the center stage strategy to the six stages of concern (Illustration 6). These concerns are directly affecting the people and stakeholders in the organization impacted by the change. People in the organization, depending the rate of change per segment of the organization, may go through different stages of concern. These concerns are mostly sequential and predictable. The six stages of concern include: information, personal, implementation, impact, collaboration and refinement. Each matched with respective strategies and in a combination of focusing (directive) and inspiring (supportive) behaviors.

1. Information concern – people want the business case behind the change, do not sell them the benefits of the change, as people want to make their mind up about the good and bad of the change themselves. At this point, tell them everything the leadership team knows about the change – give facts – tell, do not sell! – Strategies: Select and Align the Leadership Team, Explain the Business Case for Change – Use Focused Behavior.

2. Personal concern – people are eager to find out to what extent they are being affected by the change, example, will they have a job? How is the change going to affect them personally? People are focused mostly on what they are going to lose, and unfortunately this is a stage of concern that most leaders try to avoid and not check in with their people. Whatever one resists, persists. – Strategies: Envision the Future, Experiment to Ensure Alignment – Use Focused and Inspiring Behaviors.

3. Implementation concern – when personal concern has been answered, people would want to find out about what next in getting the change accomplished and this means questions such as: what, when, how, where questions will come up. – Strategies: Experiment to Ensure, Enable and Encourage – Use Inspiring and Focused Behavior.

4. Impact concern – at this point, change is well underway and people and segments of the organization may be sharing some quick wins as a result of the change effort, and trying to continually advocating the change by showing the benefits and closing the gaps. – Strategies: Enable and Encourage, Execute and Endorse – Use Inspiring and Focused Behaviors.

5. Collaboration concern – change advocates will not question that else needs to be involved in order to accomplish cultural change and embeddedness. This is the time to multiply advocates and transform resisters into part of the supporting team. Strategies: Execute and Endorse, Embed and Extend – Use Inspiring Behaviors.

6. Refinement concern – at this point, change is part of the culture and leaders and advocates should be working on refining on the next upgrade of the change initiative. Strategies: Explore Possibilities, Select and Align the Leadership Team – Use Inspiring and Focused Behaviors

The critical success of a change initiative, especially culture change, to achieve a high performance organization relies on aligned values and coherence in:
a) Senior leaders must demonstrate commitment to the long-term process
b) Values need to be defined in behavioral terms
c) Accountability must exist for promised deliverables and valued behaviors must be demonstrated
d) It is paramount that all stakeholders are involved and buy-in to the cultural transformation
e) Change must happen at one bite at a time with learnings integrated into the process flow

Change is not easy and it takes time, gone are the days that leaders can instill change ‘my way or the high way’. In the 21st Century information economy, stakeholders are information workers that often are subject matter experts and know more than their leaders functionally, hence, they can easily choose not to follow a particular leader by simply not buying into the change and disengage or be complacent. If masses operate this manner the change will fail and the change leader as well. Having a compelling vision and direction, listening and cheering for the stakeholders and working on the journey of the change in partnership with everyone are the first steps in effective change management (Blanchard et al, 2010).

Leadership Language Implementation
As research supports, a new leadership and company direction to shift business focus to social innovation requires leadership. One of the tested leadership models, referred to above, applied in social enterprises, is Situational Leadership II model, by The Ken Blanchard Companies, and given its widespread diffusion across global companies and for its availability of resources to learn from, this paper will use this model as an implementation scenario. Zigarmi (2013) has come up with a Playbook of nine leadership language implementation and deployment strategies for any organization seeking to make Situational Leadership II an embedded leadership language in its culture after the leaders have gone through learning the model’s training. The nine strategies include:

- **Play 1 – Link the Situational Leadership II model to Business Outcomes**
  - Create a needs and outcomes analysis for deploying the model with strategies, change initiatives and investments to achieve a compelling line of sight so that the probability of leadership practicing what they learned from the model is high.
  - Generate an impact map with senior leadership to link to Situational Leadership II usage and outcomes of the organization, teams and individuals to track progress

- **Play 2 – Link Situational Leadership II to talent development**
  - To increase the value of the Situational Leadership II language in the organization it is necessary to link the company’s talent development initiatives such as competency model, performance management system, talent assessment and onboarding. This serves to remind the leaders how to set goals, diagnose development levels and match leadership styles in all round occasions when interacting with individuals.
  - It is important to connect the value of Situational Leadership II to the organizational values, vision and values – creating the believe and buy-in
  - Explore ways to implement Situational Leadership II language on performance planning and review process and conduct alignment conversations with team members.
  - Train human resources business partners to coach employees and leaders on Situational Leadership II and practical usage
  - Evaluate talent in their usage of leadership styles flexibility and effectiveness
  - Ask leaders and team members to report on the number of One on One conversations.
  - Include a module of Situational Leadership on all onboarding programs.

- **Play 3 – Ensure effective sponsorship at all levels**
  - Provide an executive overview of 3 hours on what the company employees will be learning or have learned (depending which comes first) on the model of Situational Leadership, give the executives a taste of the tools such as conversations starters, skills to be learned, planning tools and practice exercises examples.
  - Invite senior leadership to kick off the learning journey and set up a video message
or written letter in support of the development deployment.

- **Play 4** – Develop an internal Situational Leadership II marketing plan
  - Create an internal and marketing communication plan
  - Publicize that Situational Leadership II has been aligned with company goals and values (Play 1)
  - Share usage of the model in specific company situations: challenges and success stories in lunch and learn; encourage testimonial, endorsements and share early adoption results from the pilot
  - Share organizational vision of what successful implementation of Situational Leadership II looks like – (Play 6)
  - Create a fanfare campaign for adoption of the model
  - Develop brand awareness of the company adoption of Situational Leadership through print and multi-media collateral and communication platforms
  - Trigger reminders and messages to use Situational Leadership II users and supporters quotes to keep the model top of mind

- **Play 5** – Align and build out the leadership curriculum
  - Align Situational Leadership II with the company’s leadership development curriculum – what skills need to happen before and after Situational Leadership II implantation?
  - Development a learning path curriculum that includes appropriate and relevant content and measures geared to business outcomes.

- **Play 6** – Design a Situational Leadership II measurement strategy
  - When the goals are not measured, they may not be achieved! The more strategic
  - the measurements of the leader usage of Situational Leadership II model at workplace, the more serious the leaders will get in using the model on day to day basis and making learning stick with their direct reports – create accountability in all users.
  - Hard evidence needs to be demonstrated on how positive contributions to the business have been achieved as a result of shift in behaviors after the course.
  - Measure the frequency of One on One conversations
  - Through 180 degree assessment of the leader behaviors by measuring direct reports’ satisfaction ratings.
  - Compile Situational Leadership II impact study of success cases

- **Play 7** – Provide ongoing leadership style feedback
  - Leaders to proactively and periodically collect direct report feedback on their leadership styles and behaviors towards supporting their goals’ attainment.
  - Perform 180 assessment for direct report anonymous feedback on leadership style satisfaction
  - Perform 360 assessment for any employee coming in direct contact with the leader on their leadership styles and behaviors against company competencies and or values

- **Play 8** – Develop Situational Leadership II coaching capability
  - Provide Situational Leadership II coach training to leaders or commit to providing external coach Situational Leadership II coaching to support continuous learning
  - Set up peer or group coaching: set up coach clinics where leaders present and dress rehearse challenging conversations and receive peer or executive coaching
  - Provide sponsors and executive coaching

- **Play 9** – Keep Situational Leadership II top of mind
  - Keeping Situational Leadership II top of mind should not fully rely on leaders but it should
be a cohesive and comprehensive effort by the entire organization, yet a structure and strategy needs to be decided.

- Some ideas could include: reunions of the alumni and the faculty, issue Situational Leadership II awards, training program refreshers, podcasts, books, bi-weekly Situational Leadership II virtual meetings to share successes and to bring questions to the surface with live coaching on the situations.

Study Limitations and Further Research

- Given the limited timing, size and the scope of this study, this paper has not attempted to demonstrate practical usage of the three most studied leadership models in organizations with CSR or social entrepreneurial direction: Situational Leadership, Transformational Leadership and Servant leadership, not only to compare and contrast its distinct areas of application, but also to provide a practical action plan with concrete industry examples of how to embed them into the organizational cultures in order to impact social-business marriage and objectives.

- The proposed ‘Action Plan’ in this paper reflects mainly the practical approach in consulting for organizations in need of transformation, leadership development and talent engagement strategies to shift directions and vision towards being more socially innovative. A real practical example, on a future study, will be contemplated as part of a thesis proposal.

- The literature review on social innovation business, leadership models, leadership traits and talent engagement strategies are non-exhaustive. Next study will be geared to a specific country in Asia, with companies of different stages of development, presently applying two models and going through cultural transformation – from pure capital driven to social innovation capital driven to be tested. The aspect of Asian accepted leadership models will be compared and their susceptibility and applicability in socially innovative organizations.

Concluding Remarks

The current paper has given a comprehensive overview of three intermingled topics highly relevant to the success of any company considering to shift from normal business and explore market expansion through being a socially innovative organization. Aspects on leadership models, behaviors, traits liked to MNCs, NGOs and SMEs usage have been shared. The paper also discusses the trends of new career paths for talents and cautions organizations to stay relevant with an action plan in creating a high potential system (HPS), discusses the concerns and strategies in change management and gives practical steps to implementing Situational Leadership II language in an organization, in order to generate consistency in leadership behaviors to foster a socially innovative environment.

Finally, it is important to be aware that titling this paper ‘Rethinking Human Resourcing for Social Innovation in Business’ signifies that all organizational stakeholders must shift their mindset that strategic partnering between human resource professionals and business leaders must exist, as different groups need to work with common values and goals in order to generate a successful HPS stemming from purpose instead of needs of the organization. HPS is not the sole responsibility of HR departments, but rather the ownership of all business leaders, since its success will generate the bread and butter for the organization and social impact in a sustainable and long term manner.

The purpose of this paper was to offer a kick start process of ideation towards a sustainable go-to-market for organizations by thinking social impact with ROI in mind, via a HPS frame of thought, a change process and a leadership language playbook, that would support internal organizational stakeholders to collaborate towards the same aim, in order to capture buy-in and sustainable transformation. For success in the transformation from one business model to another, many elements in knowledge management must be considered, including: organizational leadership, learning and in a more complex way, culture – comparing and contrasting fits and misfits with the stakeholders dealt with in the tri-party arena of for profit, non-profit and government when it comes to social impact business direction.

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https://www.youtube.com/watch?v=uzZojKf_VuA
Indian consumers should be more responsive while purchasing FMCG products of those brands paying attention towards society and the environment at the maximum possible level. The consciousness level has amplified through better education and the improved influence of the social media in the society. FMCG sector has also now considered that, to a certain degree, the level of their association in CSR (Corporate Social Responsibilities) does have effect on buying behavior of the Consumer which is significant.

In the last few decades we have witnessed a marvelous enlargement on the activities of CSR in almost every sector of the business. These developments show that CSR proliferate as a main agenda across various sectors and thus prove that modern CSR following organizations understand the need to provide their business a more incorporative sense in order to ensure their presence and viability.

This paper examines the correlation of CSR on the buying behavior of consumers using the products of FMCG sectors and further analysis is done whether consumers think about CSR initiatives before finalizing any purchase decisions of the products from FMCG sector. The Carroll definition of CSR which contains economic, legal, ethical and philanthropic responsibilities of FMCG sector in NCR is taken into consideration. A total of 160 structured questions were distributed and used for analysis using IBM SPSS version 21. The results found have significant relationships between all of the variables used in the study.

**Keywords:** corporate social responsibilities, consumer behavior, FMCG Sector

**Introduction**

MNC have started firstly the name of term stakeholder from later half of the twentieth century. The definition of stakeholder states by the activities of MNC who are directly affected. After that corporate social responsibilities (CSR) term were used. In year 2010, Freeman had defined the aim and role of CSR is take responsibilities for all actions of the company and to have a positive inclination on its all stakeholders apart from employees, environment, consumers and communities. In year 2011, definition of CSR by the European Commission as all the responsibilities of enterprises for their total impacts on society as a whole. In year 1991, Wood had defined CSR as configurations of all organizations of business as principles of social relationship and responsibilities, social responsiveness programs, processes, policies etc. The outcome may be connected to the organization and society in more responsible way.

In year 2007, Altman confirmed that Companies that have not equipped themselves with CSR activities will often be left behind with the increasing competition and globalization. Due to increase in educational level of consumers they are more aware of corporate behavior which is more pro society. Western countries have done lot of research in the field of consumer behavior and purchasing decisions. In emerging economies like Indian, very little research on such subjects has been conducted. The image of corporation should enhance by the CSR activities of the FMCG companies.

### Fmcg Sector Companies And Their Csr Initiatives In India

<table>
<thead>
<tr>
<th>FMCG Companies</th>
<th>Medical Assistant</th>
<th>School Program</th>
<th>Vocational Training</th>
<th>Financial Help</th>
<th>Awareness</th>
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Research Scholar (CMS), Jamia Millia Islamia(Central University), md_aslam_khan@yahoo.com
The main task of the research study is to examine the Correlation study of CSR and Consumer behavior of FMCG sector in Delhi and NCR consumers. We are exploring whether consumers in NCR consider CSR issues of organization’s products and services. Apart from that, this study also finds to identify the awareness level of NCR consumers towards CSR. The results of this research will handful for organizations in accepting the priority for the CSR activities of the consumers concerned.

**Review of Literature**

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Research Conclusions</th>
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<tr>
<td>Mohr (2001)</td>
<td>Research results elaborated the theme CSR of corporation and consumers buying behavior. The results explored that the maximum of the respondents had been inclined for CSR programs. Small fraction of majority, really not thought behavior of their purchase based on CSR programs. 39% of the respondents were purchasing on CSR applied corporation products. Consumers care about firms CSR and do differently through their purchasing behavior based on CSR activities. Consumers showed positive attraction towards the products of the corporations who use CSR activities in the corporations.</td>
</tr>
<tr>
<td>Porter &amp; Kramer (2006)</td>
<td>In year 2006, both authors Porter and Kramer, introduced a practical framework that organization, can adapt CSR activities. Identified the impact on society to talk about and further suggested effective methods to do the necessary activities. They proposed that having idea of strategic CSR perspective become a source of remarkable social progress, expertise.</td>
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<tr>
<td>Smith (2003)</td>
<td>Smith in year 2003 reviewed the companies that are making implementation of social responsibilities in business and found that new and more companies are undertaking CSR initiatives for the welfare of the society.</td>
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<tr>
<td>Murray and Vogel (1997)</td>
<td>In his research findings more than eighty percent of the Fortune five hundred companies concentrate on activities of CSR, suggesting that CSR practices support companies economically for growth and development. Mostly organizations use CSR activities keeping consumers behavior in mind.</td>
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<tr>
<td>Bhattacharya and Sen (2004)</td>
<td>Authors found that activities based on CSR will provide consumers a thought of benefit and well being which is returned by consumers covered by companies following CSR in the market. In completing the realization of their economic responsibilities, corporations expected to work within the laws and regulations framed by the Government time to time.</td>
</tr>
<tr>
<td>Quelch and Jocz (2009)</td>
<td>Authors’ perspectives are supported by the Model used in their research that explains that customers use their knowledge to deal with corporations persuasive attempts. The customers their knowledge to process their attitudes towards a product or corporations.</td>
</tr>
<tr>
<td>Poja and Pallavi Sharma (2014)</td>
<td>CSR requires good management, support and vision at all level of Company. Organizations should integrate different marketing strategies for the innovation to build competitive advantages.CSR certainly has impact on profitability and relationship with the concerned.</td>
</tr>
<tr>
<td>Kim Krauwel (2010)</td>
<td>CSR labeling on products may provide information and can act as a source of an incentive to the activities of social and environmental impact on production and trade. In the last few years, CSR label on products has emerged tremendously. Due to CSR labels there is change in the consumer behavior.</td>
</tr>
<tr>
<td>Alev Selbes &amp; Samira Mohamed (2010)</td>
<td>Consumers of cosmetic industries found that CSR activities are important topics for the purchase the products. The consumers are more inclined towards CSR following brands. Consumers are like to be persuaded that the CSR activities are really meant to improve the environment the society. It may not be used only as marketing tools. Quality, ingredients and price are found to be the main purchasing factors by consumers in the market.</td>
</tr>
<tr>
<td>Mohammad Aslam Khan (2016)</td>
<td>Author found in his research that the CSR environmental activities have positive effect on brand equity in Delhi and NCR on the selected FMCG companies.</td>
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Connecting Consumer Behavior And CSR
This paper aims to find the relationship of buying behavior of consumer due to corporate CSR initiatives of FMCG sector. We are really concerned in investigating whether the decisions of purchases of the services or products of consumers of FMCG sector are totally based on initiatives of CSR or not. This paper seeks to categorize which types of CSR components based on Carroll CSR pyramid and have important relationship on buying behavior of the consumers.

