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# Daffodil International University

## Journal of Business and Economics

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# Dynamics between Bangladeshi Real Consumption and Economic Growth

Chu V. Nguyen<sup>1</sup>

**Abstract:** *A Vector auto-regressive model was estimated using annual data from 1980 to 2014 to assess the causal relationship between Bangladeshi real consumption and GDP. The estimation results suggest Bangladeshi real consumption and real GDP mutually affect each other. This estimation result contradicts an earlier report by Sakib-Bin-Amin (2011) who examined annual data during the 1976-2009 time frame. This finding suggests that the Bangladeshi government should not promote exports in the age of globalization and the fashionable Washington Consensus Development doctrine at the expense of domestic consumption in development of the national economy. This empirically supported approach certainly mitigates the negative impacts of the adverse international economic conditions on the national economy.*

**Key Words:** VAR model; Granger causality; Bangladesh; real consumption; real GDP.

## Introduction

The growth and progress of every economy, developed, or otherwise, is inevitably marked by periods of instability. As a result, virtually all economies worldwide have, at some point, experienced both internal and external shocks and disturbances. Internally, unstable investment and consumption patterns combined with improper implementation of public policies have proven to be key factors in the destabilization of many economies. External factors such as war and revolution, population growth and migration, technological transfers and changes, and the openness of the economy can also create instabilities in international economies.

Cyclical fluctuations in economic activities have resulted in both periodic increases in unemployment and inflation rates along with disequilibria in the external sector (Gbosi, 2001). In the age of globalization, encouraged by the so called “Washington Consensus Development Hypothesis,” and fueled by advances in telecommunications, internet capabilities, transportation, and computerization usage in production, many countries have relied on exports of goods and services to promote GDP growth. Adherence to post World War II neoclassical export development along with increased membership and participation in the World Trade Organization has also contributed to this trend.

While an export-led based development strategy often serves as the catalyst for economic development in transitional economies, exposure to detrimental worldwide economic

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events, such as the recent international financial crisis can deal severe blows to domestic economic growth. The recent US subprime mortgage crisis and the European sovereign debt phenomenon, for example, produced ripple effects that extended to multiple developing nations. In fact, the US subprime mortgage crisis disrupted the economies of export-dependent countries causing many to experience a significant decline in export activity. These reductions in exports along with their attendant consequences forced policymakers in these countries to rebalance their economic development strategies by promoting domestic consumptions as the primary economic growth mechanism, which is a very costly process.

With respect to the Bangladeshi economy, the Fact Sheet of the Bureau of South and Central Asian Affairs of the U.S. Department of State reported on February 10, 2016 that the United States is Bangladesh's largest export market. In 2014, the United States exported approximately \$1.1 billion in U.S. goods to Bangladesh and imported approximately \$5.3 billion worth of goods from Bangladesh. Bangladesh's most important exported commodities are: garments, knitwear, agricultural products, frozen food (fish and seafood), jute and jute goods, and leather. As of 2014, Bangladesh's most important trading partners along with percentages of export activity are: US 14.3%, Germany 13.6%, UK 7.9%, France 5.2%, Spain 4.3%, and Italy 4.1%.

As revealed in the following section, results of empirical investigations of the causal relationship between GDP (as proxy measure for income) and consumption, postulated by the demand side of macroeconomics, yielded contradictory results for different economies. This in turn suggests that the nature of causality in a given economy should be empirically determined. Therefore, the objective of this investigation is to study the causal relationship between Bangladeshi real consumption and GDP. The remainder of the study is organized as follows: section 2 briefly reviews the literature; section 3 discusses the research methodology and model specification; the following section reports on the empirical results; and the final section provides concluding remarks and policy implications.

## **Review of Literature**

The demand-side macroeconomic school of thought has long postulated a causal relationship between consumption and GDP growth, which is the theoretical foundation for the countercyclical macroeconomic policy framework. Additionally, the consumption theory in macroeconomics clearly postulates that GDP, and hence consumer's incomes, stand as the main determinant of the level of aggregate consumption. The aforementioned theories collectively posit a bidirectional causality, at least in the Granger sense, between aggregate consumption and GDP. While the bidirectional causality between aggregate consumption and GDP has been well articulated theoretically, the empirical investigation of this theoretically articulated bidirectional causality remains very limited.

Tapsin, and Hepsag (2014) provide a fairly complete survey of literature on the relationship between consumption and gross domestic product. Guisan (2001) provided

an extensive review of causality and cointegration between private consumption and GDP in twenty-five OECD countries over the period of 1960-1997. The author suggested using a country's own GDP (excluding GDPs of other countries in the group) as the sole explanatory variable in the investigating process. Guisan (2004) evaluated the power of Granger Causality, Modified Granger Causality, Engle-Granger Cointegration, Two Stage Least Squares, and Hausman tests in detecting the causal relationship between real consumption and GDP in Mexico and the United States. He found that there exists a strong degree of causal dependence of private consumption on GDP and a lower dependence when the variables are reversed.

More recently, Gomez-Zaldivar and Ventosa-Santaularia (2009) further investigated the causality between consumption and GDP in Mexico and the United States. The authors found no evidence of either causality or cointegration between Mexican series for consumption and GDP; but, in the case of the US series, the authors found that the two are cointegrated, with a unidirectional causality from consumption to GDP. Mishra (2011) investigated the dynamic relationship between real consumption expenditure and economic growth in India over the period of 1950-2008 and found a long-term unidirectional causality from real consumption expenditure to economic growth. However, the author reported that there is no short-term Granger causality between these two macroeconomic variables.

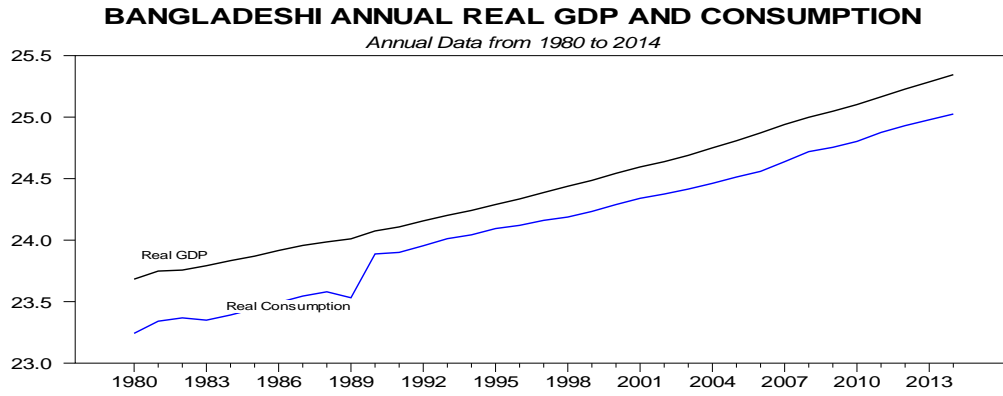
Alimi (2013) investigates the relationship between consumption expenditure and income in Nigeria. The model was tested by ordinary least squares for the period of 1970-2011. The author estimated the marginal propensity to consume and average propensity to consume and found that as income increases, the average and marginal propensity to consume is reduced, although the statistical results indicating a marginal propensity to consume less is not stable in the long run. Nwabueze Joy Chioma (2009) analyzed the casual relationship between gross domestic product and personal consumption expenditure using the data from Nigeria for the years of 1994 – 2007. the author indicated that an increase in gross domestic product has no significant effect on the personal consumption expenditure and the gross domestic product explained about 3.5% of the personal consumption expenditure in Nigeria.

Ofwona (2013) reported that consumption is determined by income in Kenya in accordance with Kenya over the period 1992. Генчев, (2012), studied the relationship between income and consumption in Bulgaria and Russia over the period 1990-2010 and found that there exist positive and significant long run relationships between gross national income and consumption for Bulgaria and Russia.

Sakib-Bin-Amin (2011), investigated the causal relationship between consumption expenditure and economic growth in Bangladesh using annual data from 1976-2009. The method used in the study is Johansen and ARDL cointegration tests. The empirical results revealed a long run unidirectional causal relationship running from economic growth to consumption expenditure.

### Data and Descriptive Statistics

This study uses available annual data on Bangladeshi real GDP and private consumption over the period from 1980 to 2014. All data series were obtained from the IMF databases. The annual Bangladeshi logarithmic real GDP and private consumption are denoted by  $GDP_t$  and  $CON_t$ , respectively. The difference between the annual Bangladeshi logarithmic real  $GDP_t$  and private consumption,  $CON_t$ , is defined as the spread and is denoted by  $SP_t$ .



**Figure 1:** Bangladeshi Real GDP and Consumption, 1980- 2014.

Figure 1 displays the behavior of the respective the annual Bangladeshi logarithmic real GDP and private consumption over the sample period. As Figure 1 suggests, both the annual Bangladeshi logarithmic real  $GDP_t$  and private consumption,  $CON_t$ , oscillated around a moderately upward trend over the sample period, except for the logarithmic real private consumption in 1990.

The mean of the logarithmic  $GDP_t$  during the sample period was 24.44, and ranged from 23.68 to 25.03 with a standard error of 0.54. The mean private consumption,  $CON_t$ , over the same period was 24.13, and ranged from 23.24 to 25.03 with a standard error of 0.50. Their correlation was 98.92 which is fairly high. Moreover, as suggested by Figure 1, it is likely that the spread between the Bangladeshi logarithmic real  $GDP_t$  and private consumption,  $CON_t$ , experienced a structural break over the sample period.

### Stationarity of the Time Series

Econometrically, to estimate a Vector-autoregressive (VAR) Model, the time series data must be non-stationary and cointegrated. To this end, this study uses two standard unit root tests: the augmented Dickey-Fuller (1979) (ADF) test and the Phillips-Perron (1988) (PP) tests to determine stationarity and co-integration of the Bangladeshi  $GDP_t$  and

$CON_t$  The null hypothesis for both tests is that a unit root exists in the autoregressive representation of the series. The augmented Dickey-Fuller and Phillips-Perron unit root test results are reported in Table 1. An analysis of the test results suggests the presence of unit roots in level. Both series are stationary after the first differencing. These findings indicate that the series under consideration are non-stationary and integrated of order I(1)

**Table 1: ADF and PP Test Results, Bangladeshi Annual Data from 1980 to 2014**

Series	<u>Augmented Dickey- Fuller</u>		<u>Phillips- Perron</u>	
	<i>t-Statistic</i>	<i>Probability*</i>	<i>t-Statistic</i>	<i>Probability*</i>
$CON_t$	-7.909035	0.0000	-8.126620	0.0000
$GDP_t$	-4.359869	0.0000	--4.763024	0.0005

**Note:** \* MacKinnon (1996) one-sided p-values; Null Hypothesis: the variable has a unit root.

### Long-run Cointegrating Relationship

Additionally, Engle and Granger (1987) argued that if two series are integrated of order one, I(1), there is need to test for the possibility of a long-run cointegrating relationship among the variables. Since the cointegration and error correction methodology is well documented (Engle and Granger, 1987; Johansen and Juselius, 1990; Banerjee et al., 1993) only a brief overview is provided here. Johansen and Juselius' (1990) multivariate cointegration model is based on the error correction representation given by:

$$\Delta X_t = \mu + \sum_{i=1}^{p-1} \Gamma_i \Delta X_{t-i} + \Pi X_{t-1} + \varepsilon_t \quad (1)$$

where  $X_t$  is an  $(n \times 1)$  column vector of  $p$  variables,  $\mu$  is an  $(n \times 1)$  vector of constant terms,  $\Gamma$  and  $\Pi$  represent coefficient matrices,  $\Delta$  is a difference operator,  $k$  denotes the lag length, and  $\varepsilon_t \sim N(0, \Sigma)$ . The coefficient matrix,  $\Pi$ , is known as the impact matrix; and contains information about the long-run relationships. Johansen and Juselius' (1990) methodology requires the estimation of the VAR equation (1), and the residuals are then used to compute two likelihood ratio (LR) test statistics that can be used in the determination of the unique cointegrating vectors of  $X_t$ . The number of cointegrating vectors can be assessed by using two statistics: the trace test and the maximal eigenvalue test. The testing results are reported in Table 2.

**Table 2: Johansen Cointegration Test Results, Bangladeshi Annual Data 1980 to 2014**

Number of cointegrating vectors	<u>Trace Statistics</u>		<u>Max-Eigen Statistics</u>	
	Statistics	C (5%)	Statistics	C (5%)
$r \leq 0$	33.6914*	15.4947	32.1779*	14.2646
$r \leq 1$	1.5135	3.8415	1.5135	3.8415

**Note:** \* denotes rejection of the hypothesis at the 5 percent level.

As shown in Table 2, results for cointegration tests suggest the existence of, at most, one cointegrating vector. This implies the presence of one independent common stochastic trends in this system of two variables, i.e., these two variables have a long-run cointegrating relationship.

### Structural Break

To search endogenously for the possibility of any structural break in the relationship between Bangladeshi real consumption,  $CON_t$ , and  $GDP_t$ , this study utilized Perron's (1997) endogenous unit root test function with the intercept, slope, and the trend dummy to test the hypothesis that the difference between the annual Bangladeshi logarithmic real  $GDP_t$  and private consumption,  $CON_t$ , defined as the spread,  $SP_t$ , has a unit root.

$$SP_t = \mu + \theta DU + \alpha t + \gamma DT + \delta D(T_b) + \beta SP_{t-1} + \sum_{i=1}^k \psi_i \Delta SP_{t-i} + v_t \quad (2)$$

where  $DU = 1(t > T_b)$  is a post-break constant dummy variable;  $t$  is a linear time trend;  $DT = 1(t > T_b)$  is a post-break slope dummy variable;  $D(T_b) = 1(t = T_b + 1)$  is the break dummy variable; and  $\varepsilon_t$  are white-noise error terms. The null hypothesis of a unit root is stated as  $\beta = 1$ . The break date,  $T_b$ , is selected based on the minimum t-statistic for testing  $\beta = 1$  (see Perron, 1997, pp. 358-359).

**Table 3: Perron's Endogenous Unit Root Test, Bangladeshi Data, 1980 to 2014**

$$SP_t = 0.5010 - 0.3479DU - 0.0102t + 0.0151DT + 0.2885D(T_b) - 0.0210SP_{t-1} + v_t$$

(6.3076\*)      (-4.5440\*)      (-1.0919)      (1.6188)      (17.8781\*)      (-0.3945)

No. of augmented lags:  $k = 5$       Break Date: 1990       $t(\alpha = 1) = -19.2774^*$

**Notes:** Values for t-statistics in parentheses: Critical values based  $n = 100$  sample for the break-date (Perron, 1997). “\*” indicates significance at 1 percent levels.

The estimation results of Perron's endogenous unit root tests are summarized in Table 3. The post-break intercept dummy variable,  $DU$ , is negative and significant at any conventional level, while the post-break slope dummy variable,  $DT$ , is positive and is insignificant at any conventional level. The empirical results of these tests suggest that the Bangladeshi spread between the annual Bangladeshi logarithmic real  $GDP_t$  and private consumption,  $CON_t$ , followed a stationary trend process with a break date of 1990.

### Methodology and Model's Specification

As aforementioned, the objective of this investigation is to empirically study the causal relationship between Bangladeshi real consumption and GDP. To achieve this objective, the following system of two equations are jointly determined by the Vector auto-regression.

$$CON_t = \alpha_0 + \sum_{p=1}^P \alpha_p CON_{t-p} + \sum_{q=1}^Q \alpha_q GDP_{t-q} + \alpha_d DUM_1 + \varepsilon_{1,t} \quad (3)$$

$$GDP_t = \beta_0 + \sum_{m=1}^M \beta_m CON_{t-m} + \sum_{n=1}^N \beta_n GDP_{t-n} + \beta_d DUM_2 + \varepsilon_{2,t} \quad (4)$$

where  $CON_t$  and  $GDP_t$  are previously determined.  $\alpha_i$  and  $\beta_j$ , are parameter to be estimated and  $\varepsilon_{k,t}$  are disturbances.  $DUM_k$  is a dummy variable assuming a value of 1 for 1990 and 0 elsewhere to account for the structural break in the relationship between  $CON_t$  and  $GDP_t$  in 1990.

In the estimation process, the estimated coefficients,  $\alpha_i$  and  $\beta_j$ , are retained based on the t-statistics. The exclusion test in the VAR, having a  $\chi^2$  distribution, is used to test for lag exclusion. Failure of the exclusion test to reject the null hypothesis that all estimated  $\alpha_q$ 's in equation (3) are equal to zero indicates that Bangladeshi real  $GDP_t$  Granger causes real consumption,  $CON_t$ , i.e., there is unidirectional Granger causality from real  $GDP_t$  to real consumption,  $CON_t$ . Similarly, failure of the exclusion test to reject the null hypothesis that all estimated  $\beta_m$ 's in equation (4) are equal to zero indicates that Bangladeshi real consumption,  $CON_t$ , Granger causes real GDP; i.e., there is unidirectional Granger causality from real consumption,  $CON_t$ , to real  $GDP_t$ . Finally, if real  $GDP_t$  Granger causes real consumption,  $CON_t$ , and real consumption,  $CON_t$ , Granger causes real GDP, then there is a bidirectional Granger causality between Bangladeshi real consumption,  $CON_t$ , and real  $GDP_t$ .

### Empirical Results

The estimation results for the VAR system of equations (3) and (4), using the annual data from Bangladesh over the period 1980-2014 are reported in Table 4.

A closer look at the estimation results reveals that on the strength of the t-statistics, the lag length of two of both the real consumption,  $CON_t$ , and real  $GDP_t$  are retained in the model. Additionally, the calculated exclusion test statistic,  $\chi^2$ , testing the null hypothesis that both the estimated coefficients of  $GDP_{t-1}$  and  $GDP_{t-2}$  in equation (5) are equal to zero is 9.218 with the p-value of 0.0100. Similarly, the calculated exclusion test statistic,  $\chi^2$ , testing the null hypothesis that both the estimated coefficients of  $CON_{t-1}$  and  $CON_{t-2}$  in equation (6) are equal to zero is 9.858 with the p-value of 0.0072. Taken together, these two exclusion test results indicate that there is a bidirectional Granger causality between Bangladeshi real consumption,  $CON_t$ , and real  $GDP_t$ ; i.e., Bangladeshi real consumption,  $CON_t$ , and real  $GDP_t$  mutually affect each other's. This finding contradicts the earlier report by Sakib-Bin-Amin (2011) over period 1976-2009.

**Table 4: VAR Estimation Results, Bangladeshi Annual Data, 1980 to 2014**

$$\begin{aligned}
CON_t &= 0.34 + 0.77CON_{t-1} + 0.23CON_{t-2} + 2.02GDP_{t-1} - 2.04GDP_{t-2} + 0.33DUM_t + \varepsilon_{1t} \\
&\quad (1.07) \quad (9.28^*) \quad (2.85^*) \quad (3.04^*) \quad (-3.02^*) \quad (14.80^*) \\
GDP_t &= -0.197 - 0.06CON_{t-1} + 0.08CON_{t-2} + 1.47GDP_{t-1} - 0.48GDP_{t-2} + 0.02DUM_t + \varepsilon_{2t} \\
&\quad (-1.96^{***}) \quad (-2.34^{**}) \quad (3.11^*) \quad (7.04^*) \quad (-2.28^{**}) \quad (3.73^*)
\end{aligned}$$

$$\text{Log-likelihood} = 166.5033 \quad R^2(LR) = 0.99990 \quad F\text{-statistic}_{(10, 52)} = 519.551^*$$

**Note:** Values of t-statistics are in parentheses. “\*”, “\*\*” and “\*\*\*” indicate the 1 percent, 5 percent, and 10 percent significant levels, respectively.

### Concluding Remarks and Policy Recommendations

Literature on empirical investigations of the causal relationship between GDP (as proxy measure for income) and consumption, postulated by the demand side of macroeconomics, yielded contradictory results for different economies. This in turn suggests that the nature of their causality in a given economy should be empirically determined. The objective of this investigation is to study the causal relationship between Bangladeshi real consumption and GDP. To achieve this objective, this study specified and estimated a VAR system of two equations using annual data from Bangladesh from 1980 to 2014.

The estimation results suggest that there is a bidirectional Granger causality between Bangladeshi real consumption,  $CON_t$ , and real  $GDP_t$ ; i.e., Bangladeshi real consumption,  $CON_t$ , and real  $GDP_t$  mutually affect each other's. This finding contradicts the earlier report by Sakib-Bin-Amin (2011) over the period 1976-2009.

As to the policy implications, the above findings suggest that as much as the Bangladeshi government likes to promote exports in the age of globalization and the fashionable Washington Consensus Development doctrine, it is well advised that the government simultaneously promote domestic consumption to develop the economy as well. This approach not only is supported by empirical evidence, it also mitigates the negative impact of the international adverse economic conditions.

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# Corporate Governance and Firm Performance: Evidence from Selected Firms Listed in Dhaka Stock Exchange

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**Abstract:** *The main objectives of this study are to investigate the relationship between corporate governance and firm performance of 60 Dhaka Stock Exchange (DSE) listed companies of Bangladesh using cross-section data of the year 2011. This study focused on eight aspects of corporate governance namely Board Size (BS), Number of Independent Directors, CEO duality, Lasset, Debt-equity ratio, Proportion of independent directors, and Broad meeting frequency. Firm performance has been measured through return on equity (ROE) and return on assets (ROA). The findings of the study suggest that corporate governance variables do influence firms' performance.*

*Our empirical results indicate that elements of corporate governance such as the proportion of independent directors and number of institutional investors are positively related with ROA while the other variables are negatively related with ROA. On the other hand, debt-equity ratio, proportion of independent directors and number of institutional investors are significantly and positively correlated with ROE. In the light of corporate financial scandals, the study suggests that there is a need to ensure effective governance of the firms in one hand and contribute to maximize shareholders wealth on the other hand.*

**Keywords:** *Corporate governance, firm performance, listed firms, Bangladesh, Dhaka Stock Exchange.*

**JEL Classification:** *G32, G34, O16, L25*

## Introduction

The relationship between corporate governance and firm's performance is getting considerable importance since their association can greatly affect firm's performance. A firm that practices good corporate governance may promote investors' confidence as well as may raise fund from the cheaper source of capital and channel fund to the optimal level of uses and thus maximize the firm's value. The implication of good corporate

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governance is that it ensures operational efficiency and financial excellence which eventually is reflected into firm's value in the form of wealth enhancement. It is therefore presumed that good corporate governance may reduce investment spending and increase sales growth, profit margin, and eventually firm's value (Gompers et al., 2003).

Corporate governance is the set of activities which ensures internal controls and processes through which individual companies are operated and managed. It provides a guideline that outlines rights, roles, and responsibilities of management, board of directors, stockholders, and stakeholders of an organization (Bauer et al., 2003). Good governance practice may enable the firm to generate above average returns for the organization and may contribute to ensure integrity, transparency, accountability, discipline, fairness, and social responsibility of the management which in turn may result in enhanced firms' value (Brown & Caylor, 2004).

Companies that ensure better corporate governance have generated higher equity returns and valued superior by all the stakeholders since their healthy operating performance is reflected in their financial statements (Bauer et al., 2003). Research on Brazilian firm's shows that less than 4% firm practices good corporate governance and firms with improved corporate governance generate higher returns for their shareholders (Silva & Leal, 2005). Good corporate governance reduces cost of capital because it reduces shareholders' monitoring cost. It also reduces agency cost among stakeholders and allows raising fund at lower cost to finance profitable investments. Thus, good governance may ensure smooth functioning of financial market and economic well-being of a country.

Researchers found that lack of corporate governance can erode firms' value. Absence of corporate governance deteriorates several variables such as accountability, transparency, integrity, disclosures, and risk management process and thus initiates financial crisis (Kumar & Sing, 2013). Importance of corporate governance has been intensified due to the financial scandals marked by Adelphia, WorldCom, Tyco, and Enron which stimulates legislation of rigorous U.S. regulation as the Sarbanes-Oxley Act of 2002 (Byrnes et al., 2003).

Effectiveness of corporate governance and its impact on firm's performance depends on some key variables which include, *inter alia*, CEO duality, disclosures, director education, board independence, leverage, board size, chairman of audit committee, and proportion of non-executive directors, ownership construction, and institutional participation and so on. However, their degree of influence on firm's value is not identical. Some variables may have significant impact on firm's value in one country, while those may have insignificant impact on firm's value in another country. For example, Shukeri et al. (2012) found negative relationship between board independence and firm performance. But there is evidence that board composition does not have statistically significant effect on performance in USA (Bhagat & Black, 2002; Weisbach & Hermalin, 2000). Hence, board that consists of outside directors can control managers in support of the shareholders (Fama & Jensen, 1983). Shleifer & Vishny (1997) noted that ownership composition, along with national law, is one of the most critical

foundations of corporate governance. Zeitun & Tian (2007) find positive relationship between ownership concentration and firm performance, when performance is measured by ROA. However, ownership concentration is not always positively related with firm's performance since there is no evidence of positive relationship between ownership concentration and firm performance (Agrawal & Knoeber, 1996). CEO duality is a situation in which CEO of a firm is performing both the role of a CEO and chair of the board. Sheikh et al., (2013) found that CEO Duality is inversely related with firm's performance in Pakistan. Again, Yermack (1996) showed that firm's performance increases linearly when CEO is separated from board chair. Thus, variables which are interrelated with corporate governance cannot provide generalized findings and yet is varying according to the market structure, regulation, firms' size, capital structure, and so on.

This paper examines the influence of corporate governance variables on firm's performance in developing country perspective. More specifically, the objective of this study is to provide a theoretical background of corporate governance and firm performance in determining firms' value. We examine that whether good corporate governance can increase Bangladeshi firms' performance measured in terms of ROA and ROE.

The rest of the paper is organized as follows: Section two presents the literature review on firm performance and corporate governance followed by section three that defines the variables used in the study. In section four, the data issues have been discussed followed by empirical models to measure firm performance. Next section elaborately explains the empirical results of our study. Last section presents the conclusion with some recommendations and scope for further study.

## **Literature Review**

The ultimate purpose of corporate governance is to ensure that the firm's operation is parallel to shareholders' interest. Governance is suggested besides firm performance as it may greatly contribute to ensure transparency, fairness, integrity, and visibility of propriety (Brown & Caylor, 2004). Core et al., (1999) found that firm having poor governance structure increases agency problem which ultimately translates into poor firm performance. So, good corporate governance plays a pivotal role in enhancing market value of the firm (Black, 2001; Gompers et al., 2003; Rouf, 2012). Black et al., (2006) found a positive relationship between corporate governance and firm value by using a linear relationship between corporate governance and firm's value. In a study, Gompers et al., (2003) concluded that firms which ensure strong shareholders rights have higher profit, higher sales growth, and higher value.

Rouf (2012) examined Bangladeshi firms and found a positive relationship between corporate disclosure and firm performance. Quality disclosure ensures transparency and it removes any error in the firm's financial statement which may act as a channel of building trust among shareholders about firm's performance and therefore contribute positively to remove fear of accounting manipulation. However, rules and regulations do not enhance firms' value until it is implemented in a proper way. In another study Wise et

al., (2014) examined five cases to see whether corporate governance is properly utilized in Bangladesh and their study claimed that monetary, fiscal and exchange rate policies should be properly applied with appropriate diligence by the concerned regulatory authorities in Bangladesh that may add value to the firm. Chhaochharia & Grinstein (2007) documented that investors' attitude towards rules are that those do not increase their wealth in the long run. But the presence of regulations may increase investors' confidence in the sense that the presence of the regulations may protect their interest.

Bauer et al., (2003) analysed whether good corporate governance generates higher equity return and increases firm's value. Though they found a positive relationship between firm performance and corporate governance but it becomes fragile when they take country differences into account. However, well-governed firm is more valuable and profitable, because they are well managed, hence be able to distribute more cash to shareholders. Thus, good governance is strongly related with good performance (Brown & Caylor, 2004). This proposition is consistent with the findings of Gompers et al., (2003). In contrary, Black et al., (2006) argued that better-governed firms are not necessarily more profitable firm; instead investors attribute more value to the better-governed firm than firms which are not well governed.

Haat et al., (2008) studied the relationship between audit quality and firm performance and found a negative association between these factors in Malaysian companies. Lehmann & Weigand (2000) demonstrated that concentrated ownership represents suboptimal choice for the large shareholders because it does not necessarily improve profitability. Shleifer & Vishny (1997) contended that ownership concentration is one of the key determinants of corporate governance. However, large shareholders can prevent misappropriation of wealth (Mitton, 2002). Zeitun & Tian (2007) also documented a positive relationship between ownership concentration and firm performance when firm performance is measured by ROA. Sheikh et al., (2013) studied the way by which firm performance is influenced by ownership concentration and found a significant positive relationship between ownership concentration and firm performance.

Gill & Mathur (2011) studied the influence of board size and CEO duality on the value of Canadian manufacturing firm. They found an inverse relationship between board size and the value of the firm. However, they showed a positive relationship between CEO duality and the value of the firm. In contrary, Sheikh et al., (2013) studied whether corporate governance influences firm performance in Pakistan and they found an inverse relationship between CEO duality and firm performance.

Outside board members who have appropriate stock ownership may have the motivation to ensure effective monitoring and superintending important corporate decisions and thus it is expected to have a positive impact on firm performance. For example, Brown & Caylor (2004) found a positive relationship between board independence and ROE, profit margin, dividend yield and many other important measures of firm performance. So, the relationship between board independence and firm performance is mixed.

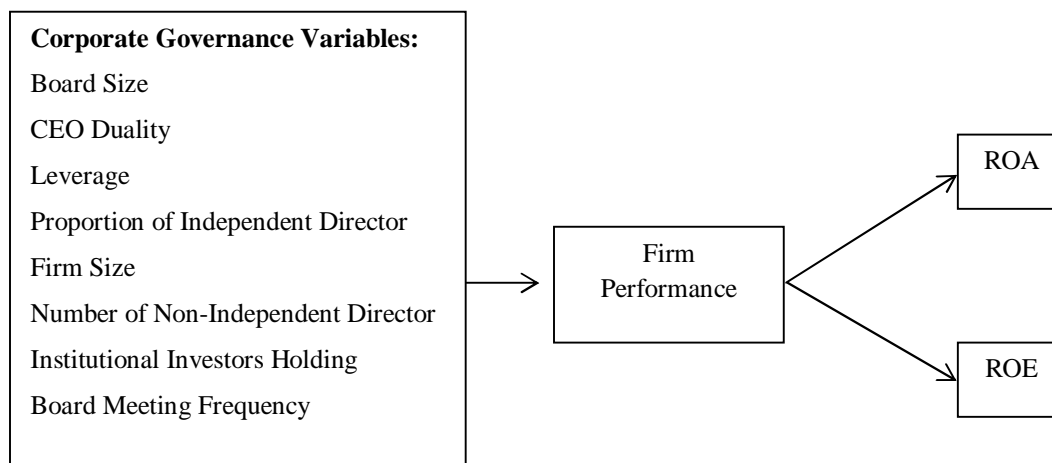
Smaller board size is preferred to larger board size since larger boards are usually affected by poor communication process though widespread monitoring occurs but benefit of strict monitoring is offset by the cost of ineffective communication (Lipton & Lorsch, 1992; Fama and Jensen, 1983). Yermack (1996) found negative relationship between board size and firm performance (measured by Profit Margin & Tobins' Q). However, Brown & Caylor (2004) showed that board size which consists of six to fifteen members achieves higher ROE and net profit margin compared to firms of other board sizes.

**Research Objectives:** Objectives of this study are as follows:

- a. To identify the variables that influence firm performance through good governance.
- b. To measure the extent through which corporate governance can influence firm performance.
- c. To determine impact of corporate governance on firm's performance.

### Analytical Framework

Based on literature reviews presented above, the present study attempts to utilize the characteristics of corporate governance by using eight variables like (i) board size; (ii) duality of the CEO; (iii) financial leverage; (iv) proportion of independent directors; (v) firm size; (vi) number of non-independent directors; (vii) institutional investors' holdings; and (viii) board meeting frequency. Each of these characteristics is discussed in details as given below. In this study, we propose following research framework as presented in Figure 1.



**Figure 1:** Analytical Framework of Firm Performance

**Explanation of the Variables:** The following section quantifies how firm performance is affected by governance related variables:

### **Board Size**

Board size represents the total number of independent and non-independent directors who make the final decision that is best for the long-term interest of the shareholders. This variable is considered to be an effective governance mechanism since board members are responsible for observing and controlling management activities (Silva & Leal, 2005). Larger board size reduces the management's ability to dominate over board members (Zaheer, 2013). Although many researchers try to find the optimum board size, but no conclusion is yet to be drawn about what should be the perfect size of a board.