It has suggested by the various research studies that there is a positive significant relationship between CSR activities and consumers buying attitude towards the products of FMCG Corporation. Their finding showed relationship of maximum extents between CSR activities and respondents responses of the consumer.

Sen and Bhattacharya collectively in year 2001 stated that responses of consumers regarding CSR activities of corporations showed that the CSR activities effect directly on the intentions of consumers to purchase products and services of the concerned corporations.

Theoretical Framework

Research Objectives

Main Purposes Of The Study
- To find out the extent to which consumers intent to purchase CSR product features.
- To explore whether consumers in Delhi and NCR are ready to pay a premium price for products based on CSR activities based organizations.
- To explore and study the extent, the current CSR practices being employed by FMCG sector.
- Level of awareness of consumers of Delhi and NCR about CSR of FMCG sector.
- To explore the correlation and effect of FMCG CSR initiatives on consumer buying decisions.

Research Hypotheses
- H1 (i): The opinions of consumers of FMCG sector realization of its economical responsibilities have significant effect on company brand trust.
- H1(ii): The opinions of consumers of FMCG sector realization of its legal responsibilities have significant effect on brand trust.
- H1(iii): The opinions of consumers of FMCG sector realization of its ethical responsibilities have significant effect on brand trust.
- H1(iv): The opinions of consumers of FMCG sector realization of its philanthropic responsibilities have significant effect on brand trust.
• H2 (i): The opinions of consumers of FMCG sector realization of its economic responsibilities have significant effect on brand satisfaction.
• H2 (ii): The opinions of consumers of FMCG sector realization of its legal responsibilities have significant effect on Brand satisfaction.
• H2 (iii): The opinions of consumers of FMCG sector realization of its ethical responsibilities have significant effect on brand satisfaction.
• H2 (iv): The opinions of consumers of FMCG sector realization of its philanthropic responsibilities have significant effect on brand satisfaction.
• H3: Brand trusts of Consumers of FMCG sector have significant effect on brand attachments.
• H4: Brand satisfactions of Consumers of FMCG sector have significant effect on brand attachments.
• H5: Brand trusts of Consumers of FMCG sector have significant effect on future purchase intentions.
• H6: Brand attachments of Consumers of FMCG sector have significant effect on current purchasing behaviors.
• H7: Brand attachments of Consumers of FMCG sector have significant effect on future purchase intentions.
• H8: The current purchase behaviors of FMCG sector consumers have significant effect on the future purchase behaviors.

Research Methodology
A structured questionnaire based on various research papers has been designed and based on descriptive research design. Our main objectives and aims are to identify the intensity of awareness and impact of FMCG sector CSR initiatives on their buying decisions in Delhi and NCR region customers. The questionnaire is of three major parts. First part is about the awareness of consumer towards corporate social responsibilities (CSR). In Second part, the questions are based on CSR pyramid of Carroll, having responsibilities of four types viz. economic, ethical, legal and philanthropic of the FMCG sector. Third part deals with questions based on Brand Attachment, Brand Satisfaction, Brand Trust, Behavior of Current and future purchasing of the consumers.

In the fourth part of questionnaire deals with demographic information like gender, age, monthly income level and education level of the respondents. Likert scale vary from number “1” for “strongly disagree” to “5” for “strongly agree” for the collection of the respondents responses.

The survey was conducted in Delhi & NCR; responses of 160 respondents were collected. We approached to respondents who are seems to be cognizant buyer and after that the convenience of non-probability type is used.

Research Results And Discussions
<table>
<thead>
<tr>
<th>Awareness of CSR Activities of Fmcg Sector (%)</th>
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<tr>
<td>YES</td>
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<tr>
<th>SOURCES OF CSR PROGRAM INFORMATION (%)</th>
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<tr>
<td>NEWSPAPERS &amp; MAGAZINE</td>
</tr>
<tr>
<td>NEWS CHANNELS</td>
</tr>
<tr>
<td>FRIENDS &amp; FAMILY</td>
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<tr>
<td>INTERNET</td>
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<tr>
<td>OTHERS</td>
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<table>
<thead>
<tr>
<th>DEMOGRAPHICS</th>
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<tr>
<td>GENDER</td>
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<tr>
<td>NUMBER OF RESPONDENTS</td>
</tr>
<tr>
<td>MALE</td>
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<tr>
<td>FEMALE</td>
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<tr>
<td>TOTAL</td>
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<table>
<thead>
<tr>
<th>AGE</th>
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<tbody>
<tr>
<td>18 to 25 years</td>
</tr>
<tr>
<td>26 to 35 years</td>
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<tr>
<td>36 to 45 years</td>
</tr>
<tr>
<td>46 to 55 years</td>
</tr>
<tr>
<td>56 years and above</td>
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<table>
<thead>
<tr>
<th>CURRENT LEVEL OF EDUCATION</th>
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</thead>
<tbody>
<tr>
<td>High school</td>
</tr>
<tr>
<td>Intermediate</td>
</tr>
<tr>
<td>Graduate</td>
</tr>
<tr>
<td>Post graduate</td>
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<td>Doctorate</td>
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<thead>
<tr>
<th>OCCUPATION</th>
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<tbody>
<tr>
<td>Option</td>
</tr>
<tr>
<td>-------------------------------</td>
</tr>
<tr>
<td>Student</td>
</tr>
<tr>
<td>Government sector</td>
</tr>
<tr>
<td>Private sector job</td>
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<tr>
<td>Self employed</td>
</tr>
<tr>
<td>Others</td>
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<tr>
<td><strong>ANNUAL INCOME</strong></td>
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<tr>
<td>Up to 2 lakh</td>
</tr>
<tr>
<td>2-4 lakh</td>
</tr>
<tr>
<td>4-6 lakh</td>
</tr>
<tr>
<td>6-8 lakh</td>
</tr>
<tr>
<td>8 lakh and above</td>
</tr>
<tr>
<td><strong>LOCATION</strong></td>
</tr>
<tr>
<td>Delhi</td>
</tr>
<tr>
<td>Noida</td>
</tr>
<tr>
<td>Faridabad</td>
</tr>
<tr>
<td>Gurgaon</td>
</tr>
<tr>
<td>Faridabad</td>
</tr>
<tr>
<td><strong>MARITAL STATUS</strong></td>
</tr>
<tr>
<td>Married</td>
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<tr>
<td>UN Married</td>
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### Reliability Analysis

<table>
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<tr>
<th>SNO</th>
<th>CONSTRUCT</th>
<th>CRONBACH’S ALPHA</th>
<th>NUMBER OF ITEMS</th>
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<tbody>
<tr>
<td>1</td>
<td>CSR</td>
<td>0.909</td>
<td>20</td>
</tr>
<tr>
<td>2</td>
<td>BRAND TRUST</td>
<td>0.786</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>BRAND SATISFACTION</td>
<td>0.797</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>BRAND ATTACHMENT</td>
<td>0.764</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>CURRENT PURCHASE BEHAVIOR</td>
<td>0.906</td>
<td>8</td>
</tr>
<tr>
<td>6</td>
<td>FUTURE PURCHASE BEHAVIOR</td>
<td>0.896</td>
<td>7</td>
</tr>
</tbody>
</table>

### Co-Relational Analysis

<table>
<thead>
<tr>
<th>Correlation Coefficient**</th>
<th>BRAND TRUST</th>
<th>BRAND SATISFACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECONOMIC RESPONSIBILITIES</td>
<td>0.642</td>
<td>0.611</td>
</tr>
<tr>
<td>LEGAL RESPONSIBILITIES</td>
<td>0.491</td>
<td>0.582</td>
</tr>
<tr>
<td>ETHICAL RESPONSIBILITIES</td>
<td>0.512</td>
<td>0.631</td>
</tr>
<tr>
<td>PHILANTHROPIC RESPONSIBILITIES</td>
<td>0.637</td>
<td>0.536</td>
</tr>
</tbody>
</table>

** Significant at 0.01 levels (2- tailed)

<table>
<thead>
<tr>
<th>Correlation Coefficient**</th>
<th>BRAND ATTACHMENT</th>
<th>CURRENT PURCHASE BEHAVIOR</th>
<th>FUTURE PURCHASE BEHAVIOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRAND TRUST</td>
<td>0.577</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>BRAND SATISFACTION</td>
<td>0.713</td>
<td>-</td>
<td>0.474</td>
</tr>
<tr>
<td>BRAND ATTACHMENT</td>
<td>1</td>
<td>0.655</td>
<td>0.615</td>
</tr>
<tr>
<td>CURRENT PURCHASE BEHAVIOR</td>
<td>0.655</td>
<td>1</td>
<td>0.788</td>
</tr>
</tbody>
</table>

** Significant at 0.01 levels (2- tailed)
Regression Analysis

<table>
<thead>
<tr>
<th>Sno</th>
<th>Hypothesis</th>
<th>Standardised Parameter Estimates(β)</th>
<th>Significance</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>H1(i): The opinions of consumers of FMCG sector realization of its economic responsibilities have significant effect on brand trusts.</td>
<td>0.642</td>
<td>0.000*</td>
<td>Supported</td>
</tr>
<tr>
<td>2</td>
<td>H1(ii): The opinions of consumers of FMCG sector realization of its legal responsibilities have significant effect on brand trusts.</td>
<td>0.491</td>
<td>0.0002*</td>
<td>Supported</td>
</tr>
<tr>
<td>3</td>
<td>H1(iii): The opinions of consumers of FMCG sector realization of its ethical responsibilities have significant effect on brand trusts.</td>
<td>0.512</td>
<td>0.000*</td>
<td>Supported</td>
</tr>
<tr>
<td>4</td>
<td>H1(iv): The opinions of consumers of FMCG sector realization of its philanthropic responsibilities have significant effect on brand trusts.</td>
<td>0.637</td>
<td>0.0001*</td>
<td>Supported</td>
</tr>
<tr>
<td>5</td>
<td>H2 (i): The opinions of consumers of FMCG sector realization of its economic responsibilities have significant effect on brand satisfactions.</td>
<td>0.611</td>
<td>0.000*</td>
<td>Supported</td>
</tr>
<tr>
<td>6</td>
<td>H2 (ii): The opinions of consumers of FMCG sector realization of its legal responsibilities have significant effect on brand satisfactions.</td>
<td>0.582</td>
<td>0.000*</td>
<td>Supported</td>
</tr>
<tr>
<td>7</td>
<td>H2 (iii): The opinions of consumers of FMCG sector realization of its ethical responsibilities have significant effect on brand satisfactions.</td>
<td>0.631</td>
<td>0.001*</td>
<td>Supported</td>
</tr>
<tr>
<td>8</td>
<td>H2(iv): The opinions of consumers of FMCG sector realization of its philanthropic responsibilities have significant effect on brand satisfactions.</td>
<td>0.536</td>
<td>0.002*</td>
<td>Supported</td>
</tr>
<tr>
<td>9</td>
<td>H3: Brand trusts of Consumers of FMCG sector have significant effect on brand attachments.</td>
<td>0.577</td>
<td>0.001*</td>
<td>Supported</td>
</tr>
<tr>
<td>10</td>
<td>H4: Brand satisfactions of Consumers of FMCG sector have significant effect on brand attachments.</td>
<td>0.713</td>
<td>0.001*</td>
<td>Supported</td>
</tr>
<tr>
<td>11</td>
<td>H5: Brand trusts of Consumers of FMCG sector have significant effect on future purchase intentions.</td>
<td>0.474</td>
<td>0.000*</td>
<td>Supported</td>
</tr>
<tr>
<td>12</td>
<td>H6: Brand attachments of Consumers of FMCG sector have significant effect on current purchasing behaviors.</td>
<td>0.655</td>
<td>0.001*</td>
<td>Supported</td>
</tr>
<tr>
<td>13</td>
<td>H7: Brand attachments of Consumer of FMCG sector have significant effect on future purchase intentions.</td>
<td>0.615</td>
<td>0.000*</td>
<td>Supported</td>
</tr>
<tr>
<td>14</td>
<td>H8: The current purchase behaviors of FMCG sector consumers have significant effect on the future purchase behaviors</td>
<td>0.788</td>
<td>0.000*</td>
<td>Supported</td>
</tr>
</tbody>
</table>
Conclusion
It is very much found that the impact on buying behavior by the CSR activities of the organizations. Managers of the concerned have upper edge to compete with the others. This is very much felt that the CSR communications must be more reachable to the apart from urban areas of the nation to calculate more impact of the concerned issues.

Scope For Future Research
This study may be useful in the area of brand management which helps to understand that CSR has an influence on consumer buying behavior and that in general has an impact on consumers’ attitude towards the brand. Therefore, the findings of this study could be valuable for future brand marketers and for decision of how to manage CSR activities. It would be interesting if this study could be extended to other possible FMCG. It could be interesting to do this study on purchase behavior in other areas of the country to generalize the concept.

Reference
Emotional Intelligence and Decision Making Effectiveness: An Empirical Study of Institutions of Higher Learning

*Mubashir Majid Baba **Mushtaq Ahmad Siddiqi

Emotional Intelligence (EI) and decision making has been a focal theme of researchers in the recent past. Emotional intelligence has been found having a profound impact on various organisational outcome variables including decision making, although there is a relative dearth of supporting research especially in the Indian context. In this backdrop the present paper made an attempt to investigate the association among emotional intelligence & decision making amongst academic leaders. The purpose of this study is to conduct an analysis to ascertain if there is empirical evidence to support the state that EI has a vital function in decision making in institutions of higher learning. This research paper emphasizes on understanding the EI and decision making of academic leaders. The study was conducted on a sample drawn from different Universities of North India. The study uses rating-report method where in respondents assessed their academic leader’s emotional intelligence and decision making effectiveness using two structured questionnaires.

Keywords: Emotional Intelligence; Decision Making; Academic Leaders, Higher Education

Introduction

In any organization, the outcome mainly, relies on human potential & proficiency to identify the right goals and select the best possible substitute to attain the same. The quality of organizational performance largely depends upon the quality of decisions taken by the leader. In organizations, the major responsibility of leaders is energetic and stirring where they motivate supporters and inspire their rational capability, enhance their capabilities and competencies enabling them to take right decisions and decide about appropriate ways and means to accomplish desired performance.

Environment is undergoing tremendous changes, and of these there are many changes which organizations/institutions cannot escape from and as such leaders have a main role to adapt these changes and overcome associated challenges. It is the quality of leadership that can make a difference during these challenging times. Among other things, emotions have a tremendous influence on leadership and quality of decisions which gives rise to emotional intelligence. Emotional Intelligence is all about teamwork, leadership, partnership and vision. The emotionally intelligent leaders help an organization/institution to excel consistently in all these areas. An organization/institution which has emotionally intelligent leaders has motivated, productive, efficient and devoted staff. EI is appropriate to each human dealing either in academics or industry. An organisation/institution where people are able to understand emotions effectively can work effectively together to achieve desired objectives.