### **CEO Duality**

CEO duality means that "the CEO is also holding a position as a chairman of the board of directors". Agency theorists argue that "when a board chairman is also a CEO, he will gain sufficient controlling power to gain more private benefits" (Finkelstein & D'Aveni, 1994). Rozina & Nishat (2005) showed that CEO duality is negatively and significantly related to firm performance. Khan & Nemati (2011) showed that there is adverse effect on firm's performance if CEO also acts as a chairperson of board of directors.

### **Leverage**

Leverage involves borrowing money to invest in securities over and above the money contributed by shareholders. Weill (2003) carried out new empirical evidence on corporate governance issue and found mixed evidence regarding relationship between leverage and corporate performance. In Italy, he found negative relationship whereas the relationship turned out to be positive for firms in France and Germany.

### **Proportion of Independent Director**

Independent directors are the board members who are not biased, influenced, controlled or monitored by the management of the company. A board should consist of minimum number of independent directors having diversified knowledge and skills to ensure good corporate governance (Black et al., 2006). A board that comprises insiders may take decision which may unfairly benefit management and other influential shareholders. Moreover, a board consisting of a majority of independent directors may limit undue influence of management over the critical issues of the board. Klein (2002) argued that good governance and firm performance is linearly related with the proportion of independent directors. Brickley et al., (1994) documented a linear relationship between the proportion of independent director and stock market movement.

### **Firm Size**

Firm size represents the quantity of assets or resources a firm owns. Implementation of governance mechanisms requires incurring cost in terms of hiring external auditors and or

consultants which vary across the firms depending on their resource base. Moreover, differences in asset base needs varying degree of governance requirements (Black et al., 2004). Firm size can be calculated as a measure of total sales, total asset or market capitalization (Imam & Malik, 2007). Farooque et al., (2007) used both log of asset and sales as a measure of firm size.

#### **Number of non-independent director**

Non-independent board members are those members of a board who are associated with a business or entity and having control over the management of that organization. They can be executive directors who are the members of executive management and can be non-executive directors who are not the members of executive management. As an inside members, they generally possess more information than outside directors and thus they have the opportunity to divert shareholders interest into their own interest. Hence, it is expected that number of non-independent director is negatively related with firm performance. Baysinger and Butler (1985) documented that board consisting of more number of independent directors perform better in terms of ROE than board consisting of more number of non-independent directors. Therefore, number of non-independent director is expected to be negatively related with firm performance.

#### **Institutional Investors Holding**

Ownership composition, especially institutional investors holding, also reflects the state of corporate governance of a particular institution. As institutional investors scrutinize a company rigorously and perform necessary due diligence before investing in any security, so they will not go for investing in companies with poor governance structure because poorly governed companies may not be able to generate better return in future. Moreover, when sponsors and other controlling shareholders apt shareholders wealth, then institutional shareholders can mitigate such agency cost because of their large shareholdings that enable them to monitor managerial action (Farooque et al., 2007). Hence, as institutional shareholdings strengthen governance structure, thus we hypothesize that it may have a positive influence on firm performance.

#### **Board Meeting Frequency (BMF)**

In order to protect shareholders' interest, board plays a critical role as they have control over managerial action. Board meeting frequency is considered as important governance instrument as board approves the most critical decision for a firm. Moreover frequent board meeting also increases accountability of management, help formulate sound business strategy, ensure compliance with rules and regulations, strengthen internal control and risk management system (Kesner & Johnson, 1990). Ajanthan et al., (2013) argued that board meeting frequency is an important governance tool as it can be arranged in more cost effective way than restructuring the board. However, frequent meeting requires incurring additional cost in the form of administrative support and directors' fee. Thus, the relationship between BMF and firm performance may be quite ambiguous.

### Firm Performance

Firm performance can be measured through a variety of indicators like net income, stock price, and the intrinsic value of the company (Melvin & Hirt, 2005). We choose accounting based measurement method, for example, return on equity (ROE) and return on assets (ROA), which are also used by Ajanthan et al., (2013). However, some authors (Abdullah 2004; Bhagat & Black, 2002) prefer market value based performance measures such as Tobin's Q. In general, we can assume that whatever the size or nature of the firm is, if governance mechanisms are not implemented effectively, then the ROE and ROA of the firm is expected to decline. So, as a performance measure we have chosen ROA and ROE as they are extremely affected by governance mechanisms.

**Table 1:** Description of the variables

<i>Dependent Variables</i>	<b>Description</b>	<b>Measurement</b>
ROA	Return on Asset	Earning after tax/ Total Asset
ROE	Return on Equity	Earning after tax/ Shareholders Equity
<i>Explanatory Variables</i>		
BSIZE	Board size	Number of directors on the board
NINDP	Non independent directors	Number of non- independent Directors
CEOD	CEO duality	A dummy variable. If CEO is also the chairman, then 1 otherwise 0. (1= Yes, 0 = No)
LASSET	Log of asset	Natural log of total assets as reported in the annual report of particular firm
PROP	Proportion of Independent Directors	(No. of independent directors)/Total No. of Director
DE	Debt/Equity ratio(times)	long term Borrowing / Total Equity
INTINV	Institutional Investor	Shareholding by the Institution/ Total Number of Shares
BMF	Board meeting Frequency	Number of board meeting in a fiscal year

### Data and Empirical Model

#### Data

To carry out the study the present study mainly relies on financial report of the selected firms listed on DSE for the year ended 2011. For data, the present paper focuses only on the directors' reports, balance sheets, and income statements in their published annual reports.

Secondary data for the study are drawn from audited accounts (i.e., income statements and balance sheets) of the selected firms. Necessary checking and cross checking were done while scanning information and data from the secondary sources. All these efforts



have been made in order to generate validity of data for the present study. Hence, researchers are satisfied with the content validity of the data. Data have been collected from a total of 60 companies which are listed in DSE. Number of firms has been selected on the basis of availability of annual report for the year ending 2011. Picking up the firms for analysis has been conducted on the basis of convenience sampling method. Some well-known statistical packages like SPSS (Version 18), E-Views (Version 7) and STATA Version 12) have been used to analyze the data.

**Table 2:** Number of firms by industry group

Industry	Number of Firms
NBFI	8
Banking	24
Insurance	2
Pharmaceuticals	3
Automobiles	1
Manufacturing	11
FMCG	4
Food and Beverage	3
RMG	4
Total	60

Source: Annual Reports of the selected firms for the year 2011.

### Empirical Model

The following two models are formulated to analyze the data that include all variables represented for corporate governance which are used to explain the linear relationship between corporate governance and firm's performance. The models are specified as follows:

$$ROE_i = \beta_0 + \beta_1 BS + \beta_2 NINDP + \beta_3 CEOD + \beta_4 LASSET + \beta_5 PROP + \beta_6 DE + \beta_7 INTINV + \beta_8 BMF + \varepsilon_i \quad (1)$$

$$ROA_i = \beta_0 + \beta_1 BS + \beta_2 NINDP + \beta_3 CEOD + \beta_4 LASSET + \beta_5 PROP + \beta_6 DE + \beta_7 INTINV + \beta_8 BMF + \varepsilon_i \quad (2)$$

Where,  $\beta_0, \beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7, \beta_8$ , are the unknown regression coefficients to be estimated. The study also checked for the possible presence of multicollinearity by using variance inflation factor (VIF) as well as run a statistical test, the Breusch-Pagan Test, for detecting the presence of heteroscedasticity.

### Results and Discussions

Table 3 presents the summary statistics of the variables used in the present study. The average value of ROA of 60 firms is 5.51% with a standard deviation of 8.54%. The average value of ROE is 17% with a higher standard deviation of 16.13% compared to ROA.

**Table 3:** Descriptive Statistics

Variable	Mean	Standard Deviation	Minimum	Maximum
ROA	0.0551	0.0854	-0.0758	0.5543
ROE	0.1700	0.1613	-0.043	0.9476
BSIZE	11.3000	5.5519	5	26
NINDP	6.65	6.1529	0	25
CEOD	0.2667	0.4459	0	1
LASSET	10.1305	0.9889	7.3154	11.7012
DE	2.4163	3.1314	0	13
PROP	0.1119	0.1079	0	0.4286
INTINV	0.1562	0.1637	0	0.99
BMF	9.7667	6.8627	1	31
Number of firms	60			

Source: Authors' calculation

Since firms' average ROA is much lower than the average ROE it implies that selected firms are highly levered. The average number of directors on a board is 11.3 for the selected firms. Average number of non-independent directors is 6.65 which indicate that most members of the board are non-independent. Thus, greater number of internal director may increase asymmetric information cost and agency cost which eventually may reduce firm's value. The average value of CEOD of the selected firms is 0.27 with a standard deviation of 0.45. The average LASSET across all firms is 10.13, and average deviation is 98.89%. The average debt equity ratio (hereafter DE) is 2.42 across all firms whereas standard deviation is 10.79%. Average DE of 2.42 indicates that selected firms have financed major portion of their capital by raising debt. The average BMF of the selected firms is 9.77 which mean that firms arrange board meeting 10 times in a particular fiscal year. However, the benefit from greater number of meetings depends on board member's knowledge, skills, experience, diversity, integrity and commitment to protect shareholders interest, effective implementation of rules, regulation and compliance, avoid undue influence from managers, providing direction and effective monitoring of managers.

Table 4 presents the Pearson correlation matrix which indicates all variables included in the analysis. It is evident from the table that all variables do not have a high correlation with other independent variables. The result suggests that ROA has significant negative relationship with variables like BSIZE, LASSET, PROP and BMF. Fama & Jensen (1983) argued that small board is more effective to large board and CEO with small board cannot control over the board. Thus, BSIZE, which is significant at 5% level in the present study, can be negatively related to performance.

Ayorinde et al., (2012) also found a negative relationship between board size and firm performance measured by both ROA and ROE. BMF is statistically significant and inversely related with ROA. This may be attributed to incurring additional cost of

meeting arrangement and other administrative cost associated with board meeting which has a negative impact on ROA. On the other hand, ROA has significant positive association with the variable PROP. The relationship between ROA and the variables like NINDP, CEOD, and DE are found to be negative and statistically insignificant.

**Table 4:** Pearson Correlation Matrix and VIF Scores

A correlation matrix among variables											
	ROA	ROE	BSIZE	NINDP	CEOD	LASSET	DE	PROP	INTINV	BMF	VIF
ROA	1	0.41**	-0.33*	-0.15	-0.17	-0.26*	-0.16	0.29*	0.11	-0.27*	-
ROE	0.41**	1	-0.14	-0.17	0.00	-0.14	0.30*	0.08	0.39**	-0.10	-
BSIZE	-0.33*	-0.14	1	0.41**	0.21	0.68**	0.41**	-0.62**	-0.14	0.60**	3.84
NINDP	-0.15	-0.17	0.41**	1	0.13	.207	-0.01	-0.02	0.07	-0.10	1.75
CEOD	-0.17	0.00	0.21	0.13	1	0.37**	0.23	-0.19	-0.09	0.18	1.20
LASSET	-0.26*	-0.14	0.68**	0.21	0.37**	1	0.34**	-0.61**	-0.24	0.56**	2.41
DE	-0.16	0.30*	0.41**	-0.01	0.23	0.34**	1	-0.30*	-0.01	0.38**	1.32
PROP	0.29*	0.08	-0.62**	-0.02	-0.19	-0.61**	-0.30*	1	0.30*	-0.49**	2.11
INTINV	0.11	0.39**	-0.14	0.07	-0.09	-0.24	-0.01	0.30*	1	-0.35**	1.25
BMF	-0.27*	-0.10	0.60**	-0.10	0.18	0.56**	0.38**	-0.49**	-0.35**	1	2.36
Average VIF Score											<b>2.03</b>

Note: \*\*  $p < 0.01$ ; \*  $p < 0.05$ . (2-tailed).

On the other hand, BSIZE, NINDP, LASSET, and BMF are negatively related with ROE although the negative association is statistically insignificant to influence ROE. But DE, PROP and INTINV are positively related with ROE. Among them DE and INTINV are significant at 5% level. The significant positive association between ROE and debt ratio indicates that a small increase in leverage would exert a positive impact to increase net income holding other things constant. PROP is positively related with ROE and it indicates that as the number of independent directors increases board members accountability towards stockholders also increases.

Moreover, the variance inflation factor (hereafter VIF) is used to detect whether one predictor has a strong linear association with the remaining predictors (the presence of multicollinearity among the predictors). The largest VIF among all predictors is often used as an indicator of severe multicollinearity. The average VIF of all the estimated models is 2.03 (below the conventional threshold of 6), and the maximum VIF was 3.84 (below the conventional threshold of 10, McDonald & Moffit, 1980). Thus, we may conclude that multicollinearity does not appear to be a big problem in our estimates. In Table 5, Panel A, we present the outcomes from the Breusch-Pagan-Godfrey test for the presence of heteroskedasticity in the data. The Prob. Chi-Square in Panel A and Panel B is less than 5% and these tests indicate that, in the adopted empirical model, there is evidence of heteroskedasticity in Panel A (ROA) and Panel B (ROE). The results of the heteroskedasticity are presented in Table 5.

**Table 5:** Results of Diagnostic Tests

Panel A: Heteroskedasticity Test: Breusch-Pagan-Godfrey (ROA)			
Chi2(1)	24.33	Prob>chi2	0.000***
Panel B: Heteroskedasticity Test: Breusch-Pagan-Godfrey (ROE)			
Chi2(1)	23.87	Prob>chi2	0.0000***

After considering the extent to which variables suffer from multicollinearity and heteroskedasticity, two multiple regression models have been estimated and the results are presented in Table 6. The results of the  $R^2$  are 0.147 and 0.308 for model 1 (ROA) and model 2 (ROE) respectively and the remaining 85.3% and 69.2% of the unexplained variability can be attributed to the variation of other independent variables which are not incorporated in these models (see Table 6). In this model we have found that BSIZE, NINDP, and BMF are insignificant but negatively related with firm performance measured by both ROA and ROE. Lipton & Lorsch (1992) suggested that larger size board often make coordination and decision making difficult and ineffective and thus it should be avoided. So, it is expected that larger board size might have negative impact on firm performance.

**Table 6:** Multiple Regression Analysis (Heteroskedasticity Adjusted):

Particulars	ROA			ROE		
	Coefficient	Robust SE	t-ratio	Coefficient	Robust SE	t-ratio
BSIZE	-0.0017	0.0032	-0.52(0.607)	-0.0064	0.0075	-0.85 (0.398)
NINDP	-0.0018	0.0012	-1.39(0.171)	-0.0024	0.0037	-0.64 (0.527)
CEOD	-0.0183	0.0190	-0.96(0.341)	0.0041	0.0511	0.08 (0.936)
LASSET	0.0065	0.0173	0.38(0.707)	-0.0124	0.0377	-0.33 (0.744)
DE	-0.0004	0.0018	-0.22(0.823)	0.0196	0.0115	1.70* (0.096)
PROP	0.1334	0.1211	1.10(0.276)	-0.1619	0.2901	-0.56 (0.579)
INTINV	0.0099	0.0719	0.14(0.89)	0.3733	0.1467	2.54** (0.014)
BMF	-0.0019	0.0012	-1.49(0.143)	-0.0002	0.0040	-0.05 (0.958)
constant	0.0272	0.1547	0.18	0.298	0.3680	0.81
R Square	0.147			0.308		
F Value	1.45 (0.1986)			1.91* (0.0780)		
Durbin-Watson	1.91			1.89		

Source: Authors' calculations. Note: \*\*  $p < 0.05$ ; \*  $p < 0.10$ . Figures in the parentheses represent  $p$ -values.

CEO duality is an insignificant determinant of firm performance and negatively related with ROA while positively related with ROE. Cheema and Din (2013) also found that CEO duality has negative but significant impact on firm performance. LASSET, which is a proxy of firm size, has a positive but insignificant effect on ROA while the variable is

negative and insignificant for ROE as well. Black et al., (2012) suggested that large firms have a tendency to make overinvestment and the benefits of governance decreases as overinvestment increases.

Debt ratio (DE) has a positive and statistically significant impact on ROE. It implies that as leverage increases net income also increases which exerts a positive impact to increase ROE as well. One plausible explanation of this finding is that debt holders' control of firms with covenants in their indentures, may spoil the aggressive strategies of the management that ultimately contribute positively to ensure financial excellence. Cheng & Tzeng (2011) analyzed 645 Taiwan companies and found positive relationship between debt ratio and firm value. Imam & Malik (2007) also found statistically significant positive relationship between firm performance and leverage when firm performance is measured by holding period return and Tobin's Q. However, DE is insignificant and negative when ROA is used. DE is insignificant to influence ROA because net income is critically affected by some other variables such as sales, operating cost, tax etc. Proportion of independent director is also found to be positive but insignificant to influence firm performance when measured by ROA. It means higher number of independent directors leads to higher performance for the firm. As independent directors are selected externally and may not possess substantial interest in the firm, so it is assumed that they can pursue the board to take those decisions which reflect shareholders interest.

Institutional investor holding is significantly and positively related with firm performance measured by ROE. It is because institutional shareholders invest in well governed company and closely monitor their investing companies. Thus, institutional investors' critical monitoring role contributes to reduce agency cost, increased board vigilance, and improved firm performance. Imam & Malik (2007) reported a positive relationship between institutional shareholding and firm performance. However, the relationship turns out to be positive and insignificant when performance is measured by ROA.

## **Conclusions**

This study examined corporate governance and its impact on firm performance in Bangladesh using cross-section data of the year 2011. Accounting based performance measures such as ROA and ROE are used to measure the financial performance of these selected firms. The findings of this study indicate that components of corporate governance such as the proportion of independent directors and number of independent director are positively related with ROA while the other variables are negatively related with ROA. On the contrary, debt-equity ratio, proportion of independent directors and number of independent directors are significantly and positively correlated related with ROE.

Estimated results of this study confirm a significant positive association between corporate governance variables and firm's financial performance. It is evident from the results of the heteroskedasticity adjusted multiple regression analysis that debt-equity ratio and institutional investors have strong positive relation with ROE, which are

significant at five percent level of significance. Based on the results it may be deduced that debt holders' control of firms with covenants in their indentures, may impair the aggressive strategies of the management that ultimately contributes positively to ensure financial excellence. Therefore, it may dependent to a large extent upon the policy makers as well as corporate governance thinkers to decide the optimum levels for these variables that may lead to ensure effective governance of the firms in one hand and contribute to maximize shareholders wealth on the other hand.

The present study is based on a simplistic model of corporate governance that has taken into account only eight aspects of corporate governance into account. There are other factors, internal as well as external that may also affect state of corporate governance in an organization. A further study may be carried out including more factors in the model and by expanding its scope to more industries for better understanding and generalizing of the findings. Other key performance indicators (KPI) like Tobin's Q may also be introduced in the model for more realistic measurement of firm performance in further research.

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# A Study on Sales Decline of Real Estate Sector in Bangladesh

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**Abstract:** *The real estate sector in Bangladesh has been experiencing a downturn for last few years. But the reasons behind its change of fortune are varied and disproportionate. In major cities especially Dhaka and Chittagong, the problem of allocation in housing is increasing day by day. Because the change in population in the two cities has been rapid, housing shortage has been severe. The majority of the citizens fall within middle income or low income groups. The contributions of the real estate developer companies in solving this problem have been minimal at best. Initially this sector experienced rapid growth but now for survival it faces different degree of challenges. The membership of the REHAB is 1121 and there are other non member companies operating in this sector. However, most of them are operating at a loss because of decreasing sale in the ready-made apartments. Hence, the purpose of this study is to identify the issues that create the fall in demand in the market for readymade apartments.*

**Key words:** REHAB, idiom, loading, parallel test, pattern matrix.

## Introduction

The real estate market had seen a huge setback worldwide as a result of the worldwide financial crisis of 2008. However, the localized effects in Bangladesh were not really pronounced before the Stock Exchange crash in 2011. The real estate bubble that was fueled by the stock market bubble was heavily affected by the downturn in the market.

Given the extent of the investment in the real estate sector, it can be assumed that the sellers in the real estate market are highly motivated to make a deal. However, the reason cited for the downturn in the market is the lack of demand. Consumers are less willing to indulge in long term major investments such as purchase of property given that most of the financial market had taken a nosedive.

Bangladesh real estate market is an interesting study because of the sheer contrast it offers to the US market. In the US, the post dot com recession was countered by generating growth in the real estate market. The entire boom in the financial markets was fueled by an ever increasing property values, leading to the creation of the subprime bubble.

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In the Bangladesh market, however, the boom in real estate was fueled both by urban migration and subsequent increase in housing demands and the financial bubble created by a booming securities market. The private sector real estate investment catered solely to the demand created by the robust stock market. As such, the properties that were developed mostly by the private real estate developers were aimed at premium pricing markets.

Development of public housing, in contrast, has been painstakingly slow and fraught with the problems that are typical of public sector projects. The value generated in the real estate market usually has come exclusively from the private sector. As such, the commercial banks and other lending institutions are also heavily affected in terms of the downturn.

In Bangladesh, the commercial banks, both public and private, face a rather unique problem of high proportion of non-performing loans. However, the problem in the commercial banking sector is exacerbated by the failure of the real estate sector to deliver. A significant amount of private sector investment has been compromised by the downward trend in the real estate sector, with ripple effects in the other areas which are overseen by the commercial banking system.

The stalling of growth in the real estate market has exposed a particular vulnerability in the Bangladesh economy. No matter how much Bangladesh becomes part of the emerging markets, it continues to receive a disproportionate amount of global investment and very little attention from the global investment trends in real estate. Some parts of the emerging markets such as Malaysia and Thailand are booming because they are recipient of the major investment funding by the global financial systems with particular attention in the real estate sector. However, on the other end of the emerging market spectrum, Bangladesh receives little or no attention in its real estate sector both in terms of investment and development as well as international buyers.

This lack of consumer demand in Bangladesh real estate is true both in terms of local as well as international buyers. The purpose of this paper is to examine the factors that lead to the reduction in consumer demand that is contributing to such a lack of growth in the sector. Historically, for Bangladesh real estate has always been one of the most successful sectors of the economy. It would have grave consequences in the long term development of the economy if this sector continues to experience such recessionary impact.

### **Literature Review**

Since the end of the Cold War and the beginning of the globalization phenomenon, the international market for real estate has become highly diversified and lucrative in terms of return on investment. Rapid development in transfer of financial technology has enabled the international financial system to pour money into the real estate assets of the emerging markets (Murray). It is usual for investors and fund managers assign capital to chosen regions and countries before selecting particular forms of real estate (Baum, 2009). There is a great deal of relevance to the choice of a country because social

interaction, provided by spatial proximity, helps to build trustworthiness and rapport, which are crucial for getting market information (Leyshon and Thrift, 1997, Agnes, 2000). Hence the importance of geography in portfolio choice, savings and investment, affecting the investor's decisions and returns (Stulz, 2005). As a result, allocation of capital among countries is rather uneven, often due to barriers which are perceived as well as actual ones (Murray).

Given that if the degree of integration between national markets is high, the potential benefit from international diversification would be minimal (e.g., Taylor and Tonks, 1989; Bessler and Yang, 2003), it gives us greater insight into the extent to which international investment in the property market is affected by localized factors. Many such factors such as exchange rate risk, information availability, legal and tax differences, foreign ownership restrictions, home bias etc. create the impediments to free flows of capital funds across national borders (Errunza and Losq, 1985).

Other factors that continue to affect the real estate market in the developed world are (1) macroeconomic factors, such as real GDP growth, employment, inflation, monetary policies, and fiscal policies; (2) microeconomic/financial factors, including rental costs as well as real property financing, construction, and transaction costs; and (3) regulatory factors, such as property laws, tax rules, and leasing regulations associated with real estate. (J Yang et al, 2005)

However, it has not been demonstrated whether countries that are not high on the list of international investors would necessarily experience lower social benefits as a result of less entry into their real estate markets. Given that international investment has made it easier to expand the real estate market in a global way, we can perceive that certain uniformities of the real estate market in the developed world would also become part of the global market. In particular, the low barriers to entry in the real estate market results in the same efficiency distributions as they do in the developed country markets such as the US.

Moreover, the similarities indicate that the low barriers to entry would result in creation of inefficiency in the emerging real estate markets. In the US market, low barriers lead to loss of efficiency. (Hsieh and Moretti, 2003)

Furthermore, as we have seen before, the emerging markets do not fare equally and the result of the European markets would be a good indicator of how the former would pan out. The European market for real estate have had a disproportionate impact due to the common currency, with the advanced industrial nations getting a greater share of the pie and lesser industrial countries having little or no impact. (Yang et al 2005).

The other characteristics of the real estate property market are the tendency towards information asymmetry and prices being sticky downwards. In particular, real estate property prices are subject to the psychological point of initial purchasing price (Fabozzi et al, 2011). Given that certain emerging markets experience fluctuation in financial markets more than others, this would clearly mean two things: global investments are disproportionate among the emerging markets and those with less fluctuations and steady economic growth would get greater allocation of the global capital (Baum, 2009).

In the face of dual challenge of global financial crisis of 2008 and climate change issues, the emerging markets as well as OECD countries have developed a trend towards environmentally sustainable real estate development as a selling point. Empirical research has revealed that LEED and ENERGY STAR4 buildings on average have higher value, rent, and occupancy than comparable conventional buildings (Miller, Spivey, and Florance, 2008; Dermisi, 2009; Fuerst and McAllister, 2009; Eichholtz, Kok, and Quigley, 2010; Wiley, Benefield, and Johnson, 2010). Clearly, consumers are more inclined towards real estate properties which are “green” in nature and therefore developers feel compelled towards justifying the extra cost that would be incurred in developing properties that are environmentally sustainable (Galuppo and Tu, 2010). However, the cost of creating energy efficient buildings is not without challenges: the volatility of demand and the fall in the growth of investment in the post financial crisis of 2008 makes increasingly difficult to allocate resources more efficiently (WBCSD).

### Data and Methodology

The data used in this study were collected from 150 employees in 30 companies among 1121 registered member of Real Estate and Housing Association of Bangladesh (REHAB) and 50 customers who were found capable of purchasing apartment. By summing over the market this research find 31 variables or sectors as vital in fall the demand of apartment in Bangladesh. The factors are:

$X_1$ = Income	$X_{16}$ = Bank Loans Availability
$X_2$ = Cost of Living	$X_{17}$ = Green Environmental
$X_3$ = National Economic growth	$X_{18}$ = Location
$X_4$ = Fixed Assets investment	$X_{19}$ = benefit from renting
$X_5$ = political stability	$X_{20}$ = Govt. Financial Incentive
$X_6$ = investment from NRB Clients	$X_{21}$ = Tax Incentive
$X_7$ = Rate of Price change of Apartments	$X_{22}$ = Foreign Investment
$X_8$ = selling effort	$X_{23}$ = natural disaster
$X_9$ = bank interest for House Loan High Rise Building	$X_{24}$ = Resources availability to Build
$X_{10}$ = Risk of investment	$X_{25}$ = Awareness about better Housing
$X_{11}$ = Frequency of promotional activities	$X_{26}$ = mortgage availability
$X_{12}$ = Emigration rate	$X_{27}$ = Government Regulation
$X_{13}$ = Quality of Construction Work	$X_{28}$ = Energy Support
$X_{14}$ = saving rate	$X_{29}$ = Energy Price
$X_{15}$ = handover time	$X_{30}$ = Customized interior design
$X_{31}$ = Entrepreneur experience	

### The Orthogonal Factor Model

The observable random vector  $\mathbf{X}$ , with  $p$  components, has mean  $\mu$  and covariance matrix  $\Sigma$ . The factor model postulates that  $\mathbf{X}$  is linearly dependent upon a few

unobservable random variables  $F_1, F_2, \dots, F_m$ , called *common factors*, and  $p$  additional sources of variation  $\varepsilon_1, \varepsilon_2, \dots, \varepsilon_p$ , called *error* or sometimes *specific factors*. In particular, the factor analysis model is

$$\begin{aligned} X_1 - \mu_1 &= l_{11} F_1 + l_{12} F_2 + \dots + l_{1m} F_m + \varepsilon_1 \\ X_2 - \mu_2 &= l_{21} F_1 + l_{22} F_2 + \dots + l_{2m} F_m + \varepsilon_2 \\ &\vdots \\ X_p - \mu_p &= l_{p1} F_1 + l_{p2} F_2 + \dots + l_{pm} F_m + \varepsilon_p \end{aligned} \quad (1)$$

or, in matrix notation,

$$\mathbf{X} - \boldsymbol{\mu} = \mathbf{L} \mathbf{F} + \boldsymbol{\varepsilon} \quad (2)$$

$(p \times 1) \quad (p \times m) \quad (m \times 1) \quad (p \times 1)$

Where,

$\mu_i$  = mean of variable  $i$

$\varepsilon_i$  =  $i$  th specific factor

$F_j$  =  $j$  th common factor

$l_{ij}$  = loading of the  $i$  th variable on the  $j$ th factor

We assume that,

$$E(\mathbf{F}) = \mathbf{0}_{(m \times 1)}, \quad \text{Cov}(\mathbf{F}) = E(\mathbf{F}\mathbf{F}') = \mathbf{I}_{(m \times m)}$$

$$E(\boldsymbol{\varepsilon}) = \mathbf{0}_{(p \times 1)}, \quad \text{Cov}(\boldsymbol{\varepsilon}) = E(\boldsymbol{\varepsilon}\boldsymbol{\varepsilon}') = \boldsymbol{\Psi}_{(p \times p)} = \begin{bmatrix} \psi_1 & 0 & \dots & 0 \\ 0 & \psi_2 & \dots & 0 \\ \vdots & \vdots & \ddots & \vdots \\ 0 & 0 & \dots & \psi_p \end{bmatrix} \quad (3)$$

and that  $\mathbf{F}$  and  $\boldsymbol{\varepsilon}$  are independent so,  $\text{Cov}(\boldsymbol{\varepsilon}, \mathbf{F}) = E(\boldsymbol{\varepsilon}\mathbf{F}) = \mathbf{0}_{(p \times m)}$

These assumptions and the relation in (2) constitute the *orthogonal factor model*.

## Analysis and Discussion

There are 31 variables that act as a barrier to explore the real estate sector, let the variables are defined as:

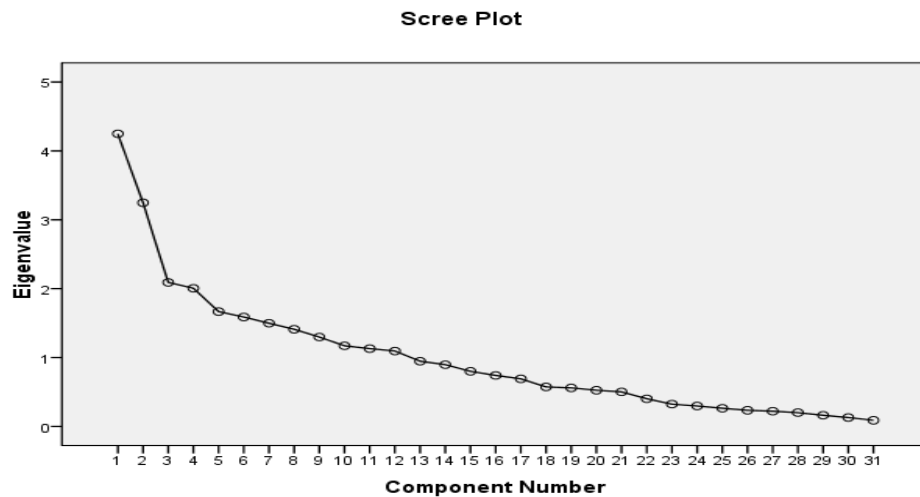
$X_1$ = Income	$X_{16}$ = Bank Loans Availability
$X_2$ = Cost of Living	$X_{17}$ = Green Environment
$X_3$ = National Economic growth	$X_{18}$ = Location
$X_4$ = Fixed Assets investment	$X_{19}$ = benefit from renting
$X_5$ = political stability	$X_{20}$ = Govt. Financial Incentive
$X_6$ = investment from NRB Clients	$X_{21}$ = Tax Incentive
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$X_{13}$ = Quality of Construction Work	$X_{28}$ = Energy Support
$X_{14}$ = saving rate	$X_{29}$ = Energy Price
$X_{15}$ = handover time	$X_{30}$ = Customized interior design
$X_{31}$ = Entrepreneur experience	

From our data set, the calculated correlation matrix of 31 variables from real estate sales drop is given in appendix Image-1, and Image-2.

The issues of sales drop have been factorized using PCA (principal component analysis) with direct oblimin. In appendix Table-1 represents eigenvalues, percentage of variance, and percentage of cumulative variance. There are thirty one number of issues that included for analysis. Among them twelve factors eigenvalue are more than one and these cumulative variance is 72.41% of the overall variance. The factor eigenvalue is greater than 1; it explains more variance than a single variable. From here, we will consider the twelve factors model.

From the scree plot, this analysis focuses the change of alb, only the components above the break for alb are the components. The below scree plot, there are two components occurred above the break for alb.



**Figure-01:** Scree plot

The third way, we can determine our component by parallel analysis. They extract and examine principal component eigenvalues to determine the number of common/principal axis factors! The Monta Carlo PCA parallel analysis procedure was recommended by Cattell and it is the procedure that he used in his scree tests. It is also the procedure used in the SPSS and SAS factor analysis routines (O'Connor, B. P. 2000). Applying the Monta Carlo PCA parallel analysis test has given the results;

### Parallel Analysis:

#### Principal Components & Random Normal Data Generation

Specifications for this Run:

Ncases 72  
Nvars 31  
Ndatasets 1000  
Percent 95

#### Raw Data Eigenvalues, & Mean & Percentile Random Data Eigenvalues

Root	Raw Data	Means	Prcntyle
1.000000	4.249020	2.492439	2.728884
2.000000	3.247010	2.251962	2.409542
3.000000	2.090617	2.081375	2.216149
4.000000	2.005465	1.931813	2.051987
5.000000	1.666940	1.804380	1.911439
6.000000	1.587943	1.689342	1.787261
7.000000	1.498152	1.581869	1.671544
8.000000	1.409948	1.484090	1.568201
9.000000	1.297724	1.390820	1.471260
10.000000	1.170627	1.302310	1.375464
11.000000	1.129247	1.221162	1.292603
12.000000	1.094522	1.142570	1.217156
13.000000	.946157	1.067582	1.134896
14.000000	.896424	.997066	1.064546
15.000000	.799972	.929354	.991887
16.000000	.740060	.864860	.925551
17.000000	.690495	.802182	.859231
18.000000	.573849	.742795	.799650
19.000000	.559638	.687144	.740243
20.000000	.524784	.632636	.685817
21.000000	.501572	.581363	.631496
22.000000	.401067	.530360	.580422
23.000000	.323370	.481437	.532651
24.000000	.296983	.435838	.485051
25.000000	.263739	.390766	.435284
26.000000	.234203	.347445	.390808
27.000000	.220589	.307776	.349730
28.000000	.200209	.267797	.306928
29.000000	.162197	.227747	.266666
30.000000	.128848	.186998	.224298
31.000000	.088628	.144721	.183288

The above table the first estimated eigenvalue (4.249020) is larger than 95% bench mark criterion eigenvalue from the multi collinear simulation (2.728884). Similarly the second estimated eigenvalue (3.247010) is also larger the bench mark eigenvalue (2.409542). So these two eigenvalues are significant. But rests of all estimated eigenvalues are less than bench mark eigenvalue. From Scree Plot and Monte Carlo PCA parallel analysis indicates most of the loadings are involved in two components.

In Component Matrix (Appendix, Table-2) most of the idioms load in first two components. Very few idioms load in the rest of the components. From this matrix we can conclude that first two components have best and strongest relationship among the different idioms.

For more confirmation the next steps are to analyze the pattern (Appendix, Table-3). Five idioms load about point three in first component and the six idioms load in second component. But rest of components contain three or less than three idioms. Any components load more than three idioms considering the factor.

From the above discussion we confirm two factors model for our analysis. For that again run the SPSS to fix the number of factor two. Then the pattern matrix (Appendix, Table-4) presents fourteen idioms including in first component and eleven idiom including in second component and rest of idioms neither in first nor in second component because of their less impact on sales drop of real estate sector (below 0.3).

Factor 1 has been named as 'State activities toward real estate sector and its response' that include the following variables;

- i) Political stability
- ii) Government Financial Incentive
- iii) Tax Incentive
- iv) Foreign Investment
- v) Awareness about better Housing
- vi) Mortgage availability
- vii) Licensing Problem
- viii) Handover time
- ix) Saving rate
- x) Quality of Construction Work
- xi) Location
- xii) Benefit from renting
- xiii) Investment by NRB Clients
- xiv) Fixed Assets investment

Factor 2 has been named as 'Customer financial strength and organizational operation activities' that include the following variables;

- i) Income
- ii) Cost of Living
- iii) National Economic growth
- iv) Rate of Price change
- v) Selling effort
- vi) Frequency of promotional activities
- vii) Resource availability to Build High Rise Building
- viii) Emigration
- ix) Bank Loans Availability
- x) Risk of Investment
- xi) Bank interest for House Loan



There are six variable namely Environment, natural disaster, Government Regulation, Energy Support, and Energy Price, Customized interior design rather than purchase not including any factor because less correlation coefficient. This indicates these variables have no impact on sales drop in real estate sector.

### Conclusion:

The research is an analysis to identify the reasons that are the barrier to explore the real estate sector. From the above discussion we can conclude that there are two major factors that barrier on sales drop in real estate sector. First factor that indicates the state activities towards the real state that are not satisfactory and similarly the organizational responses are not enough towards the state. Second factor namely customer financial strength and organizational operational activities that focus on customer are not financially capable or do not get enough financial support to purchase apartment and similarly organization has lack activity to attract customer to buy their apartment. This research concludes that these two factors are the most challenging to sustain and explore Real Estate sector.

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## Appendix:

Image-1:

	x1	x2	x3	x4	x5	x6	x7	x8	x9	x10	x11	x12	x13	x14	x15	x16	x17	x18	x19
x1	1.000	.602	.230	.089	-.100	-.042	.159	.352	.292	.036	.074	.208	-.072	-.054	-.144	.340	.013	.036	-.085
x2	.602	1.000	.261	.014	.032	.008	.166	.405	.238	.156	.069	.311	-.169	-.068	-.045	.206	-.008	.046	.050
x3	.230	.261	1.000	-.269	.065	-.057	-.020	.272	.281	-.089	-.076	-.063	-.341	-.171	-.004	.116	-.046	-.134	-.187
x4	.089	.014	-.269	1.000	.172	.217	-.017	.016	.189	.230	.058	.160	.146	.466	-.387	-.185	-.049	.351	.342
x5	-.100	.032	.065	.172	1.000	-.023	-.014	.046	.041	.118	-.098	.043	-.153	.229	.069	-.154	-.086	.041	.025
x6	-.042	.008	-.057	.217	-.023	1.000	-.263	-.003	-.026	.185	-.068	.031	-.117	-.201	-.149	-.023	-.148	.147	.206
x7	.159	.166	-.020	-.017	-.014	-.263	1.000	.065	.039	.261	.056	.134	.019	.235	.047	-.044	-.100	.262	-.010
x8	.352	.405	.272	.016	.046	-.003	.065	1.000	.222	.220	.262	.277	-.238	-.141	-.027	.247	.134	.120	.053
x9	.292	.238	.281	.189	.041	-.026	.039	.222	1.000	.084	.130	-.014	-.086	.179	-.195	.050	.088	.270	.263
x10	.036	.156	-.099	.230	.118	.185	.261	.220	.084	1.000	.253	.353	.105	.172	-.091	-.038	.052	.189	.573
x11	.074	.069	-.076	.058	-.098	-.068	.056	.262	.130	.253	1.000	.306	.080	.122	-.059	.068	-.086	.239	.162
x12	.208	.311	-.063	.160	.043	.031	.134	.277	-.014	.353	.306	1.000	.031	.137	-.178	.069	.129	.195	.144
x13	-.072	-.169	-.341	-.146	-.153	.117	.019	-.238	-.086	.105	.080	.031	1.000	.209	-.109	-.108	-.102	.181	.270
x14	-.054	-.068	-.171	.466	.229	-.201	.235	-.141	.179	.172	.122	.137	.209	1.000	-.315	-.232	-.089	.128	.302
x15	-.144	-.045	-.004	-.387	.069	-.149	.047	-.027	-.195	-.091	-.059	-.178	-.109	-.315	1.000	.345	.015	-.271	-.296
x16	.340	.206	.116	-.185	-.154	-.023	-.044	.247	.050	-.038	.068	.069	-.108	-.232	.345	1.000	.231	-.199	-.293
x17	.013	-.008	-.046	-.049	-.088	-.140	-.100	.134	-.089	.052	-.088	.129	-.102	-.089	.015	.231	1.000	-.236	.195
x18	.036	.046	-.134	.351	.041	.147	.262	.120	.270	.189	.239	.195	.181	.128	-.271	-.199	-.236	1.000	.410
x19	-.089	.059	-.187	.342	.025	.208	-.010	.053	.263	.573	.162	.144	.270	.302	-.290	-.293	-.195	.410	1.000
x20	-.142	-.008	-.113	.008	.108	.108	.022	.070	.076	.095	.154	.117	.051	.125	.297	-.057	-.222	-.333	-.015
x21	.026	.040	.205	-.130	.110	-.043	-.117	.307	.216	-.063	.048	.114	-.217	-.127	.053	.295	-.067	-.159	.050
x22	-.022	.129	-.014	-.054	.154	.157	-.018	.219	-.199	-.045	-.202	.128	-.180	-.349	.202	.098	-.008	-.003	-.245
x23	.145	.069	-.070	-.044	.074	-.074	.132	-.022	-.288	.248	-.194	.044	.117	-.071	-.108	.030	-.115	-.001	.016
x24	.337	.238	.161	-.012	.033	.156	.141	.207	.066	.246	.325	.180	.056	-.416	-.073	-.057	.226	.117	.117
x25	-.188	-.073	-.249	.241	.058	.135	.232	-.031	-.176	.251	.053	.163	.104	.107	-.263	-.200	.018	.273	.291
x26	-.185	-.100	-.096	.233	.057	.089	.131	-.253	.046	.162	.039	.065	.217	.166	-.124	-.186	-.243	.198	.046
x27	.108	.074	.064	.018	-.064	-.078	-.124	-.115	-.010	-.194	-.052	-.063	-.084	-.011	-.035	-.143	.057	-.043	-.054
x28	.187	-.042	-.015	-.095	-.109	-.114	-.114	-.055	.220	-.149	.078	.082	.081	-.092	.043	.187	.337	-.070	.270
x29	.109	.020	-.079	.137	-.052	.028	.122	-.158	-.063	-.049	-.097	-.060	.250	.292	-.080	.024	-.080	-.072	.037
x30	.104	.043	.021	.150	.000	.120	-.107	.121	.139	.006	-.053	.025	.088	.043	-.029	.107	-.114	.091	.146
x31	-.187	-.187	-.320	.154	-.055	.218	.055	-.389	-.149	.140	-.095	-.065	.408	.241	-.053	-.172	.089	.045	.325

Image-2:

Output2 [Document2] - SPSS Viewer

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**Table-1:**

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.249	13.707	13.707	4.249	13.707	13.707
2	3.247	10.474	24.181	3.247	10.474	24.181
3	2.091	6.744	30.925	2.091	6.744	30.925
4	2.005	6.469	37.394	2.005	6.469	37.394
5	1.667	5.377	42.771	1.667	5.377	42.771
6	1.588	5.122	47.894	1.588	5.122	47.894
7	1.498	4.833	52.726	1.498	4.833	52.726
8	1.410	4.548	57.275	1.410	4.548	57.275
9	1.298	4.186	61.461	1.298	4.186	61.461
10	1.171	3.776	65.237	1.171	3.776	65.237
11	1.129	3.643	68.880	1.129	3.643	68.880
12	1.095	3.531	72.410	1.095	3.531	72.410
13	.946	3.052	75.462			
14	.896	2.892	78.354			
15	.800	2.581	80.935			
16	.740	2.387	83.322			
17	.690	2.227	85.549			
18	.574	1.851	87.401			
19	.560	1.805	89.206			
20	.525	1.693	90.899			
21	.502	1.618	92.517			
22	.401	1.294	93.810			
23	.323	1.043	94.854			
24	.297	.958	95.812			
25	.264	.851	96.662			
26	.234	.755	97.418			
27	.221	.712	98.129			
28	.200	.646	98.775			
29	.162	.523	99.298			
30	.129	.416	99.714			
31	.089	.286	100.000			

**Table-2:**

	Component Matrix <sup>a</sup>											
	1	2	3	4	5	6	7	8	9	10	11	12
x1		.665	.347			.320						
x2		.684										
x3	-.389	.378								.304		
x4	.562								.523			
x5			-.374						.524			
x6				.569	.405	-.302						
x7				.312	-.506	.315						.407
x8		.715										
x9		.526		-.522								
x10	.468	.340				.303					-.317	
x11	.368					-.499		-.347				
x12	.521			.322								
x13	.485		.315									
x14	.575							.438				
x15	-.481						.535					
x16	-.483						.346					
x17			.313	.344	.343	-.339		.335				
x18	.514	.307								-.360		.373
x19	.743											
x20	.373			-.407			.317		.359			-.312
x21	-.309			-.305						.409	.363	
x22	-.338		-.524									
x23				.570	-.355	.363						
x24		.467					-.330				.343	
x25	.514								.384			
x26	.568								.334	.306		.386
x27								.797				
x28			.640									
x29			.404			.525	.323					
x30				-.418		.402						
x31	.475	-.394	.336									

**Table-3:**

	Pattern Matrix <sup>a</sup>											
	1	2	3	4	5	6	7	8	9	10	11	12
x1	.870											
x2	.792											
x3	.355									.424		
x4										-.693		
x5							.733					
x6					.795							
x7					-.560							.613
x8	.447										.393	
x9	.319			-.719								
x10	.775											
x11								-.329		.620		
x12										.721		
x13						.497		-.377				
x14					-.517					-.460		
x15							.814					
x16	.467						.488					
x17		.728									-.313	
x18												.701
x19	.759											
x20		-.718										
x21								.534		.455		
x22	-.408				.366			.363				.308
x23				.788								
x24							-.725		.354			
x25								.327			.498	
x26	.487							.396			.355	
x27								.867				
x28		.393	-.416			.438						
x29						.839						
x30		-.568										
x31	.484					.498						

**Table-3:**

	Component	
	1	2
Income	-.305	.642
LivingCost	-.259	.668
EconomicDownfall	-.465	.326
CustomerInvestment	.516	.224
Politics	.329	
NRBIInvestment	.314	
Price	.175	.443
SellingEffort	-.367	.685
HouseLoan		.537
InvestmentInsecure	.382	.399
PromotionalActivity	.125	.394
Emigration		.546
Construction	.523	-.151
Savings	.558	
Handover	.413	-.321
LoanAvailability	-.132	.598
StayGreen	-.267	
PrimeArea	.434	.373
Benefit	.688	.272
FinancialIncentive	.364	
TaxIncentive	.364	.231
ForeignInvestment	-.345	
EarthQuack		
Resource	.150	.499
Awareness	.510	
LongtermPayment	.578	
GovernmentRegulatory		
EnergySupport	-.231	
EnergyPrice	.243	
Selfestablish		.164
License	.554	-.331

# Factors Affecting Customers to Buy Apartments in Dhaka City

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**Abstract:** *This study investigates factors that affect prospective customers' purchase intention when purchasing apartment in Dhaka city, Bangladesh. The paper also examines relationships among the influential factors and buying attitude. Total forty six (46) attributes have been taken into consideration in designing questionnaire for the study. A questionnaire survey method is used with 220 prospective buyers and response rate of 92 percent. Initially an exploratory factor analysis is directed using SPSS (version 21). We explored six factors where project facilities, environmental issues, physical quality, location and communication facilities are considered as most influential factors. Comparatively promotional and prices have less impact on purchase decisions. But the attribute 'reasonable prices' received the buyer's attention. Factors project facilities, physical quality, location, communications and prices have significant relationship with buying attitude except the promotional and environmental issues. Real Estate developers, marketers, policy makers can use the findings to better understand, segment and satisfy the buyers. Therefore the findings of the study will help to develop the successful Real Estate marketing policy and strategies. The study may be limited by its focus on a geographic section of the Bangladeshi Real Estate market.*

**Keywords:** *Real Estate, Buyers, Factors, Buying Attitude, Real Estate Marketing.*

## Introduction:

Being the most densely populated country of the world Bangladesh has been facing extreme housing problem. At present 28 percent people live in urban areas which are expected to be 34 percent in 2025 (The Daily Ittefaq, May, 2013). The current trend of urban growth in Bangladesh is about 5-6 percent per annum (REHAB, 2013). Dhaka city, the capital of Bangladesh, approximately accommodates a vast population of over 16.6 million with the estimated 4.7% growth rate per annum. The pressure of population in Dhaka city is escalating day by day as people of Bangladesh are largely Dhaka centered. Housing is a real need for this enormous population and in turn housing sector is facing major challenges in Dhaka. To cope up with this situation many private real estate developers with very few provisions of government housing have been trying to meet the demand of housing for more than last twenty years. Due to urbanization, rising house rent, scarcity of land, high prices of land, hazards in land purchasing, high cost of land registration, re-structuring of households to single family units, and high price of building materials some dramatic changes have occurred in the real estate industry in recent years

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that has changed the attitudes of the people of Bangladesh. Now people are interested to buy a ready apartment from the developers than purchase land for building their own house. (Khaled, M. C., Sultana, T., Biswas, S. K., & Karan, R. 2012, Mohiuddin, M. 2014). That's why they turn to real estate companies who are providing flats or apartments. In response, real estate business has enjoyed a boom over the recent years. In all over Bangladesh, there are now real estate companies growing up like mushrooms. At present according to Real Estate & Housing Association of Bangladesh (REHAB), more than one thousand real estate companies are related to house and land development in Dhaka city (REHAB, 2012). As real estate sector has been growing in Bangladesh, the competition in the real estate sector becomes intense. Development and implementations of proper marketing strategies are inevitable for the real estate developers to sustain in the highly competitive market. Real estate sector can make significant contribution to the socio economic development of the country through increasing infrastructural development and creating employment opportunities. The success of real estate marketing depends on knowing the real needs, wants and demands of the real estate customers. To know about the needs of customers it is unavoidable to understand the factors and variables that stalwartly influence the customers to buy an apartment. Identifying the dominant factors that influence the buyers to buy an apartment will be helpful to develop real estate marketing strategies and model that ultimately attract the customers, ensure customers' satisfaction as well as sustainable development of the industry.

### **Literature Review:**

Numerous studies have been conducted on the real estate sector all over the world. Although enormous studies have been undertaken till now in Bangladesh unfortunately almost all of the studies are conducted on recent trends of real estate sector and problems & prospects, challenges and real estate financing. The studies on recent trends of real estate sector in Bangladesh brought into some causes that act as catalysts for booming of the real estate sector. The grounds for flourishing & dramatic changes in the real estate sector are urbanization, rising house rent, scarcity of land, high price of land, increasing the price of land (20 to 50) times in the last 15 years (Hasan, 1991, Labib, et al., 2013), lack of public supports (Labib, et al., 2013) acted as catalyst for real estate boom previously, hazards in land purchasing, high cost of land registration, re-structuring of households to single family units, and high price of building materials that have occurred in the real estate industry and changed the attitudes of the people of Bangladesh [Bony, S. Z., & Rahman S., (2014); Labib, et al. (2013); Khaled, M. C., et al. (2012); Dewri, L. V., et al. (2012); Leiser, K., & Ghor, A. P. (2011); Barua, S., et al. (2010); Khan, M. S., & Barua, S. (2009); Islam, M. T. (2008)]. The researchers have also showed that people of Bangladesh are now interested to buy a ready apartment from the developers than purchase land for building their own house. (Khaled, M. C., Sultana, T., Biswas, S. K., & Karan, R. 2012, Mohiuddin, M. 2014).

The most pivotal part of real estate industry is the customers of apartment. Numerous studies on factors influencing customers to buy an apartment and dimensions of customer

satisfaction have been undertaken in the field of Real Estate. But there is a scope for conducting a comprehensive study on those topics. What do the buyers consider to purchase an apartment? To purchase an apartment is a crucial decision for every customer in Bangladesh because sometimes customers spend their whole-life savings to buy an apartment. Extraordinary studies have been conducted on location and size preferences [Labib, et al. (2013)], Customer Perception and Expectation [Khaled, M. C., et al. (2012)], and the dimensions of customer satisfactions and services [Preko, A., et al. (2014); Khaled, M. C., et al. (2012); Zadkarim, S., & Emari, H. (2011); Zadkarim, S., et al. (2011); Leiser, K., & Ghor, A. P. (2011); Shahin, A., et al. (2010); Lee, Y., et al. (2009)]

Labib, S.M., Bhuiya, M. M. R., & Rahaman, M. Z. (December, 2013) explored the real estate buyers' preferences for location and factors that influence to choose an apartment. They showed the prime concerns for selecting flat location are budget, residential environment and communication facility with different facilities. They identified multiple factors that influence buyers to buy an apartment in Dhaka city. Location, Residential living environment, better communication with work place [Leiser, K., & Ghor, A. P. (2011)] , near to educational facilities, biasness due to relatives [Zadkarim, S., & Emari, H. (2011)], living in the same area for long time, near to main road and affordable price, quality of municipality services and cost (Friedman 1981; Reshovsky, 1979), size and quality of apartment [Khaled, M. C., et al. (2012)] are some major factors that guided the choice for flats. The priorities of these factors are not same for all areas in Dhaka city.

Khaled, M. C., Sultana, T., Biswas, S. K., & Karan, R. (2012); aimed to identify the dimensions of customer perception and expectations & with the help of that dimensions they measured the customer satisfaction. quality and types of apartment ,size of apartment, security, fittings, interior design, sufficient ventilation, location, preferable services facilities (timely handover, quality maintaining, after sales service), good communication (transportation hub),project facilities (car parking, community hall room ,generator) [Barua, S., et al. (2010)] , price (installment pay , bank loan) [Dewri, L. V., et al. (2012); Islam, M. S. (2012); Khaled, Zadkarim, S., & Emari, H. (2011)], company brand & goodwill,expert opinion, advertisementand promotion [Islam, M. S. (2012) ] also are almost equally important.

Preko, A., Agbanu, S. K., & Feglo, M. (2014) have showed the relationship between services delivery dimensions and customer satisfaction. Moreover it showed the relationship among customer satisfaction, word of mouth communication and customer loyalty. This paper explored the factors like customer satisfaction, word of mouth communication and customers' loyalty that act as crucial elements for purchasing an apartment.

Zadkarim, S., & Emari, H. (2011) has identified the dimensions of customer satisfaction and offered a model of overall customer satisfaction with the help of customer satisfaction dimensions. In case of purchasing apartments, the buyers consider some factors such as customer cost (price, credits, installment payments); physical quality

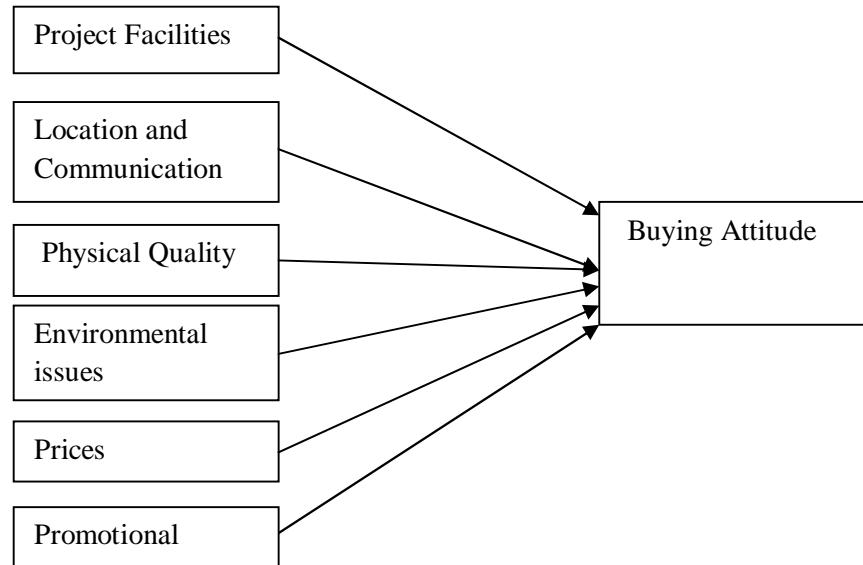
(cracks, kitchen, lighting, electronic lighting and window to outside) [Khaled, M. C., et al. (2012)]; water [plumbing facilities, water quality and water pressure, drainage, commode, internal architecture] [Dewri, L. V., et al. (2012)]; environment quality (traffic, noise, region security) [Dewri, L. V., et al. (2012)]; project facilities (parking, lobby, external staircase, lift, front attractiveness and quality, warehouse) [Khaled, M. C., et al. (2012)]; word of mouth (intentions to say positive things to others; recommend the apartments of project to another consumer, encourage friends and relatives to buy the apartment from this project) [Preko, A., et al. (2014)]. In another study Zadkarim, S., et al. (2011) also showed “Environmental quality acts as an important dimension of customer satisfaction in apartment industry”. Here they endeavored to add a new dimension of customer satisfactions namely services (dimensions of services are tangibility, reliability, assurance, responsiveness, empathy) [Khaled, M. C., et al. (2012);Zadkarim, S., & Emari, H. (2011); Shahin, A., et al. (2010); Lee, Y., et al. (2009)]

Customers give concentration on the quality of services when they take the purchase decision of an apartment [Lee, Y., et al. (2009)]. Lee also used Parasuraman’s SERVQUALscale to compare services quality perception in the Real Estate industry. Now -a-days customers also prefer to services dimensions to buy an apartment. Bony, S. Z., & Rahman S., (2014);Dewri, L. V., et al. (2012); Islam, M. S. (2012); Leiser, K., & Ghor, A. P. (2011); Barua, S., et al. (2010); Khan, M. S., & Barua, S. (2009); surveyed research on real estate sector of Bangladesh. Besides the current scenarios/trends, problems, prospects and challenges they also showed the growth rate [13.77% in 2013, Bony, S. Z., & Rahman S., (2014) ] and contribution to the economic development of the country & GDP [ 778 million taka in 2013, Bony, S. Z., & Rahman S., (2014) ]. Barua, S., et al. (2010) brought out the new dimensions in the real estate industry that the buyer of apartment always would like to get a diversified product. Model towns, which are built with the structure of a small town including all facilities for people, like offices, shopping mall, houses, schools, swimming pools, gymnasium, banks, power plant etc. Projects that include swimming pool, gymnasium, shopping malls etc. in one building are also diversified products supplied by the real estate agents in Bangladesh. All these products wrapped with diversification have great demand in the market.

### **Conceptual Framework and Hypotheses:**

Based on a review of the literature, this study has developed a framework linking project facilities, location or communication, quality, environmental quality, prices and promotion to buying attitude. The figure indicates the hypothesized model for real estate customers and examines the relationship between the attributes of an apartment and buying attitude.

Generally attitude describes a person’s relatively consistent evaluations, feelings, and tendencies toward an object or idea (Kotler, P., 2011). Attitudes put people into a frame of mind of liking or disliking things of moving toward or away from them. Here buying attitude indicates that the tendencies of customers to favor or disfavor the apartment based on evaluations of the attributes of an apartment.



**Figure 1:** Hypothesized Model of Real Estate customers' Buying Attitude.

**Hypothesis:**

- H1: Project facilities have positive effect on buying attitude in the real estate industry.
- H2: Apartment situated in the nice location with communication facilities influence the buying attitudes positively.
- H3: Quality of the apartment affects buying attitude of customers.
- H4: Environmental quality where the apartment is located has a significant effect on buying attitude.
- H5: Prices of the apartment influences the buying attitude.
- H6: Promotional efforts influence customers' buying attitude.

**Objectives of the study:**

- To identify the factors and attributes that influence customers to buy an apartment in the Dhaka city, Bangladesh.
- To examine relationships among influential factors and customers' buying attitudes in the Real Estate industry.



### **Research Methodology:**

**Sampling Design:** For the study all the customers who have ability and willingness to buy an apartment in the Dhaka city, Bangladesh were considered as target population. Sample frame included customers who came to different Real Estate developers during the data collection phase (1<sup>st</sup> January to 18 August, 2015). For this study we used two types of sampling techniques namely, simple random sampling and convenient sampling. Initially, 220 questionnaires were distributed to the customers for their responses but a total 203 usable questionnaires were collected.

**Data Collection and Analysis:** Through literature review and field survey with open ended questionnaire we found more than 64 attributes that influenced the customers to purchase apartment. Then, the relationships of similarities and dissimilarities (+, -) among the variables were portrayed based on empirical research. Then respondents' comment and ideas were incorporated into the design of the final questionnaire. After the several round revisions a total number of 46 attributes were considered for designing final questionnaire. To test the reliability of the questionnaire a pilot survey was used. In pilot test 20 questionnaires were approached and collected from the real estate customers. To test the internal consistency of each of the attributes, dimensions, and items of the attitudes we applied the Cronbach's Alpha reliability analysis. The results showed the Cronbach Alpha coefficients for the overall questionnaire was 0.78, indicating that the reliability of the questionnaire was quite high. This study collected data through a survey conducted in the major areas of Dhaka using a detailed structured self-administered questionnaire. The respondents were asked about different attributes those are usually considered for purchasing an apartment by using 7 point Likert scale. For the data collection process, 10 students from the graduate program of BBA, Department of Business Administration, Daffodil International University, Dhaka were selected as Research Assistants (RA). They were trained for two days so that they can collect data uniformly. Training covered making the initial contact with the respondents, asking the questions, probing, recording the answers, and terminating the interview etc. All the data were analyzed in Statistical Package for Social Science (SPSS) and MS Excel and finally report is produced based on the analyzed data.

### **Findings and Discussion:**

**Scale Reliability:** To test the internal consistency of each of the attributes, dimensions, and items of the attitudes we applied the Cronbach's Alpha reliability analysis. In this study a total of 29 items (25 items from the influential factors and 4 items from the buying attitude) have been considered. In scale reliability analysis we found that the value of Alpha is 0.77 which is highly reliable (Nunnaally, 1978).

### **Exploratory Factor Analysis:**

In order to identify the influential factors and attributes of customer preferences in choosing apartment we have conducted an exploratory factor analysis. Initially we have considered 46 variables.

**Kaiser-Meyer-Olkin (KMO)** measure of sample adequacy test was applied on influential factors to test whether the sample was adequate to consider the data was normally distributed or not. The KMO value was **0.62** indicating that the sample size was adequate to consider the data normally distributed as the KMO values above 0.5 are considered to indicate normality of data. **Bartlett's Test of Sphericity** has been used to test the null hypotheses that the variables in the study are not correlated. The Chi-Square test value was **1697.947**, which was significant at **0%** level of significance. The test indicated that variables in the study were correlated and rejected the null hypothesis (The population correlation matrix is an identity matrix). Therefore, the data were suitable for factor analysis.