It is likely that leaders who are high on EI are important to the success of organization; therefore the qualities of understanding the feelings of employees should be present in a leader, to mediate when trouble arises in the organisation and also the leader should be able to manage their own emotions. It is the leader who influences his/her subordinates viewpoint and behaviours towards achieving the desired goals. There are few studies that conclude with the results that managers and leaders who are able to use their knowledge and their feelings can use their feelings positively will have competitive advantage over others. Institutions are in need of strong leadership for most favourable efficiency and it is important to understand that leadership is considered the important part of decision making and overall management. In order to be effective, a leader should possess the key attribute known as decision making (Tatum, Eberlin & Kottraba, 2003). Many authors have found in their research studies that EI is associated with effective leadership as well as with decision making and organisational performance. Abraham (2006) and Jones & Abraham (2009) are of the opinion that a person having his/her commitment high uses his/her emotions positively that ultimately results in good decision making and also gives us a clear picture of how emotionally intelligent a person is.

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**Associate Professor, The Business School, University of Kashmir, email id: mailmushtaqkashmiruniversity.ac.in
Academic leaders of higher educational institutions should be able to identify their own emotions and they should also be able to know and understand the feelings of those around them. If an academic leader has to be succeeding, he/she should be able to pay attention to the interactions which they have with their subordinates as well as with others and they should also pay heed about the impact which they have as academic leaders on their counterparts. A leader should also not ignore the effect of others emotion on him/her. Leaders can take their decision in a best possible manner if they know the effect of emotions at workplace which ultimately will result in accomplishment of goals.

**Importance of emotional intelligence in educational institutions**

There is one area which an educational institution should not ignore if it has to gain competitive advantage over other educational institution that is emotional intelligence. Emotional intelligence at workplace, the emotional intelligence is related to how employees perform such as:

- Dealings between colleagues,
- Interactions between the Heads and its faculty members, students, stakeholders, etc.

Emotional intelligence constitutes vision, teamwork, leadership, and partnership. If a leader is emotionally intelligent, it will help an institution to consistently excel in every field.

Efficient, motivated, committed and productive staff can be found only there where we have leaders that are emotionally intelligent and the vision and mission of such an educational institution is aligned with such staff.

From student service to staff motivation, emotional intelligence is applicable in every educational institution. EI concept revolves around with: how people are assessed, development of relationships, how experiences are generated out of belief, as well as power struggles, judgment, resistance competition, leadership, vision, success, and many more. An educational institution in which emotionally intelligent people are found, that institution can work together to maximum effectiveness.

**Review of Literature**

The decision makers can make use of the skills of self management in order to achieve emotional control and a constant record and also at the same time earn trust from all constituents whether internal or external. The social awareness skill of emotional intelligence and empathy, organizational awareness and service orientation which are its main competencies are used to judge the effect of decisions and also what decisions are made (Goleman, 2001; Boyatzis et al., 2000). As decision making is a critical aspect to the task of managing that it is also known as the heart of management. Managers can effectively influence the achievement of goals by only one way which is decision making. Decision making is the ability to exactly understand and identify the emotional reactions of oneself as well as of others (Cary Cherniss and Michel Adler, 2000). Sumathy et.al (2015) carried out a study to evaluate the effect of emotional intelligence on Leadership and leaders decision making skills. The results revealed that there is a relationship between decision making and emotional intelligence levels. The study also revealed that emotional intelligence highly influences the decision making of transactional leader’s than the decision making of transformational leader’s. In decision making, the participation dimension is majorly influences decision making of the transformational leader’s and felt accountability influences decision making of the transactional leader’s. In case of both the leaders, decision making is found to be more influenced by the empathy dimension. Moghadam et.al (2011) studied the relationship between decision making styles (rational, spontaneous, intuitive, dependant and avoidant) and Emotional Intelligence (EI) of managers in oil industry of Iran. The results put forth a negative relationship between emotional intelligence and every avoidant and rational style of decision making and also revealed a positive relationship between emotional intelligence and intuitive style of decision making of managers, but the study didn’t find any meaningful relationship between dependant and spontaneous styles of decision making and emotional intelligence of the managers.

The previous studies have revealed that emotional intelligent is a very important aspect of effective leadership and it has a strong relationship with decision making as well as organizational
performance. An emotionally intelligent person, according to Abraham (2006) and Jones & Abraham (2009) is committed towards the organization and also makes use of positive emotions to improve the process of decision making.

Cox (2011) observed that a highly emotional person can visualize the improvements of organization and also decision making and with it infuse a sense of self confidence, trust enthusiasm and also improve their capacity to solve problems.

The effect that emotional intelligence has on the relationship among various styles of leadership, styles of decision making and also the performance of organizations was studies by Rehman, 2011, who revealed the relationship between styles of leadership and styles of decision making, and organizational performance is moderated by Emotional intelligence. A study by Abu Afshih (2011), to evaluate the association among emotional intelligence and various demographics and the effect of emotional intelligence and its dimensions on the ability of managers' to make effective decisions and also solve problems. Apart from that, the study also revealed that there is an association among EI and decision making effectiveness and also problem solving skills of managers.

Objectives of The Study
The overriding objective of the study is to examine the relationship between Emotional Intelligence (EI) and decision making of academic leaders which comprise of HOD's/Directors/Deans. The study also makes an attempt to:

1. study the relationship between various emotional intelligence dimensions with decision making of academic leaders,
2. study the impact of demographic factors on emotional intelligence among academic leaders, and
3. study the impact of demographic factors on decision making among academic leaders

Hypotheses
H0: There is no relationship between emotional intelligence and decision making among academic leaders
H1: There is relationship between emotional intelligence and decision making among academic leaders

Research Model

```
IDV
  - awareness
  - Empathy
  - motivation
  - Emotional stability
  - Managing relations
  - Integrity
  - development
  - Value orientation
  - Commitment

Intelligence

DV
  - making
```
Research Methodology
The data collected from Primary sources (Questionnaire) have been edited, categorized and thereafter summarized and arranged in a logical order. The collected data so arranged has been analyzed with the help of SPSS software. Hyde et.al (2002) scale for measuring Emotional Intelligence has been used and for decision making self developed questionnaire has been used comprising of 10 items that have been formed while reviewing different papers. Hyde et.al (2002) scale is a 34 item scale. The Hyde et.al (2002) Emotional Intelligence Test has been designed to measure ten facets of emotional intelligence. The ten facets of emotional intelligence given by Hyde et.al (2002) are:

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-awareness(SA)</td>
<td>6,12,18,29</td>
</tr>
<tr>
<td>Empathy(EY)</td>
<td>9,10,15,20,25</td>
</tr>
<tr>
<td>Self-motivation(SM)</td>
<td>2,4,7,8,31,34</td>
</tr>
<tr>
<td>Emotional stability(ES)</td>
<td>14,19,26,28</td>
</tr>
<tr>
<td>Managing relations(MR)</td>
<td>1,5,11,17</td>
</tr>
<tr>
<td>Integrity(IY)</td>
<td>16,27,32</td>
</tr>
<tr>
<td>Self development(SD)</td>
<td>30,33</td>
</tr>
<tr>
<td>Value orientation(VO)</td>
<td>21,22</td>
</tr>
<tr>
<td>Commitment(CT)</td>
<td>23,24</td>
</tr>
<tr>
<td>Altruistic behaviour(AB)</td>
<td>3,13</td>
</tr>
</tbody>
</table>

The decision making questionnaire comprises of 10 questions that measure the overall decision making effectiveness of the academic leaders. The items have been framed while reviewing different papers.

Sample
The present study was collected from different Universities of North India. The sample size taken for this study is 100 selected on the basis of random sampling. The sample for the study includes Professors, Associate Professors, Assistant Professors and other academic staff.

Data Analysis and Results
Descriptive Statistics
The Statistical Package for the Social Science (SPSS) VERSION 16.0 was used to analyze the data. The Gender, Marital status, Age, Qualification, Designation and Experience, giving an overview of the research sample is presented as follows:

Out of 100 respondents, 54 are male respondents (54%) and 46 are female respondents (46%). As shown in the table 1, age group 25-35 was the largest group representing 54% of the respondents, followed by 25% of respondents who belonged to the age group 35-45 years. On the other hand, the smallest number of respondents (21%) fell in the age group 45 & above. The demographic factor marital status showed an overall of 69% were married and 31% were unmarried. As far as the education is concerned an overall of 22% respondents were post graduates, 12% M.phil holders and the majority of the respondents were Ph.D. holders (66%). while the rest were undergraduates (6.6%), post-graduate (24.2%) and diploma holders (1%). As far as the designation was concerned 6% were professors, 10% belonged to Associate professors category, 62% belonged to Assistant professors category and the rest 22% belonged to other academic staff category. Regarding experience, 66% respondents were having less than 10 years experience, 21% respondents belonged to the group 10-20 years while the remaining 13% were having experience falling in the group 20 years and above.

Table 1

<table>
<thead>
<tr>
<th>Demographic Variable</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Particulars</td>
</tr>
<tr>
<td>Gender</td>
<td>Male</td>
</tr>
<tr>
<td></td>
<td>Female</td>
</tr>
<tr>
<td>Age</td>
<td>25-35 years</td>
</tr>
<tr>
<td></td>
<td>35-45 years</td>
</tr>
<tr>
<td></td>
<td>45 &amp; above</td>
</tr>
<tr>
<td>Marital Status</td>
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<tr>
<td></td>
<td>Single</td>
</tr>
<tr>
<td>Qualification</td>
<td>P.G.</td>
</tr>
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<td></td>
<td>M.Phil.</td>
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<td></td>
<td>Ph.D.</td>
</tr>
<tr>
<td>Designation</td>
<td>Professor</td>
</tr>
<tr>
<td></td>
<td>Associate professor</td>
</tr>
<tr>
<td></td>
<td>Assistant professor</td>
</tr>
<tr>
<td></td>
<td>Any other</td>
</tr>
<tr>
<td>Experience</td>
<td>Less than 10 years</td>
</tr>
<tr>
<td></td>
<td>10-20 years</td>
</tr>
<tr>
<td></td>
<td>20 years and above</td>
</tr>
</tbody>
</table>
Co-relations of Emotional intelligence with Decision making

First the co-relation between Emotional intelligence and decision making was calculated. The correlation between Emotional Intelligence (EI) and Decision making was found to be positive ($r = .871$) and the correlation was found to be significant at 0.01 level (Table 2). Hence alternate Hypotheses 1 is proved.

Then at different occasions, each dimension of Emotional intelligence was selected and compared with the dependent variable decision making effectiveness using SPSS Software. The co-relation was calculated between the dimensions of Emotional Intelligence Scale with the decision making effectiveness. Pearson co-efficient value gave clear picture about the relationship between Emotional Intelligence and decision making.

### Table 2- EI & DM

<table>
<thead>
<tr>
<th>Dimension</th>
<th>EIMean</th>
<th>DMMean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional intelligence</td>
<td>Pearson Correlation</td>
<td>$1$</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>$.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>100</td>
</tr>
<tr>
<td>Decision making</td>
<td>Pearson Correlation</td>
<td>$.871**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>$.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>100</td>
</tr>
</tbody>
</table>

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

### Table 3-MR & DM

<table>
<thead>
<tr>
<th>Dimension</th>
<th>MR Mean</th>
<th>DM Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td>$.675**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>$.000</td>
</tr>
<tr>
<td>N</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

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

### Table 4- SM & DM

<table>
<thead>
<tr>
<th>Dimension</th>
<th>SM Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>100</td>
</tr>
</tbody>
</table>

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

### Table 5- AB & DM

<table>
<thead>
<tr>
<th>Dimension</th>
<th>AB Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>100</td>
</tr>
</tbody>
</table>

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

### Table 6-SA & DM

<table>
<thead>
<tr>
<th>Dimension</th>
<th>SA Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>100</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).
Table 7- EY & DM

<table>
<thead>
<tr>
<th></th>
<th>EY Mean</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EY Mean</td>
<td>Pearson Correlation</td>
<td>1</td>
<td>.785**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>100</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.785**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>100</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

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

Table 8- ES & DM

<table>
<thead>
<tr>
<th></th>
<th>ES Mean</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td>.810**</td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>100</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.810**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>100</td>
<td>100</td>
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</tr>
</tbody>
</table>

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

Table 9- IY & DM

<table>
<thead>
<tr>
<th></th>
<th>IY Mean</th>
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</tr>
</thead>
<tbody>
<tr>
<td>IY Mean</td>
<td>Pearson Correlation</td>
<td>1</td>
<td>.723**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>100</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.723**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>100</td>
<td>100</td>
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</tr>
</tbody>
</table>

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

Table 10-VO & DM

<table>
<thead>
<tr>
<th></th>
<th>Omen</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Omen</td>
<td>Pearson Correlation</td>
<td>1</td>
<td>.643**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>100</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.643**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>100</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

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

Table 11-CT & DM

<table>
<thead>
<tr>
<th></th>
<th>CT Mean</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CT Mean</td>
<td>Pearson Correlation</td>
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<td>.643**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>100</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.643**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>100</td>
<td>100</td>
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</tr>
</tbody>
</table>

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

Table 12-SD & DM

<table>
<thead>
<tr>
<th></th>
<th>SD Mean</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SD Mean</td>
<td>Pearson Correlation</td>
<td>1</td>
<td>.743**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
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</tr>
<tr>
<td>N</td>
<td>100</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.743**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>100</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

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

Table 13-Regression between EI and DM

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.871a</td>
<td>.759</td>
<td>.756</td>
<td>.40425</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Eimear

The table 13 below shows that Emotional Intelligence explains 75.6% variance in decision making with the correlation of .871 From the result; it becomes clear how much decision making of academic leaders depends on their emotional intelligence.

Calculation of the impact of demographic factors on different factors under study

In order to compare means of different factors with demographic factors t-test and Anova was used. For gender and Marital status t-test was used and for other demographic factors like age, qualification, designation, and experience one way ANOVAa test was used.

The table 13 below shows that Emotional Intelligence explains 75.6% variance in decision making with the correlation of .871 From the result; it becomes clear how much decision making of academic leaders depends on their emotional intelligence.
Assuming equal variances in table 14, the p value in all the dimensions under study comes out to be more than .05. Thereby, indicating that the gender has no impact emotional intelligence and decision making.

<table>
<thead>
<tr>
<th>Table 14-Gender with EI &amp; DM</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Levene’s Test for Equality of Variances</strong></td>
</tr>
<tr>
<td>F</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>Emotional Intelligence</td>
</tr>
<tr>
<td>Decision making</td>
</tr>
</tbody>
</table>

Again in the table 15, assuming equal variances, the p value in all the dimensions under study comes out to be more than .05. Thereby, indicating that marital status has also no impact emotional intelligence and decision making.

<table>
<thead>
<tr>
<th>Table 15- Marital status with EI &amp; DM</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Levene’s Test for Equality of Variances</strong></td>
</tr>
<tr>
<td>F</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>Emotional Intelligence</td>
</tr>
<tr>
<td>Decision making</td>
</tr>
</tbody>
</table>

The (p) significance value for emotional intelligence and decision making with age (table 16) was found to be .124 for both the variables under study which is more than .05. Hence age does not have any significant impact on emotional intelligence and decision making.

<table>
<thead>
<tr>
<th>Table 16-Age with EI &amp; DM</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sum of Squares</strong></td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>Emotional Intelligence</td>
</tr>
<tr>
<td>Within Groups</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Decision making</td>
</tr>
<tr>
<td>Within Groups</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>
The (p) significance value for emotional intelligence and decision making with qualification (table 17) was found to be .470 and .235 for both the variables under study which is more than .05. Hence qualification does not have any significant impact on emotional intelligence and decision making.

<table>
<thead>
<tr>
<th>Table 17-Qualification with EI &amp; DM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sum of Squares</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>Emotional Intelligence</td>
</tr>
<tr>
<td>Within Groups</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Decision making</td>
</tr>
<tr>
<td>Within Groups</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

The (p) significance value for emotional intelligence and decision making with designation (table 18) was found to be .073 and .248 for both the variables under study which is more than .05. Hence designation also does not have any significant impact on emotional intelligence and decision making.