**Table1:** Showing the KMO test results:

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin (KMO) Measure of Sampling adequacy.		0.62
Bartlett's Test of Sphericity	Approx. Chi- Square	1697.947
	Df	595
	Sig.	0.000

#### **Influential Factors:**

The principal component analysis was used as the extraction method associated with the rotation method of Varimax with Kaiser Normalization. This study has examined communalities of each attribute accounted for the research. Initially 46 items were approached for this test. This study did not find absolute communalities score for all items. Hence, 23 items that scored less than 0.5 have been dropped from the data set. Since data have been collected from field survey, authors have considered current score level for 25 items included in 6 factors. Therefore 6 factors have been extracted on the basis of Eigen values and variance explained by them. The factors were named based on communality of all the items that converged on that factor. **Finally this study has identified six factors namely project facilities, environmental issues, promotion, physical quality, prices, communication facilities that robustly influence the buyer preferences in choosing an apartment in Dhaka city.** Information about the factors are summarized below:

**Table 2:** Loading and Cronbach's Alpha score of the retained factors:

Factors	Attributes	Mean	Standard Deviation	Factor Mean	Factor Loading	Cronbach's Alpha	Eigen Value	Variance (%)	Cumulative Variance (%)
Project Facilities	Mini Town under the Projects	5.98	0.75	5.67	.801	0.81	3.998	15.99	15.99
	Play Ground for the Children under the projects	6.00	0.93		.750				
	Lift Facilities & Generator in the Apartment	5.48	1.03		.749				

Factors Affecting Customers to Buy Apartments in Dhaka City

	Car Parking Facilities	5.90	0.73		.639				
	Indoor Game Facilities	5.42	1.27		.613				
	Community Hall Room	5.21	0.88		.606				
Environmental	Noise and Sound of Adjacent Area	6.21	0.99	6.08	.818	0.77	2.961	11.85	27.84
	Environment Pollution of the Area	6.02	0.71		.817				
	Density of Population or Traffic Flow	6.02	0.80		.704				
Promotional	Sales Forces	4.86	1.14	5.35	.863	0.72	2.573	10.29	38.13
	Word of Mouth Communication	6.01	1.40		.810				
	Brand Reputation of the Company	6.03	0.88		.622				
	Advertising of the Apartment that Influence	4.50	1.14		.449				
Physical Quality	Water Facilities of the Apartment	6.63	0.58	6.18	.702	0.74	2.302	9.21	47.34
	Drainage System	6.36	0.81		.647				
	Quality of Basin and Commode	5.72	0.78		.542				
	Qualities of Tiles of Apartment	5.80	0.75		.535				
	Sufficient Ventilation & Windows in the Apartment	6.37	0.71		.525				
Prices	Credit Facilities	6.05	0.67	6.05	.726	0.58	1.842	7.37	54.70
	System of Installment Payment	6.13	0.69		.713				
	Availability of Bank Loans	5.86	0.87		.582				
	Reasonable Price	6.16	0.86		.493				
Location and Communication	Residential Living Environment	6.25	0.79	6.30	.741	0.59	1.560	6.24	60.94
	Near to Educational Facilities	6.22	0.77		.645				
	Better Communication with Workplace	6.42	0.65		.567				
Extraction Method: Principal Component Analysis Rotation Method: Varimax with Kaiser Normalization									
a. Rotation converged in 11 iterations									

The extracted 6 factors can be interpreted in terms of the variables that load high coefficient.

**Project facilities:** It is apparent from the analysis that a new dimension in the real estate industry has brought out that buyers of apartment always would like to get projects facilities. Now customers would like to get diversified products in one place. This factor has high coefficients for model towns (.801); playground for the children (.750); Six (6) attributes has constituted this factors which are highly correlated. Playground for the children and mini town under the projects got the highest average score 6 and 5.98 respectively. The mean value of this factor is 5.67 that indicating its significance which influences stalwartly customers to buy an apartment. The Eigen value for this factor is almost 4 (3.998). This factor's Cronbach's Alpha is 0.81 that shows the high level of acceptance. Therefore the apartment which is wrapped with diversified facilities has great demand in the market.

**Environmental Issues:** Now-a-days customers are very much conscious about environment. When they purchase an apartment they consider the surrounding environments of the apartment. This factor has been constructed with 3 items which have high coefficient: noise and sound of adjacent area (0.818); environment pollution of the area (0.817); density of population (0.704). Noise and Sound of adjacent area and environment pollution of the area got the highest average score 6.21 and 6.02 respectively. The factor mean is 6.08 that indicate high level of significance.

**Promotional Factor:** Promotional factor refers to the specific blend of advertising, sales promotion, personal selling, public relation and direct marketing, word of mouth communications tools that the developers of real estate marketers use to persuasively communicate the value of the apartment and build a relationship with the target buyers. The main objective of promotion is to inform, remind and persuade buyers to buy an apartment. The factor analysis suggests promotional factor is a composite of 4 attributes where the attribute 'brand reputation of the company' has obtained the highest average score (Mean: 6.03; Loading: .622). Similarly word of mouth communication also obtained good score (Mean: 6.01; Loading: .810). On the other hand, sales force of the company has significant impact on buyers (0.863). The average score of the factor is 5.35.

**Physical Quality:** Physical quality of the apartment is crucial factor for the buyers when they take the buying decisions. The mean value of the factor is 6.18. Five attributes constituted the factors those are highly correlated. The loadings of the attributes are water facilities (.702); drainage systems (.647); quality of basin and commode (.542); quality of tiles (.535); sufficient ventilation (.525). Among those attributes water facilities and sufficient ventilation both achieved the highest priority. The average mean of the two attributes are 6.63 and 6.37 correspondingly. Physical quality (Mean: 6.18) is considerable factor for buyers to choose an apartment. Drainage system (Mean: 6.36) also acts as a central attribute in this factor. The alpha value for this factor is 0.74.

**Prices:** Price is the amount of money that is charged for a product or services or the sum of values that consumer exchanges for getting, having or using the benefits of a product

or service. To purchase an apartment, buyers think about credit facilities, system of installment payments availability of bank loans and reasonable price. The item reasonable price achieved the highest mean value 6.16. Customers also prefer installment payments (Mean: 6.13) when they buy an apartment. The items of the factor prices are correlated. The loadings of the items are .493; .713; .582; .726. The average score of the factor price is 6.05 that indicating significant influences of the prices on purchasing an apartment.

**Location and Communication facilities:** Buyers of the apartment prefer the location with good communication facilities. Three items have constituted the factor location and communication facilities. Customers prefer the residential living environment (.741); nearness of educational facilities (.645); and better communication facilities (.567). The attribute better communication with work places has obtained the highest mean score (6.42). Among the all six factors the factor location and communication has achieved the best factor mean (6.30). Therefore the location and communication factor is prominent in case of choosing the apartment.

**Relationships among the influential factors and buying attitudes of customers in the real estate industry:**

**Table 3: Model Summary:**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.692 <sup>a</sup>	.478	.445	.450

- a. Predictors: (Constant), Location and Communication, Physical Quality , Promotional, Prices, Projects Facilities, Environmental Issues
- b. Dependent Variable: Buying Attitude

The model was developed to examine the relationships among the influential factors for customer preferences in purchasing apartment and buying attitude. In this model dependent factor is buying attitude and independent factors are location and communication facilities, physical quality, promotions, prices, project facilities and environmental facilities. The results show that the factors are significant. 48% of variation is explained by the six factors together in the model as showing the value of R Square is (.478). The model indicates that the variables are highly correlated as the multiple coefficient of correlation is (R=0.69). The adjusted R Square value is .445.

From the table we can see that the hypotheses H1, H2, H3, and H5 have been supported because the significance level of the factors project facilities (0.000); location and communications (0.000); physical quality (0.032); and prices (0.011) are below 0.05. This indicates that those factors have significant relationship with buying attitudes of buyers in purchasing an apartment in Dhaka city. On the other hand, the hypothesis H4 and H6 are rejected because the factors environmental issues (0.506) and promotions (0.177) have significance value > 0.05 which indicates that the environmental issues and promotions have no significant relationships with buying attitude in choosing an apartment in the Dhaka city.

**Coefficients Analysis and Hypotheses Testing:****Table 4: Coefficients of dependent and Independent variables:**

Hypothesis	Dependent Variable	Independent Variable	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Results
			B	Std. Error	Beta			
H1	Buying Attitude	Projects Facilities	.262	.063	.326	4.138	.000	Supported
H2	Buying Attitude	Locations and Communications	.432	.086	.418	5.036	.000	Supported
H3	Buying Attitude	Physical quality	.176	.081	.180	2.179	.032	Supported
H4	Buying Attitude	Environmental Issues	-.042	.062	-.055	-.667	.506	Rejected
H5	Buying Attitude	Prices	.222	.086	.205	2.592	.011	Supported
H6	Buying Attitude	Promotions	-.068	.050	-.105	-1.360	.177	Rejected

**Conclusion and Implications:**

Shelter is one of the fundamental needs of people of any country. Government of every country tries to provide the housing facilities to general public. In Bangladesh approximately 7 million people have been facing housing deficiency of which 4 million are in the urban areas and 3 million are in the rural areas. It is impossible for any government to ensure 100% housing facilities to all the public. Dhaka is grappling with severe shortages of affordable housing due to immense migration from the countryside into new urban centers and for that reasons Dhaka city requires between 55,000-83,000 housing units each year, whereas all public and private efforts together can only produce 25,000 housing units a year. [Bashar, A. (2013), Urban Dialogue, Habitat for Humanity] <http://www.habitatbangladesh.org/files/Urban%20Housing%20HFHBD.pdf>

To cope up with this situation many private real estate developers with very few provision of government housing have been trying to meet the demand of housing/shelter for more than last twenty years in Bangladesh. Therefore the government of this country should come forward to make a public private partnership (PPP) with private real estate developers to develop the real estate sector in a sustainable way. The real estate developers should be aware of the needs and choices of the customers of the apartments.

Our research has revealed six influential factors of customers' preferences in purchasing an apartment in the Dhaka city. Project facilities are demanding by the customers. When customers choose an apartment they think about the physical quality of the apartment, surrounding environment, location and communication facilities, reasonable prices. Location and communication facilities (Mean Value: 6.30) get the highest priority in case of purchasing an apartment. Real estate developers should be aware of the factors that

customers prefer. Sometimes real estate developers involve with malpractices and try to cheat the customers. To ensure customer satisfaction and sustainable development of the real estate industry those malpractices should be avoided. Besides the aforesaid facilities customers of apartments would like to get prompt services, timely handover of the apartment, empathy, responsive behavior and after sales services from the developers. Identifying customers' needs, choices and preferences are crucial tasks for developing effective real estate marketing strategies. The findings of the study will help to understand the buying attitudes and behavior of customers and ultimately lead to develop the sustainable marketing strategies.

### **Limitation and Further Research:**

The present study is not out of limitations. Some constraints are appended like our sample size was limited. Convenience sampling technique was used to collect data which is not well enough to serve the purpose. The visitors were too busy to provide researchers much time for responding to the questionnaires. The authors did not have the opportunity to compare the customers' preferences and attitude among the various locations. So further research is encouraged to consider more samples as well as compare behavior and attitudes of customers from location to locations. In this study authors have identified factors and attribute that influence customers to buy an apartment. The authors have the plan to measure customers' satisfaction on the concerned factors and attributes of apartment. Therefore, further research will be conducted on comparison of high income versus low income customers' attitude and behavior.

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# A Case Study of a Microenterprise: The Factors Responsible for its Growth and Outcomes: Indian Perspective

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**Abstract:** This a field-researched case about a micro enterprise in health sector, the Extra Care Physiotherapy Private Ltd. (ECPPL), dedicated to providing quality physiotherapy with extra care to the patients. Does the passion for work and clarity in vision strong enough to give birth to a successful enterprise and route it to its development? The case is based on research Primary and secondary information. The validation of information has been tested several times with several sources like protagonist, the organization, the employees, and the customers. Entrepreneurship is a journey around passion. However behavior is aptly responsible towards an organizational growth, especially for a startup. The case reflects the positivity in the behavior of the entrepreneurial couple who induce growth of their startup by carefully implementing their plans, combining skills, capabilities, resources, and people management. The findings are restricted to one organization, which may not strongly assists towards theory building. Learning outcomes of the case reflect that people management becomes a primary weapon for entrepreneur to steer their startup. As a result of discussing this case, students should be able to: first, examine strategic entrepreneurial strengths, analyse opportunities for the creation of business, market and environmental factors, and strategize to minimize weaknesses and to address threats and identify an organization's strategic focus. They should able understand the imperatives of critical thinking, and clarity of vision and mission for personal success and connotation of hard work, team work and employee orientation in the growth of the enterprise.

**Keywords:** Microenterprise, Entrepreneur, Entrepreneurship, behavioral aspects, startup,

## Introduction

Entrepreneurship involves special kinds of decision-making processes. Decision making process is connected to an individual, because of this; it is argued that the success of a business depends on the entrepreneur's personality. The decision to become an entrepreneur might open up a great chance to fulfil your dreams but the risk associated and the psychological costs of failure for the persons involved is very high. The success

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**NOTE:** We Thank Ms. Nikita Kharbanda (Student Amity University) for taking Interviews from the Physiotherapist couple during the project.

and failure of an enterprise can be to some extent predicted based on the personality of the person.

This case study aims to explore the professional journey by a couple in the medical profession. The case talks how the threats were encountered, how the entrepreneur coped with stresses in professional front and how their vision and planning along with their interpersonal skills and other personality traits successfully started and is continuing their the success story of their microenterprise. These are reflective of patterns in behavioral success.

The behavioral sciences began to do research in the area of entrepreneurs after McClelland (1961) presented his observations on the entrepreneurial skills stating importance of high need for achievement than non-entrepreneurs for moderate risk taking. Several different characteristics became prominent in the attempts to define an entrepreneur: need for achievement, internal locus of control, high propensity for risk taking, the need for independence, and deviant and innovative behavior. Timmons' (1994) analysis of more than 50 studies found a consensus around six general characteristics of entrepreneurs: commitment and determination; leadership; opportunity obsession; tolerance of risk, ambiguity and uncertainty; creativity, self-reliance and ability to adapt; and motivation to excel.

### **Beginning of the Journey: ECCPL**

This case elaborates on a Physiotherapist couple. The research aimed to explore the professional journey of Dr. Santosh Kumar, a physiotherapist and his wife Dr. Akanksha Upadhyay. Dr. Santosh Kumar completed his Bachelor of Physiotherapy and a distant learning course of Bachelor of Imaging Technology (BMIT) from Mahe to support his knowledge. Dr. Akansha did diploma in Physiotherapy, and also Masters in Business Administration from IGNOU (Indira Gandhi National Open University). Starting from a one-room set they have now developed a well-equipped Physiotherapy centre.

The couple started working independently 8 years back with educational background in physiotherapy, no financial backing, little market experience and minimal or no family involvement. They always had a high aim for self-identity and for social service. Having reality orientation and practical exposure of the societal demands of the patients and keeping the business perspective in mind, they expanded their profession of Physiotherapy in Lucknow at a young age while most of the doctors in Physiotherapy usually worked under a Orthopedic Surgeons, this went ahead to start an enterprise in the field of Physiotherapy.

### **Theoretical Framework**

Several psychologists and economists proposed that the personality of the entrepreneur has an important impact on the success of entrepreneurs. Psychologists have identified several variables that appear to have a major influence on entrepreneurial success.

These variables deal either with the human capital, that is, entrepreneurial knowledge, or with personality characteristics that are imperative towards developing entrepreneurial

skills, such as 'need for achievement', 'locus of control', 'problem-solving orientation', interpersonal reactivity' and 'assertiveness'. These personality characteristics together with entrepreneurial knowledge super impose on the character-based approach. Most psychologists assume that the personality of human beings consists of given traits that are stable over time, it is expected that in particular the personality characteristics has an impact over future success.

Several studies have investigated the issues and factors responsible for organizational, personal success and failure. Walker and Brown (2004), in their survey of 290 small business owner-managers in Western Australia, aimed at finding out the most appropriate factor for business success especially in small business owners. They observed that out of financial lifestyle factors and non-financial lifestyle factors, the latter, that is, non-financial lifestyle factors are more important in measuring business success. Non-financial personal/lifestyle factors like satisfaction, achievement, pride in the job and a flexible lifestyle are generally valued higher than wealth creation.

Another survey conducted by EEO Trust (2004) focuses on interpersonal relationship component in enhancing the productivity. It was found that 81% of respondents think that they are more productive at work if they have good personal relationships because they feel better.

According to Toropov (1997), there are three main types of interpersonal relations at work or three main areas of dealing with co-workers: with subordinates, peers, superiors. Hunt, & Baruch ( 2003) proposed a framework with five groupings of managerial skills, which they argue are essential for a manager to be successful. As many as four out of the five groupings of managerial skills are skills needed for dealing with subordinates: administrative, communication, interpersonal, leadership and motivation skills. They further elaborates that managers should possess the following interpersonal skills, in order to successfully deal with their subordinates: relationship building – ability to develop and maintain conversation and interaction; listening to others; empathy – understanding others' needs and feelings; encouraging others to present their ideas, expose feelings and express opinions; giving feedback.

In addition to this, Goleman (1998) highlights several competencies that are especially valuable when dealing with peers: building bonds – nurturing instrumental relationships; collaboration and cooperation – working with others toward shared goals; team capabilities – creating synergy in working toward a group. He also focuses on the importance of conflict management in establishing good interpersonal relations among colleagues at work. Conflict management is particularly useful for negotiating and resolving disagreements among peers, superiors and subordinates. People with this competence handle difficult people and tense situations with diplomacy and tact, spot potential conflict, bring disagreements into the open, encourage debate and open discussion, and orchestrate win-win solutions. Focusing on the need and importance of interpersonal skills, Walter (1997) discussed that bosses prefer dealing with employees who can effectively communicate, can rely and who can support them. In addition, they prefer dealing with employees who are not overly aggressive with them, focusing on the tranquilizing persona of the employees.

Goals are a form of motivation that sets the standard for self-satisfaction with performance. Achieving the goal that one has set for oneself is a measure of success and being able to meet job challenges is a way one measures success in the workplace. Latham & Yukl (1975) noted that goal setting theory, which has strongly influenced organizational behaviour, ideology and practice and how goal clarity and goal difficulty positively affects job performance.

There also have been researches discussing the factors effective for productivity along with performance. Steenburgh et al (2010) carried out a research that aims to gain insight into the most effective way to design a compensation plan, concentrating on whether bonuses boost sales productivity and whether they should be awarded quarterly or annually. Key concepts include: bonuses do increase productivity; quarterly bonuses increase sales force productivity more than annual bonuses and sales people tend to give up when far away from reaching a quota, but they don't slow down once a quota is reached-especially if a firm offers commissions for overachievement.

Studies have shown the importance of management skills. Stringfellow (1994) developed a strategy 'to ensure that employees and prospective employees are matched against specific competence-based specifications for each job'. The twelve 'management dimensions' identified were later termed 'competences': problem analysis, problem solving, planning and organization, delegation, management control, leadership, human relations skills, personal effectiveness, verbal communication, oral communication, stress tolerance.

Gasse (1997) identified five fundamental management competency domains or dimensions: vision; people management; operations; resources; strategies. This is called Gasse Model. Newton (2001) had broken down various "entrepreneurial/managerial competencies" into the following: interpersonal skills, leadership, communication, delegation, and coaching; financial management; technical capability; organizational competency; strategic planning; entrepreneurship and innovation.

Thus, personality of an entrepreneur can be interpreted to have visual impact on any entrepreneur's success. This personality affects the interpersonal relationship which also contributes towards organizational growth. Competencies add to shared goals towards building the enterprise.

This is evident in our research study, which is based on dialogues, conversation, actions, incidences etc. these transcript/ narration portray the behavioral aspect as embedded within an entrepreneur.

The dialogues and incidences have been Transcribed from interviews and observations. They have been segregated as follows:

### **Dialogues and Incidences:**

The analysis has been done in two aspects

- 1) The impact of personal attributes on the growth of new venture :
  - Personal Attributes
  - Attitude
- 2) The factors responsible for the growth of venture

The characteristics have been demonstrated via dialogues and interpretations

- Decision to Seed the Organization
- Organizational environment
- People management

Following observations emerged after content analysis of the data received from the physiotherapist couple.

**1) Personal Attributes** factor - Personal attributes are the inherent characteristics shaping the identity of an individual. There have been several studies trying to enumerate various traits possessed by an individual for becoming an entrepreneur. Timmons' (1994) analysis of more than 50 studies found a consensus around six general characteristics of entrepreneurs: commitment and determination; leadership; opportunity obsession; tolerance of risk, ambiguity, and uncertainty; creativity, self-reliance and ability to adapt; and motivation to excel.

However we were able to identify and have demonstrated few of these traits thorough the conversation below: (the dialogues in inverted commas have been translated from the Hindi transcript, the National language of India)

#### **A) Self-reliance and ability to adapt**

- 1) **Self Awareness** - It is very important to be aware of ones strengths and weaknesses. Dr. SK and Dr. AU both were very well aware of their potential and they worked towards developing a profession together in physiotherapy.

*Dr SK: "That's why I feel that I can reach the top in this field and this field requires hard workers gradually"*

He had full confidence in himself that he will be able to establish himself in this profession.

*Dr SK: "At that time in the starting I know that I will not be able to clear the medical entrance examination, but I knew I am a laborious worker and shall do well"*

- 2) **Passion for work**– It is said that if you want to achieve something you will have to be passionate about it. Dr. AU reports that Dr. SK was very passionate about his profession.

*Dr AU: "As far as I know him, he is enthusiastically passionate towards this work, he doesn't think anything else"*

## **B) Leadership**

- 1) **Self Efficient**– A very strong need for self-efficacy lead her to make her own identity.

*Dr SK: “Actually I have earned my pocket money from very beginning”*

- 2) **High Values**– It is important to have good morals and high values in order to develop and grow holistically. Dr. SK and Dr. AU did practice high values with professional attitude.

*Dr SK: “I think if the case is too complicated and beyond my capacity I refer them to Delhi to better physiotherapist. I do not recommend them to orthopedic; I do not experiment with the patients”*

## **C) Opportunity obsession**

Having reality orientation and practical exposure of the societal demands of the patients and keeping the business perspective in mind, they expanded their profession of Physiotherapy in Lucknow at a young age while most of the doctors in Physiotherapy usually worked under a Orthopedic Surgeons, this went ahead to start an enterprise in the field of Physiotherapy.

## **D) Commitment and determination**

**Hard Work and Perseverance**– As mentioned by Dr. AU, they credit hard work as one of the important factors for growth and success.

*Dr AU: “Apart from hardwork the destiny also favored that the patients who were treated here we cured”*

- i) **Dedication**– This trait helps in achieving what is aimed for. Dr. SK is very dedicated and this along with other personal attributes he was able to achieve what he aimed for.

*Dr SK: “I was keen in physiotherapy from the beginning”*

- b) **Faith**– It is Dr. AK’s belief in god and her work dedication and commitment which lead to her business expansion.

*Dr SK: “God has been kind and blessed us in all the steps we took. Dr AK believes only in work, I feel that blessings are equally important”*

- c) **Devotion**– Dr. AU mentions that her husband Dr. SK is devoted to his profession.

*Dr AU: “No no, he( Dr SK) is completely devoted to this only”.*

**E) Motivation to excel.**

- i) **Experiential Inspiration**– Dr. AU learnt management because she observed that management plays a very important role in the functioning of any entrepreneurial venture. She observed a contrast in the functioning of different school due to the difference in the management style.

*Dr AU: “I learnt about Office management in the job I did for a year. The appreciation I got at work place motivated me to do something of my own”*

- ii) **Continuous Change Management**– It is one of the very upcoming factors responsible for placing one’s position in the society.

*Dr AU: “To clarify and to enhance knowledge he( Dr SK)continuously persuaded other courses in Physiotherapy”*

- iii) **Belief**– Dr. SK has a strong belief that no work is part time. With this belief he took decisions about not taking up further small projects in order to earn more.

*Dr SK: “ I always believed that every task requires full effort”*

Dr. AK reports that Dr. SU had always aimed for being counted amongst the top ten physiotherapists in the city, he is satisfied now. This shows that the couple sets small short-term goals for himself and plans for longer-term goals. This self-satisfaction acts as a reward and helps the couple to perform better every time.

*Dr AU: “His dream was to be amongst the top 10 Physiotherapist in the town. Now he is satisfied”*

Social Work: It is an important trait within entrepreneur especially in medical entrepreneurship.

*Dr AU: “But because of our nature we always wanted to do something for the society”*

- 2) **Attitude** is how you look at the world around you. The Attitude of the couples played an important role not only in developing their enterprise but also in its growth.

- i) **Positive Work Attitude** — Dr. SK mentions that he works for the betterment of his patients. This attitude clearly shows that he has a positive work attitude.

*Dr AK: “We work for the betterment of my patients. Business is second”*

- ii) **Non-Monetary Attitude**– Dr. SK reports that he never ran after money. He was after strong networking and client building.

*Dr SK: “ People said that keep personal front strong so that you get the support from Bank etc.”*

- iii) **Challenges handling**–To handle a challenge, it is important to have a correct attitude. The couple faced a lot of challenges together. All they always kept was a positive attitude.

*Dr SK: “We used to hang the bill boards ourselves because we did not have many employees. And the sad part is that people used to take away our boards or broke them”*

- iv) **Experiential Learning Attitude**– Dr. AU mentioned about her interest in management. She reports that she had compared two atmospheres differently during her studies with the difference in management styles. One of the schools she studied in was a convent and the other was a government school. It was then when she realized the importance of management for a smooth functioning.

*Dr AU” “I was always fond of practicing management. My schooling in two different school clearly indicated the difference administration can bring into the working of the organization”*

- v) **Technically Updated**– The couple was keeping themselves technically updated. They were up to date about the new researches being done; new techniques in the market, new problems, and people are facing all that can be treated under physiotherapy.

*Dr SK: “We are treating patients of 14 years of age also. They suffer because of their long working hours, study hours, coaching and all. We are also looking forward for taking trainings in that field also but we are not getting a chance. We have done it in HAL and all the patients come to us and they say that it is not possible for us to follow the body posture you suggested me because of our job profiling. So, we have to go there to see the furniture and all so that we can suggest them exercises enough that they follow in the sitting postures in their offices. All these things come under physical ergonomic.*

### **1) Seeding of the Organization: (Decision Making)**

- A) **Planning** being another factor responsible for success and growth, there are several factors under it: Clarity of goals, Decision making and Strategic planning.

- i) **Vision**– Dr. SK and Dr. AU both had a very clear vision of their career. They had a step by step plan for the next five years. They were both very open in discussing their short term goals. The following verbatim clearly explains the detailed vision the couple had.

*Dr SK: “This was our dream to create such a hospital where all the specialty facilities in physiotherapy are available”.*

### **ii) Clarity of goals& Self Analysis**

*Dr SK: “I was not good in studies and knew that I cannot do BTech so then itself I decided to pursue physiotherapy”*



Dr SK: *“There are many streams in physiotherapy like ortho-physiotherapist, neuro-physiotherapist, gyncoa and off physiotherapy, sports- physiotherapy, plastics and burn unit, muscular and skeleton unit. I wanted to have a specialized centre in physiotherapy and do special counseling for specific requirement. ”*

Dr SK: *“I always wanted to do something and this was an upcoming field. But people made fun that you want to become a massage man”*

**iii) Goal Setting**

Dr SK: *“By nature I am a disciplined person so I was inclined towards defense. But I was always”*

**iv) Achievement**

Dr SK: *“I was creative and laborious and got the Best Employee award also. My contribution in their new project was immensely appreciated”*

**v) Failure**

Dr AU: *“ Sir was more into home visits with the senior doctors and did not favour clinical practice much. After we started our work in partnership, the partners left and changed the line. We were depressed as there were lots of negative factors from all sides. ”*

**vi) Competition in the Market**

Dr SK: *“99% of our patients are referral through other patients. We do not get Doctors support. Because doctors prefer those physiotherapist who can do home visits. If doctors give our reference then their patients get reduced. ”*

**vii) Proper facilities**

Dr SK: *“There is a proper arrangement of slippers for the ones who have taken it out”.*

**viii) Strategic Planning**

Dr SK: *“ I believe that if a new centre has to be opened the functional team here will take care of this centre. Because if I will take care of this center then who will operate the new centre. Since I cannot be everywhere and expansion is required I have planned that Dr AU will look after the administration with the expert team.*

**viii) Future Planning**

Dr SK: *“My new constructed home is being built in a manner that it can be converted to house for paralysis patients in future. We will have a team of clinical psychologist, occupational therapist, speech therapist etc, i.e. a complete paramedical team. It is as if you pay and leave the patient here for recovery and then take them when they are fit. We have long term plans”*

**ix) Practical Planning**

*Dr AU: "I told him that you continue with your home practice and I shall start the centre parallel. If it works then good if not then we shall close it. Self-identity is a good thing. Now we feel happy that people recognize us that these are people from Extra care"*

**x) Financial Management**

*Dr SK: "these 4 are my employees and not my students. We are getting free manpower from 3 years. We have given them insurance of Rs 10,000 along with medical, health and accidental insurance."*

**xi) Documentation**

*Dr SK: "We started at a very low level from one room set and few medicines that we purchased from Mams savings. We invested that money and gradually grew. We still have the records of the patients we treated in our early days."*

- 2) People Management** is one the most important part in an organizational set up or wherever management is required. It seems easy but managing people is one of the toughest skills in managing the organization. This skill facilitates healthy interactions and communications among people in a social setting.

Professional Skills of the doctor - Rapport building skills, Good interpersonal skills, Healthy Interpersonal Interaction with Patients, Strong Interpersonal Bond with Employees, are some of the common factors clubbed under interpersonal skills.

In other words, workplaces benefit if workers have good relationships. According to Toropov (1997), there are three main types of interpersonal relations at work or three main areas of dealing with co-workers: with subordinates, peers, superiors. In addition to this, Goleman (1998) highlights several competencies that are especially valuable when dealing with peers: building bonds – nurturing instrumental relationships; collaboration and cooperation – working with others toward shared goals; team capabilities – creating synergy in working toward a group. He also focuses on the importance of conflict management in establishing good interpersonal relations among colleagues at work. Conflict management is particularly useful for negotiating and resolving disagreements among peers, superiors and subordinates. People with this competence handle difficult people and tense situations with diplomacy and tact, spot potential conflict, bring disagreements into the open, encourage debate and open discussion, and orchestrate win-win solutions. Focusing on the need and importance of interpersonal skills, Walter (1997) discussed that bosses prefer dealing with employees who can effectively communicate, can rely and who can support them. In addition, they prefer dealing with employees who are not overly aggressive with them, focusing on the tranquilizing persona of the employees.

- i) **Good interpersonal skills**– Dr. SK and Dr. AU both had very effective interpersonal skills. It is evident from the clientele the couple had as physiotherapists. The staff interviewed also mentioned about the relationship among the workers in the clinic.
  - a) An employee: *“We are not treated as an employee here but as a team member. Sir and Mam support us in handling the case and also in studies. They are very good towards us and makes us feel important.”*
- ii) **Rapport building skills**– Both the couples had very good rapport building skills.
  - a) *“As the researcher entered, she was greeted by the doctor himself”.*
- iii) **Healthy Interpersonal Interaction with Patients**– As enquired from the patients, they reported that the interactions amongst the doctors and themselves are very healthy.

*“The staff member along with the doctor enquires about each patient’s health twice, when they enter and when get the treatment of that day.”*
- iv) **Strong Interpersonal Bond with Employees**– The employees were personally interviewed and they reported family like relations with the doctors.
  - a) Dr SK: *“The employees here are for name sake, we are actually a family and we feel like a family. We all work as a team. We share the happiness and pain as we do for our family members”*

Good Interpersonal Relationships– The employees reported that the employees had good relations with the doctor couple.
  - b) Dr SK: *“During job I learnt a lot from seniors also. Theory is different from practical. My seniors taught me what has to be done and what not”*
- v) **Networking**- it is one the most important components of entrepreneurship.
  - a) Positive Word of Mouth Good Network– The network of the centre was very good. The clients and employees themselves reported that the patients who come for treatment are all through mouth publicity. The doctor couples reported that 99% of the couples who visited their clinic came through word of mouth.

*An Employee: “I shall complete one year here. I did my internship from Dr. Ram Manohar Lohia hospital. Then I joined here”*
  - b) Strong Social Network– The doctors had strong network in the professional social club as well.

*“The researcher observed a poster certificate which showed the membership of the doctor with ‘Indian Red Cross Society’.*
  - c) Good teamwork skills– Teamwork become extremely important when a team of experts is required for a profession. It is also important to realize that a good team

functions only when there is wise direction. The employees report that the teamwork skills of the doctor is very good.

Dr SK: “ All employees are equally important and integral part of our team”

- vi) Staff Support**– The doctors reported the importance of supportive staff members. Then they even mentioned that the staff members were very supportive.

*Dr SK: “We recently had our performance comparative charts. We ensure that our staff wears apron. We have AC facility. But our strength is our staff. They are very supportive”*

- 3) Organizational Environment** is the environment which effects the overall functioning of the workplace. There are a few factors clubbed together under organizational environment.

- i) **Discipline:** The environment of the clinic was disciplined. The staff reported that he felt really comfortable working in such a disciplined environment. He would always prefer such a conducive environment suitable for growth and development.

*An Employee: “then I thought that I should start my career from a sincere place of work so that I gain for my future”*

- ii) **Cordial Relations amongst Top management & Staff**– As observed and as reported by the employees of the clinic, there was comfortable environment in the clinic. The couple had very cordial relations with the staff members of the clinic.