<table>
<thead>
<tr>
<th>Table 18-Designation with EI &amp; DM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sum of Squares</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>Emotional Intelligence</td>
</tr>
<tr>
<td>Within Groups</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Decision making</td>
</tr>
<tr>
<td>Within Groups</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

The (p) significance value for emotional intelligence with experience (table 19) was found to be .043 which means experience has a significant impact on emotional intelligence among academic leaders and for experience with decision making, the p value was .123 which means experience has insignificant impact on decision making.

<table>
<thead>
<tr>
<th>Table 19-Experience with EI &amp; DM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sum of Squares</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>Emotional Intelligence</td>
</tr>
<tr>
<td>Within Groups</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Decision making</td>
</tr>
<tr>
<td>Within Groups</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>
Conclusion and Suggestions

It is necessary to understand academic leader’s emotional intelligence and decision making, so as to make improvements in the institutions of higher learning. If focus is given on such factors, there are no doubt our educational institutions will have competitive advantage over the educational institutions of other countries? The findings indicated that there is a positive relationship between emotional intelligence and decision making among academic leaders. The study also revealed that demographic factors don’t have any impact on emotional intelligence and decision making. However, the (p) significance value for emotional intelligence with experience was found to be .043 which meant experience had a significant impact on emotional intelligence among academic leaders.

Academic leaders should improve their emotional intelligence which ultimately will improve their decision making. University authorities should conduct regular workshops on emotional intelligence so as to improve academic leaders EI and decision making.

Limitations of The Study:

1. Data was collected from Universities of North India. Sample from different Universities of India may be taken to further investigate the relationship between emotional intelligence and decision making.
2. The analysis also suffers from small sample size, which could be increased by collecting data from other Educational Institutes.
3. Data was collected only from the academic staff only to know their perception about their academic leader. Other staff can also be included to know their views about their academic leaders.
4. The information given by the respondents was related to their present HOD/Dean/Director, thereby ignoring the earlier HOD’s under whom they would have worked. This can be looked into in the future studies.

References

Does Sustainable ‘Economic Development Path’ Pair With ‘Climatic Mortification’: Testimony from BRIC and Other Developing Nations

Megha Jain

The environmental or economic policy does not yet recognise climate change as the key policy agendas in most of the developing countries. The available evidence shows that some of the most undesirable impacts of climate change will surface in developing countries, where people are most susceptible with low adaptation to impact the potential for progress in these countries. Global warming is acclaimed as one of the major threats. Ever increasing emissions indicate the immediate attention to act to shift from the current energy consumption path of economic development. EKC hypothesis proposes the “inverted-U” shaped association between per capita GDP and climate depletion. Several literatures have already put forth the positive linkage between the expanding economic activity and environment deterioration so far. But there is a gap of one amalgamated study in existing literature to establish the sustainable growth pairing with climate impact using the EKC graphical analysis and empirically by using OLS-GMM technique for BRIC and other developing nations. This study therefore examines the impact of economic development factors (Output, Energy usage, Direct Foreign Investment) on carbon emissions across BRIC economies and other developing nations, graphically using EKC hypotheses and empirically using GMM. Panel data over period 1991 to 2011 is used. The results validates that economic growth factors are elements of environmental quality in BRIC and developing economies. In addition, the robustness check through the graphical EKC trend doesn’t alter our main findings. The paper indicates the relevance of making climate change policies as mainstream goal for global governance through increased carbon spacing.

Key Words: Carbon Emissions, Climate, Economic Growth, Environment degradation

JEL Qualification: O14, O25, O44 and Q56

Introduction

In the last two decades, drastic climate depletion poses increasing threat for global warming which makes it debatable worldwide. Since the completion of 1st Assessment Report (AR) by Intergovernmental Panel on Climate Change (IPCC) in 1990 under the structure of United Nations Framework Convention on Climate Change (UNFCCC), climate has been the extensive public controversial issue. The Kyoto protocol (1997) had the key target of reducing harmful gases that leads to climate change. It is implemented in 2005 to attain the reductions of Greenhouse Gases (GHG) emissions to 5.2% lower than the 1990 level during the period 2008–2012. Carbon dioxide (CO2) is held responsible for 58.8% share of the total GHGs (The World Bank, 2011). Despite of the Kyoto protocol agreement by BRIC nations (Brazil, Russian Federation, India, and China) to contain emissions; the same increased in 2011 as: Brazil at 2%, Russia 5%, India 6% and China 29% of the world emissions (The World Bank, 2011). The economic status and infrastructure determines the vulnerability of climate change for energy consumption potential of a nation. The same has adverse impact on the ecological and socioeconomic systems. These systems are already saddled by pollutants, resource scarcities and other social unsustainable practices.

India position is crucial as it has been recognised as the world’s fastest polluter and key player to influence global climate change. India’s emissions are as follows (1990): Brazil’s 0.94%, the Russian Federation’s 3.80%, India’s 3.00% and China’s 11.00% of the world emissions. The same increased in 2011 as: Brazil at 2%, Russia 5%, India 6% and China 29% of the world emissions (The World Bank, 2011). The economic status and infrastructure determines the vulnerability of climate change for energy consumption potential of a nation. The same has adverse impact on the ecological and socioeconomic systems. These systems are already saddled by pollutants, resource scarcities and other social unsustainable practices.

Recent Paris climatic undertaking (2015) by developed and developing nations in an integrated apportionment of carbon spacing further supports the force of BRIC nations in the world economy than G6 coalition (Goldman Sachs, 2003). BRIC countries emissions are as follows (1990): Brazil’s 0.94%, the Russian Federation’s 3.80%, India’s 3.00% and China’s 11.00% of the world emissions. The same increased in 2011 as: Brazil at 2%, Russia 5%, India 6% and China 29% of the world emissions (The World Bank, 2011). The economic status and infrastructure determines the vulnerability of climate change for energy consumption potential of a nation. The same has adverse impact on the ecological and socioeconomic systems. These systems are already saddled by pollutants, resource scarcities and other social unsustainable practices.

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Indian economy in comparison to any other major economy, including China. This may unveil future deleterious environmental effects. The future surface temperature is projected to be in the range of 2.33°C to 4.78°C for India, with CO2 concentrations doubled (as per IPCC 2nd Assessment Report). Plans to set up new factories (under the campaign) promise to magnify the quantum of harmful gases intensity in time ahead. With upcoming power projects, new investment plans of roads and highways construction and recent placement of investor-friendly policy; makes it essential to think on the transition to a low carbon economy.

Fig-1 provides the carbon emissions of BRIC nations from 1991 till 2011.

Fig 1: Carbon emissions (metric tons per capita) for BRIC nations

![CO2 emissions (metric tons per capita) for BRIC nations](image)

Source: CO2 emissions (tons per capita) from World Development Indicators (WDI) from 1991 till 2011

Fig-1 represents the carbon emissions per capita for BRIC nations from 1991 to 2011. The increasing height of the bars verifies the escalating trend of carbon adverse impact for this group of nations in years to come. The potential is matchless for China and Russia followed by India and Brazil. It is often argued that over next 40 years, BRIC nations could be pertinent in the world economy in comparison to G6. They could constitute over half the size of G6. CO2 emissions remain the sizable contributor in the gross emissions which earlier is considered to be just the component resultant from combustion (IPCC, 2007).

Technological advancement along with expansion in economic activity, movement towards urban centers, and energy intensive consumption has all increased the propensity access to the energy in the developing countries (IPCC, 2014). The effects are larger due to growing man-made activities post urbanisation and industrialisation. In the current energy driven developing nations, the usage is primarily urged by coal, oil and natural gas based energy sources. Till date, despite of sufficient availability of solar based energy sources, approx. 85% of the energy requirements are met by fossil fuel (non-renewable energy sources) in India. It is due the fossil fuel based energy usage mostly that the carbon emissions have led to such a disastrous situation for nation like India. If energy usage matches with the predictions by energy research institutions like IEA and remaining others, the forecasts will be 40% higher as compared to the current usage with no change in the composition of energy mix in the business-as-usual (BAU) scenario. The current as usual supply of oil, energy intensity, the green growth resulting in ‘Climatic Mortification’ can prove to be a much bigger threat in the future.

Fig-2 (i and ii) lays down ‘energy use (kg of oil equivalent per capita) from 1991 to 2012 and ‘fossil fuel energy consumption (% of total) in 2012 for BRIC economies.
Fig-2: Energy use (kg of oil equivalent per capita) from 1991 to 2012 and Fossil fuel energy consumption (% of total) in 2012 for BRIC nations

Source: Author’s adaptation from WDI databank

Fig-2(i) represent the eminent rising movement in energy usage (per capita) for BRIC economies between 1991 & 2012. India witnesses 68.5% increment in the energy disposal in 2012 over 1991 (post industrialisation), followed by China and Brazil. Russia seems to lower its consumption from historical energy usage patterns. The overall trend seems to be positive in upcoming years. It is pertinent to note that Russia and China still locates 91% and 88% of their total energy requirements from ‘fossil fuel based energy sources, comparable to India and Brazil at 74% and 57% respectively [Fig-2(ii)]. The same broadens detrimental impact on climate.

The rest of the paper is organised as follows. Section 2 provides the brief literature review followed by objective of the current study. Section 3 examines the synthesis between economic development and carbon emissions using Kuznet Curve (EKC) hypothesis graphically. Section 4 analyses the impact of economic growth on climate through empirical OLS-GMM testing for BRIC and other developing nations. Last section concludes and highlights policy implications.

Literature Review
Most of the researchers have established an inverted U-shaped linkage either increasing or decreasing, among environmental depletion/ pollution and a rising per capita income level. Stern and Yandle (2004) have provided a summary and discussions of the empirical literature (Selden and Song, 1994; Ekins, 1997; the special issue of Ecological Economics, 1998; Stern, 1998; Ansuategi and Perrings, 2000; Cavlovic et al. 2000; Anderson and Cavendish, 2001; Antweiler et al. 2001; Bulte and Soest, 2001; Esty, 2001; Dasgupta et al. 2002; Harbaugh et al. 2002; Khanna, 2002; Lieb, 2002; Lindmark, 2002; Stern, 2002; Kelly, 2003; Millimet et al. 2003). Although the uniqueness of the association is still debatable for pollutants mix, over time period and country dataset. In their review of the Environment Kuznet Curve (EKC) literature, Stern (1998) and Dasgupta (2002) noted the importance of understanding technological progress which is directly linked to the climatic change. Andreoni and Levinson (2001) provided a theoretical explanation of the EKC, assuming economies of scale in pollution control.

As per study by Huang, Lee and Wu (2008), the economic development and GHG emissions in Economies in Transition reveals a hockey-stick curve (or called quasi-L-shape curve), that is the reason for generation of “hot air”, impacting the framework under Kyoto Protocol. Others such as Vadlamannati (et al Tamazian, 2009) advocated that other factors such as economic and financial development too diminishes the level of environmental mortification. Their analysis suggests financial liberalization and openness as the crucial factors instrumental to contain emissions. On the contrary, Managi & Shunsuke (et al 2006) argued that there are growing returns to pollution abatement. Environmental risks in the US, establishes empirically that the agricultural sector supports the presence of increasing returns since 1970. Additionally, it also evaluates the ‘pollution abatement’ productivity with explicit control on the level of technology as given. Further, Georgescu-Roegen (1971) and Daly (1977) argue that higher economic activities certainly will exercise increasing burden on production and consumption for expanding human wants, therefore resulting in more waste, excessive pollution and higher pressure on climatic natural resources in the ecosystem. Rothman (1998) asserted that consumption is the main source of to understand the climatic impact
and thus consumption based framework shall be used in order to estimate the adverse impacts rather than production based approach. From all the postulations, economic development determines the health of environmental performance to a significant extent. However, the empirical and graphical evidence on the reasons for bad environmental performance remains questionable (due to output, energy and direct foreign investment expansion for developing nations in general).

**Objective**

The main objective of this paper is to study the economic growth along with energy usage with respect to the increasing/decreasing effect on the environmental damage. Further to estimate the magnitude of the change in carbon emissions due to economic growth, panel data is used and the standard approach adopted in the framework of existing EKC literature. Although, before testing the above empirically, we have identified the relationship between economic growth and environmental impact graphically using EKC hypothesis.

**Graphical synthesis using EKC theory**

The relationship between economic growth and environmental safety remains the subject of nuance and investigation from decades. The established and often used methodology in this context is the Environmental/Carbon Kuznets Curve (EKC/CKC) postulation, which posits the inverse relationship between environmental quality and economic growth, and that the shape to be the inverted-U or bell-shaped curve meaning thereby that at the inception of economic development, the environmental quality will first deteriorate with economic growth. But after realizing the peak point (tipping point), the same may improve with successive economic growth. It is often mentioned that in the process, there are lessons for developing nations to unlearn from the developed nations to contain the economic oil based subsidies in order to capture the carbon emissions beyond the level of threshold. Holtz-Eakin and Selden (1995) may be the first group to analyse the EKC linkage of carbon dioxide empirically. Sun (1999) proposed the similar theory for energy usage that at the initial stages of industrial development, the energy intensity of any country will surge quickly, then after realizing the peak; the same tends to decline subsequently.

**Fig-3: Kuznet Curve for BRIC nations over the period 1966-2011**

![Graphs showing Kuznets Curve for BRIC nations over the period 1966-2011](source: Authors’ representation from WDI database on GDP and CO2 Emissions (Russia’s data is available only from 1992))
Fig-3 (i, ii, iii and iv) represent the Carbon/ Environment Kuznet curves for BRIC nations from 1966 to 2011. Following pertinent observations could surface out of the same:

1. All the four nations are still on the surging portion of EKC indicating that the economic growth for this group is complemented by climatic adversity, resulting from growing carbon spacing. The trend doesn’t seem to be favorable in near future.

2. Russia and China have higher positive intercept values, followed by India and Brazil. The same indicates the potential that economic development could have on climatic change.

3. China and India contain highest positive slope values with corresponding R2 values. The same denotes that these two nations possess the greater intensity and linkage between emissions and GDP per capita, making those carbon-prone economies.

4. The trend lines are positively sloping for all four, further emphasizing that ‘tipping point’ and finally the decreasing trend has a long way to go for this group of nations.

Fig-4 (i and ii) entail the EKC for developing nations (groups) – including South Asian Region (SAR) and East Asia and Pacific (excluding High Income Countries, HICs).

Source: Authors’ representation from WDI database on GDP and CO2 Emissions

The above EKCs for developing nations primarily denote that there is an upward positive association between CO2 emissions/ capita (in mt) and GDP/ capita (in constant USD). One of the noteworthy points is that East Asia and Pacific nations (excl HICs) have steep EKC in comparison to SAR. The same indicates that East Asian economies face bigger threat among developing nations for unfavorable climatic changes due to economic expansion.

The above apparent linkage is tested empirically using GMM methodology in the next section.

**Empirical Study**

Since the main objective of this paper is to examine the relation between economic development along with other growth indicators (such as energy consumption, direct foreign investment) whether tends to multiply the environmental damage or not, panel data is used as per existing literature from 1991 to 2011 for BRIC and other developing nations (including SAR, UAE, Vietnam, Philippines, Indonesia, Saudi Arabia, Thailand, Argentina and Cambodia). Data statistics are sourced from WDI, World Bank and EFI Heritage database.

Similar to Vadlamannati and Tamazian (2009), the current study has adopted the standard reduced form-modelling approach form. The specification of current empirical model as follows:

\[
\log(CO_2) = \alpha + \beta_1 (\log gdp/cap) + \beta_2 (FFEC) + \beta_3 (EUI) + \beta_4 (log FDI) + \beta_5 (FOI) + \beta_6 (VAI) + \beta_7 (SMVA) + \beta_8 (EI) + \beta_9 (CtryDumm) + \varepsilon
\]

where CO2 indicates CO2 emission per capita in country i at time t; gdppc GDP per capital in country i at time t; FFEC fossil fuel energy consumption (% of total) in country i at time t; EUI energy use (kg of oil equivalent per capita) in country I at time t; FDI direct foreign investment, net inflows (% of GDP) in country i at time t; FOI financial openness index in country i at time t; VAI Industry, value added (% of GDP) in country i at time t; SMVA stocks traded,
total value (current USD) in country i at time t; El energy imports, net (% of energy use) in country i at time t; Ctry Dumm structural break in database for country i at time t and \( \varepsilon \) is the random error term. These set of variables are corresponding the economic development with financial growth variables inclusion.

Analogically, the current paper tests whether inverted U-shaped envelop effect may be substantiated for BRIC and developing nations or not. The specification to cover this later aim is as follows:

\[
\log(CO_2_{it}) = \alpha + \beta_1 \log(gdp_{pc_{it}}) + \beta_2 (FFEC_{it}) + \beta_3 (EU_{it}) + \beta_4 \log(FDI_{it}) + \beta_5 (FOL_{it}) + \beta_6 (VAI_{it}) + \beta_7 (SMVA_{it}) + \beta_9 (EI_{it}) + \beta_{10} (CtryDumm_{it}) + \beta_{11} (GDP_{it}^2) + \varepsilon_{it} \quad (2)
\]

Where the definition of all the variables are the same as that of the first equation. Equation (2) carries GDP growth rate (annual %) squared values in country i at time t, \( GDP_{it}^2 \), to confirm whether U-shaped relationship between CO2 and economic growth exists or not.

Control variables presumed while testing the GMM two-step standard error, are gdppc, energy use and FDI.

Therefore, the rationale behind the selected variables is discussed below.

b. Financial Openness: Various studies have underlined the implication of stock markets, financial liberalisation as essential pillars of financial openness/ expansion. Hamilton (1995), Klassen and McLaughlin (1996) and Lanoie et al. (1998) found evidence that capital markets too indicate on the better climatic quality via better evaluation on the equity stock of these firms. This argument advocates that the better-developed financial capital markets are more likely to reap the benefit of better environmental quality as compared to those with poorly-developed capital markets (Dasgupta et al., 2001). At the same time, the importance of FDI impact in the environmental performance is considered by various literatures (Rock, 1996; Chua, 1999). However, the effect of FDI on environmental depletion remains highly contentious. Eskeland and Harrison (2003) use a panel data set on US outbound direct investment to four countries and find little support for the pollution haven hypothesis. Further, Liang (2006) instituted a negative correlation between FDI and air pollution, proposing that the overall effect of FDI may be beneficial to the environment.

c. Energy control variables: Rising carbon emissions worldwide confirm the need to act and to move away from the current energy trend. By just about any measure – oil supplies, energy security, CO2 or other emissions – such growth in energy demand threatens the sustainability of the sector. In the current infrastructural energy economy of the developing countries, end-use energy services are mainly energized – directly or indirectly – by oil, natural gas, and coal. This fossil fuel based energy sources are responsible for two third of the carbon emissions (one of the major contributor of greenhouse gases pollution). Therefore, the energy imports and energy usage are considered as the control variables in the current study.
Empirical Results
The testing results and estimates for equation on per capita carbon emissions for BRIC and other developing nations are presented in this section. Firstly, the results on CO2 emissions due to economic expansion along with energy control variables are discussed as per equation (model) 1. In the later part, the paper throws light on curvilinear relationship between economic growth and CO2 emissions for developing nations as per equation (model) 2.

The results in Table 1 (model 1) deals with economic development (along with financial openness and energy control variables) and per capita carbon emissions for the panel of BRIC and 13 other developing nations from 1991 to 2011. Additionally, the results of model 2 for curvilinear testing are also attached in Table-1 for the same set of countries.

The results as per Table-1 show that the economic development variables, GDP per capita, GDP growth rate has significant impact on per capita CO2 emissions. GDP per capita is significant @1% indicating further that for every 1% increase in GDP/ capita, carbon emissions are increasing by 17.5% in BRIC and other developing nations in the panel dataset of the study. Similarly, the results also indicate that the level of GDP (current USD) has significant impact on the existing carbon emission level in a country.

### Table-1

<table>
<thead>
<tr>
<th>Results of Per Capita Carbon Emissions equation function</th>
<th>BRIC and 13 developing nations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variables</td>
<td>Model-1</td>
</tr>
<tr>
<td>Constant, L1</td>
<td>0.2728966***</td>
</tr>
<tr>
<td>Economic Development Variables</td>
<td></td>
</tr>
<tr>
<td>lgdp per capita</td>
<td>(0.1750337)***</td>
</tr>
<tr>
<td>gdp2g</td>
<td>(-0.0003268)**</td>
</tr>
<tr>
<td>gdp(current USD)</td>
<td>(-0.0000126)***</td>
</tr>
<tr>
<td>VAI</td>
<td>0.001116</td>
</tr>
<tr>
<td>Financial Openness Variables</td>
<td></td>
</tr>
<tr>
<td>FOI</td>
<td>(-0.0574992)*</td>
</tr>
<tr>
<td>Logfdi</td>
<td>-0.0024583</td>
</tr>
<tr>
<td>Control Variables</td>
<td></td>
</tr>
</tbody>
</table>

Fossil-fuel energy consumption | 0.0110192 | 0.0110192 |

Ctry Dummy (Structural Breaks) | 0.0203909 | 0.0203909 |

Abond Analysis | No autocorrelation | p value 0.2315 |

Sargan Test | Acceptance | p chi2 1.0000 |

Total no. of observations | 279 | 279 |

Note –
1. Equations are run on Stata 13.
2. 13 other developing nations include Argentina, Cambodia, Indonesia, Malaysia, Nepal, Pakistan, Philippines, Saudi Arabia, South Africa, Srilanka, Thailand, UAE and Vietnam.
3. Dependent variable: log (per-capita CO2 emissions)
4. White heteroscedasticity-consistent standard errors are reported in parenthesis.
   a. *Significant at 1% confidence level.
   b. **Significant at 5% confidence level.
   c. ***Significant at 10% confidence level.
   d. Data sources are indicated in annex 1.

The linkage between financial openness and environmental adversity remains contentious. There are several studies that show FDI inflows lead to increase in environmental depletion (Cole and Elliot, 2005; Feridun, 2006). Current results show that increase in FDI inflows are associated with lower levels of per capita CO2 emissions. These findings are parallel to List and Co (2000), He (2002), Soysa and Neumayer (2004) and Liang and Guoyong (2006), who indicate that FDI expansion leads to decline in CO2 emissions. Same is the case with Financial Openness Index. For every 1% increase in financial transparency, the carbon emissions (CO2) see a decline @ 5.7% per capita.

Regarding the energy consumption control variables, the results signify that higher levels of fossil fuel energy consumption (as % of total requirements) escalate the per capital CO2 emissions. This is due to higher energy-intensive imports of Brazil, China
and India. The energy imports of Brazil, China and India surged during post 1990s.

The results for curvilinear effect between GDP growth rate and per capita CO2 emissions show that after controlling for other factors, the results confirm the existence of curvilinear relation- ship. The curvilinear results show that as economic growth rate is enhanced its negative influence on per capita CO2 emissions decreases (Model-2 in Table-1). These results support EKC postulation that pollution levels increase as the countries mature, but begin to decrease as rising incomes pass beyond a verge. Current results are similar to obtained in Kraft and Kraft (1978) and Grossman and Krueger (1992), who show an inverted-U shape relationship between pollution levels and income. Thus, as economies develop along with financial openness and development the energy-related efficiencies are improved, and this in turn reduces energy consumption levels and hence lower CO2 emissions (see models-2, Table-1). This suggests that there is a need to further improve the degree of financial openness and economic development in BRIC and other developing countries to achieve lower environmental mortification in terms of CO2 emissions. Also, country dummy variable to identify the impact of presence structural break on the panel found to be insignificant to impact the CO2 per capita emissions.

The Sargan and Abond test checks further support the robustness of the results. The significance values of both tests validate the acceptance of the hypotheses and hence representing the strength of the outcomes.

**Conclusion and Policy Implications**

While most empirical studies have focused on the effects of economic growth on environmental performance, the current paper also focused on the pictographic depiction of environment Kuznet curve for BRIC and other developing nations. Additionally, it inspects BRIC and other developing nations to demonstrate whether or not higher degrees of economic advancement lead to higher CO2 per capita emissions. Fossil fuel energy consumption is used as the control variables.

The paper shows that the economic expansion moves along with CO2 emissions per capita for the developing nations including BRIC economies. At the same time, the curvilinear empirical establishment does find its relevance for the panel considered over here. The EKC graphic denotes that these set of nations currently rest on the upward sloping portion, directing the positive relationship between the two. Further findings indicate that the financial openness is associated with decline in CO2 per capita emissions. In this sense, it is significant that the governance by command could enable facilitation by strong policy deployment in order to procure GHGs emission by adaptation to the latest technological advancement to promote the less-carbon intensive nation.

The overall results suggest crucial policy implications. New ancillary policies that are directed to financial openness to attract higher levels of R&D-related direct foreign investment can decrease the environment depletion. The findings of the present study supports the Copeland and Taylor (2004) postulation who claims that it would be unwise for countries to use trade protection as a means to improve their environment. Moreover, there is a need for a target which aids the local and national government(s) to frame climate change technological policies and regulations (like promotion of low-CO2 emission technologies improvements in traditional and hybridized internal combustion engines, fuel cell vehicles and electric vehicles or imposing fuel efficiency (or economy) standards).

The current study has its limitation of not capturing the effect of innovation and therefore, green economic growth. We further expect that other researchers will use current study’s results and methodology to get improved acumen into the economic-finance and environment nexus in other developing countries.

**Annexure 1: Data Sources**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO2 emissions</td>
<td>WDI, WB</td>
</tr>
<tr>
<td>Economic Development</td>
<td>WDI, WB</td>
</tr>
<tr>
<td>Financial Openness</td>
<td>Heritage Foundation</td>
</tr>
<tr>
<td>Energy Consumption</td>
<td>WDI, WB</td>
</tr>
</tbody>
</table>

**References**


Organizational Factors Effecting Attrition in Indian Information Technology (IT) Industry

*S K Sastry Akella **Arif A Waqif ***K.Venketeswara Rao

The Indian Information Technology (IT) industry has seen a very fast growth due to body shopping. With increased opportunities, employee job-hopping has increased. The employer has started treating employee like a commodity and employees became job hoppers. As business became more project oriented and time and money contracts are being replaced by delivery contracts, the employee continuity has become critical. The managements started looking at controlling attrition and looking for mechanisms for regaining employee commitment. However, the confusion remains whether employee loyalty can be expected in the present day IT worker if so whether the conventional concepts of organizational support and supervisor support have any relevance in today’s industry. We have tested two common perceptions of employee retention theories that Perceived Organizational Support (POS) and Perceived Supervisor Support (PSS) help in obtaining employee commitment to the organization. The data is collected through online survey form IT professional working in Hyderabad. The data is subjected to Exploratory Factor Analysis (EFA) using SPSS 20.0. We have found out that both POS and PSS have significant role to play. Employee loyalty increases with the employee’s liking for the organization and Job satisfaction. The supervisor can focus on reducing the stress and assign jobs that help professional growth to retain the employees. Both management and supervisor can play significant role in controlling attrition. This aspect can further be tested across the nation and comparisons made across sectors and firms.

Key Words: Attrition, Perceived Organizational support, Perceived Supervisor support, Job Satisfaction, Intention to quit, Stress

Introduction

Attrition is accepted as a fact of life in Indian Information Technology (IT) industry. Managements are attempting to control attrition with fat pay packets. Project managers are trying their best to retain the team until the completion of their projects. Employees have started thinking that job hoping is essential in IT industry for survival as well as growth. Information Technology is not yet a matured science and the poses new challenges every day to the IT workers. Employees are complaining about work stress and fatigue. Attrition is a complex phenomenon. Attrition may be due to internal organizational factors as well as external factors. The Organization as well as immediate supervisor has a significant role to play in controlling attrition. The Perceived Organizational Support (POS) and Perceived Supervisor Support (PSS) have enormous control on employee attrition. This study is an attempt to study the relation between POS, PSS and attrition. The study is based on an online survey. The participants represent employees of IT industry in Hyderabad belonging to various organizations. The organizational factors included in the study are job satisfaction, pay satisfaction, job attributes, supervisor support and intention to quit. We have conducted Exploratory Factor Analysis (EFA) and the findings are presented in this article.

Review of literature

Attrition is a challenge for Human Resource (HR) managers and two thirds of corporate spending is on people. (K Usha, 2013; Choi Sang Long, 2014; Tustin Nupur, 2010) The reasons for attrition are many. The working conditions, job satisfaction, pay, career growth, training and personal reasons are some of the factors identified as reasons for attrition. (Gupta Sangeeta, 2011; Priya 2011; Borman D Geoffrey 2008) The management’s failure to reduce the difference between the desired and the actual situation or breach of psychological contract between employee and employer is considered as one of the main reasons for employee attrition. (VNOUCKOVA Lucie, 2013; Agrawal Promila, 2011) The role of immediate supervisor is stressed in many studies. Regular counseling, sharing of information, feedback and trustworthiness of the manager are the factors that play a critical role in controlling attrition. (Sindhu Shikha, 2014; Ghosh Koustab, 2011) The immediate supervisor can control feelings of stress, job dissatisfaction and lack of commitment. (Firth Lucy, 2004)

Perceived Organizational Support (POS) is based on organizational theory of reciprocity. Employee reciprocates for the support employee receives in terms of organizational procedures, supervisor
support, job conditions and favorable rewards. The immediate supervisor’s support has significant effect on POS (Ahmad Ariffin Zainal, 2010; Miao rentao, 2002; Eisenberger Robert, 2001) Whether supervisor status is high or low, the Perceived Supervisor Support (PSS) is positively related to POS. (Eisenberger Robert, 2002) The employee and supervisor communication plays a positive role in building POS among employees. Employees distinguish between POS and supervisor support. (Moideenkutty Unnikammu, 2011; Wayne J sandy, 1997) Both PSS and POS have an inverse correlation with intention to quit. (Ipek Kalemci Tuzen, 2014) Even though job satisfaction and POS have strong correlation, they have to be treated separately. (Eisenberger Robert, 1997)

Work life balance is another important aspect discussed now. Employee motivation and job satisfaction depend on the manager’s social sensitivity. (Khatri Naresh, 2012) Intention to quit is influenced by work life balance. ( Zamora Francisco, 2012) Pay for performance has adverse effect on employee health. (Keith A Bender, 2014) In addition to organizational support, informal support from colleague and supervisor has significant effect on work life balance. (Tremblay Diane-Gabrielle, 2012)

Research Gap
Organizational commitment has become a big question mark in recent times in Indian IT industry. Attrition is attributed to the exponential growth of IT industry. It has been proved that attrition is not correlated with the industry growth or growth of the firm. The attrition is attributed to internal reasons but none of the firms is able to control attrition in spite of their best efforts. The reasons for attrition have to be studied further. (Akella Sastry, 2016)

As attrition is a complex phenomenon, here is an attempt to study two aspects that have a positive effect on organizational commitment. Breach of psychological contract is stated as one of the reasons for lack of organizational commitment. Perceived Organizational Support (POS) is an indicator of the same. (VNOUCKOVA Lucie, 2013; Agrawal Promila, 2011) Supervisor plays a major role in controlling attrition. Perceived Supervisor Support (PSS) is the indicator for the role of supervisor. (Firth Lucy, 2004) Out of many factors POS and PSS are considered in this study.