- a) *An Employee: “Job switching is only good if the new job is offering more than the present one”*

- b) *An Employee: “We feel at home working in this organization”*

- c) *An Employee: “The good feedback, the positive environment and the support we get from this organization motivates us to work here”*

Good working environment, positive feedback from others and support from doctors are few of the important factors necessary for staff retention.

- iii) **Growth and learning**– The employees reported the environment of the clinic to be supportive for further studies and learning.

*An Employee: “The environment here promotes learning and growth. For our career the exposure and the environment we get is very positive”*

*An Employee: “We get the support of study, experience, any everything”*

The atmosphere of the clinic was democratic which means that the doctors were very supportive in terms of experience and study. The employees work freely and have a right to say and act

*An Employee: “After last year Sir convinced me to pursue the diploma, I feel the future is bright now. When I see Sir and Mams efforts it motivates me”*

The couple also gave counseling and motivating sessions to their employees for working hard and achieving their goals. They helped their employees beyond expectations.

- iv) **State of the Art Clinic and Cooperative staff:** A patient reported a positive feedback for the staff being very supportive, up to date machines and proper arrangements for the patients.

- a) A patient: "She mentioned that she likes the staff, machines, and arrangements of the clinic."

*Dr SK: "We always do follow up with the patients. And provide knee, back etc services together to the patients' as required. We even write and give the prescription"*

The atmosphere of the clinic is such that the patients are properly taken care of and there are different varieties of patients. There is no manipulation of data as far as patients are concerned.

- v) **Reward System**– The centre uses various techniques for employee satisfaction and better productivity.

*Dr SK: "Actually we have point system here. We write the points daily. The work has also been properly allocated. Every year we give best employee award"*

- vi) **Challenges at Workplace**– The couple had faced a lot of challenges when they started their profession in physiotherapy.

*Dr AU: "These changes have taken place in the last 3 years. The patients we cured referred other patients to visit us. Otherwise we got patients only after Ortho referral. This was a major challenge"*

- vii) **Continuous Change Management**– It is one of the very upcoming factors responsible for placing one's position in the society.

*Dr AU: "He pursued other courses also which we thought were relevant for physiotherapy"*

- viii) **Foot In The Door Management Style** - Using this technique as one the management styles where a short-term goal is set, when it is achieved, a longer term goal is set further.

*Dr SK: "We have initially thought of 5 branches, we want to ensure that they are successful then only we shall plan to expand for 50 branches"*

It is amazing to see that in a span of 5 years the couples recently inaugurated their second branch in Lucknow.

### **Conclusion and Interpretation**

The case is reflective of the importance of behavioural aspects while starting a business. It is irrespective of area of expertise and the vertical in which business operates. It is the

individual skill sets and the behavioural aspects that helps in nurturing a entrepreneurial enterprise. The case addresses how a physiotherapist couple found an opportunity and capitalized upon to their advantage. However since the case addresses one particular area that is physiotherapy grand conclusions might not be applicable with other business verticals and this might pose as an opportunity for future research and discussions.

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# Management and Staff Development System of Janata Bank Limited

Sabnam Jahan<sup>1</sup>

**Abstract:** *The scope of the study is to identify and evaluate management development system of JBL(Janata Bank Ltd,) which is a financial service oriented organization. Due to the increased competition of the increased number of commercial banks and the growing economy, the expectations of the organization have also increased than ever before. Realizing the present condition, banks, especially the commercial banks are trying to improve and develop their management system. The main purpose of the study is to provide an evaluation of how Bangladeshi bank managers perceive and respond to training and management development programs, the extent to which such programs has been successful in achieving their learning outcomes and finding the barriers in such programs as well as staff development programs.*

**Keywords:** *Management Development, Training, Bank, Staff development*

## Introduction :

“A bank is an institution the principal function of which is to collect the unutilized money of the people and to lend it to others”. (R. P. Kent) Thus, Bank is a financial institution and intermediary, which collect deposits through its different deposit mechanism and provide loans and advances among the loan Clients/ investors with the view to earn profit. Modern management develops programs tend to use three interrelated approaches: one focuses on the characteristics, knowledge and experience of the individual manager and attempts to provide special programs to meet his or her needs. A second approach directs its attention to the improvement of managers as members of a class or a set of classes with overlapping membership. In this approach, programs are, planned for persons in similar roles in different organization. The third focuses upon a specific organization. It leads to programs designed to improve the functioning of a particular organization, with a given staff and resources faced with unique situations and problems. Each of these approaches in its own way attempts to mesh the capabilities and goals of the person with the needs and goals of the organization.

In Bangladesh, the researcher observed that the pattern of management development is different in different enterprises. That is why, the study is undertaken to analyze the pattern and problems in management development and staff development of Janata Bank Ltd.

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### **Objectives of the Study**

The study has explored the following objectives and targets to determine the management development Program of Janata Bank Limited.

**Primary Objective:** Primary objective of the study is to explore management development system of Janata Bank Limited.

**Specific Objectives:** Specific objectives of the study are as follow as:

1. To profile the current provision of management development system of Janata Bank Ltd
2. To identify the factors influencing and methods used management development programs of Janata Bank Ltd.
3. To determine the relationship between indicators of management development by using a descriptive as well as inferential statistical tool in relation to overall management development program.
4. Develop action plans to close identified gaps in management development provision in Janata Bank Lt
5. To recommend some ways to enhance the state of management development system of the bank employees.

### **Literature Review**

The word “Manager” has been used to mean people at different levels of hierarchy. To be called a manager, one neither has to be at the top of the organization, nor should one necessarily supervise others. Even worker may be considered as manager for the purpose of management development, one of the objectives of which is to create management succession.

It is clear that the theory of management and the principles of functional and commercial activities (e.g. marketing, financial management) can be successfully taught in a classroom setting. However, many critical managerial competencies or abilities such as communication skills, relationship building, decision making, and resilience, are not easily developed through lectures or consumption of written material. These less tangible, but critical managerial competences are best developed through experiential learning. **David and Bagher (2010)** say that,” as globalization affects increase and the participation of diverse groups in the workplace grows, there is a clear need in the field of Human Resource Development (HRD) to commit to promoting the cause of diversity. Diversity needs to become a priority item on the HRD agenda through embedding diversity into the curricula of HRD programs.”

### **Management Development**

Management refers to the organization and coordination of the activities of an enterprise in accordance with certain policies and in the achievement of clearly defined objectives. Development is the process of growing and changing, and increasing ability.

Management development, therefore, is the process by which the management competencies of a manager or a management team are enhanced. While training focuses on improving an employee's skill level, development has a more long term focus intended to help an employee prepare for future jobs. It helps organization to achieve its mission and goals by improving individual and, ultimately, organizational performance.

Management development can be defined simply as developing the most important section of any business its human resource by, "attaining or upgrading the skills and attitudes of employees at all levels in order to maximize the effectiveness of the enterprise" (Kelly 2001). The Management Development Council has defined Management Development as. "Any form of training, formal or informal, accredited or non-accredited, which enhances the ability of a manager to provide direction, facilitates change, use resources, work with people, achieve results, or manage self and personal skills".

"Aspect of organizational development that covers recruitment and assessment of executive level employees and training them in leadership to equip them for higher positions. This process generally includes development of cognitive (thinking, idea generation, and decision making), behavioral (choosing appropriate attitudes and values), and environmental (suited management style to the situation) skills is known as management development." (Ladhari, 2008)

So, simply Management development System is the process by which managers learn and improve their management skills. Most management development does not involve outside classes or professional trainers. Management development is the overall concept that describes the many ways that organizations help employees develop their personal and organizational skills, either as managers in a management job or with an eventual management job in mind. Building the skills of managers through management development options is critical to the effective functioning of organization.

### **Objectives of management and Staff development program**

To stimulate creative thinking, to improve performance of managers, to increase versatility of the management group, to improve thought process and analytical thinking, To give specialist an overall view of the functions of an organization, To identify persons with required potential, To motivate managers, To update managers, To improve human relation skills

### **Methods of Management Development**

In organizational development (OD), management effectiveness is recognized as a determinant of organizational success. There are mainly two types of methods by which managers can acquire the knowledge, skills and attitudes and make themselves competent manager. One is formal training or of-the-job and another is through on-the-job training.

- **Off-the-job methods:** Lecture/Seminar, Simulation exercise, Behavioral Modeling, Sensitivity training, Transactional Analysis
- **On the job methods:** Coaching, Understudy, Job Rotation, Planned work Assignment, Internship

### **Gap in the Literatures**

The above section of the literature review show that a number of researches have been conducted on banking sector in Bangladesh. The focus of these studies included training and development system of different private and state owned bank, job satisfaction of bank's employees, service quality of retail banking, and many other factors regarding developing staff and management in banking area. However it is noteworthy there is very limited published works which directly examined management development programs of state owned banks in Bangladesh. In particular there no research found regarding management development system of Janata Bank Ltd. Therefore, the importance of the present study on exploring the management development system of JBL as a state owned bank is compelling in the context of Bangladesh.

### **Methodology of the study**

This section presents the detail methodological considerations which were used to conduct this study. Quantitative research design was used to fulfill the purpose of the research is a descriptive research. At first the topic has been selected and an exploratory research made. The Likert Scale for measuring management development program has been used in the study. The research study has been conducted on personal interview of the employees of Janata Bank Ltd, as well as a questionnaire used to be collected various information related with job satisfaction and observation method is used in various sensitive issues to know the actual behavioral aspects of employees.

### **Sources of Data**

In order to make the study more meaningful and presentable, two sources of data and information have been used widely.

*The “Primary Sources” are:* a questionnaire survey, observation, relevant file study as provided by the officers, sharing practical knowledge of officials, in-depth study of selected cases.

*The “Secondary Sources” are as follows:* Annual reports of Janata Bank Limited, periodicals Published by Bangladesh Bank, office files and documents, study related books and journals, web sites sources etc.

### **Questionnaire Design**

A survey questionnaire consisting of two broad parts namely

- a. A number of questions related with management development program was given to select respondents. The instrument uses a five point Likert scale to rank the items. The ranges are as follows:

- Strongly agree
  - Agree
  - Neutral
  - Disagree
  - Strongly disagree
- b. Structured questionnaire regarding product facility, complaint handling, extra services, account statement and customer relation.

### **Population**

At present there are 71 branches (up to 2014) of Janata Bank Ltd. The questionnaire was distributed to those respondents who have been working in this bank. But the population size is so large. That is why a sample of 50 people has been taken for the study.

### **Sample Size**

For conducting my research total sample size was 50. Fifty (50) respondents were selected purposively from different branch of Janata Bank Limited and especial emphasis was given on those employees who are in charge of management position in various departments. A random selection process was used to select those respondents among employees of the bank.

### **Sampling Technique**

In survey methodology, sampling is concerned with the selection of a subset of individuals from within a statistical population to estimate characteristics of the whole population.

**Simple Random Sampling Method** has been used in the study to select the sample. In a simple random sample (SRS) of a given size; all such subsets of the frame are given an equal probability. Each element of the frame thus has an equal probability of selection.

### **Variables Covered**

The following variables have been used to conduct the analysis of this study:

- Independent variable: Effective management development system in the organization
- Dependent variable: Organizational performance which is the outcome of good management development strategy.

### **Data Processing System**

The research is mainly descriptive in nature. To process and analyze data following instruments and statistical tools has been used here:

### **Instruments Used in Analysis**

There are some tools which used in analysis. Data analysis is done using descriptive statistics consisting of percentage and tables. There are various figures, tables, charts, Analysis which are easier to understand. These instruments are used in the analysis with

their sources. Most of the cases I will use tables and charts to present the condition in an easier way. The statistical tools used in the study were graphical presentation, tabulation, frequency distribution etc.

### **Limitations**

The study aims to explore & analyze management development program of Janata Bank Ltd and find out if there is any scope for its improvement. In doing so, I have encountered the following problems:

sThe sample population is limited in terms of its range and composition. Non response error – this type of error occurs when the researcher cannot locate the pre-designated sample element to be studied. Two sample element were out of reach and inaccessible. Their address could not be found in the customer database, and also they did not receive phone calls. Sample substitution could not be possible as the sampling frame was limited. It was too limited to cover all the banking area. Many aspects could not be discussed in the present study. Lack of comprehension of the respondents was the major problem that created a lot of confusion regarding verification of conceptual question. Another limitation of this study is Bank's policy of not disclosing some data and information for obvious reason, which could be very much useful.

### **History of the Bank**

Janata means people. This is a progressive Bank. Immediately after the emergence of Bangladesh in 1971, the erstwhile United Bank Limited and Union Bank Limited were nationalized and renamed as Janata Bank. On 15<sup>th</sup> November, 2007 the bank has been corporatized and renamed as Janata bank Limited. Janata Bank Limited was thus born with a new concept of purposeful banking for serving the growing and diversified financial needs of planned economic development of Bangladesh.

Janata Bank Limited, one of the state owned commercial banks in Bangladesh, has an authorized capital of Tk. 20000 million (approx. US\$ 250 million), paid up capital of Tk. 11000 million (approx. US\$ 37.87 million) and reserve of Tk.17234 million (approx. US\$ 42.73 million). The Bank has a total asset of Tk. 508567 million (approx. US\$ 3562.94 million) as on 31<sup>st</sup> December 2012.

Janata Bank Limited operates through 892 branches including 4 overseas branches at United Arab Emirates. It is linked with 1202 foreign correspondents all over the world. The Bank employs more than 15(fifteen) thousand persons.

### **Vision of Janata Bank Ltd.**

Janata Bank's vision is to become the effective largest commercial bank in Bangladesh to support socio-economic development of the country and to be a leading bank in South Asia.

### **Mission of Janata Bank Ltd.**

The mission of the bank is to be an effective commercial bank by maintaining a stable growth strategy, delivering high quality financial products, providing excellent customer

service through an experienced management team and ensuring good corporate governance in every step of banking network.

### Analysis & Interpretation of Data

To carry forward this study, 20 questions were asked to the 50 respondents who are the officers of Janata Bank Limited to determine their management development system. The respondents gave different answers in response to the questions. The given answers have been analyzed by using Microsoft Excel, chart, graph etc. However, the following part of this study presents the analysis & interpretation of the answers given by the respondents:

### Descriptive Analysis and Frequency Distribution

To analyze respondents answer descriptive analysis and frequency distribution has been used:

**Descriptive Analysis:** It refers the transformation of raw data into a form that will make them easy to understand and interpret; rearranging, ordering, manipulating data to provide descriptive information.

**Frequency Distribution:** It refers a set of data organized by summarizing the number of times a particular value of a variable occurs. I targeted my sample size as 50. By using descriptive analysis and frequency distribution, we can assume about the total population. Those are given descriptively and graphically as follows:

### Learning Organization & Strategy Dimension

Learning organization & strategy dimension

		Frequency	Percent	Valid Percent	Cumulative Percent
<b>Valid</b>	Strongly Disagree	2	4	4	4
	Disagree	26	52	52	56
	Uncertain/Neutral	5	10	10	66
	Agree	14	28	28	94
	Strongly Agree	3	6	6	100
	Total	50	100	100	

(Data-Primary Source)

### Interpretation and Comment

Here analysis shows that among the total respondents 26 persons were disagreed and 14 persons were agreed with this question. Also we found that 5 persons were neutral and 2 persons were highly disagreed. As most of the respondents are disagreed with this dimension, it can be said that Janata Bank Ltd is not a good learning organization.

### Management Development Need Analysis and Goal/objectives Dimension

Management development need analysis and goal/objectives dimension

		Frequency	Percent	Valid Percent	Cumulative Percent
<b>Valid</b>	Disagree	3	6	6	6
	Neutral	14	28	28	34
	Agree	26	52	52	86
	Strongly Agree	7	14	14	100
	Total	50	100	100	

(Data-Primary Source)

#### Interpretation and Comment

Janata Bank Ltd shows sincere interest in management and staff development need analysis to achieve its goal. After analysis this dimension it is found that most of the respondents were agreed which were 26 persons. Also found that 14 persons were neutral with this statement and 3 people were committed with disagree. As there is no strongly disagreed person it can be said that the bank does its development need analysis properly.

### MDP Formalization and its Execution Dimension

MDP formalization and its execution dimension

		Frequency	Percent	Valid Percent	Cumulative Percent
<b>Valid</b>	Strongly Disagree	2	4	4	4
	Disagree	8	16	16	20
	Uncertain/Neutral	17	34	34	54
	Agree	17	34	34	88
	Strongly Agree	6	12	12	100
	Total	50	100	100	

(Data-Primary Source)

#### Interpretation and Comment

Total sample size was 50. Here analysis shows that among the total respondents 17 persons were agreed with this dimension. 6 people were strongly agreed with this statement. Also 17 persons were neutral and the rest of the respondents were disagreed and strongly disagreed. It can be said that Janata Bank Ltd executes its management development program properly.

### Employee Performance Dimension

Table 8: Employee performance dimension

		Frequency	Percent	Valid Percent	Cumulative Percent
<b>Valid</b>	Disagree	3	6	6	6
	Uncertain/Neutral	13	26	26	32
	Agree	26	52	52	84
	Strongly Agree	8	16	16	100
	Total	50	100	100	

(Data-Primary Source)

#### Interpretation and Comment

Effective performance of the employee is positively related to the management and staff development program of the bank. Here analysis shows that most of the respondents are agreed with this statement. Among them 26 persons agreed and 8 persons were strongly agreed and 13 persons were neutral about that statement. But there were no strongly disagreed persons with this statement. So, it is found that management development system is positively related to the employee performance of the bank.

#### Analysis of Close Ended Questions

Apart from the surveys scale participants were also asked some close ended question. Variety responses were recorded indicating several aspects of management and staff development system of JBL. The following section presents some of the important aspects of them:

### Rate the management and staff development system of JBL

Rating of the management and staff development system

		Frequency	Percent	Valid Percent	Cumulative Percent
<b>Valid</b>	Poor	5	10	10	10
	Average	21	42	42	52
	Good	20	40	40	92
	Excellent	4	8	8	100
	Total	50	100	100	

(Data-Primary Source)

#### Interpretation and Comment

Employees of JBL were asked to rate the management and staff development system of their organization. With this statement most of the respondents answered average. Among the total respondents 20 people rate it good and 4 persons poor. Rest 5 people rate it excellent.



**Most Effective Method of Development System**

Most effective method of development system

		Frequency	Percent	Valid Percent	Cumulative Percent
<b>Valid</b>	Seminar	7	14	14	14
	Job Rotation	22	44	44	58
	Planned work Assignment	18	36	36	94
	Coaching	3	6	6	100
	Total	50	100	100	

(Data-Primary Source)

**Interpretation and Comment**

What is the most effective development method of Janata Bank Ltd? Here 36 % answered planned work assignment with and 6% answered coaching. 44% favored job rotation that is most and 14 % favored seminar. According to them job rotation is the most effective method of management development system.

**Helpfulness of Organization in Performing Job Effectively**

Helpfulness of organization in performing job effectively

		Frequency	Percent	Valid Percent	Cumulative Percent
<b>Valid</b>	Yes	20	40	40	40
	No	30	60	60	100
	Total	50	100	100	

(Data-Primary Source)

**Interpretation and Comment**

The question was do you feel bank allows you to perform job effectively? Here, it is obvious that 30 respondents were said no and 20 respondents were said yes. So, from this it can be concluded that most of the respondents that is about 60 percentages of total respondents did not find their bank helpful in performing job effectively.

**Opportunity to Get Job Related Skill Development Program**

Opportunity to get job related skill development program

		Frequency	Percent	Valid Percent	Cumulative Percent
<b>Valid</b>	Yes	15	30	30	30
	No	35	70	70	100
	Total	50	100	100	

(Data-Primary Source)

### Interpretation and Comment

The question was do you have the available opportunity to get job related skill development program? Here, it is obvious that 35 respondents were said no and 15 respondents were said yes. So, from this it can be concluded that most of the respondents that is about 70 percentages of total respondents did not get opportunity to have job related skill development program.

### Opportunity to Show Skill and Creativity in the Job

Opportunity to show skill and creativity in the job

		Frequency	Percent	Valid Percent	Cumulative Percent
<b>Valid</b>	To Some Extent	12	24	24	24
	No	29	58	58	82
	Yes	9	18	18	100
	Total	50	100	100	

(Data-Primary Source)

### Interpretation and Comment

Do you get enough opportunity to show your skill and creativity in the job? With this question only 9 people said yes, 29 persons answered no and 12 people said to some extent they get opportunities. So, it can be concluded that there is less opportunities to show skill and creativity in the job.

### Achieve Goal through the Job

**Table 14:** Possibility of achieving goal through job

		Frequency	Percent	Valid Percent	Cumulative Percent
<b>Valid</b>	Yes	17	34	34	34
	No	33	66	66	100
	Total	50	100	100	

(Data-Primary Source)

### Interpretation and Comment

The question was do you think you can achieve your goal through this job? Here, most of the respondents said no that is 33 and only 17 respondents were said yes. So, from this it can conclude that most of the respondents that is about 66 percentages of total respondents did not think they can achieve their goal through this job. So, the organization is not helpful to achieve employee's goals.

### Satisfaction Level Regarding Management Development System of the Bank

**Table 15:** Satisfaction level regarding management development system

		Frequency	Percent	Valid Percent	Cumulative Percent
<b>Valid</b>	Highly Dissatisfy	4	8	8	8
	Dissatisfy	5	10	10	18
	Uncertain	18	36	36	54
	Satisfy	20	40	46	94
	Highly Satisfy	3	6	6	100
	Total	50	100	100	

(Data-Primary Source)

#### Interpretation and Comment

Here analysis shows that 20 persons were satisfied and only 5 persons were dissatisfied with the management and staff development system of the bank. Also there were 18 persons neutral and 4 person's highly dissatisfied and only 3 persons were highly satisfied. The satisfaction level indicates that the bank should try to improve its management development system.

#### Summary of the findings

The analysis of this research revealed that HR's role is to establish and implement a high-level roadmap for strategic development system. After collecting and analysis data some idea about the management and staff development practice of Janata Bank Ltd has been found. The findings emerged as a result of survey are discussed as under:

1. Organization provides less opportunity on continual learning and job trainings that positively contributes to organizational performance.
2. Managers of all level do not get chance to involve in management development need analysis and policy decisions for development program.
3. Employee Performance is augmented through competitive advantage that can be achieved through management development.
4. The study reveals that job rotation is the most effective development method provided by the organization.
5. The employees agree that there is less opportunities for career development.
6. Good training and development must provide opportunities to learn and grow employees.
7. The employees are satisfied with the management development program in the organization.
8. From the study it was found that development system should be periodically evaluated and improve.

9. The bank does not conduct adequate software-based development for their employees. But to cope with the modern banking system software-based development system is very essential for the employees of the bank.
10. The training and development budget of Janata Bank Ltd is increasing. That means they are giving more importance on management development to achieve the organization's goals.
11. The HRD & Training Institute of this Bank mainly focuses on the needs analysis of employees for the selection of employees for development. They also use performance appraisal; analyze the previous record, job analysis & job description, recommendation of top management to select the candidates for development program.
12. The main purpose of development system of this bank is to increase their profit. But they do not arrange development program to motivate their employees. But without motivation the employee's productivity will not

### **Conclusions**

Janata Bank Ltd is playing leading role in socio-economic development of the country. Since inception Janata Bank Ltd has been rendering its banking services with the needs of the nation to cope with the demands of people in the country.

Management and staff development programs play a vital role in every organization. These programs improve employee performance at workplace, it updates employee knowledge and enhances their personal skills and it helps in avoiding managerial obsolescence. It creates efficient and effective employees in the organization. Development program enhances the overall performance of an organization in various ways. Development program enables the staff to develop their skills within the organization and hence naturally helps to increase the organization's market value, earning power of the employees and job security of the employees. Development system moulds the employee's attitude and helps them to achieve a better cooperation within the organization. In addition both qualitative and quantitative research could be conducted on a large sample to better examine management development system regarding Janata Bank Limited.

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# Job Satisfaction of Employees: A Study on Real Estate Companies in Dhaka City

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**Abstract:** *Job satisfaction which is expressed by different employees differently has much influence on their work behavior. In an attempt to examine the degree of job satisfaction of employees working in different real-estate companies, a study was conducted on two hundred (200) executives of twenty (20) real estate companies. The respondents were interviewed through a structured questionnaire following a logical interview schedule. The data were analyzed manually by using proper statistical methods. The study addresses on its various dimensions of job satisfaction that include present job, present pay, job security, opportunity for promotion, supervision, relation with coworkers, etc. The findings of the study reveal that the employees of real-estate companies are not satisfied with various aspects of job satisfaction which would be useful as secondary information for those who are involved in policy making and are interested in conducting further research on similar topic.*

**Keywords:** *Present job, present pay, opportunity for promotion, supervision, coworkers*

## Introduction

Job satisfaction or dissatisfaction is an attitude that reflects the extent to which an individual is gratified by or fulfilled in his or her work. It is a set of favorable or unfavorable feelings and emotions with which employees view their work. It is a relative feeling of liking or disliking toward something. It has been widely believed that the consequence of job satisfaction is very much important to an organization in terms of productivity, employee relations, raising morale, etc.

Until now very little comprehensive study on job satisfaction of executives of real estate companies in Bangladesh has been conducted. In an attempt to examine the job satisfaction, a study on executives of a number of real estate companies in Bangladesh has been conducted. Although the type, size, structure and investment of these companies are not same, this real estate sector of Bangladesh is contributing a lot to the socio economic development of the country, which is 12 to 14% to GDP of Bangladesh (Barua, Mridha and Khan, 2010). Hence, measuring job satisfaction of the employees of real estate companies in Bangladesh is extremely significant.

## Objectives of the Study

The objectives of this study are as follows:

- To identify the key factors that are important for the job satisfaction of the employees of real estate companies in Dhaka city.

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This paper is part of the author's book on Job Satisfaction of Employees: A Study on Real Estate Companies in Bangladesh

- To measure the level of job satisfaction by using job description indicators
- To identify the key factors of job satisfaction among the employees of real estate companies in Dhaka.
- To recommend measures for improving the level of job satisfaction among those employees.

### **Methodology of the Study**

This research is an exploratory type in nature. To conduct the study, primary data were extensively used and secondary data were used in selective cases. The dearth of secondary data is the main reason for relying heavily on primary data.

One thousand one hundred and thirty four (1134) registered and more than 500 unregistered real estate companies which are operating in the country at present employ about three (3) million people, who are either directly or indirectly involved in the real estate sector (retrieved from [www.rehab-bd.org](http://www.rehab-bd.org)). In the study, a total number of 200 employees from 20 real estate companies in Dhaka were selected applying judgmental sampling method. The names of the randomly selected real-estate companies are DOM-INNO Builders Ltd, Latif Real Estate Ltd., Building Technology & Ideas Ltd., Navana Real Estate Ltd., Borak Real Estate (Pvt.) Ltd., Alien properties, Apartment Design and Development Limited (ADDL), Nibash Properties Limited, Concord Real Estate Limited, Living Stone Ltd., Amin Mohammad Foundation Ltd., Abdul Monem Developments Limited, ABC Real Estates Limited, Al-Amin Developments Limited, East West Property Development (Pvt.) Ltd., Eastern Housing Ltd., Wealth Development & Management Ltd., Union Development & Technologies Ltd., Rangs Property Ltd, Khan Builders & Development Ltd. All these companies are privately owned and members of Real Estate & Housing Association of Bangladesh (REHAB).

The survey was conducted during September to December 2015. To measure the degree of job satisfaction of the respondents, the following variables were placed in the questionnaire: present job, present pay, opportunity for promotion, supervision, coworkers by using Job Description Index (JDI) developed by Dr. Patricia Cain Smith, Kendall, and Hulin (1969).

The instrument used for collecting data was a structured interview schedule and data were analyzed manually by using proper statistical method.

### **Literature Review**

Stephen P. Robbins defined job satisfaction “as an individual’s general attitude toward his or her job.” The achievement of one’s values and the work situation results in the pleasurable emotional state known as job satisfaction (Locke and Hene, 1986).

Job satisfaction is a result of employees’ perception of how well their job provides those things which are viewed as important. The first step towards improving job satisfaction is determining its causes and correlates. To measure job satisfaction: type of job, working conditions, pay, promotion opportunity, supervision, co-workers, future career prospects

and job security are considered. Concept closely related to job satisfaction includes cohesiveness and morals, which are generally assessed or aggregated at the group level.

Reviewing a large number of studies, Victor Vroom found that a desired promotion results in a greater increment in job satisfaction and failure of those results in decrement to a greater extent (Vroom V.H. 1964). Smith, Kendall, and Hulin have suggested that there are five job dimensions that represent the most important characteristics of a job which people have affective responses. They are: The Work Itself, Pay, Promotion Opportunities, Supervision, Coworkers.

Applebum's (1997) study identified that there is a positive correlation between the nature of the job design including task complexity, task variety, task independence, and job satisfaction.

Some demographic factors have influence on job satisfaction as shown in some research works. Kalleberg and Loscocco (1983) showed that in the USA, the older workers are more satisfied than younger workers. Shapiro and Stern (1975) found that in USA professional women experience lower levels of job satisfaction than their male counterparts do. Islam (1999) found that in Bangladesh, the level of job satisfaction of government employees is higher than that of NGO employees and male employees are more satisfied than women.

In most of the studies, it is observed the relationship between job-related factors and job satisfaction. Khaleque and Rahman (1987) conducted a study on job satisfaction of Bangladeshi industrial workers regarding the influence of some job facets including job content, coworkers, supervision, wage promotion, work environment, and communication. They concluded that job facets can be sources of satisfaction as well as dissatisfaction. Overall job satisfaction of industrial workers is influenced by the job facets and personal life and the degree of satisfaction depends upon the perceived importance of the job facets.

Alam (2003) conducted a research on the job satisfaction of female workers in different garment factories in Dhaka city and concluded the level of satisfaction is positively correlated with level of wages they get. Ziaul et al. (2005), in their study on 'Comparative Job Satisfaction of Senior Male and Female Executives in Bangladesh', showed that there are insignificant differences in terms of levels of satisfaction in different facets of job between the male and female executives.

There is also a considerable impact of the employees' perception for the nature of his/her work and overall job satisfaction. Financial Compensation has a great impact on the overall job satisfaction of employees. (Aziri, 2011, pp 86) Moreover, respectful treatment of all employees at all levels was rated as 'very important' by 72% of employees in the USA in 2004, making it the top contributor to overall job satisfaction. (SHRM, 2014)

## **Analysis and Findings**

### **Data Analysis**

The researcher formulated the questionnaires on the five board factors mentioned above. The findings of the study were represented in the following tables.



### Present Job

**Level of Work Scope in the Present Job:** The respondents were asked to express their opinions on the level of existing work scope at their respective company. In this regard, the result is shown in the table below with the data as found from the answers of the respondents.

**Table: 1**

Sl. No.	Variables	Frequency	Percentage	Cumulative Percentage
01.	Level of work scope in the present job			
	Yes	28	14	14
	No	112	56	70
	Average	48	24	94
	Not Answered	12	06	100
	Total	200	100	

**Source : Author**

From the above table, it is found that majority of the respondents (56%) are dissatisfied with the level of work scope at real estate companies while a reckonable portion (24%) graded it as average, 14% expressed their satisfaction whereas 6% were found to be indifferent in making a response.

**Job Responsibilities in the Present Job:** The respondents were requested to express their opinions on the level of existing job responsibilities at their respective organization. In this regard, the result is shown in the table below with the data deduced from the answers of the respondents.

**Table: 2**

Sl. No.	Variables	Frequency	Percentage	Cumulative Percentage
01.	Job responsibilities in the present job			
	Yes	28	14	14
	No	100	50	64
	Average	68	34	98
	Not Answered	04	02	100
	Total	200	100	

**Source: Author**

From the above table, it is found that exactly half of the total respondents (50%) are dissatisfied with the job responsibilities to work at their own workplace while an alarming percentage (34%) graded it as average, 14% expressed their satisfaction whereas 2% were found to be indifferent in making a response.

**Job Policies in the Present Job:** The respondents were asked to express their opinions on the level of job policies in their present job. The result is shown in the table below.

**Table: 3**

Sl. No.	Variables	Frequency	Percentage	Cumulative Percentage
01.	Job policies in the present job			
	Yes	28	14	14
	No	128	64	78
	Average	44	22	100
	Not Answered	00	00	100
	Total	200	100	

**Source: Author**

It is found that majority of the total respondents (64%) are dissatisfied with the present job policies to work at their respective organization while a reckonable percentage (22%) graded it as average, 14% expressed their satisfaction.