Objectives
- To establish that attrition can be controlled in Indian IT industry with organizational initiatives
- To verify whether organizational commitment has a relation with the organizational support
- To verify whether organizational commitment has relation with the supervisor support

Hypotheses
- H1 – The organizational commitment increases with increase in Perceived Organizational Support (POS)
- H1a – Pay satisfaction is positively related to POS
- H1b – Job satisfaction is positively related to POS
- H1c – Job characteristics are positively related to POS
- H2 – The organizational commitment increases with Perceived Supervisor Support (PSS)
- H2a – The operational support is positively related to PSS
- H2b – Job stress is positively related to PSS
- H2c – Job assignment that helps professional growth is positively related to PSS
- H3 – Intention to quit is not related to POS

Conceptual Model
We would like to measure the organizational commitment due to POS and PSS. POS is influenced by Pay as well as job itself (job challenge and Ease of doing job). Job satisfaction has strong correlation with POS. Like the employer and intention to quit are two indicators of organizational commitment. The PSS is influenced by the manager’s support in case of official and personal problems. Assigning the Job that helps career growth and reducing the job stress are under the control of the immediate supervisor. We have defined the model with factors under organizational control and under the immediate supervisor control and the model is presented below as in Diagram 1.
The variables in the model are described below:

**Pay Satisfaction** – Employee satisfaction with the Pay for the work

**Ease of Job** – Realistic expectation of the supervisor from the employee

**Job Challenge** – The job challenge of the tasks assigned

**Like Employer** – Employee likes the employer

**Job Satisfaction** – Employee’s satisfaction with the job

**Intention to Quit** – Likely hood of employee looking for employment in another company

**Supervisor Support O** – In case of technical problem manager’s support to employee

**Supervisor Support P** – In case of case of personal exigency manager’s support to employee

**Stress** – Frequency of stress during the week to the employee

**Job Growth** – The tasks assigned by the supervisor help the employee’s professional growth

**Research Methodology**

The model is tested by collecting primary data through online survey. The instrument is designed to collect the variables identified in the model above. The questions are framed based on instruments used in the earlier studies. The questions are designed to collect the data on five point likert scale. The demographic variables are collected to identify the gender, age and qualification. The survey is administrated on software professional working in Hyderabad. The survey is sent to around 1000 professionals and only 95 professional have responded to the survey. Out of 95 responses, only 72 responses are considered for the analysis. The other responses are ignored, as the data is insufficient. The respondents have at least five years of experience. About 90 per cent of respondents belong to 30 to 50 years of age group. Around 80 per cent of respondents belong to middle level management (Team leaders/Project managers/Senior managers) and represent bulk of the IT work force in India. The representation based on area of working is fair representation of the Indian IT industry. (52 per cent Application S/W, 18 per cent Customer support, 11 per cent ITES) The appraisers are around 72 per cent of the respondents. The valid responses are subjected to Exploratory Factor Analysis (EFA) using SPSS20.0. KMO Bartlett’s test is conducted to validate the suitability of the instrument and verify the adequacy of the sample size.

**Results and Discussion**

The data collected is subjected to the Exploratory Factor Analysis (EFA) and EFA has reduced the ten measures to two factors. After confirming that the sample is suitable and adequate for EFA using KMO, the extracted factors are labeled based on the set of variables grouped for each factor. The conceptual model presented in Diagram 1 is validated using SPSS20.0. KMO Bartlett’s test is conducted to validate the suitability of the instrument and verify the adequacy of the sample size.
The value obtained for Kaiser-Meyer-Olkin Measure of Sampling Adequacy is 0.852. It is recommended that the calculated value of KMO to be greater than 0.5. The KMO test has confirmed that the sample size is adequate for conducting EFA. We have 10 variables considered and the sample size is 72. The sample size is seven times the number of variables and within the range of five to ten as per the thumb rule followed. Thus, our sample size was adequate for conducting EFA based on KMO measure as well as popular thumb rule. The approximate value of Chi square obtained by conducting Bartlett’s Test of Sphericity was 225.09 (df=45, Sig. = .000) which is much higher than critical value of Chi square. (Chi square = 30.61, df 45, $\alpha = .95$) The test assured us that there is no linear relation among the variables and the survey instrument is suitable for EFA.

Exploratory Factor Analysis: The data is subjected to EFA using principal component analysis. The factors are extracted using Varimax Rotation. The factor selection is done using Eigen values. The Eigen values are given in Table 2 below:

<table>
<thead>
<tr>
<th>Component</th>
<th>Initial Eigenvalues</th>
<th>Extraction Sums of Squared Loadings</th>
<th>Rotation Sums of Squared Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Per cent of Variance</td>
<td>Cumulative Per cent</td>
<td>Total</td>
</tr>
<tr>
<td>3</td>
<td>.918</td>
<td>9.183</td>
<td>62.231</td>
</tr>
<tr>
<td>4</td>
<td>.867</td>
<td>8.672</td>
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<td>5</td>
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<td>6</td>
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<td>6.436</td>
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</tr>
<tr>
<td>10</td>
<td>.228</td>
<td>2.280</td>
<td>100.000</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.

Only two factors have Eigen value more than 1 and hence two factors can be considered for further analysis. The selection is supported by Scree plot. The Scree plot graph is flatter after two factors. The Scree plot i.e plot between Eigen value and factor number is given in Graph 1 below:
The Component Score Covariance matrix is calculated and it is an identity matrix. These two factors have no correlation and independent to one another. The Component Score covariance matrix is given below as Table 3.

### Table 3

**Component Score Covariance Matrix**

<table>
<thead>
<tr>
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<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.000</td>
<td>0.000</td>
</tr>
<tr>
<td>2</td>
<td>0.000</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

The communalities are given in Table 4 below. The lower value of communality indicates that the effect is low on the factors.

### Table 4

**Communalities**

<table>
<thead>
<tr>
<th></th>
<th>Initial</th>
<th>Extraction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pay Satisfaction</td>
<td>1.000</td>
<td>.564</td>
</tr>
<tr>
<td>Ease of Job</td>
<td>1.000</td>
<td>.342</td>
</tr>
<tr>
<td>Job for Growth</td>
<td>1.000</td>
<td>.595</td>
</tr>
<tr>
<td>Supervisor Support O</td>
<td>1.000</td>
<td>.319</td>
</tr>
<tr>
<td>Supervisor support P</td>
<td>1.000</td>
<td>.352</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>1.000</td>
<td>.788</td>
</tr>
<tr>
<td>Like Employer</td>
<td>1.000</td>
<td>.738</td>
</tr>
<tr>
<td>Intention to Quit</td>
<td>1.000</td>
<td>.644</td>
</tr>
<tr>
<td>Job Challenge</td>
<td>1.000</td>
<td>.452</td>
</tr>
<tr>
<td>Job Stress</td>
<td>1.000</td>
<td>.511</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

Four variables have communality less than 0.5. These four variables are discussed along with the associated factors. The two factors identified are labeled as Perceived Organizational Support (POS) and Perceived Supervisor Support (PSS) based on the variables attached. The Factor loadings along with their communality are given below as Table 5:

### Table 5

**Factor Loadings and Communalities**

<table>
<thead>
<tr>
<th>S. No</th>
<th>Factor</th>
<th>Factor Loading</th>
<th>Communalities</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>POS 35% of Variance</td>
<td>Pay Satisfaction</td>
<td>.746</td>
<td>.564</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Job Satisfaction</td>
<td>.855</td>
<td>.788</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ease of Job</td>
<td>.516</td>
<td>.342</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Like Employer</td>
<td>.799</td>
<td>.738</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Intention to Quit</td>
<td>-.788</td>
<td>.644</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Job Challenge</td>
<td>.655</td>
<td>.452</td>
</tr>
<tr>
<td>2</td>
<td>PSS 17.6% of variance</td>
<td>Job for Growth</td>
<td>.574</td>
<td>.595</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Supervisor Support O</td>
<td>.555</td>
<td>.319</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Supervisor support P</td>
<td>.589</td>
<td>.352</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Job Stress</td>
<td>-.706</td>
<td>.511</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 3 iterations.
The variables with factor loadings of more than 0.7 are very significant. The communality value of less than .5 indicates that its effect is slightly less than the other variables.

**Discussion:** We have identified two factors that account for more than 50 percent of employee commitment to the organization. The POS has six variables namely Job satisfaction, Like employer, Intention to quit, Pay satisfaction, Job challenge and Ease of job. The PSS has four variables namely Job Stress, Job growth, Supervisor support P and Supervisor support O. Both these factors are discussed below.

**Perceived Organizational Support (POS):** There are six variables under POS and account for around 39 percent of total variance in organizational commitment. Job satisfaction and Like employer have very high factor loading as well as communality. Higher communality means that both Job satisfaction and Like employer account for significant effect on other variables. Job satisfaction has very high positive relation with POS. Similarly Like employer has high communality and factor loading. Like the employer is also very significant and highly related with POS. Intention to quit is negatively correlated with POS and correlation is very high with POS. The Pay satisfaction has positive and moderate effect on other variables. Pay satisfaction has high positive relation with POS. The Job characteristics namely ease of job and Job challenges have low communality and have very low effect on other variables. Both the variables, ease of job and job challenge have positive relation with POS. The effect of Job characteristics on POS is not significant, even though job characteristics are related with POS. Employees’ organizational commitment is dependent on their Perception of Organizational Support (POS).

**Perceived Supervisor Support (PSS):** Perceived Supervisor Support accounts for 13.5 percent of variance. Job Stress has significant negative effect on PSS, Job stress reduces PSS and consequently reduces organizational commitment. The Job assignment by the supervisor that helps in career growth increases PSS and there by organizational commitment. Both Job stress and Job assignment for growth are controlled by the supervisor. However, supervisor support for official or personal problems have low communality. The effect of these two variables on organizational commitment is low.

The Model Diagram with Factor Loadings is given below as Diagram 2.

**Diagram 2**

**Model Diagram with Factor Loadings**

- **Hypotheses:** Based on the discussion above and the diagram the hypotheses formulated are verified and our findings are given below.

**Hypothesis 1 (H1):** Perceived Organization Support has around 39 percent effect on Organizational commitment. This clearly shows that POS increases organizational commitment and hence H1 is considered true.

**H1a:** The Pay satisfaction has a factor loading of more than .7 and communality more than .5. Pay satisfaction has a positive relation with POS. Hypothesis H1a is statistically true.

**H1b:** The job satisfaction and employee liking for the employer are the two variables measured for assessing job satisfaction. Both have very high loading factors and communality. The Job satisfaction is very significantly and positively related with POS. There is evidence that H1b is true.

**H1c:** The job characteristics measured have communality less than .5 and factor loadings less than 0.7. The job challenge and ease of the Job have shown relation with POS but the relation is
not statistically significant. There is no evidence that H1c is true.

H2: The Perceived Supervisor Support is having 13.5 percent effect on Organizational commitment. PSS has a positive and considerable influence on organizational commitment. We have evidence that H2 is true.

H2 a: We have collected Supervisor support in case of personal problems (Supervisor support P) and Supervisor support in official problems (Supervisor support O). Both have a low communality and low factor loadings. We have no statistical evidence that H2 a is true.

H2b: Job stress has communality more than .5 showing that stress plays significant role in PSS. The stress has a factor loading of -.706 showing that stress is highly and negatively related to PSS. High job stress decreases with PSS. The supervisor has to put efforts to decrease job stress to increase organizational commitment. H2b is not true and the relation is negative.

H2c: Another measure studied is whether the job assignment by supervisor helps in career growth. The Job growth is having communality more than 0.5 and hence effect is significant. The factor loading is .574 (> .5 and <.7) indicating a moderate effect on PSS. We do have evidence that H2c is true.

H3: Intention to quit has a communality .644 (> .5) and has significant influence on POS. The intention to quit has factor loading of -.788. The relation is very strong and negative. The increase in POS reduces intention to quit or reduction in intention to quit increases POS. There is a strong negative relation between POS and intention to quit. We conclude that H3 is not statistically true. The myth that the IT worker is not influenced by organization is not correct. Attrition can be controlled by increasing POS among employees.

Conclusion
Attrition in the Indian IT industry can be controlled and both management and supervisor can play key role in controlling attrition. Management can focus on initiatives to increase employee liking of the organization and job satisfaction thereby reduce intention to quit. Pay satisfaction helps but not significantly compared with other factors. The job characteristics may not have significant effect on employee commitment. The supervisor can also play significant role in reducing the attrition. Reducing the job stress and assigning job that help career growth ensure employee commitment to the organization. Supervisor support either in official or personal problems has not shown any significant effect on employee commitment.

Limitations: The study is based on survey method and results are based on self-reporting. The participants do not have adequate representation from female professionals.

Future Research: The current study is conducted in Hyderabad and participants belong to multiple organizations. Future research should focus on organization wise study and comparative study will throw more light on the control of attrition.

From this study, we can conclude that employee’s organizational commitment can be increased by the managements. The immediate supervisor can help the management in controlling attrition.

Acknowledgements
We sincerely thank Mr. Ravi Vurakaranam and Mr. Sriman for their support in conducting the survey. We thank the members of PMIPCC for participating in the survey and giving their valuable inputs.

References
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2. Ahmad Arriffin Zainal, Yekta Amini Zeinab (2010), Relationship between perceived organizational support, leadership behavior and job satisfaction: An empirical study in Iran, Intangible Capital 6(2), 162-184


Workforce Diversity and Employee Performance: An Empirical Study of Telecom Organizations

*Ursil Majid Makhdoomi **Fayaz Ahmad Nika

The changing nature of the workforce has become one of the major significant aspects as well as a challenge for organizations across the world. People from different races, genders, regions, cultures etc. are coming together to work on the same platform. The diversity in the workforce is increasing all over the world. The representation of minorities, women, people of different age groups etc. are increasing in organizations, thus changing the workforce makeup of the organizations. Diversity has been defined in various ways with different authors defining diversity by linking it to different dimensions. It has been defined in terms of age, race, ethnicity, national origin, gender, disability and religion (Wheeler, 1994). Thus diversity can be described as every feature in which people differ in one or the other way (Hayles, 1996). Organizations nowadays not only have a diverse employee base but also have to face a diverse consumer base.

The ongoing increase in the employee diversity has resulted in the increased interest of scholars towards this field. The main aim of this research is to study the influence of diversity dimensions on the employee performance in the organizations. The study was performed on various telecom organizations in Delhi/NCR. And the results of the study revealed that employee performance is unrelated to employee diversity.

Keywords: workforce diversity, age, gender, employee performance

1.0 Introduction

The diversity in the workforce is increasing all over the world. The representation of minorities, women, people of different age groups etc. are increasing in organizations, thus changing the workforce makeup of the organizations. Diversity has been defined in various ways with different authors defining diversity by linking it to different dimensions. It has been defined in terms of gender, disability, age, race, ethnicity, religion and national origin (Wheeler, 1994). Some extended definitions also include marital status, lifestyle, personality, sexual orientation, language, values, education, beliefs, tenure, economic status and geographical origin (Caudron, 1992; Carr, 1993; Triandis, 1994; Thomas, 1992). Thus diversity can be stated as all the characteristics in which individuals differ in one or the other way (Hayles, 1996). Organizations nowadays not only have a diverse employee base but also have to face a diverse consumer base.

Workforce diversity is about the differences as well as about the similarities among the workforce (Thomas, 1992). Workforce diversity is the variety of demographic characteristics that constitute a company’s workforce particularly in terms of age, gender, colour, origin, race, culture, disability (Dessler, 2011). It comprises of the reality, invisible or invisible, in which people differ (Shen et al., 2009). It is a heterogeneous group of people (Cascio, 1998), who accept, understand, respect and realize each other’s differences (Wambui et al., 2013). It constitutes of the different people that are from different backgrounds that come together on the same platform to work towards a common goal. There are many different dimensions which distinguish one person from another which can be based on culture, religion, age or gender etc. And when these different individuals co-exist in organizations and form the employee base it is termed as workforce diversity. Diversity can bring many benefits that can enrich our lives in different ways (Parvis, 2003).

1.1 Dimensions of Diversity

Many scholars have described different dimension of diversity. Some have divided these dimensions into two categories primary and secondary dimensions and some have divided into three categories primary, secondary and tertiary dimensions. Primary dimensions being the ins born dimensions which are not in control of the person and cannot be altered (Griggs, 1995). Secondary are those which can be changed like religion, marital status, level of education etc (Coats, Goodwin and Bangs 2000). Loden & Rosener (1991) has divided dimensions into two categories which include primary dimension (gender, ethnicity etc.) and secondary dimensions.

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There are three categories of dimensions, Primary, secondary and tertiary dimensions (Rijamampianina and Carmichael, 2005). The primary dimensions include age, disability, ethnicity, race and gender. The secondary dimensions consist of culture, sexual orientation, thinking style, religion, lifestyle, economic status, education, nationality, geographic origin, political orientation, language, family status and work experience. The tertiary dimensions include assumptions, beliefs, feelings, values, group norms, attitudes, and perceptions which are the nucleus of an individual's identity.