**Existing Job Security prevailing in the Present Job:** The respondents were requested for their opinions on the degree of existing job security in the present job. The result is shown in the table below:

**Table: 4**

Sl. No.	Variables	Frequency	Percentage	Cumulative Percentage
01.	Existing job security prevailing in the present job			
	Yes	50	25	25
	No	102	51	76
	Average	30	15	91
	Not Answered	18	09	100
	Total	200	100	

**Source: Author**

Quite a number of the total respondents (25%) are satisfied with the existing job security prevailing at their organization while a very small percentage (30%) graded it as average, 51% expressed their dissatisfaction whereas 09% were found to be indifferent in making a response.

**Working Environment in the Present Job:** The respondents were requested to express their opinions on the level of working environment in their present job.

**Table: 5**

Sl. No.	Variables	Frequency	Percentage	Cumulative Percentage
01.	Working environment in the present job			
	Yes	164	82	82
	No	16	08	90
	Average	20	10	100
	Not Answered	00	00	100
	Total	200	100	

**Source: Author**

From the above table, it is found that a remarkable majority of the total respondents (82%) are satisfied with the working environment to work at their workplace while a small percentage (10%) graded it as average, 08% expressed their dissatisfaction. 100% respondents made responses against this aspect. In short, most of the employees are satisfied with the prevailing working environment at their respective organization.

#### **Overall Satisfaction in the Present Job:**

The respondents were asked to express their opinions on the level of overall satisfaction in their present job.

**Table: 6**

Sl. No.	Variables	Frequency	Percentage	Cumulative Percentage
01.	Overall satisfaction in the present job			
	Yes	52	26	26
	No	104	52	78
	Average	36	18	96
	Not Answered	08	04	100
	Total	200	100	

**Source: Author**

From the above table, it is found that majority of the respondents (52%) are not satisfied in working at their respective organization while a reckonable percentage (26%) graded it as satisfied, 18% graded it as average, 08% expressed their dissatisfaction whereas 04% were found to be indifferent in making a response with the overall conditions of their present job.

#### **Present Pay**

**Salary in the Present Job:** The respondents were asked to express their opinions on the degree of existing salary structure at their organization.

From the pie-chart 01 (see appendix), it is found that a large percentage of the respondents (44%) are not satisfied with the salary structure at their organization while a small portion (26%) are satisfied, 22% graded it as average and 4% were found to be indifferent in making a response. In short, almost three fourth of the employees ( $100\% - 26\% = 74\%$ ) seem to possess moderate to acute reservations on the existing salary structure.

#### **Increment Provision in the Present Job:**

The respondents were requested to express their opinions on the level of increment provision of salary at their organization.

From the pie chart-2 (see appendix), it is found that a large percentage of the respondents (46%) are not satisfied with the increment provision of their organization while only one third (34%) are satisfied, 18% graded it as average and 2% were found to be indifferent in making a response. In short, two third of the employees ( $100\% - 34\% = 66\%$ ) seem to possess moderate to acute reservations on the existing increment provision.

**Fringe Benefits available in the Present Job:** The respondents were asked for their opinions on the degree of fringe benefits offered in their present job.

Majority of the respondents (52%) are not satisfied with the available fringe benefits offered by their organization while a less than half (42%) are satisfied, 06% graded it as average. In short, nearly 60% of the employees ( $100\% - 42\% = 58\%$ ) seem to possess moderate to acute reservations on the existing fringe benefits offered by their organization.

**Overtime Benefits offered in the Present Job:** The respondents were requested to express their opinions on the level of overtime benefits offered in their present job. In this regard, the result is shown in the table below.

**Table: 7**

Sl. No.	Variables	Frequency	Percentage	Cumulative Percentage
01.	Overtime benefits offered in the present job			
	Yes	72	36	36
	No	40	20	56
	Average	88	44	100
	Not Answered	00	00	100
	Total	200	100	

**Source: Author**

A large percentage of the respondents (44%) have graded the overtime benefits (if any) provided by their organization as average while a reckonable portion (20%) expressed their dissatisfaction whereas only a little more than one third (36%) expressed their satisfaction. In short, almost two third of the total employees ( $100\% - 36\% = 64\%$ ) seem to possess moderate to acute reservations on the existing overtime benefits offered by their organization.

**Incentive Scheme prevailing in the Present Job:** The respondents were requested for their opinions on the level of incentive scheme prevailing in their present job.

**Table: 08**

Sl. No.	Variables	Frequency	Percentage	Cumulative Percentage
01.	Incentive scheme prevailing in the present job			
	Yes	76	38	38
	No	84	42	80
	Average	24	12	92
	Not Answered	16	08	100
	Total	200	100	

**Source: Author**

A large percentage of the respondents (42%) are not satisfied with the incentive scheme prevailing in their organization. Only little more than one third (38%) have expressed their satisfaction while 12% graded it as average and 8% were found to be indifferent in making a response.

**Retirement Benefits available in the Present Job:** The respondents were asked to express their opinions on the level of retirement benefits available in their present job.

**Table: 07**

Sl. No.	Variables	Frequency	Percentage	Cumulative Percentage
01.	Retirement benefits available in the present job			
	Yes	80	40	40
	No	92	46	86
	Average	24	12	98
	Not Answered	04	02	100
	Total	200	100	

**Source: Author**

46% respondents are not satisfied with the retirement benefits available in their company while an only 40% expressed their satisfaction, whereas 12% graded it as average and 2% were found to be indifferent in making a response.

**Level of Satisfaction in Overall Pay System in the Present Job:** The respondents were requested for their opinions on the degree of overall pay system in their present job.

**Table: 8**

Sl. No.	Variables	Frequency	Percentage	Cumulative Percentage
01.	Level of satisfaction in overall pay system in the present job			
	Yes	72	36	36
	No	88	44	80
	Average	36	18	98
	Not Answered	04	02	100
	Total	200	100	

**Source: Author**

From the above table, it is found that a large percentage of the respondents (44%) are not satisfied with the overall pay system at their company while a little more than one third (36%) of them expressed their satisfaction, 18% graded it as average and 2% were found to be indifferent in making a response. In short, almost two third of the employees (100%-36%=64%) seem to possess moderate to acute reservations on the existing overall pay system at their company.

### Opportunity for Promotion

**Scope of Promotion in the Present Job:** The respondents were asked to express their opinions on the degree of existing scope of promotion at their company.

From the pie-chart 4 (see appendix), it is found that majority of the respondents (54%) graded the scope of promotion as average while only 28% expressed their satisfaction, 10% expressed their dissatisfaction whereas 8% were found to be indifferent in making a response.

**Scope of Career Growth in the Present Job:** The respondents were asked to express their opinions on the degree of scope of career growth in their present job. In this regard, the result is shown in the graph below from the compilation of the responses.

From the above Pie-chart 5 (appendix), it is found that exactly half of the total respondents (50%) graded the scope of career growth at their company as average while a little more than one third (36%) expressed their satisfaction, 12% expressed their dissatisfaction whereas 2% were found to be indifferent in making a response. In short, almost two third of total employees ( $100\% - 36\% = 64\%$ ) seem to possess moderate to acute reservations on the existing scope of career growth.

**Performance Appraisal Method in the Present Job:** The respondents were asked to express their opinions on the degree of the performance appraisal method at their company.

The equal number of the respondents (44%) graded the existing performance appraisal method of their respective organization as satisfactory as well as average while 12% expressed their dissatisfaction. In short, more than half of the total employees ( $100\% - 44\% = 56\%$ ) seem to possess moderate to acute reservations on the existing performance appraisal method at their company. (Pie-chart 6, appendix)

**Scope of Training & Development Program in the Present Job:** The respondents were asked to express their opinions on the level of training & development program arranged in their present job. In this regard, the result is shown in the table below.

**Table: 09**

Sl. No.	Variables	Frequency	Percentage	Cumulative Percentage
01.	Scope of training & development program in the present job			
	Yes	92	46	46
	No	08	04	50
	Average	92	46	96
	Not Answered	08	04	100
	Total	200	100	

**Source: Author**

46% respondents graded the existing scope of training & development program of their company as satisfactory as well as average while 2% expressed their dissatisfaction and another 2% were found to be indifferent in making a response.

### Supervision

**Supervision Style in the Present Job:** The respondents were asked to express their opinions on the existing supervision style.

**Table: 10**

Sl. No.	Variables	Frequency	Percentage	Cumulative Percentage
01.	Supervision style in the present job			
	Yes	84	42	42
	No	12	06	48
	Average	100	50	98
	Not Answered	04	02	100
	Total	200	100	

**Source: Author**

From the above table, it is found that majority of the respondents (50%) graded the supervision style in their organization as average while a good portion (42%) expressed their satisfaction, 6% expressed their dissatisfaction whereas 2% were found to be indifferent in making a response.

### Coworkers

**Cooperation Received from Colleagues in the Present Job:** The respondents were asked to express their opinion on the level of cooperation received from colleagues.

**Table: 11**

Sl. No.	Variables	Frequency	Percentage	Cumulative Percentage
01.	Cooperation receives from colleagues in the present job			
	Yes	124	62	62
	No	28	14	76
	Average	44	22	98
	Not Answered	04	02	100
	Total	200	100	

**Source: Author**

Majority of the respondents (62%) are satisfied with the cooperation received from colleagues at work in their company while a little portion (22%) graded it as average, 14% expressed their dissatisfaction whereas 2% were found to be indifferent in making a response.

### **Cooperation & Help Received from Supervisor in the Present Job:**

The respondents were asked to express their opinion on the level of help and cooperation received from supervisor in their present job. In this regard, the result is shown in the table below.

**Table: 12**

Sl. No.	Variables	Frequency	Percentage	Cumulative Percentage
01.	Cooperation & Help received from supervisor in the present job			
	Yes	132	66	66
	No	52	26	92
	Average	08	04	96
	Not Answered	08	04	100
	Total	200	100	

**Source: Author**

It is found that majority of the respondents (66%) are satisfied with the cooperation and help receives at work while a reckonable percentage (26%) expressed their dissatisfaction, 4% graded it as average and 4% were found to be indifferent in making a response.

### **Analysis and Findings**

It is found that an employee working in a real estate company is likely to leave if s/he fails to secure a promotion after each 3 years of service successively in their professional career. Furthermore, real estate companies should address the aspects of 'work scope' and 'job responsibility'. Management of these companies should clearly specify 'job description' for each employee at each level. The authority should cater different types of job for an employee after a set interval in their professional career to remove monotony in their job. Further study may be carried out on the importance of the aspect of 'variety of work', 'job policy' and 'office timing'. So far 'office timing' is concerned, if possible different timing may be set for different types of employees without compromising the quality of service but still keeping the working hour within the standard duration. As a whole, the employees surveyed seem to be highly dissatisfied with the present job.

Regarding the existing pay and other all financial benefits are concerned, it is alarming that most of the employees are dissatisfied. This aspect should be a matter of great concern for these companies. If the level of such dissatisfaction continues for a considerable time, the employees may show reluctance towards their job that would lead to decreased efficiency vis-à-vis poor quality of service. However, the authority should study the matter and find out solution considering their profit volume. Effective communication, transparency in all financial affairs accompanied by meaningful motivation of the employees on the aspect would prevent the organization from sudden probable shocks.



Regarding promotion, the employees are not satisfied with these companies. So, the aspect of promotion should be taken seriously to ensure career growth of all potential employees who should always be considered as assets of the organization.

Regarding supervision, more than half of the employees are not satisfied with existing overall supervision system. Lack of all aspects of supervision would gradually make employees disinterested in serving the organization with full commitment.

Regarding co-workers, restate companies should give most importance and carry out further inquiry in to the aspects of 'cooperation receives from higher authorities', teamwork culture as a 'working group', 'services received from subordinates', 'appreciation receives from subordinates'. Sense of belongingness would not only make all teams as an effective group but also improve discharging service quality by the subordinates. The real estate companies should take the matter as a priority for making each working group an effective one which is a must for better service quality and quantity.

### **Grand Summary on Major Heads**

Grand summary is appended below objectively:

<b>Major Headings</b>	<b>Level of Satisfaction</b>	
	<b>Overall</b>	<b>Overall Average</b>
Present Job	21%	20.6%
Present Pay	36%	35.75%
Opportunity for Promotion	38%	38.5%
Supervision	40%	39.75%
Coworkers	48%	47.5%
Average	36.6%	36.42%

### **Source: Author**

Based on the aforesaid information, real estate companies need to do many things to set themselves as good business enterprises. Further customized/segmented study on each aspect of job satisfaction should be carried out to pin point problem areas. Apart from subjectivity on the 'present job', all other aspects need attention. Hence, real estate companies should go for a comprehensive study by a professional group covering all aspects of the organization.

Considering all five aspects, present major contention of the employees lies with the present job and present pay. The real estate companies should look into the matter seriously. Otherwise, employee turn-over rate would further aggravate and cause severe loss that would lead gradual demise of the organizations in an open market economy.

### **Limitations of the Study**

To conduct the study, the author mostly relied on primary data as the paucity of secondary data in context of Bangladesh was observed. Similarly, the validity of the

research is also lessened due to the small sample size. The researcher also presumed that the sample is not a very close approximation of population. Thus, any inference drawn about population parameter based on sample statistics may not reflect the actual scenario of overall satisfaction of the employees working in real estate sectors. There is also every scope of developing hypotheses and testing them in further study.

### **Suggestions for Further Research**

To get a clear idea of and insights into job satisfaction of employees of real estate companies in Bangladesh, more extensive exploratory research can be conducted. Additionally, there is every scope of conducting further comprehensive exploratory research in different arenas to know their employees' overall satisfaction and what factors contribute to what extent to their levels of satisfaction.

### **Conclusion**

If real estate companies in Bangladesh follow the recommendations suggested here, they can keep the employees motivated and ensure job satisfaction as a whole. If employees of any company are highly satisfied with their job, their productivity will be increased and they will clearly be able to outperform their responsibilities in order to fulfill the organizational goals and objectives. On the other hand, if they are not satisfied, the turnover rate of employees will be increased, that is, they may tend to switch to other professions.

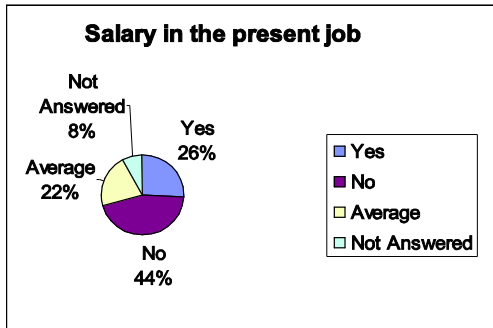
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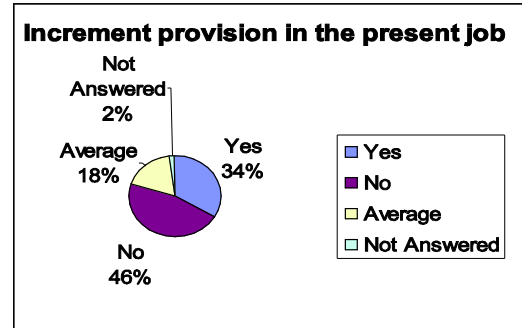
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\*End Note: Questionnaire of the survey of this study is available upon request.

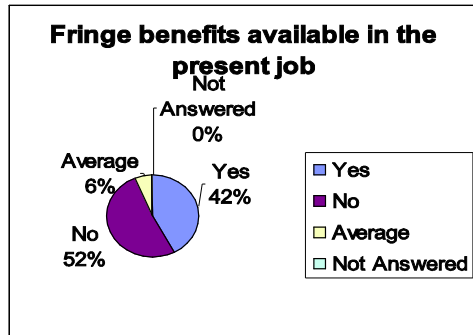
## Appendix



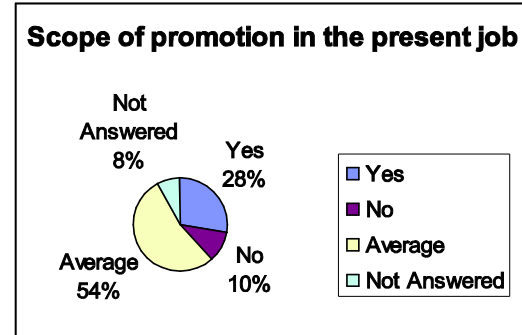
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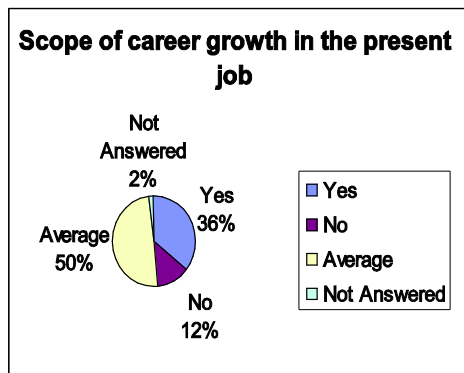
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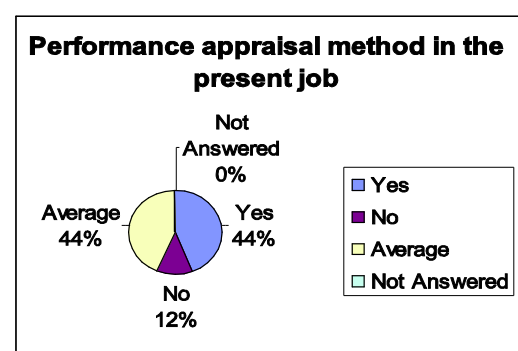
Pie-Chart: 3



Pie-Chart: 4



Pie-chart: 5



Pie-chart: 6

# An Analysis of Feldstein-Horioka Puzzle regarding Economic Openness of Bangladesh

Nurul Mohammad Zayed<sup>1</sup>

**Abstract:** *This paper proposes an original framework to determine the influence of economic openness (trade-GDP ratio) on the Feldstein-Horioka result of Bangladesh with a positive saving-investment association. Based on panel Threshold Regression Model, Johansen Long Run Cointegrating Equation is developed for Bangladesh over the period 1972-2015. ECM model is also developed to test the short run dynamics of investment function. CUSUM and CUSUMQ have been used to test the stability of the investment model. The results show that, there is a long run relationship among savings, trade and investment. The results from ECM show that speed of adjustment in investment function is moderate in Bangladesh. The plot of CUSUM indicates the instability of the model. The results do not support the Feldstein-Horioka (1980) hypothesis meaning that the capital account of Bangladesh is not convertible.*

**Keywords:** *Feldstein-Horika puzzle, Panel Smooth Threshold Regression models, Johansen Long Run Co integrating Equation, TVP, saving-investment association, capital mobility, instability.*

*JEL Classification: E200, N150.*

## Introduction

In their seminal article of 1980, Feldstein and Horioka provided evidence of a strong correlation between the national saving of countries and their domestic investment. Their results have been confirmed in most studies of EU and OECD countries. Considerable literature on the issue has arisen, in a world of capital mobility; an increase in national saving should not modify domestic investment. This result, generally known as the Feldstein — Horioka (FH hereafter) puzzle, has spawned a large amount of literature trying to explain why saving and investment appear to be correlated. The puzzle of Feldstein and Horioka (1980, henceforth FH) stems from the early eighties: the authors identified the correlation between a country's savings-to-GDP and investment-to-GDP ratio as a measure of international capital mobility. By using a cross-section analysis they concluded that the long-awaited capital mobility was not significantly present. The puzzle rose from the fact that the seminal article inspired a vast amount of literature with different research methods and data samples, but without a real wide consensus (Fouquau et al. 2007).

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In such situation, the study seeks to evaluate whether there is any correlation between savings and investment of Bangladesh. Is Feldstein-Horioka puzzle applicable for Bangladesh? The study intends to examine the foresaid questions.

The objective of this study therefore is to investigate the degree of international capital mobility in the case of Bangladesh by employing the Johansen Long Run testing approach to co integration.

This study explores the relationship among savings, trade and investment in Bangladesh during the period 1972-2015. Unlike previous studies, this study employed Johansen Long Run Co integrating testing approach to test for long run relationships. The results of the Johansen Long Run Co integrating test suggest that there is a long run relationship between savings, trade and investment. This result is consistent with a number of earlier studies reviewed in the literature that was found saving, trade and investment to be co integrated in the long run.

The rest of this paper is structured as follows. **Section 2** provides a brief review of the relevant literature. **Section 3** postulates a theoretical model that captures a conventional model of Feldstein-Horioka. The empirical econometric results for the long run relationship among savings, trade and investment, as well as policy implications of the study are set out in **Section 4**. **Section 5** presents some concluding remarks.

## Literature Review

Economic theory predicts that under perfect capital mobility capital will tend to flow into the country where the highest yield is achievable, thus domestic savings and domestic investments should remain uncorrelated. However, in the original Feldstein-Horioka study the authors found that the correlation between domestic savings and domestic investment during the period 1960-74 was high for the sample of 16 OECD countries. They estimated the following well-known equation ever since:

$$\left(\frac{I}{Y}\right)_i = \beta_0 + \beta_1 \left(\frac{S}{Y}\right)_i + \epsilon_i \quad (\text{FH})$$

Here  $I$  means gross domestic investment,  $S$  stands for gross domestic savings and  $Y$  denotes GDP (later we'll use  $i$  and  $s$  for GDP fractions). In other words they regressed the average of the investment rates on the average of savings rates using a cross-sectional sample and they also estimated  $\beta_1$  for sub-periods, using five-year-average rates. A  $\beta_1$  near 1 would mean that domestic savings and domestic investment are highly correlated. They found that  $\beta_1$  was about 0.9 for every sample period, which they interpreted as a lack of capital mobility (Varga and Plajner, 2012).

Their findings have been widely discussed. Lots of studies used simple OLS estimates for various groups of countries and periods. Several empirical researches showed that the coefficient in question is much lower than those estimated by FH, and it's especially lower for developing countries as emphasized by e.g. Frankel et al. (1987), Coakley et al. (1999).

Researchers used a wide set of econometric techniques to confirm or to refuse the original argument. Numerous studies used time series methods to examine the long-run and short-run connection between the saving and investment rates. To rule out spurious regressions some studies have been attempted to investigate if the direction of causality runs from saving to investment or inversely.

Various theoretical macroeconomic models have been built to explain the puzzle. Obstfeld and Rogoff (2000) created a model with budget constraints and transport costs.

Ho (2000) applied a two-state, first-order Markov regime-switching model for Taiwan using quarterly data for the 1979-95 intervals and concluded that capital mobility is more likely to have been high in the studied period. Other three East-Asian countries in addition to Taiwan (Korea, Hong Kong, Singapore) have been also studied by Sun (2003) using a TVP model. He claimed that due to the financial liberalization, during the 1980-97 period capital was very mobile, moreover the mobility was rising.

Papapetrou (2006) used recursive OLS, rolling OLS, Kalman filter and Markov switching regime modeling technique to capture major policy regime changes. Using quarterly data for Greece for the period 1980-2003 she found that the estimated time varying coefficients declined over time indicating that due to the financial liberalization the capital mobility increased.

Telatar et al. (2007) carried out an empirical research using a Markov switching model with heteroskedastic disturbances and they found that the effect of policy regime changes can be observed. They used annual data for 9 European countries for the period 1970-2002. They concluded that two groups of countries can be perceived in the sample. In six of nine countries (Belgium, Denmark, Finland, France, Italy and Sweden) a significant fall has occurred in the saving retention coefficient around 1994, after the creation of the European Monetary Union, which was a step to the direction of the European capital market integration. Capital mobility increased considerably as the FH coefficient declined. However in the remaining three countries (Germany, Netherlands, UK) they didn't find such a substantial switching point.

Hatemi and Hacker (2007) analyzed the capital mobility in Sweden between 1993 and 2004. They used Kalman filter and found that the correlation is comparatively low and declined before 1995 when Sweden joined the EU. Surprisingly they observed that capital mobility hasn't increased after Sweden joined the Union.

Gomes et al. (2008) investigated the investment-saving connection for the second half of the 20th century in three South-American countries (Argentina, Brazil, Chile). They asserted that the coefficient showed relatively high volatility over time, thus the time varying parameter approach is much better than the simple OLS estimation.

Evans et al. (2008) examined a very long period for 8 countries. They found that the saving retention coefficient showed remarkable volatility from 1850 to 1990. Their results were mixed as for example in the USA capital mobility seemed to have been low throughout the whole period in contrast with Canada. Changes in the value of the coefficient did not show any unanimous pattern.

Arisoy and Ucak (2010) studied the G7 countries trying to catch the changes in the relationship of saving and investment rates. Using Kalman-filter they did not confirm the earlier results as they did not find significant evidence that capital mobility has declined over time. The authors found that the coefficient remained relatively stable during the period from 1960 to 2007 except for Italy where a significant drop was observed (Varga and Plajner, 2012).

Many studies have attempted to solve the Feldstein-Horioka puzzle by examining its feasibility, either theoretically or empirically, or both in different countries. Tang and Lean (2011) applied Rolling Windows Bounds test to empirically investigate the relationship between savings and investment over the period 1960-2007 for Malaysia. The study showed that savings and investment are not co integrated implying that capital is internationally mobile over the same period.

The main critiques of these works incorporate the omitted variables, the econometric methods, and the data used. Early papers related to the puzzle used periods averages in terms of saving- and investment rates but that method seemed to be ineligible. Time-series studies used annual rates, but the estimated coefficients were constant over time which led to unsophisticated results. Using time-varying parameter approach (TVP) is the most effective way to capture the changes in capital mobility over time.

It has been seen that the TVP literature of the Feldstein-Horioka puzzle is relatively bold but lacks any research to use the TVP methods for a country like Bangladesh. This paper attempts to fill this gap. This paper also intends to fill the gap of estimating the stability of the model by developing ECM model and using CUSUM and CUSUMQ Test.

### **Objectives of the Study**

The broad objective of this study is to investigate the degree of international capital mobility in the case of Bangladesh by employing the Johansen Long Run testing approach to co integration. The specific objectives of this study are:-

- i. To determine the potential threshold effects (Trade-GDP Ratio) in the relationship between national saving and domestic investment rates.
- ii. To retrieve the co integrating equation by normalizing vector.
- iii. To interpret the co integrating equation
- iv. To estimate how investment responds to changes in savings and trade.
- v. To evaluate the stability of investment in Bangladesh during the period 1972-2015.
- vi. To recommend policy guidelines for economic stability in Bangladesh.

### **Methodology**

This research is descriptive in nature and the data is quantitative in nature. Only the secondary data were used. Secondary data were collected from the world development indicators report, internal database and websites.



The Johansen multivariate co integration technique is used in this paper to test the existence of a long-run equilibrium relationship among the variables specified in equation (1). An important step before using the Johansen multivariate technique is to determine the time series properties of the data. This is an important issue since the use of non-stationary data in the absence of co integration can result in spurious regression results. To this end, one unit root test, *i.e* the ADF test has been adopted to examine the stationarity, or otherwise, of the time series data. In this paper the lowest value of the Schwarz Information Criterion (SIC) has been used as a guide to determine the optimal lag length in the ADF regression.

ECM has been applied to estimate investment function and examine its stability in Bangladesh. An ECM model is effective tool to study the short run dynamic in investment function. The ECM allowed reuniting the short run and long run behavior of investment.

Next the structural stability of the error correction model of investment has been examined. Stability test is used to examine if investment and its determinants in Bangladesh were stable during the sample period. Cumulative sum (CUMSUM) and cumulative sum of squares (CUSUMQ) of recursive test has been used.

### **Theory & Model**

The Feldstein–Horioka puzzle assumes that if investors are able to easily invest anywhere in the world, acting rationally they would invest in countries that offer the highest return per unit of investment. This would drive up the price of the investment until the return across different countries is similar. The discussion stems from the economic theory that capital flows act to equalize marginal product of capital across nations. In other words, money flows from lower to higher marginal products until the increased investment equalizes the return with that obtainable elsewhere. According to standard economic theory, in the absence of regulation in international financial markets, the savings of any country would flow to countries with the most productive investment opportunities. Therefore, domestic saving rates would be uncorrelated with domestic investment rates. Feldstein and Horioka argued that if the assumption is true and there is perfect capital mobility, we should observe low correlation between domestic investment and savings. Borrowers in a country would not need the funds from domestic savers if they borrowed from international markets at world rates. By the same token, savers would show no preference for investing within their own country, but would lend to foreign investors and would not need to lend domestically.

In this paper, the potential threshold effects (Trade-GDP Ratio) in the relationship between national saving and domestic investment rates are investigated. The baseline idea is very simple: common knowledge that international mobility of capital depends on other exogenous variables (trade openness, country size, demography, etc.) clearly matches the definition of a threshold regression model: "threshold regression models specify that individual observations can be divided into classes based on the value of an

observable variable" (Hansen, 1999, page 346). Thus, it has been tested the relevance of breaking down the Feldstein and Horioka (FH thereafter) regression parameters (or saving-retention coefficients) into classes given the values of the main factor generally quoted in this literature: economic openness (Trade-GDP Ratio)

In a panel data context, the simplest way to introduce threshold effects consists in using a Panel Threshold Regression (PTR) Model proposed by Hansen (1999). This model assumes a transition from one regime to another depending on the value of a threshold variable (the trade openness for instance). In a model with two regimes, if the threshold variable is below a given value, called the threshold parameter, the domestic investment is defined by one equation (with a particular value of the saving-retention coefficients), while it is defined by another equation (with another saving-retention coefficients) if the threshold variable exceeds this threshold parameter. This model has been used by Ho (2000) to empirically re-evaluate the country-size argument for the FH puzzle (Fouquau et al. 2007).

On the one hand the PSTR can be thought of as a regime-switching model that allows for a small number of extreme regimes (saving-retention coefficients) associated with the extreme value of a transition function and where the transition from one regime to another is smooth. On the other hand, the PSTR model can be used to allow for a "continuum" of regimes (saving-retention coefficients), each one being characterized by a different value of the transition variable. The logic is then similar to that developed in the standard univariate time series STAR.

Based on PSTR specifications, saving-retention coefficients have been derived, which vary not only between countries but also with time. Thus, this work provides a simple parametric approach to capture both heterogeneity and time variability of the saving-investment correlations. This approach allows for smooth changes in correlations depending on a threshold variable (Trade-GDP Ratio).

The basis of this empirical approach is exactly the same as that used by many authors since the seminal paper of Feldstein and Horioka (1980). It consists of evaluating the mobility of capital for a panel of N countries. The corresponding model is then defined as follows:

$$I_{it} = \alpha_i + \beta S_{it} + \epsilon_{it} \quad (1)$$

where  $I_{it}$  is the ratio of domestic investment to GDP observed for the  $i^{th}$  country at time  $t$ ,  $S_{it}$  is the ratio of domestic savings to GDP and  $\alpha_i$  denotes an individual fixed effect. The residual  $\epsilon_{it}$  is assumed<sup>2</sup> to be i.i.d.  $(0, \sigma_\epsilon^2)$  (Fouquau et al. 2007).

Let us consider a PTR model:

$$I_{it} = \alpha_i + \beta_0 S_{it} + \beta_1 S_{it} g(q_{it}; c) + \epsilon_{it} \quad (2)$$

where  $q_{it}$  denotes a threshold variable,  $c$  a threshold parameter and where the transition function  $g(q_{it}; c)$  corresponds to the indicator function:

$$g(q_{it}; c) = \begin{cases} 1 & \text{if } q_{it} \geq c \\ 0 & \text{otherwise} \end{cases} \quad (3)$$

With such a model, the FH coefficient is equal to  $\beta_0$  if the threshold variable is smaller than  $c$  and is equal to  $\beta_0 + \beta_1$  if the threshold variable is larger than  $c$ .

An ECM model helps us to study the short-run dynamics in the relationship between investment and its determinants. The error correction model enables us to reconcile the short-run behavior of investment with its long-run behavior (Jammeh, 2012). The ECM model is specified as:

$$\Delta \ln I_t = \alpha_0 + \alpha_1 \Delta \ln S_{t-1} + \alpha_2 \Delta \ln T_{t-1} + \Delta \ln I_{t-1} + \alpha_3 U_{t-1} + \epsilon_t \quad (4)$$

$$\text{Where: } U_{t-1} = \ln I_{t-1} - \beta_0 - \beta_1 \ln S_{t-1} - \beta_2 \ln T_{t-1}$$

Where  $\alpha_3 U_{t-1}$  is the error correction term, it is the residual from the co integrating equation,  $\alpha_3$  is the error correction coefficient and  $\alpha_i$  are the estimated short-run coefficients. The error correction coefficient works to push short-run investment disequilibrium back towards its long-run equilibrium and it shows the speed of this adjustment. The interest vested in the ECM model is the error correction coefficient and the stability test (Jammeh, 2012).