### Dimensions Of Diversity

<table>
<thead>
<tr>
<th>Primary Dimensions</th>
<th>Secondary Dimensions</th>
<th>Tertiary Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race</td>
<td>Religion</td>
<td>Beliefs</td>
</tr>
<tr>
<td>Age</td>
<td>Lifestyle</td>
<td>Group norms</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>Education</td>
<td>Assumptions</td>
</tr>
<tr>
<td>Disability</td>
<td>Economic status</td>
<td>Values</td>
</tr>
<tr>
<td>Gender</td>
<td>Culture</td>
<td>Perceptions</td>
</tr>
<tr>
<td></td>
<td>Sexual orientation</td>
<td>Feelings</td>
</tr>
<tr>
<td></td>
<td>Political orientation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Family status</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Thinking style</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Geographic origin</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Work experience</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Language</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nationality</td>
<td></td>
</tr>
</tbody>
</table>


### 2.0 Literature Review

Organizations these days have a wide composition of diverse employees. This employee diversity can affect many aspects of the organization. Such differences among employees can make it difficult for organizations to function effectively. And thus they need to manage this diversity among employees to get effective outcomes.

#### 2.1 Workforce Diversity and Employee Performance

Workforce diversity can have a major effect on the employee performance as well as the overall performance of the organizations. Different scholars have noted that different dimensions of diversity have different effects in the organizations (Pelled, 1996; Pelled et al., 1999). According to Barney, 1991 the resource view of the organizations demonstrates a positive relationship among diversity and employee performance while as the social identity theory by Tajfel, 1978 puts forward a negative relationship among performance and workforce diversity. Different studies show that various dimensions of diversity can have varied effects on the performance of employees which can range from positive, negative or no effect at all. If considered individually certain, some researches reveal that there is a positive effect of age diversity on performance of employees (Arvey & Mussio, 1973; Auh & Menguc, 2006) while others show negative relationship (Walker, 1964; Timmerman, 2000) while some other studies reveal a significant relationship among age diversity and performance (Munjuri & Maina, 2013). Similarly in case of gender diversity some studies show no relationship (Ely, 2004), some show a positive effect (Herring, 2009) and some show a negative effect (Milliken and Martins, 1996). In case of racial and ethnic diversity similar contradicting results have been obtained where some show no relation between performance and ethnic diversity (Timmerman 2000) while some others report positive (Lefkowitz 1994) and some reveal a negative result (Baugh and Graen, 1997). Another important primary dimension of diversity which is diversity has not been adequately studied in terms diversity and of its effects on performance but more attention have been disabilities and discrimination.

Due to the continuous rise in the diversity of the personnel, there is an increased interest of scholars towards this area. This paper focuses on the effects of various dimension of the diversity on the performance of the organization. These dimensions include age, gender, ethnicity, language, education, experience, marital status, religion and disability.

### 3.0 Significance of the Study

The study focused on identifying whether workforce diversity influences performance of the employees among employees in the telecom organizations in Delhi/NCR. It will improve the management of diverse employees in the organizations and thus help in enhancing the overall performance of organizations.

### 4.0 Objective of the Study

- To study whether employee performance is independent of employee diversity.
5.0 Research Methodology
The chosen area of the study is was Delhi/NCR for its most diverse combination of people. The data was collected through a structured questionnaire which had been acquired from a previous research which includes demographic data and questions related to the effects of workforce diversity towards the performance of employees. The study included various telecom companies. The sample was drawn from three private telecom companies in Delhi/NCR. The study includes data which is both primary and secondary. The technique of random sampling was used to determine the sample size. The study data was collected from 120 respondents.

5.1 Research Framework

6.0 Data Analysis and Results

6.1 Descriptive Statistics
The analysis of the collected data was performed through Statistical Package for the Social Science (SPSS) VERSION 20.0.

The following give the overview of the distribution of various dimensions of diversity.

<table>
<thead>
<tr>
<th>Age Diversity</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abv 18 upto 28yrs</td>
<td>37</td>
<td>30.8</td>
<td>30.8</td>
<td>30.8</td>
</tr>
<tr>
<td>Abv 28 upto 38yrs</td>
<td>61</td>
<td>50.8</td>
<td>50.8</td>
<td>81.7</td>
</tr>
<tr>
<td>Abv 38 upto 48yrs</td>
<td>21</td>
<td>17.5</td>
<td>17.5</td>
<td>99.2</td>
</tr>
<tr>
<td>Abv 48 upto 58yrs</td>
<td>1</td>
<td>.8</td>
<td>.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

The sample seems to be diverse in terms of age with majority of respondents who belong to the age group of above 28 to 38yrs.
### Gender Diversity

<table>
<thead>
<tr>
<th>Valid</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>85</td>
<td>70.8</td>
<td>70.8</td>
<td>70.8</td>
</tr>
<tr>
<td>Female</td>
<td>35</td>
<td>29.2</td>
<td>29.2</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The gender is dominated by males. The proportion involves 70.8% males and only 29.2% females which constitute the gender diversity of the sample.

### Diversity wrt Marital_Status

<table>
<thead>
<tr>
<th>Valid</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not married</td>
<td>67</td>
<td>55.8</td>
<td>55.8</td>
<td>55.8</td>
</tr>
<tr>
<td>Married</td>
<td>53</td>
<td>44.2</td>
<td>44.2</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The diversity with respect to marital status involves 55.8% who are not married and the rest 44.2 who are married. Thus the sample is almost evenly distributed in terms of the diversity of marital status.

### Religious Diversity

<table>
<thead>
<tr>
<th>Valid</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hinduism</td>
<td>91</td>
<td>75.8</td>
<td>75.8</td>
<td>75.8</td>
</tr>
<tr>
<td>Islam</td>
<td>19</td>
<td>15.8</td>
<td>15.8</td>
<td>91.7</td>
</tr>
<tr>
<td>Sikhism</td>
<td>9</td>
<td>7.5</td>
<td>7.5</td>
<td>99.2</td>
</tr>
<tr>
<td>Christianity</td>
<td>1</td>
<td>.8</td>
<td>.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

In terms of religious diversity the sample is dominated by 75.8% of Hinduism and the rest involve other minority religions.

### Diversity wrt Experience

<table>
<thead>
<tr>
<th>Valid</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5</td>
<td>61</td>
<td>50.8</td>
<td>50.8</td>
<td>50.8</td>
</tr>
<tr>
<td>5-10</td>
<td>41</td>
<td>34.2</td>
<td>34.2</td>
<td>85.0</td>
</tr>
<tr>
<td>10-15</td>
<td>16</td>
<td>13.3</td>
<td>13.3</td>
<td>98.3</td>
</tr>
<tr>
<td>15-20</td>
<td>2</td>
<td>1.7</td>
<td>1.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The respondents are diverse in terms of their experience but dominated by 50.1% of employees which have experience of 0 to 5 years.
Diversity wrt Education

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate</td>
<td>10</td>
<td>8.3</td>
<td>8.3</td>
<td>8.3</td>
</tr>
<tr>
<td>graduate</td>
<td>77</td>
<td>64.2</td>
<td>64.2</td>
<td>72.5</td>
</tr>
<tr>
<td>PG</td>
<td>30</td>
<td>25.0</td>
<td>25.0</td>
<td>97.5</td>
</tr>
<tr>
<td>Diploma</td>
<td>3</td>
<td>2.5</td>
<td>2.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

In terms of education most of the respondents were graduates which is 64.2% followed by undergraduates which is 25%.

Diversity wrt Mother Tongue

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hindi</td>
<td>89</td>
<td>74.2</td>
<td>74.2</td>
<td>74.2</td>
</tr>
<tr>
<td>Punjabi</td>
<td>7</td>
<td>5.8</td>
<td>5.8</td>
<td>80.0</td>
</tr>
<tr>
<td>Kashmiri</td>
<td>1</td>
<td>.8</td>
<td>.8</td>
<td>80.8</td>
</tr>
<tr>
<td>Urdu</td>
<td>15</td>
<td>12.5</td>
<td>12.5</td>
<td>93.3</td>
</tr>
<tr>
<td>Kannada</td>
<td>1</td>
<td>.8</td>
<td>.8</td>
<td>94.2</td>
</tr>
<tr>
<td>Bengali</td>
<td>2</td>
<td>1.7</td>
<td>1.7</td>
<td>95.8</td>
</tr>
<tr>
<td>Haryanvi</td>
<td>3</td>
<td>2.5</td>
<td>2.5</td>
<td>98.3</td>
</tr>
<tr>
<td>Assamese</td>
<td>1</td>
<td>.8</td>
<td>.8</td>
<td>99.2</td>
</tr>
<tr>
<td>Oriya</td>
<td>1</td>
<td>.8</td>
<td>.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

The mother tongue of most of the respondents was Hindi followed by Urdu. Thus in terms of language the sample was diverse but with a poor uneven distribution.

Diversity wrt Differently Abled

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>yes</td>
<td>2</td>
<td>1.7</td>
<td>1.7</td>
<td>1.7</td>
</tr>
<tr>
<td>no</td>
<td>118</td>
<td>98.3</td>
<td>98.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

The diversity in terms is disability is very poor in the organization which included only 1.7% of the respondents who were differently abled.

Diversity wrt Tenure

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5</td>
<td>99</td>
<td>82.5</td>
<td>82.5</td>
<td>82.5</td>
</tr>
<tr>
<td>5-10</td>
<td>21</td>
<td>17.5</td>
<td>17.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

The last dimension which was considered as an aspect of diversity by the researcher was the tenure in the present organization, which was seen to be dominated by employees who were newer to the organizations.
Thus the organizations seem to be most uniformly diverse only in terms of age, education, experience and marital status and there was uneven diversity in terms religion, ethnicity, language etc.

6.2 Calculation of the Impact of Dimensions of Workforce Diversity on Employee Performance

For the purpose of comparing means of various factors with the dimensions of diversity ANOVA and t-test were used. For gender, disability and marital status, t-test was applied and for the age, religion, education, experience, languages and tenure etc. one way ANOVA test was applied.

Gender Diversity and Performance

<table>
<thead>
<tr>
<th>Levene’s Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>Sig.</td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>.137</td>
</tr>
</tbody>
</table>

For employee performance with gender the (p) significance value was found to be .712 which is more than .05. Hence gender diversity does not have any significant impact on the performance of employees.

Marital Status and Performance

<table>
<thead>
<tr>
<th>Levene’s Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>Sig.</td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>1.627</td>
</tr>
</tbody>
</table>

For employee performance with marital status the (p) significance value was found to be .168 which is higher than .05. Hence the diversity of marital status does not have any significant impact on the performance of employees.

Differently abled and Performance

<table>
<thead>
<tr>
<th>Levene’s Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>Sig.</td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>2.237</td>
</tr>
</tbody>
</table>

For employee performance with disability the (p) significance value was found to be .137 which is more than .05. Thus age diversity does not have any significant impact on the performance of employees.
# Performance with age

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1.746</td>
<td>3</td>
<td>.582</td>
<td>1.366</td>
<td>.257</td>
</tr>
<tr>
<td>Within Groups</td>
<td>49.426</td>
<td>116</td>
<td>.426</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>51.171</td>
<td>119</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In case of employee performance with age the (p) significance value was found to be .257 which is more than .05. Hence age diversity does not have any significant impact on the performance of employees.

# Performance with education

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1.825</td>
<td>3</td>
<td>.608</td>
<td>1.430</td>
<td>.238</td>
</tr>
<tr>
<td>Within Groups</td>
<td>49.346</td>
<td>116</td>
<td>.425</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>51.171</td>
<td>119</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For employee performance with education the (p) significance value was found to be .238 which is more than .05. Hence the diversity of education does not have any significant impact on the performance of employees.

# Performance with ethnicity

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1.855</td>
<td>8</td>
<td>.232</td>
<td>.522</td>
<td>.838</td>
</tr>
<tr>
<td>Within Groups</td>
<td>49.316</td>
<td>111</td>
<td>.444</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>51.171</td>
<td>119</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For employee performance with ethnicity the (p) significance value was found to be .838 which is much more than .05. Hence ethnic diversity does not have any significant impact on the performance of employees.

# Performance with religion

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2.237</td>
<td>3</td>
<td>.746</td>
<td>1.768</td>
<td>.157</td>
</tr>
<tr>
<td>Within Groups</td>
<td>48.934</td>
<td>116</td>
<td>.422</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>51.171</td>
<td>119</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For employee performance with religion the (p) significance value was found to be .157 which is more than .05. Hence religious diversity does not have any significant impact on the performance of employees.

# Performance with experience

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2.088</td>
<td>3</td>
<td>.696</td>
<td>1.645</td>
<td>.183</td>
</tr>
<tr>
<td>Within Groups</td>
<td>49.083</td>
<td>116</td>
<td>.423</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>51.171</td>
<td>119</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For employee performance with experience the (p) significance value was found to be .183 which is more than .05. Hence the diversity of experience does not have any significant impact on the performance of employees.

# Performance with mother tongue

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>3.348</td>
<td>8</td>
<td>.418</td>
<td>.971</td>
<td>.462</td>
</tr>
<tr>
<td>Within Groups</td>
<td>47.824</td>
<td>111</td>
<td>.431</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>51.171</td>
<td>119</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For employee performance with mother tongue (language) the (p) significance value was found to be .462 which is more than .05. Hence language diversity does not have any significant impact on the performance of employees.
Performance with tenure

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>.155</td>
<td>1</td>
<td>.155</td>
<td>.358</td>
<td>.551</td>
</tr>
<tr>
<td>Within Groups</td>
<td>51.016</td>
<td>118</td>
<td>.432</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>51.171</td>
<td>119</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The (p) significance value for employee performance with tenure in the present organization was found to be .551 which is more than .05. Hence tenure diversity does not have any significant impact on the performance of employees.

7.0 Conclusion
The paper was mainly focused to study the influence of having a diverse workforce in the organizations on the performance of the employees. It is evident that the employee performance and the overall workforce diversity which included age diversity, gender diversity, ethnic diversity, diversity of education and experience are unrelated. None of the dimension of diversity that was studied in this research has any significant impact on the performance of the employees. Thus employees can work in the company of various people who come diverse backgrounds and have diverse features and characteristics, without having any impact on their performance.

7.1 Suggestions
Organizations need to improve the level of diversity and recruit talent from a wider pool so as to enhance their outputs and also deal with the diverse marketplace. They also need to adopt a diversity approach so as to support equal employment and tackle with discrimination at the workplace. And diversity should not be increased at one level but at all levels of the organization.

7.2 Future Study
Many efforts need to be done so as to improve the diversity status of the organizations. In order to reach a generalization the researchers need to repeat and replicate the studies in same and different areas as well as same and different organizations. And the studies need to be repeated on same dimensions and outcomes so that they can be comparable. The generalization of the results is important for organizations in order to gain practical benefits.

Thus performing time series studies could be more useful. The researches need to be equally focused on the major and most common dimensions of the workforce diversity and should be pursued on real life settings of public and private sector organizations. The future researches could focus on the different aspects among a diverse workforce like interpersonal relationships and communication etc. which can have an impact on performance of employees and thus in turn have an impact on the organizations overall performance.

7.3 Limitations of Study
The sample size of the study was restricted to Delhi/NCR and to a limited number of employees. And many other dimensions of the diversity can be included in the study to evaluate its impact on the performance of the employees.

References


Emotional Intelligence and Life Satisfaction: An Empirical Study Among Managers in Indian Banking Sector

*Monica Bedi **Kirandeep Bedi

Emotions play vital role in shaping individuals' thoughts, actions and subsequent feelings. Emotional intelligence (EI) explains the individual differences in dealing with work and non-work related outcomes. The present study examined the relationship of employee emotional intelligence to life satisfaction across public and private sector banks in India. Systematic random sampling was employed to collect data from managers working at the middle level managerial positions in Indian banking sector. For testing hypotheses, correlation and regression analysis were employed. The study findings indicated that although emotional intelligence is a significant impact on life satisfaction irrespective of public and private sector banks but the emotional intelligence dimensions were found to be different.