### Econometric Estimation

The Augmented Dickey-Fuller (ADF) test of unit root shows that all the variables in the model are stationary at first difference. The econometrics result of the ADF test is presented in Table 1. These results show that the null hypothesis of unit root at level cannot be rejected for investment; savings and trade at 95 percent confidence level. The numbers of lags are included in the estimation in order to eliminate the possibility of autocorrelation in the error terms.

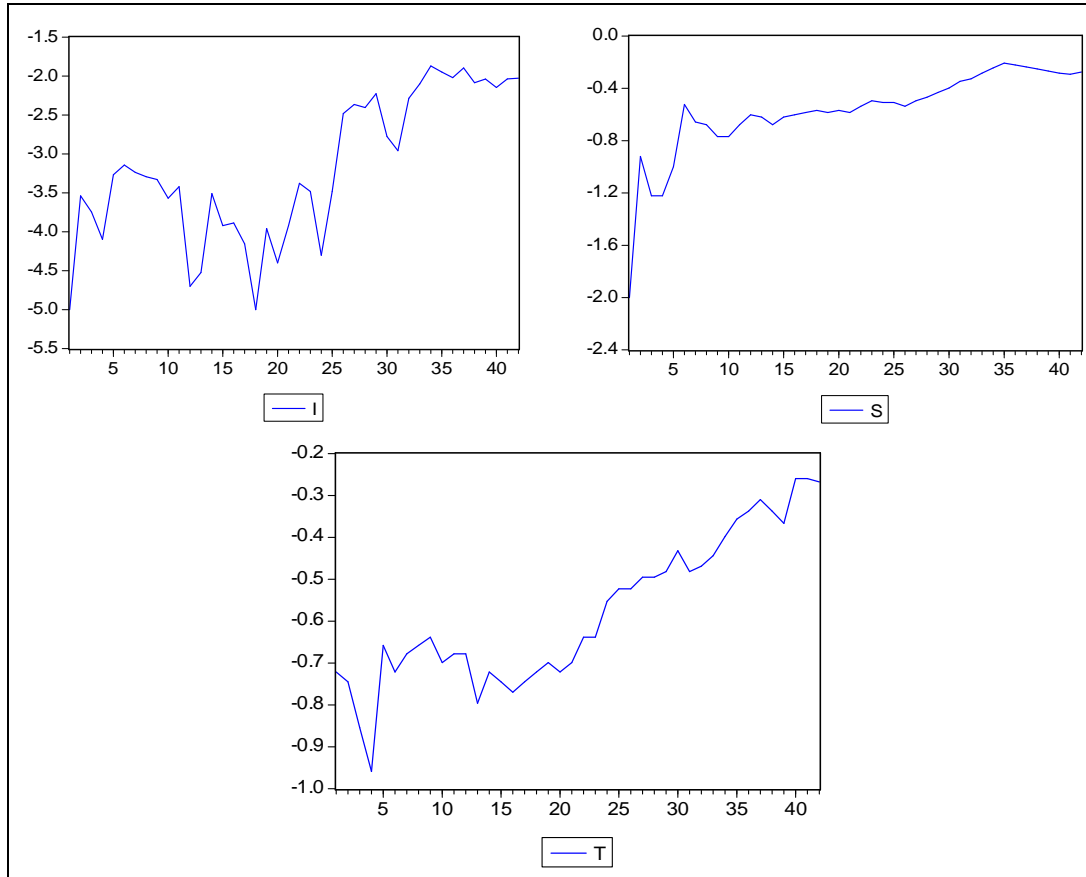
**Table 1:** Augmented Dicky Fuller (ADF) Unit Root Test

Variable	C (constant) and T (trend) in the equation	ADF statistics	Optimum lag
I	C & T	-6.980823	0
S	C & T	-13.67209	0
T	C & T	-7.431645	0

Source: Estimated

All the variables used in this paper have been plotted in order to have initial glue about the properties of the variables. Figure 1 shows a visual plot of all the variables.

**Figure-1**



**Source:** Estimated

Given that investment, savings and trade are stationary at their first differences, it has been proceeded to determine whether there is a long-run co integrating relationship among these variables. The trace statistics and the maximum Eigen value statistics revealed the existence of at least one co integrating vectors among investment, savings and trade. The result is shown in Table 2.

**Table 2:** Johansen Test for Co integration

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Max-Eigen Statistic	0.05 Critical Value
None *	0.389745	37.93027	28.89708	24.49392	20.14163
At most 1	0.294672	12.44634	14.49572	12.06948	13.27467
At most 2	0.009717	0.286859	2.842467	0.276859	2.941477

Source: Estimated

This signifies that there is a long-run relationship among investment, savings and trade in Bangladesh. As can be seen from the results obtained from the co integrating vector in Table 3, investment is negatively related to trade.

**Table 3:** Normalized Co integrating Vectors and the Corresponding Adjustment Coefficients

Variable	$\beta$ Coefficients	$\alpha$ Coefficients	Standard error	t-value
I	1.000000	-0.189294	-	-
S	0.380443	0.029388	3.49255	-3.49002
T	-5.317839	0.025492	5.23525	3.13655
Constant	0.194182	-	-	-

**Source:** Estimated

Table 3 also shows the estimated adjusted coefficients ( $\alpha$ s), which can be used to test for weak exogeneity. The adjustment coefficients contain weights with which co integrating vector(s) enter short-run dynamics. Given that this study finds one co integrating vectors, Table 3 presents the first column of  $\alpha$  matrix. These coefficients measure the speed of the short-run response to disequilibrium occurring in the system. Therefore, these results indicate that savings and trade are weakly exogenous with respect to investment.

Attention is now directed on the discussion of the long-run coefficients. The estimated co integrating vector is presented below.

$$I_{it} = 1.00 + 0.38S_{it} - 5.32S_{it} g(q_{it}; c) + 0.19..... \quad (5)$$

As seen from equation (5), there is positive coefficients for Savings-GDP ratio(S) and negative association for Trade-GDP ratio (T). But there exists a positive coefficient for Investment –GDP Ratio (I). So there is positive association between investment – savings and negative association between investment – trade. So if domestic investment goes up, domestic savings goes up and if investment goes up, trade goes down.

The ECM Stability test was also used to find out if investment function is stable in Bangladesh during the period 1972-2015. As shown in Table 4, the stability test shows that the relationship among investment, savings were not stable in Bangladesh during the period 1972-2015.

**Table 4:** Error Correction Representation

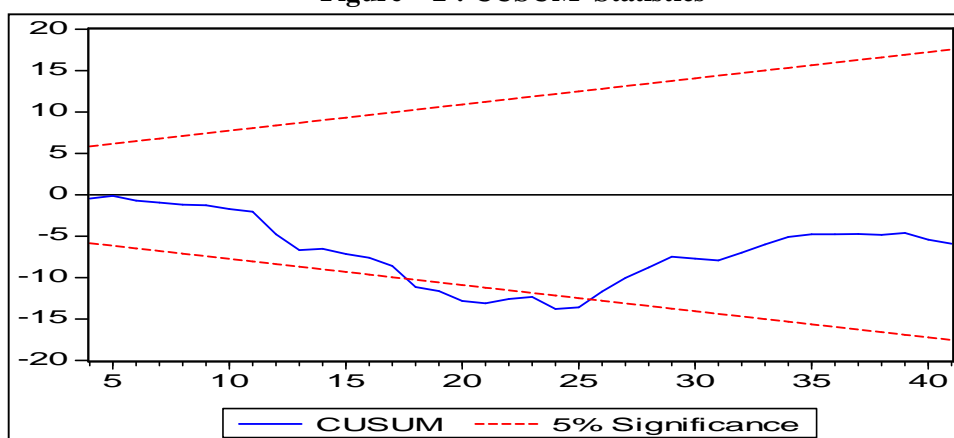
Variables	Coefficients	t-values	Standard error
Constant	0.086735	1.07142	0.08783
D(I(-1))	-0.120473	-1.27382	0.18562
D(I(-2))	-0.246361	-1.99827	0.16403
D(S(-1))	0.312489	3.07243	0.16123
D(S(-2))	-0.038033	-1.04528	0.03554
D(T(-1))	-0.512545	-2.96172	0.18487
D(T(-2))	-0.290387	-1.88452	0.10927
	D(I)	D(S)	D(T)
R-squared	0.184792	0.914596	0.372883
Adj. R-squared	0.006799	0.880301	0.347544
Akaike AIC	1.573065	-2.178072	-1.913008
Schwarz SC	1.018710	-1.953426	-1.569355
F-statistic	1.040727	17.80676	2.793476

Source: Estimated

All the parameter estimates are appropriately signed. The  $R^2$  values indicate a relative good fit for the data set. The calculated F-statistics are statistically significant at 5% level indicating that the explanatory variables are jointly significant in explaining investment dynamics in Bangladesh. The estimated error correction terms suggest the validity of run equilibrium relationship among the variables. The estimated coefficient values suggest that the system corrects its previous period disequilibrium in a year which can be considered a moderate speed of adjustments.

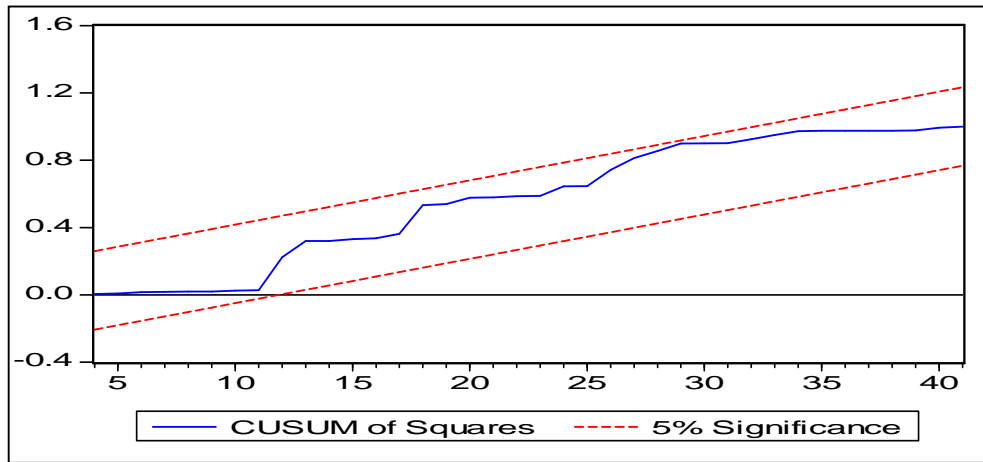
Since we are particularly interested in whether the estimations achieved are stable over time and therefore useful for forecasting purpose, we proceed with CUSUM and CUSUMQ tests. The results of the test statistics for evaluating the co integration vector stability are presented in the figure 2 and 3.

**Figure – 2 : CUSUM Statistics**



Source: Estimated

**Figure – 3 : CUSUMQ Statistics**



Source: Estimated

The graph 2 clearly shows that the investment function is not stable. If all the coefficient of ECM were stable, the CUSUM and CUSUMSQ plots will be under 5 percent critical bounds, but as graphs shown, the plot of CUSUM crossed the bounds and therefore indicates the instability of the model.

### Findings

Table 2 and 3 revealed that there at least one co integrated equation exists in the model or in the system. From table 3, we can see that an equation (5) is retrieved by the normalized vector where positive association between investment – savings and negative association between investments – trade exist. So if domestic investment goes up, domestic savings goes up and if investment goes up, trade goes down. Also, the results of the Johansen co integration test among investment, savings and trade indicate that there exists long run relationship among investment, savings, and trade for Bangladesh. Eventually we can say that Feldstein-Horioka Puzzle does not hold for Bangladesh.

The results from ECM show that speed of adjustment in investment function is moderate in Bangladesh. The absolute value of adjustment coefficient of error correction term shows that the disequilibrium adjusted in investment function by short run adjustment within a year.

The plot of CUSUM crossed the bounds and therefore indicates the instability of the model. The instability of investment function implies that savings is not purely an investment phenomenon in Bangladesh in the long run.

### Conclusions & Suggestions

This paper examined the empirical analysis of dynamic relationship among saving, trade investment for Bangladesh over the period 1972–2015 by employing the Panel Smooth Threshold Regression Model (PSTR) and Johansen Long Run Co integrating Equation. The results revealed the evidence of a long-run relationship among saving, trade and

investment. This result is consistent with a number of earlier studies in the literature that found saving and investment to be co integrated in the long run. The result doesn't support the Feldstein-Horioka (1980) hypothesis meaning that the capital account of Bangladesh is not convertible. Also, the study showed a negative and significant error correction term which implies the adjustment process to restore equilibrium is very moderate. It is widely acknowledged in the literature that international capital mobility is paramount in the allocation of resources to their best use (Fouquau et al. 2007). Therefore, this study recommends that if the current account gap is kept within the reasonable limits and the investment is highly productive or export oriented, then the current account deficit presents no problem. If a country is a net debtor, then economy must run trade surpluses in the future with a present discounted value equal to the initial net debt.

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# HUMAN RESOURCE MANAGEMENT PRACTICES IN UNIVERSITY LIBRARIES: EXPERIENCE AND REALIZATION

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**Abstract:** *University library is a microcosm of the institution as it faces most of the issues confronted by the campus Human Resource department. The scale of the issues may be smaller but, in terms of their effect on the operation of the library and its ability to fulfill its mission, they are very critical. Human Resource Management (HRM) is a function performed in organizations that facilitate the most effective use of employees to achieve organizational and individual goals. Maximizing the efforts and contributions of human beings is a major problem today in the libraries. As a part of this study, University libraries were pointed to assess the human issues related to human resource management in these libraries, current status of professionals engaged, their views and remarks for improving library services to better meet the user needs are also discussed. It has been emphasized that effective HRM is the only way to get best out of the personnel for successful management of an organization. This study also demonstrates that HRM function, policy and benefits are positively related to POSDCORB effectiveness. Its effectiveness fully mediates the relationship between resource and process, training and administration, and performance appraisal & services innovation.*

**Keywords:** *HRM, POSDCORB, University Libraries and HR Functions.*

## Introduction

Human capital is a key and by all accounts increasingly an important part of the resource-base of an organization. Human resources have been called the “key ingredient to organizational success and failure” (Baron and Kreps, 1999), including success and failure in company innovation performance. It is important to understand why and how human capital encourages innovation, and what deployment of human resource management (HRM) practices inside the organization can produce desired levels of innovation performance. The HRM has emerged and evolved as one of the most important areas of organizational discipline and practice. It has not been developed in isolation but in the context of organizational change and economic development. The uniqueness of the Human Resources (HR) approach requires a totally different type of attention from managers. The HR has characteristics that provide the greatest challenge as well as opportunity. A company’s HR is fragile with delicate relationships, along with unpredictable contributions, and permanency is uncertain (Guest, 1991). University libraries have also an internal HR department and staff devoted to handling all or some of the library’s HR functions in cooperation with the HR department of the parent institution. In other libraries, individual positions may be dedicated to HR functions.

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The most common position titles are HR or personnel officer, staff development officer, or organizational development officer. From library to library, the level of the position varies from line librarian or professional, to department manager, to associate or assistant director, while the reporting relationship also varies. A key factor in personnel development is the head librarian for his approach affects a great many other people in the organization. There are many specific ways the chief administrator's leadership has an impact on the library's staff development program. His leadership is important in developing, with his employees, a clear statement of policy on personnel development and continuing education a statement. It is known and understood throughout the organization which is made realizable through supportive procedures, adequate financing and a positive working atmosphere. His leadership in developing a strategy for the selection of highly motivated employees based on the institutional objectives to be achieved is also important.

### **Review of Literature**

As the world is becoming more competitive and unstable than ever before, manufacture-based industries are seeking to gain competitive advantage at all cost and are turning to more innovative sources through HRM practices (Sparrow, Schuler, & Jackson, 1994). HRM practices have been defined in following literature searching in several aspects.

Minbaeva (2005) viewed HRM practices a set of practices used by organization to manage human resources through facilitating the development of competencies that are firm specific, produce complex social relation and generate organization knowledge to sustain competitive advantage. Against this backdrop, we observed in library perspective that HRM practices relate to specific practices, formal policies, and philosophies that are designed to attract, develop, motivate, and retain employees who ensure the effective functioning and survival of the organization.

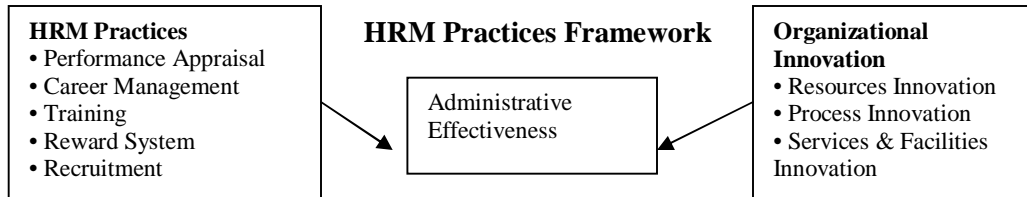
According to Wang (2005), innovative firms treat HRM practices as the organization's strategy to encourage team responsibilities, enhance organizational culture, and build up customer relationships through participation and management.

According to Harter, Schmidt, and Hayes (2002), HRM practices can generate increased knowledge, motivation, synergy, and commitment of organizational employees, resulting in a source of sustained competitive advantage for the executive.

Delery & Doty, (1996), defined that performance appraisal increase employee commitment and satisfaction since employees are given chance to discuss about their work performance. This, in turn, will lead them to perform greater in innovative activities. In a similar vein, career management assists employees to attain their career goals and objectives. If employees are likely to feel satisfied with their career management, which in turn, lead to motivate them to perform in innovative activities.

Reward system provides financial reward, promotion and other recognition, in order to motivate employees to take risk, develop successful new products and generate newer ideas (Guptal & Singhal, 1993). Reward system encourages employee to become motivated, thereby increase their participation in contributing innovation ideas, which leading to high organizational innovation. Hendry and Pettigrew (1992) propose that a number of internal factors such as the organizational culture, structure (positioning of HR), leadership, level of technology employed and business output directly contribute to forming the contents of HRM.

Hamel and Prahalad (1991) contend that a competitive advantage is obtained if an organization can obtain and develop human resources, which enable it to learn faster and apply its learning more effectively than its rivals.



**Figure-1:** HRM Framework in Libraries (Model developed by the authors)

Schuler and Jackson (1987) defined HRM practices as a system that attracts, develops, motivates, and retains employees to ensure the effective implementation and the survival of the organization and its members. Besides, HRM practices are also conceptualized as a set of internally consistent policies and practices designed and implemented to ensure that a firm's human capital contribute to the achievement of its business objectives.

Training helps employee master knowledge, skill, and ability which would be contribute to innovation in terms of products, production processes, and management practices in daily operation (Schuler & Jackson, 1987). Hence, training develops the knowledge, skill, and ability of employees to perform effectively in their job that will lead to higher organizational innovation.

### Methodology of the study

This present study has been carried out to evaluate the necessity of HRM and policy for building a new perception in libraries. To obtain this objective of the present study, researchers mostly have used secondary data from different period of research papers. Secondary data have been collected from various relevant publications and books. It is a qualitative research and mainly focused on human resource management (HRM) interrelated with library different managerial and administrative activities among the users as well as library personnel in collaboration with HR department of the parent organization.

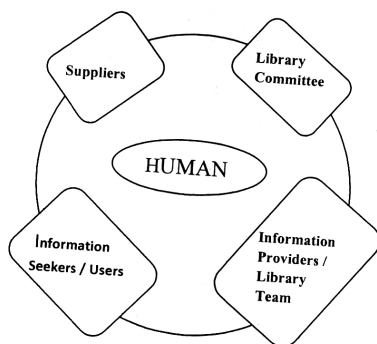
### Objectives

1. To study and examine the relationships between various aspects of HRM practices in library or organization.
2. To investigate the various HRM practices, i.e., planning, recruitment, selection, performance evaluation, training and development, career management and rewards at the managerial levels.
3. To assess the concept of HRM in the university libraries.

## Discussion and Realization of the Study

### 1. HRM in library perspectives

#### a. Human (H) in Library Perspective



**Figure-2** Human Chain in libraries (Model developed by the authors)

Information seekers are using the library resources with the help of library personnel. Suppliers are supplying library materials of the libraries as per demand by the library authority after giving their quotation.

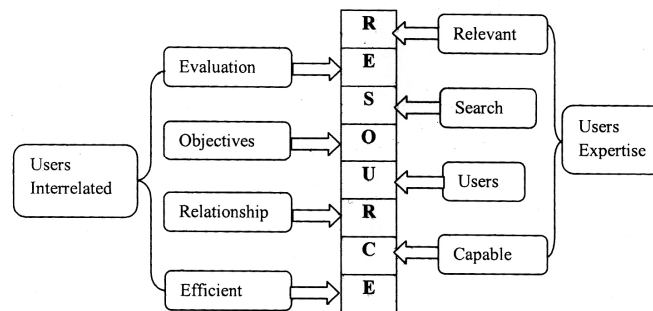
Quinn (1995) outlined the differences between committees and teams, illustrated in table-1, in six basic areas like responsibility, authority, management, objectives, process, and information.

**Table-1.** Differences between committees and teams

Areas	Committees	Teams
Responsibility	<ul style="list-style-type: none"> <li>• Charged with a special project or task</li> <li>• Members may be selected or may be volunteers</li> <li>• Involvement of members varies by individual</li> </ul>	<ul style="list-style-type: none"> <li>• Responsible for an entire work process such as acquisitions</li> <li>• Members selected based on their role in the work process</li> <li>• All members expected to be involved</li> </ul>
Authority	<ul style="list-style-type: none"> <li>• Less authority</li> <li>• Primarily consultative or advisory</li> <li>• Usually recommends or advises, but does not make the final decision</li> </ul>	<ul style="list-style-type: none"> <li>• More authority</li> <li>• Teams participate in problem solving and implementation of decisions</li> </ul>
Management	<ul style="list-style-type: none"> <li>• More passive and reactive</li> <li>• Leaders usually appointed rather than selected by the group</li> <li>• Discipline and responsibility externally imposed</li> </ul>	<ul style="list-style-type: none"> <li>• More proactive and less reactive</li> <li>• Leaders operate as facilitators and may be selected by the team</li> <li>• Discipline and responsibility internally imposed</li> </ul>

Objectives	<ul style="list-style-type: none"> <li>• Focus is on a special project or task</li> <li>• Objectives may be vague</li> <li>• Objectives usually determined externally</li> </ul>	<ul style="list-style-type: none"> <li>• Focus is on specific objectives</li> <li>• Team specifies objectives</li> <li>• Objectives determined and refined by the team</li> </ul>
Process	<ul style="list-style-type: none"> <li>• Meets formally but less frequently</li> <li>• Degree of interdependence is much lower</li> <li>• Committees operate in more formal ways</li> </ul>	<ul style="list-style-type: none"> <li>• Meets regularly and more frequently</li> <li>• Higher level of interdependence</li> <li>• More task focused</li> <li>• Higher levels of motivation</li> </ul>
Information	<ul style="list-style-type: none"> <li>• Reliance on management for information</li> <li>• Information is limited and controlled</li> <li>• Relevant information for users</li> <li>• Information needs and seeking behavior</li> </ul>	<ul style="list-style-type: none"> <li>• Information gathered from peers and other sources as well as management</li> <li>• Members have greater knowledge of each other's jobs</li> <li>• Teams rely on training to analyze problems and generate solutions</li> <li>• Training in team-based skills</li> </ul>

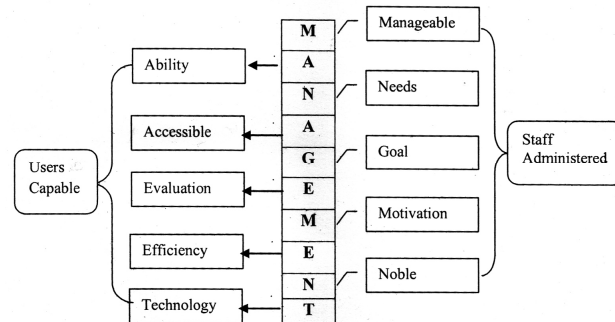
#### b. Resource (R) in library perspective



**Figure 3:** Resource in library perspective (Model developed by the authors)

Organizations use mechanisms to achieve HRM goals with competent and committed employees. Organizations can achieve very little even if they have excellent technological and other resources at their command. Every library has its own objective to develop relationship between the users and staff. Libraries try to meet users' needs and provide proper services to the right users at the right time. Users evaluate library services and put their feedback through online / e-mail. They search their relevant resources and access into library databases with the help library personnel.

### c. Management (M) in library perspective



**Figure-4:** Management in library perspective (Model developed by the authors)

At the organizational level, the goal of management is normally to have competent and motivated employees to ensure managerial effectiveness and growth of the organization. Organizations normally direct their HRM efforts towards the development of competencies and organizational culture. Organizations use mechanisms to achieve HRM goals with competent and committed employees.

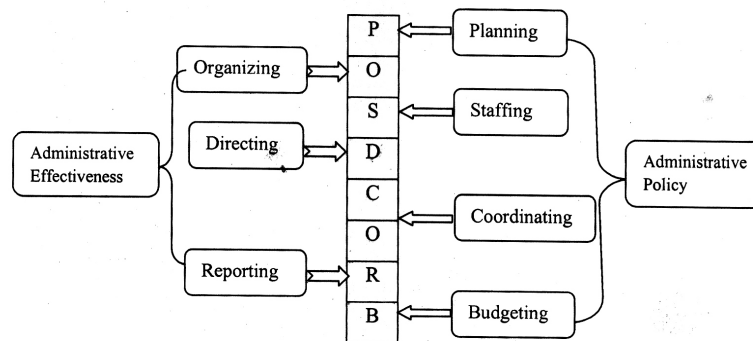
In this digital era, users are capable to access into library database with the application of technology. They have ability to giving their feedback and evaluate library's services and facilities by using resources.

Users meet their need by using required library resources and library personnel is maintained their professionalism through proper services to the users at the right time.

### POSDCORB in university libraries

University libraries have its own managerial and administrative criteria to achieve goal and needs to meet the user needs in order to ensure better functioning and smooth running of an organization,

Luther Gulick propounded some basic element of administration. These are known as 'POSDCORB' which stand for the following seven elements:-



**Figure-5:** POSDCORB in library (Model developed by the authors)

Function of management and administration in university libraries perspective

According to James A. F. Stoner-“Management is the process of planning, organizing, leading, and controlling the efforts of organization members of using all other organizational resources to achieve stated organizational goal”. All administration and management function are executed in the library due to provide proper services and as well as development of library employee. Libraries continue to face dramatic changes due to a wide variety of factors. Library administrators must constantly assess how effective the HR function is in the library. To do this, they need to assess their current needs and the climate in their operation. One constant concern is the morale of the employees.

**(a) Administrative policy**

- i. Planning:** The primary function of an administrator is to plan and determine the goal and ideas of an institution. Planning presupposes the stock taking of the existing conditions and the relevant causes. The solutions are suggested for removing the problems by phased programme. The efforts are made to remove the basic defects and their future implications are taken care of. Same is the case with Library Planning.
- ii. Staffing:** An organization for its efficiency needs proper staffing, recruitment and retention policies. Practical experience of various jobs at the credit of applicants for various posts should be taken in to consideration at the time of appointment. Staffing includes the training of staff and maintenance of favorable conditions of work for them. The chief librarian should be a competent and dynamic person with an aptitude of research.
- iii. Coordinating:** It is essential to inter-relate various part of an organization in a harmonious way. The co-ordination can be achieved if the head knows about all the jobs and effect such as administrative machinery that he feels practically on necessary to interfere. It depends upon the kind of organization has been brought in to being, as to whether is line type or line and staff type of structure or functional type of organization. There should be delegation of power or proper functioning but they should be answerable to the chief only instructions.
- iv. Budgeting:** It includes fiscal planning, accounting and control. No organization can function properly without adequate finances. Librarian has to convince the authorities about the usefulness of the services rendered by libraries.

**(b). Administrative effectiveness**

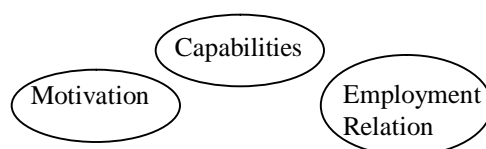
- i. Organizing:** Planning to be fruitful needs a sound organization, which means such a structure of authority, is established which is capable of achieving the set of goals. Though the structure, work-subdivisions are arranged, defined and coordinated for the set goal. In Library Organization, the decision is taken as to what kind of authority is to be provided for an area of service.

- ii. **Directing:** The efficiency of the staff depends upon the personal qualities of the Chief Librarian. He should be capable of performing his duties as a leader. Besides, possessing knowledge, he should be able to infuse confidence amongst the staff-members. He should prove to be an ideal leader by dint of his hard work and sincerity for the welfare of the staff. Directing includes continuous decision making and develop the team in order to fulfill the need of the users.
- iii. **Reporting:** It means keeping the library authorities well informed about the progress or regress of the work. The chief of the library has to submit an annual report to executive authority concerned. This practice keeps the Chief Librarian vigilant about his activities. Various section Heads of the Library may maintain proper records and statistics of the work performed for the purpose.

### HRM functions in university libraries perspective

This guide takes, as its organizing framework, a model of strategic HRM advanced by Boxall and Purcell in their book *Strategy and human resource management* (Palgrave Macmillan, third edition, 2011). They conceptualize workforce performance as a function of capabilities; motivation and work organization are structured so as to allow employees to perform well. To this we add employment relations with the policies, programmes and practices which govern the relationship between employees and employers on the basis that employee relationship management is a key responsibility of the HRM function.

The guide follows the perspective adopted in most HRM textbooks and looks at the subject from an organizational point of view, but it also acknowledges that a range of other factors shape the use of HRM policies and practices, including government and regulatory frameworks.



**Figure 6:** Organizing framework in libraries (Model developed by the authors)

### HRM challenges in university libraries perspective

HRM is developed largely in and for corporate settings; the principles and practices have import for non-corporate organizations such public libraries, academic libraries within government agencies, and many special libraries. The application of ICT in universities have dramatically changed the environment and facing different challenges to promote library activities as well as provide services to its users. The challenges include skills shortages, talent management, shifting demographics, improving work / life balance, technological development, recruitment and retentive, changed employee expectations, motivational approach, and managing diversity. However, the library is still expected to change along with the parent organization and respond effectively to whatever HRM policies are executed in order to develop library working environment. Through



collaboration with other functions of the organization, library HR can increase its understanding of qualifications and skill sets to ensure that qualified employees are capable of executing their functions.

**Significance of HRM in university libraries perspective are:**

**i. To help in hiring and training the workforce**

Manpower planning is one of the most important responsibilities of the HR department. HR managers devise hiring strategies for bringing in the right kind of people in their organization. They prepare their job description which is best suited for the role in the company. After hiring they also plan for the employee's induction with a well laid out training and development plans for them.

**ii. To take care of the performance management system (PMS) for a team**

HR is responsible for keeping people feel motivated for their work. At first come the tasks of defining an individual's role. Thereby an effective feedback mechanism from time to time helps the employees to improve their skills. This helps in alignment of the organizational objectives with their own personal goals. An effective PMS helps in recognition and rewarding people's performance.

**iii. To build culture and values in the libraries**

Performance of an individual is dependent on the work atmosphere or culture that prevails in an organization. Creating a good conducive working environment is expected from the HR department. A safe and clean work culture helps in bringing the best of an employee and creates a higher job satisfaction.

**iv. To create an important responsibility of HR in libraries**

There can be many occasions where there is a disagreement between the employee and the employer. It cannot avoid conflicts from happening; but try to positively manage them for developing good relationship. Here comes the role of the human resource department in acting as a counselor and a mediator to sort the issues in an effective manner. The HR takes timely action so that thing does not go out of hands.

**v. To develop good relations between users and staff**

Establishing cordial relations lies with the HR to a great extent. They are responsible for holding meetings, seminars and all official gatherings on behalf of the management. Apart from core HR role, if required, the department also lends a helping hand in drafting policy and marketing plans for the company / library. So it observes very well to see that a proper HR department is more essential part to help in building and managing an organization. Hence, companies / organizations are attributing a greater emphasis on setting up strong and effective Human Resource Department.