Keywords: Emotional Intelligence; Occupational Role Stress; Job Satisfaction; Life Satisfaction; Indian Banking Sector

Introduction

Indian banking is in the grip of profound structural changes as evident from the phenomenon growth in size, spread and activities undertaken by them. In the post liberalization era, more competitive banking environment has gradually been achieved through the deregulation of interest rates, the abolition of various credit controls, development of the capital markets, competition for non-banking institutions, the free movement of capital flows, and the entry of banking institutions from other countries into the Indian market. The challenges before banks in India, therefore, lies in managing the two ends of the spectrum of banking services with equal felicity and in apportion their resources equitably over the entire spectrum. Another important change in the banking industry concerns customer expectations and needs for banking services. As customers become more educated, they demand new products, better delivery channels and more reliable and responsive services. Improvement in service standards in other industries also raises the expectations of banking customers. Under this rationale, several empirical studies have provided supporting evidence that emotional intelligence (EI), measured in terms of Emotional Quotient (EQ) appears to play a significant role in key organizational outcomes, such as job performance and job satisfaction by influences the overall ability to cope with the environmental uncertainties, especially when the focus is on human interface. A strong emotional intelligence can help in becoming adaptable, constructive, optimistic, productive and effective in their tasks by overcoming self imposed limitations and actualize one's potentials. The current conceptualization of emotional intelligence was initiated with concept of social intelligence given by Thorndike's (1920). According to him, social intelligence is the ability to understand and manage human relation with great wisdom. Emotional intelligence according to Salovey and Mayer (1990) is “the ability to perceive accurately, appraise, and express emotion; the ability to access and/or generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth” (p. 10). The research in case of managers in banking sector becomes more desirable as they go through the emotional turmoil when confronted with competitive pressures, personal productivity, work/life-balance, team performance and delivering customer service. The present study aimed at determining how emotional intelligence (EI) affect job satisfaction (JS) and life satisfaction (LS) among managers of public and private sector banks in India.

Review of Literature

The understanding of emotions in the workplace is gaining importance as they act as a precursor in determining an individual’s response as well as attitude towards the workplace and work-related accomplishments (Grandey, 2000; Guy et al., 2008). Emotionally intelligent individuals cope better
with life’s challenges and job related stresses, which results in good psychological and physical health (Taylor, 2001) and promotes adaptability to challenging environments so that distress or burnout are avoided (Bar-On, 1997). Goleman [1998] emphasize that EI is twice as important as technical skills and more important than IQ for success in jobs at all levels . Emotional intelligence (EI) also correlates robustly with a variety of outcomes that signal social emotional success, including more frequent positive effect, higher self esteem, greater life satisfaction, social engagement, and well-being (Zeidner, Olnick-Shmesh, 2010).

**Relationship between emotional intelligence and Life satisfaction**

Life satisfaction is an individual’s overall assessment of cheerfulness and gratification of one’s life as a whole and or of specific life domains (Myers & Diener, 1995). It can also be defined as the degree to which the experience of an individual’s life satisfies his/her personal wants and needs, both physically and psychologically (Rice, 1984). A foremost benefit is that if people feel good about themselves and their lives, it will result on their overall well-being. Satisfied people tend to be happier, living meaningful life and treat others better. They are more likely to deal with problems and issues of work life productively effectively (Pasupuleti, et al., 2009) and good influences upon the others. Several studies have confirmed that emotional intelligence plays an imperative role in the prediction of life satisfaction (Charbonneau & Nicol, 2002; Ciarrochi et al., 2002; Martinez-Pons, 1999; Mayer et al., 2000) and interpersonal functioning (Extremera & Fernandez, 2005). People with well developed emotional skills are also more likely to be content and effective in their lives, mastering that habits of mind that foster their own productivity. Researches with self-report measures (e.g., the EQi, Bar-On; the TMMS, Martinez-Pons) have found moderate positive correlations between EI and life satisfaction whereas studies with the performance-based measure of EI (Mayer et al., 2000a) found low to moderate positive correlations between EI and life satisfaction. Landa et al., 2006 reported a significant positive correlation between perceived emotional intelligence and life satisfaction. Grajales and Araya (2001) revealed a significant relationship between aspects of emotional intelligence including emotional clarity and emotional repair with life satisfaction. Individuals who can regulate their emotional states are healthier and satisfied with life (Pau and Croucher, 2003; Gerits et al., 2005).

**Objective of The Study:**

The present study was conducted with following objective:

- Study the relationship, if any, between emotional intelligence and life satisfaction in Indian public and private sector banks.

To achieve the above objective, following hypothesis was developed:

- There is significant positive relationship between emotional intelligence and Life satisfaction among employees in Indian Banking Sector.

**Methodology**

Survey method of research was used to conduct the study. Systematic random sampling was used to collect data. The sample consisted of 150 managers working at the middle level managerial positions in public and private sector banks in India. Emotional intelligence was measured using a scale developed by Goleman (1995). The scale comprises 25 items, three of which are reversed scored. On the other hand, Life Satisfaction Survey (LSS) which is designed by Thomas M. Krapu, Lynn Meinke, Lisa Kramer, Roy Friedman, and John Voda was administered to measure life satisfaction. Respondents were required to rate the extent they agree or disagree with each statement on a five-point scale (1 = strongly disagree; 5 = strongly agree). The reliability of a scale as measured by coefficient alpha reflects the degree of cohesiveness among the scale items and is therefore an indirect indicator of convergent validity. As already mentioned, coefficient-alpha values for the seven four dimensions are fairly high. Demographic information was also collected using a questionnaire developed by the authors for this purpose. Correlation analysis, regression analysis were used to analyze data. Analysis was performed using SPSS version 20.

**Results and Discussion**

Table 1 presents the profile of the respondents who had participated in this research study. More than half of the participants were males (57.3 per cent). 48 percent of the respondents were between the age group of 21 - 34 years and 26.7 percent were 35 years & above. About 41.3 % of the respondents were in the income group of Rs.20,001-35,000.
Nearly 60% were married and 40% were single respondents. 52.7% of the respondents were having work experience ranging from 0-4 years.

**Table 1: Distribution of Respondents**

<table>
<thead>
<tr>
<th>Construct</th>
<th>All (n=150)</th>
<th>n</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type of bank</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public sector banks</td>
<td></td>
<td>73</td>
<td>48.7</td>
</tr>
<tr>
<td>Private sector banks</td>
<td></td>
<td>77</td>
<td>51.3</td>
</tr>
<tr>
<td><strong>Age (years)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21-25 years</td>
<td></td>
<td>37</td>
<td>24.7</td>
</tr>
<tr>
<td>26-30 yrs</td>
<td></td>
<td>35</td>
<td>23.3</td>
</tr>
<tr>
<td>31-35 yrs</td>
<td></td>
<td>38</td>
<td>25.3</td>
</tr>
<tr>
<td>35 yrs &amp; above</td>
<td></td>
<td>40</td>
<td>26.7</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td>86</td>
<td>57.3</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td>64</td>
<td>42.7</td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td></td>
<td>60</td>
<td>40</td>
</tr>
</tbody>
</table>

**Descriptive Statistics**

Table 2 presents the Mean and standard deviations of all the observed dimensions/factors of emotional intelligence, and life satisfaction for managers of public and private sector banks. Descriptive statistics was worked out to know the pattern of score distribution. A perusal of table 2 reveals that the mean score of emotional intelligence (EI) mean score was found to be 81.04 for managers of public sector banks with the SD 5.57 whereas it was 73.51 (SD 13.38) for managers of private sector banks.

**Table 2 – Mean and Std. Deviation**

<table>
<thead>
<tr>
<th>S.no</th>
<th>Constructs/ dimensions</th>
<th>Public sector banks</th>
<th>Private sector banks</th>
<th>Public sector banks</th>
<th>Private sector banks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Self Awareness</td>
<td>16.82</td>
<td>16.09</td>
<td>3.45</td>
<td>3.30</td>
</tr>
<tr>
<td>2</td>
<td>Self Management</td>
<td>15.93</td>
<td>13.01</td>
<td>4.34</td>
<td>4.44</td>
</tr>
<tr>
<td>3</td>
<td>Motivation</td>
<td>16.84</td>
<td>16.14</td>
<td>3.53</td>
<td>2.91</td>
</tr>
<tr>
<td>4</td>
<td>Empathy</td>
<td>16.23</td>
<td>14.79</td>
<td>3.35</td>
<td>2.88</td>
</tr>
<tr>
<td>5</td>
<td>Relationship Management</td>
<td>15.20</td>
<td>13.48</td>
<td>3.26</td>
<td>2.93</td>
</tr>
<tr>
<td>6</td>
<td>Overall EI</td>
<td>81.04</td>
<td>73.51</td>
<td>13.49</td>
<td>13.38</td>
</tr>
<tr>
<td>9</td>
<td>Life satisfaction</td>
<td>10.34</td>
<td>10.01</td>
<td>2.18</td>
<td>2.88</td>
</tr>
</tbody>
</table>

**Correlation and Regression analysis**

To address the relationship among emotional intelligence and life satisfaction across managers of private sector banks and public sector banks, Pearson correlation was calculated so as to check the linear relationships between independent variables and dependent variable. Preliminary analysis revealed that there was no violation of the assumption of linearity and homoscedasticity and all associations were found to be significant at 95% level in both sub-samples.
Table 3: Correlation analysis: Public Sector Bank Sub-Sample (Group I) and Private Sector Bank Sub-Sample (Group II)

<table>
<thead>
<tr>
<th>S.No</th>
<th>Factors</th>
<th>Public sector banks</th>
<th>Private sector banks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Self Awareness</td>
<td>0.809*</td>
<td>0.411*</td>
</tr>
<tr>
<td>2</td>
<td>Self Management</td>
<td>0.788*</td>
<td>0.656*</td>
</tr>
<tr>
<td>3</td>
<td>Motivation</td>
<td>0.578*</td>
<td>0.554*</td>
</tr>
<tr>
<td>4</td>
<td>Empathy</td>
<td>0.556*</td>
<td>0.422*</td>
</tr>
<tr>
<td>5</td>
<td>Relationship Management</td>
<td>0.702*</td>
<td>0.741*</td>
</tr>
<tr>
<td>6</td>
<td>Overall EI</td>
<td>0.809*</td>
<td>0.796*</td>
</tr>
</tbody>
</table>

Correlation significant at .05 level

In the second step, to develop beyond this overall picture and to identify which dimensions of emotional intelligence have a influence on life satisfaction, regression were run in case of public bank sector sub-sample and private bank sector sub-sample separately. In each model, five emotional intelligence dimensions which consisted of 25 items served as the independent variables and life satisfaction as the dependent variable separately.

Relationship between emotional intelligence and Life satisfaction

A closer scrutiny of the results in Table 4 & Table 5 show that “self awareness”, “self management”, “relationship management” were significant predictors of life satisfaction in case of managers working in public sector banks whereas “self management”, “motivation”, “relationship management” were significant predictors of life satisfaction among managers employed with private sector banks. An inspection of the coefficient of determination (R2) for regression (results), showed that emotional intelligence is an effective predictor of life satisfaction. As reported in Table 5 & Table 6, R2 and adjusted R2 value for occupational stress was found to be 0.462 and 0.423 respectively in case of public sector bank sub-sample (Group I) whereas 0.437 and 0.396 in case of private sector bank sub-sample (Group II). In case of public sector bank sub-sample (Group I), among emotional intelligence dimensions, “self awareness” had the most powerful impact on life satisfaction. “relationship management” showed the second most powerful effect among emotional intelligence dimensions, followed by “self management”. However, in case of private sector bank sub-sample (Group II), emotional intelligence dimensions, “relationship management” had the most powerful impact on life satisfaction. “self awareness”, the second most powerful effect among emotional intelligence dimensions followed by “motivation”. The study findings, therefore, indicated that although emotional intelligence is a significant impact of life satisfaction in Indian banking industry irrespective of public and private sector banks but the emotional intelligence dimensions were found to be different. Emotional intelligence dimensions, namely, “empathy” and “motivation” were not found to be statistically significant in the model related to public sector bank sub-sample (Group I) whereas “self awareness” and “empathy” were not found to be statistically significant in the model related to public sector bank sub-sample (Group II). The multicollinearity diagnostic statistics were listed in Table 4 & Table 5. It can be seen that tolerance value is towards the higher side and VIF does not exceed the recommending limit. The findings of the study support for the notion that Emotional Intelligence accounts for individual differences in life satisfaction in Indian Banking sector. Good level of emotional intelligence leads to more content with life, more satisfaction with job and positive attitude towards work. Emotional intelligence helps an individual to recognize, respond and deal with day to day routine work matters by remaining in control of their work and environment.
Table 4: Emotional Intelligence and life satisfaction in Public Sector Bank (Group I)

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Independent variables</th>
<th>Standardized Regression Coefficients (β)*</th>
<th>T-value**</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life</td>
<td>Constant</td>
<td>0.095(.688)</td>
<td>.138</td>
<td>.891</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>Self Awareness</td>
<td>0.527</td>
<td>4.144</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Self Management</td>
<td>0.289</td>
<td>2.548</td>
<td>.013</td>
</tr>
<tr>
<td></td>
<td>Relationship Management</td>
<td>0.319</td>
<td>2.082</td>
<td>.041</td>
</tr>
</tbody>
</table>

* Beta co-efficient is the standardised regression co-efficient which allows comparison of the relatives on the dependent variable of each independent variable.

** t-statistics help to determine the relative importance of each variable in the model.

Table 5: Emotional Intelligence and life satisfaction in Private Sector Bank (Group I)

<table>
<thead>
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<th>Dependent variable</th>
<th>Independent variables</th>
<th>Standardized Regression Coefficients (β)*</th>
<th>T-value**</th>
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<td>Relationship Management</td>
<td>0.509</td>
<td>4.282</td>
<td>.000</td>
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* Beta co-efficient is the standardised regression co-efficient which allows comparison of the relatives on the dependent variable of each independent variable.

** t-statistics help to determine the relative importance of each variable in the model.

Conclusion and Recommendation

Service quality issues and customer satisfaction are top priorities for banking sector, which is facing increased competition and very demanding customers. “Excellent service” and “relationship development and maintenance”, therefore, is commonly noted as a critical prerequisite for satisfying and retaining valued customers. One of the essential skills needed to achieve above objectives is interpersonal communication and the ability to manage conflict in the relationship. Emotional intelligence has been shown to build up the communication and interpersonal skills required to develop and improve relationships with valued customers (Deeter-Schmelz and Sojka, 2003), increase level of customer-orientation (Rozell et al., 2004) and sales performance (Higgs, 2004). Also, emotional intelligence is becoming decisive within group and organizational contexts, especially in task structure and the reward systems since both require accommodating and emotionally intelligent behaviour to achieve personal and organizational goals. The middle level managers have to play dual roles of both as nurturing leaders, as well as task-oriented managers. In order to be effective in the above regard, the bankers must possess the characteristics most often associated with the description of emotional intelligence: self-awareness, self-regulation, motivation, empathy and social skill. In order to enhance the bankers’ satisfaction with life and their work, they could be involved in specific training programs for enhancing the emotional abilities so they could be more in control in their profession. Organisations should focus more on training modules that are directed towards making the managers emotionally more mature and strong. Also, OD Interventions should be carried out in the forms of games and other activities, where individuals can learn to enhance their emotional quotient.
Limitations and Directions for Future Research

All research has its limitation and this study is no exception. In designing the study the researcher attempted to be as scientific as possible, the present study nevertheless has some limitations. Also, there were only five public sector banks and four private sector banks whose managers participated in this study. As a result, the generalization of the findings of this research should be considered carefully. Moreover, as stated emotional intelligence (EI), and life satisfaction (LS) have been found to change over time, a cross-sectional research design does not offer nearly the same insight. Data from longitudinal studies would be particularly useful for capturing the process of dynamics of the relationship between the constructs.

References


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