### **HR policies and plans in university libraries**

The effective management of an organization's employees (i.e. its human resources) is arguably the single most difficult, most complex, most ambiguous, yet most important task that managers face. It is an area of management policy-making that is not characterized by rigorous globally accepted professional standards. This is true for at least four reasons:

- HR policies refer to human behaviour which is complex and culturally dependent.
- There are many different HR policy instruments and practices.
- The success or otherwise of different HR policies, programmes and plans is difficult to evaluate.
- Many managers believe that people management is just common sense.

### **Conclusion**

Overall, the researchers found that library associations and interest groups addressing university library management, human resources and staff development expressed an interest in building partnerships internationally to more effectively inform practices and meet new challenges. Libraries continue to face dramatic changes due to a wide variety of factors. Library administrators must constantly assess how effective the HR function is in the library. To do this, they need to assess their current needs and the climate in their operation. One constant concern is the morale of the employees.

In concluding that HR department can play a vital role to promote library personnel carrier as well as enhance the level of reputation of university libraries from the users through their effective feedback. University libraries are facing more obstacles to recruit new manpower for the library and they should always cooperate and communicate with HR department of organization to manage and convince the situation of the library as per requirement. Researchers need to realize in practically that human resource is called "Key ingredient to organizational success and failure" has been mentioned by Baron and Kreps (1999). This is very realistic and noteworthy for any organization. Success and failure mainly depend on good administration and working environment.

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# A Proposed eBook Model for Engaging Peer-Interaction

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**Abstract:** *Modern teaching techniques require that students be engaged in class and in the subject content through peer interaction as a method of active learning. Increasingly, ICT tools are being used to implement active learning methods. Handheld devices such as ibook, ipad, tablets used as ebook reading devices have recently gained momentum as they provide reading access to academic subject content including eBooks for students studying business courses. Such devices use text, images, audio, video, animation and interactivity such as playing games and question/answer sessions. As the ebooks and animation games are generally downloaded to the handheld devices, the environment in the local device does not provide facilities whereby students can share ideas on the content, discuss and solve problems, i.e., engage themselves in the content through peer-interaction as a form of active learning. This article studies current ebook reading technologies and the role of stakeholders involved in preparing and delivering content to the users. Having looked at the total environment involved, the article proposes a theoretical model whereby the stakeholders involved can interact to bring the benefits of active learning to ebook preparation, production, hosting and use by teachers and students. In the proposed model the eBook author provides content and questions, the publisher publishes contents as html page content, the instructional designer designs the active learning interactivity, teachers can assign tasks to students to get involved by selecting relevant content for subject learning and students can engage by commenting on images and paragraphs, asking questions and sharing their problems and solutions with peers as needed for learning and filling in gaps in understanding.*

**Keywords:** *eBook stakeholders, engaging readers, peer-interaction, eBook production, designing eBook interactivity, academic eBooks, business courses*

## Introduction

In recent years books in electronic format or ebooks available on the Internet and the number of hand-held devices on which such books are available has increased drastically as they provide reading access to academic subject content including eBooks for students studying business courses (Hanover Research, 2013).

So much so that, as reported by MacWilliam (2013) Princeton University, National Institute of Standards and Technology (NIST), Queensland University of Technology, UCLA and the Pew Research Centre all have recently documented evaluations of various ebook reading devices from a variety of angles. The studies involved university students and libraries, textbooks and fiction, as well as a comparison between different ebook readers, functionalities and interactivity built-in.

MacWilliam (2013) thoroughly reviewed each of these studies and the angles from which the evaluations were done. He points out that we are now in the Fourth Generation of

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eBook readers while giving a rundown of all four generations. The latest generation features multifunctional technology with embedded videos and audio as well as animation facilities and Internet connectivity. He points out,

“Tablet computers, the fourth generation of ebook device, also offer a reading platform but are layered with other applications and do not offer a dedicated reading environment but a multimedia experience. Their advantage is that they offer multimedia content and platforms on which enhanced ebooks and ebook apps can be developed. It is because of these devices that the ebook is now much more than a digital version of its printed predecessor.” {p.3}

While tablet PCs are competing in technically advanced capabilities, *i.e.*, speed, memory space and apps, all these additional features represent a departure from the traditional paper-based book. MacWilliam (2013) concludes that “Enhanced ebooks and ebook apps have become the focus for many publishers today and offer a way to an enriched user experience that enhances the book with multimedia.” In contrast, a comprehensive study done by Wilson (2001) more than 12 years ago insisted on enhancing the particular paper-based book experiences that readers traditionally enjoyed. Mac William (2013) therefore studied what he calls the “Emotional Factors” involved in reading. Such personal emotional factors, as also echoed by Roxburgh (2012), play a factor in the popularity of reading as an activity. To gain a personal understanding of the emotional factors of how young people relate to the written word and its corresponding multimedia a 25-year old was interviewed. This 25 year old had read all the Harry Potter books and watched all the corresponding movies. She had also read *Lord of the Rings* and watched the movie of it. She said,

“The Harry Potter books were way better than the movies. The language in the books is so descriptive that it just allowed my imagination to soar – often with me in it. The (Harry Potter) movies on the other hand represented imagination of a very limited kind – maybe because of the producer or perhaps the movies were hurriedly made to cash in while the popularity was at its peak. In contrast, the movie *Lord of the Rings* was, I felt, better than the book. The book, in parts was difficult to understand – so the movie interpreted the book for me.”

So for this young person reading enjoyment is related to being able to engage her imagination and to reading comprehension. Much therefore depends on the author’s or movie’s ability to engage the imagination of the reader. The need for engagement is also necessary for learning in an academic environment as pointed out by previous studies (Richards, 2012). Richards (2012) points out the learning challenges for students using e-textbooks in a higher education setting and concludes that,

“Active reading skills such as highlighting, bookmarking and annotating are important for comprehension, regardless of format. E-textbooks typically include these features, and while current college students may be digital natives, they still need guidance to use these learning tools effectively.” (Richards, 2012)

For e-textbooks guidance implies assignments and activities given by teachers in a higher education setting. Opportunities still exist to include the popular features of active learning that engage the student, *i.e.*, the students must have questions to delve on and they must read, write, discuss and be actively engaged in solving problems posed at the higher education level (Active Learning, Wikipedia)

The research question is therefore, *do ebooks currently allow facilities for active learning?*

### Literature review:

Active learning should be involved in Ebooks for academic text. For this purpose two areas have been studied.

### Academic Text:

Much of the efforts towards ebooks publishing are directed towards the enjoyment of fiction and literature reading. To find the needs of students studying academic texts, the E-reader pilot at Princeton University (2010) involved a number of batches of university students where they compared the electronic version books with similar paper-text in various aspects. In the face-to-face interviews, the students had something interesting to say. They wanted some features that facilitate learning, such as ability to **highlight** text and write notes against the **highlighted** or marked\* text. This pointed to something new – the need for the same features as that used by students to learn from hard copies. Such features are unnecessary for general fiction reading but essential for academic text where students not only need to comprehend text but they also need to apply their learning in various situations. To do so, sometimes they need to be able to quickly refer back to the **highlighted** text or to the notes they have made. The authoring tools now available therefore not only allow the addition of interactive multimedia content, they also have features for **highlighting** and *note taking* as shown in Figure 1.

**Figure 1.** Interactive features of an eBook Kotobee ( 2014)

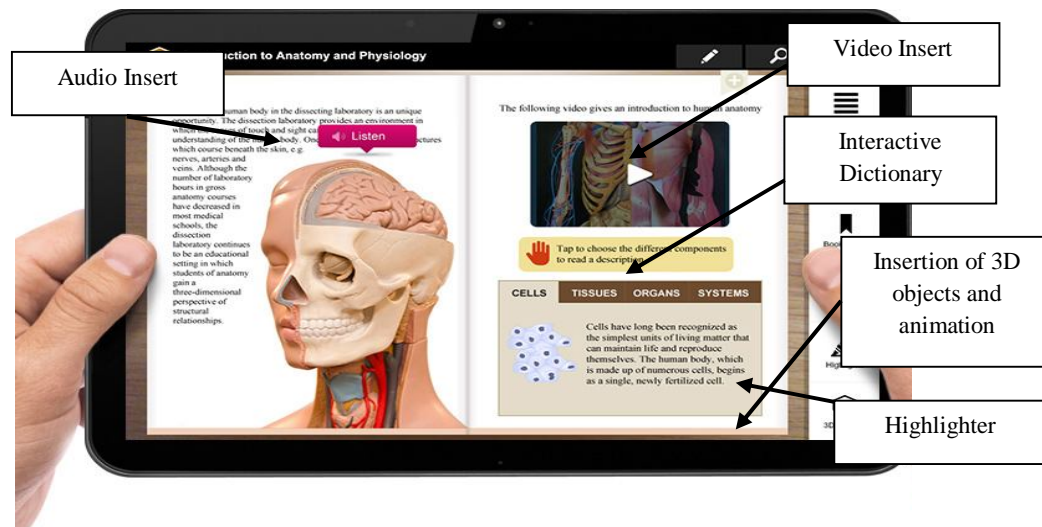


Figure 1 shows an authoring tool that allows insertion of audio and video clips, an interactive dictionary, insertion of animation, highlighter, taking of notes, doing exercises as well as exporting the application to android devices, iPads and iPhones, etc. as a handheld application. All these interactive features are geared to allow the individual learner to interact with the content and learn.

In addition, while doing assignments or writing research papers students need to be able to refer to a number of texts simultaneously. This means they need to open multiple texts, each in its own window, at the same time. For such features, the Princeton University (2010) reports:

“Asking students what improvements could be made to an e-reader to facilitate effective note taking, study, and research tools, the same features mentioned in other places were again foremost – improved PDF support (for highlighting and note\* taking), improved annotation, the ability to have more than one document or book open at once, the ability to compare passages, support for skimming, or rapidly flipping through pages of a document, and had organizational tools, such as folders, so that notes and readings could be kept together.” [p.25 ]

This need and concern of students points to a student-centric approach that was previously overlooked by manufacturers of the technology. MacWilliam (2013) therefore concludes:

“As further developments are made and new ebook devices are released, understanding has to be given to a human-centered approach that will help to better the design of ebooks and best utilize the technology. Although publishers cannot affect the technology on which the device is read, they can affect the contents and further enhance the reader’s experience. The publishing industry needs to think innovatively and use a human-centered approach to development that will allow them to design for more engaging experiences.” [p.10]

What is a human-centered approach? It is a design approach that serves the needs, tastes and habits of readers in this case. The design approach discussed so far looks at both content and technology. The respondents in the Princeton University (2010) survey also talked about their “learning” habits and the need to incorporate support features to cater for such habits. This leads us to think more about how ebooks can be used to support classroom teaching-learning practices and in particular active learning encouraged by teachers and demanded by instructional designers.

### **Active learning:**

It has now been well established as earlier pointed out by Zull (2004) that students learn when they actively think about, *i.e.*, offer their own ideas on the subject and progressively improve on their ideas. To do this, students need a forum to discuss their ideas and improve upon their concepts. They learn via making mistakes and improving their concepts. So for learning, students need to know which ideas are wrong, why they are wrong, as well as which are right, why they are right. This can be achieved through peer learning as quoted below.

“Peer learning is seen by social constructivist theorists as an effective means for students to gain deeper understanding of new concepts through informal and formal means. The interaction between peers allows students to enter the 'zone of proximal development' where a less able peer is able to enter a new area of potential development through problem solving with someone more able (Vygotsky, 1978).” (As cited by the Institute of Teaching and Learning Innovation, 2015).

Similarly, peer learning is now increasingly being recommended by the teaching learning centers of universities around the world. At tertiary level gaining mastery of the subject is essential so that it can be applied in the real world. The question is do eBooks allow peer interaction facilities for active learning, in particular, for academic textbooks?

While asking to read books available as eBooks, it would be useful if a teacher could ask students to discuss particular paragraphs, concepts, examples while reading on their own (Richards, 2012). Ebooks have the opportunity to provide a platform for collaboration between students and allow peer learning.

### **Gap Analysis**

#### **Current Interactive eBook technologies and design literature**

More recently, as reported by Fenwick et.al. (2013) Apple released the free iBook Author application during January, 2012 for the iPad mobile handheld device. As reported by Fenwick (2013), Langer (2012) describes the features of the iBook Author application as:

“The iBooks Author application supports a wide variety of content types including text, images, shapes, tables, charts, and interactive widgets. Each content type has changeable characteristics, such as text font size, shape color, etc. The content types can be placed anywhere on a page. A number of interactive widgets are available including image galleries, audio media (m4a format), video media (m4v format), slideshow presentations, multiple-choice review questions, an “interactive image” that supports image zooming and labeling, COLLADA format 3-D objects allowing the reader to manipulate the object, and embedded Dashcode HTML.” [p.2]

Using these technological features, Fenwick et.al. (2013) report on how they developed a highly interactive eBook for teaching students the fundamentals of a Computer Science language Prolog. While it was possible to link to external quiz and grading systems, the application itself did not have means of monitoring whether a student is actually using any of the interactive tools. It is important to monitor student engagement or participation as a part of good teaching practices. Monitoring, however, requires that the teacher be able to “see” what the student is doing. The technological questions are *how would a teacher see what the student is doing if the responses are stored locally in the tablet? How would the teacher get access?*

Colombo, Landoni & Rubegni (2014) go a step further and involve children to help design “engaging” ebook features. As a result of their research, they give the following 6 design principals using comments from the children to prepare their design principals.



1. “It (i.e. the eBook) should not be ‘boring’”: use audiovisual enrichments to allow for different reading paths
2. “It should have a touch of ‘Pathos’”: provide read – aloud narration of the text
3. “It should be playful”: use interactivity to add value to the eBook and make it more playful.
4. “It should not be too difficult to read”: provide in-line dictionary definitions and illustrated descriptive cards
5. “It should be colorful”: use colors to differentiate the various parts in the text
6. “It has to remain a book though”: use non-textual elements with care and moderation

All these design features have more to do with interface design rather than getting students to embark on a path of active learning. So while the design features would work to make fiction more enjoyable, we need features that would allow peers to discuss academic texts and collaborate on problem solving, *i.e.*, learning that is required in higher education settings.

### **Pedagogical Features**

With academic texts a teacher should be able to monitor student activities, also a teacher may want additional pedagogical features or instructional design support from a particular ebook that the teacher is using as a textbook for his/her course. Additional pedagogical features may include employing active learning strategies to engage with particular content in the textbook. Prince (2004) reviewed the forms of active learning strategies used in engineering classes which include collaborative learning, cooperative learning and problem-based learning (PBL). With the exception of PBL which may also have an element of self-directed learning, all active learning strategies involve some sort of interaction with peers, resources (textbooks, self-assessment quizzes, laboratory equipment, learning games, etc), teachers or experts. Such activities online may take the form of discussion, comments, feedback, etc. – all of which need purposely built spaces where such interaction can take place either off-line or online. The interaction needs to be tied to the content in question.

The teacher, being the assumed expert, would know which parts of a concept need to be discussed so that students could actively engage through discussion and make the required learning connections. Making such connections is essential for learning as the neuropsychology experts have also shown by research in their revised book (Caine & Caine, 1994). They also advocate a non-threatening motivating environment, which social networking sites allow.

So, a subject teacher may feel that it is essential to discuss and understand a particular diagram or a particular section of text in an academic ebook being used a textbook. The teacher may also want to follow the discussion either actively or silently or even give a formative feedback at the end of a discussion. The question is what functions/facilities of an academic ebook would allow a teacher to do this? Certain steps would be necessary.

- The teacher would need access to the diagram or part of text in the ebook.
- The teacher should be able to assign a discussion task by writing a question for the text or diagram
- The task should be accessible to a particular batch of students taking the course
- The students should know what tasks are given on the diagram
- They should be able to comment, discuss and see all other posts on the text or diagram
- The teacher should be able to assist the discussion, give formative/cumulative feedback and also assign marks if planned and announced.
- If assigned by the teacher, the system should be able to automatically give participation marks based on authentic participation.
- The individual marks and feedback should be accessible to the student.

Such features represent a paradigm shift in the way academic ebooks are downloaded and used in personal hand-held devices. To allow such functions to exist in and integrated into academic ebooks, the ebook text must be held in a website and work interactively with the personal hand-held device rather than being entirely downloaded and stored locally with the multimedia features.

### **eBook Features needed**

The eBook design would essentially need to allow interactivity on each diagram or line/sentence/paragraph of text. This means that each diagram or part of text would have to be uploaded separately on the server allowing task setting, peer discussion, comments, feedback, self-assessment questions, marking scheme, grading, animation, video and audio. Handheld Ebook readers would allow logging in to the website and after authentication allow all the student activity, interactivity and interactions. It would keep a log of all student activity. This would allow teachers to monitor the activity and provide feedback when needed who would also have to login.

### **Roles and Interactions**

The stakeholders, interactions and potential services are shown in Fig.3. The publisher would provide the website services where all the eBooks would be created and maintained with all the services. The publisher would solicit authors or textbook writers to either convert their existing textbooks to eBooks or contract to write new books. The publisher would engage the instructional designer to add/suggest pedagogy, interactivity and engaging features.

The publisher would then allow teachers who wish to use a particular textbook to register batches of students. Students would register and do all the assigned work with the textbook. Publishers may even have bulk contracts with universities to provide text eBook services.

### Proposed eBook Development Model

All this points to the need for an overall eBook development model which publishers and authors can refer to adopt their particular features for the market they wish to address. The model would be three-pronged, i.e. it would involve an integrated approach with

- Content
- Technology
- Pedagogy

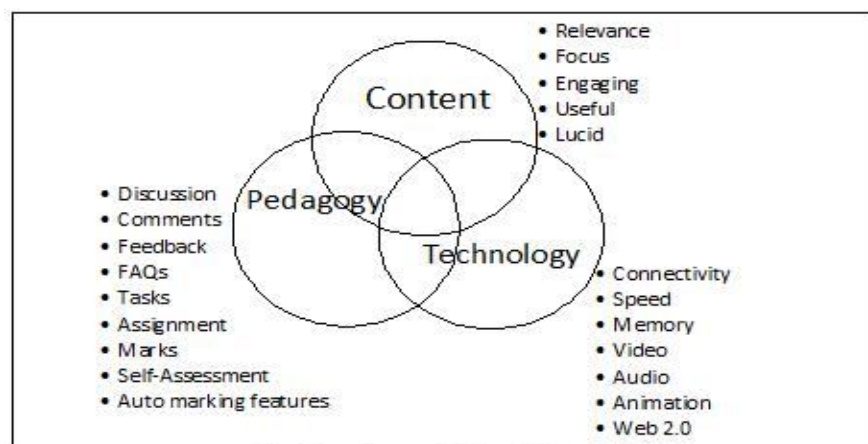
The content must obviously be useful and written in an interesting manner that lends itself to a variety of interactive activities. The technology would support all interactive and pedagogical activities. And of course the pedagogy would involve active learning design features which an instructional designer should be able to built-in. The types of people that would be involved in publishing and using academic eBooks would potentially be

- Authors
- Publishers
- Instructional designers
- Teachers
- Students

Those involved with the technology would have to cater to the needs of the all the stakeholders. The publishers and author will collectively decide which market they are aiming for. The eBook Development Model shown in Fig. 1 is meant as a starting point to think about the issues involved in publishing an eBook.

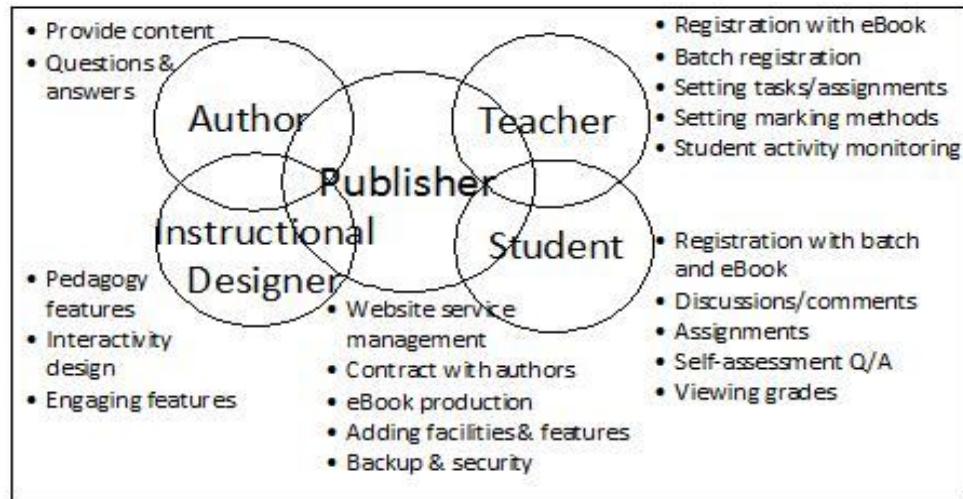
Preliminary ideas for each of the three areas, content, technology and pedagogy are given in Figure.2. With this model the roles of the stakeholders has also to be reassessed.

**Figure 2.** Developmental model for ebooks



**Source :** Developed by authors

**Figure 3.** Interrelationships and roles of the various stakeholders



**Source :** Developed by authors

### Conclusion and Implications

As discussed, to provide active learning features the eBook would have to be hosted in a publisher website accessible by both teachers and students, as opposed to being downloaded in a local eBook reader. The design should allow a full range of pedagogical features such as peer discussion and monitoring. This is needed certainly for e-textbooks used by higher education institutions. This would allow textbook activity to be not only guided but also monitored but giving the necessary feedback. Currently, tablet PCs have become very popular with university students. Students use these to read textbooks in the form of eBooks, which are mostly pdf files shared between classmates or passed down from seniors. Such sharing leads to loss of potential revenue which can be avoided by using a web-based eBook service to which teachers and students have to login. Each student logging in would pay a nominal charge or use the bulk membership facility enjoyed by the educational institute.

The research has used secondary sources for data. For further clarification, a prototype can be built and tested. Existing technology can easily accommodate the changes proposed. The design features recommended exist in other forms, but not necessarily for e-textbooks.

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# Monetary Policy and Macro-Economy: An Empirical Study Based on Economic Statistics

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**Abstract:** *Like other central banks, Bangladesh Bank adopts monetary policy for controlling the supply of money as an instrument to accomplish the goals of general economic policy. The long term objective of monetary policy in Bangladesh is to ensure sustainable economic growth. The short term objectives are generally determined after a careful and pragmatic evaluation of the current economic condition of the country. This research article focuses on the association between monetary policy and GDP. Along with similar studies by various researchers, the ARDL Model analysis has been applied to test the hypothesis. Economic statistics of past 35 years of Bangladesh have been used to reach to the conclusion. The study shows significant relationship between interest rate and GDP in the long run. And the study also shows significant relationship between Money Supply (M2) and GDP in the long run but it shows insignificant relationship in the short run between monetary policy and GDP. It must be noted that this study did not consider other tools of monetary policy which can alter the impact of monetary policy on GDP. The findings from this research encourage further sophisticated research considering other factors to have more transparent outcomes.*

**Keywords:** Monetary policy, hypothesis, GDP, Money Supply, M2, macro-economic research.

## Introduction

Monetary policy can be described as ways of managing the supply of money in an economy of a country. It is the process by which the central bank of a country regulates the supply of money by targeting a rate of interest for the purpose of improving economic growth and stability. Monetary policy relies on the relationship between the rates of interest at which money can be borrowed in an economy, and the total supply of money. Bangladesh economy is experiencing significant problems both from demand side and supply side. Developing countries always suffer from poverty, imperfection in both factor and product markets, continuous disequilibrium in the economy, poor administrative structure, inappropriate tax structure, deep dependence on external sector, lack of capital stock, and substantial unemployment. Bangladesh is not only administratively disorganized but also underdeveloped in the transport, telecommunication, and energy sectors. Massive amount of unemployment, low standard of living, low level of saving, excess unskilled labor, severe balance of trade deficit and low growth rates are always

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being faced by the economy. Moreover, political instability causes serious problem for the economy.

Apart from these, both the agricultural and the industrial sectors have not developed their full potential yet. Large portion of public and private investment sectors are unutilized. The economy is cursed by the amount of classified debts each year. Monetary and fiscal policy of the country is also not properly coordinated and well managed.

As the banking sector always have to face the wave of any sort of economic disorder in the macro-economy, the central bank needs to be very cautious for the proper implementation of the monetary policy to navigate the economy for a long term growth

### **Objectives of the Study**

Central bank, the highest authority of making such kind of decisions relevant to monetary policy, employs the policy to control the macro-economy. The purpose of this study is to find out the association of four tools of monetary policy (Interest Rate, Real Effective Exchange Rate and M2) on the GDP growth of Bangladesh. Apart from Inflation, the other tools of monetary policy and economic factors were considered as not affecting the findings of this study.

### **Literature Review**

Government policies, including monetary policy, affect the growth of domestic output to the extent that they affect the quantity and productivity of capital and labor. Monetary policy is only one element of overall macroeconomic policy, and can only affect the production process through its impact on interest rates. There are two main channels of monetary policy. One is through the effect that interest rate changes have on the exchange rate of a currency, and the other is through the effect that interest rate changes have on demand. Therefore monetary policy has an impact on economic activity and growth through the workings of foreign and domestic markets for goods and services (Bowen, 2000)

Although monetary policy is the principal stabilization tool for most economies used by an independent and credible central bank, still there are economists who see important stabilization role for fiscal policy working alongside monetary policy. Even there are economists who say, no matter how independent central bank is, the monetary policy may not be sufficient for determining the price level and there is role for fiscal policy (Hanif and Arby, 2003).

The instrument of monetary policy ought to be the short-term interest rate, that policy should be focused on the control of inflation, and that inflation can be reduced by increasing short-term interest rates (Alvarez, 2001).

The investigations into the existence and nature of the link between inflation and economic growth have experienced a long history. Originating in the Latin American context in the 1950s, the issue has generated an enduring debate between structuralists and monetarists. The structuralists believe that inflation is essential for economic growth

whereas the monetarists see inflation as detrimental to economic progress. There are two aspects to this debate: (a) the nature of the relationship if one exists and (b) the direction of causality (Mallik, 2001).

Although economists now widely accept that inflation has a negative effect on economic growth, researchers did not detect this affect in data from the 1950s and the 1960s (Min, 2005). A series of studies in the IMF Staff Papers around 1960 found no evidence of damage from inflation (Wai, 1959; Bhatia, 1960; Dorrance, 1963, 1966). Therefore, a popular view in the 1960s was that the effect of inflation on growth was not particularly important.

This view prevailed until the 1970s, when many countries, mainly in Latin Americans experienced hyperinflation. Numerous empirical studies were devoted to finding the effects of inflation in high-inflation countries. These studies repeatedly confirmed that inflation had a significant negative effect on economic growth, at least at sufficiently high levels of inflation. Therefore, today, the dominant view regarding the effects of inflation has changed dramatically. It has been found that in developing countries as the inflation rate exceeds a specified threshold, it affects the growth rate adversely (Min, 2005).

Monetary policy plays a key role in determining inflation rates. Various studies provide the empirical evidence on the relationship between inflation and growth. (Lucas, 1973) held that inflation in any economy induces uncertainty in economy and increased economic uncertainty negatively affects the output growth. Inflation overall effects the growth of the country, the financial sector development and the vulnerable poor segment of the population. There is clear consensus that even moderate level of inflation, damage real growth.

Kremer' et al. (2008) examined the impact of inflation on long-term economic growth for a panel of 63 industrial and non-industrial countries. Their results revealed that inflation obstructs growth if it exceeds thresholds of 2% for industrial and 12% for non-industrial countries. However below these thresholds, effect of inflation on growth remained significantly positive. Bruno and Easterly (1998) demonstrated that a number of economies have experienced sustained inflations of 20 percent to 30 percent without suffering any apparently major adverse consequences. However, once the rate of inflation exceeds some critical level (which Bruno and Easterly estimated to be about 40 percent), significant declines occur in the level of real activity. Barro (1995) very precisely examined the five-year average data of 100 countries over the period of 1960-90. His result shows that an increase in average inflation by 10 percentage points per year would slow the growth rate of the real per capita GDP by 0.2-0.3 percentage points per year. He argued that although the adverse influence of inflation on growth appeared small, the long term effects on standards of living were actually substantial. Nevertheless, some other empirical and theoretical studies argued that the inflation-growth relationship is fragile. Maghyreh (2003) also reported that the effect of inflation rate on the economic growth is strongly negative and statistically significant.

Mundell (1965) and Tobin (1965) predict a positive relationship between the rate of inflation and the rate of capital accumulation, which in turn, implies a positive



relationship to the rate of economic growth. They argue that since money and capital are substitutable, an increase in the rate of inflation increases capital accumulation by shifting portfolio from money to capital, and thereby, stimulating a higher rate of economic growth (Gregorio, 1996).

Ahmad and Mortaza (2005) evaluated the concept that moderate and stable inflation rates promote the development process of a country, and hence economic growth. Using annual data set on real GDP and CPI of Bangladesh for the period of 1980 to 2005, they demonstrate statistically significant long-run negative relationship between inflation and economic growth for the country as indicated by a statistically significant long-run negative relationship between CPI and real GDP. Also as a threshold they suggested 6% of inflation above which inflation adversely affects economic growth.

However, Johanson (1967) found no conclusive empirical evidence for either a positive or a negative association between the two variables. Therefore, a popular view in the 1960s was that the effect of inflation on growth was not particularly important. Also Fischer and Modigliani (1978) suggest a negative and nonlinear relationship between the rate of inflation and economic growth through the new growth theory mechanisms (Malla, 1997). They mention that inflation restricts economic growth largely by reducing the efficiency of investment rather than its level. Fisher (1993) also found negative associations between inflation and growth for a large set of countries.

Dewan and Hussein (2001) found in a sample of 41 middle-income developing countries including Fiji, that inflation was negatively correlated to growth. While examining relationship of inflation and growth in Fiji, Dewan (1999) found that changes in the difference between actual GDP and potential GDP (output gap) had a bearing on Fiji's inflation outcome.

Faria and Carneiro (2001) investigated the relationship between inflation and economic growth in the context of Brazil which has been experiencing persistent high inflation until recent. Analyzing a bivariate time series model with annual data for the period between 1980 and 1995, they found that although there exists a negative relationship between inflation and economic growth in the short-run, inflation does not affect economic growth in the long run.

Mallik (2001) examine the relationship between inflation and GDP growth for four South Asian countries i.e. Bangladesh, India, Pakistan and Sri Lanka. Their results provided the evidence of a long-run positive relationship between GDP growth rate and inflation for all four countries. They also concluded that moderate inflation is helpful to growth, but faster economic growth feeds back into inflation. Thus, these countries are on a knife-edge.

Kuttner and Mosser (2002) indicated that monetary policy affects the economy through several transmission mechanisms such as the interest rate channel, the exchange rate channel, Tobin's  $q$  theory, the wealth effect, the monetarist channel, and the credit channels including the bank lending channel and the balance-sheet channel. But mainly monetary policy plays its role in controlling inflation through money supply and interest

rate. Money Supply would affect real GDP positively because an increase in real quantity of money causes the nominal interest rate to decline and real output to rise (Hsing, 2005). Taylor (1995) emphasized the importance of the interest rate channel in this regard.

Hsing (2005) examined an annual sample during 1959-2001 to find possible relationships between real GDP for Venezuela and selected macroeconomic variables. According to his study more real money supply, more government deficit spending, real depreciation, a higher expected inflation rate, and higher world oil price would help raise real GDP in Venezuela.

Qayyum (2006) investigated the linkage between the excess money supply growth and inflation in macro-economy. Also he examined the similarity between inflation and monetary phenomenon. His results from the correlation analysis indicated that there is a positive association between money growth and inflation. The money supply growth at first-round affects real GDP growth and at the second round it affects inflation in macro-economy. The important finding from the analysis is that the excess money supply growth has been an important contributor to the rise in inflation in macro-economy during the study period. This supports the monetarist proposition that inflation in macro-economy is a monetary phenomenon.

Fry (1988) and Gleb (1989) find, from pooled cross-economy time series data, a consistently positive and significant relationship between economic growth and the real rate of interest. In order to separate the effects of inflation and real interest rates on growth, World Bank conducted a study. This study provides evidence from a sample of twenty countries, for the impact of the real interest rate and the inflation rate on the growth rate. The real interest rate has a statistically significant and positive impact on growth. But when inflation is included, the coefficient for the real interest rate is no longer statistically significant, while the negative coefficient on the rate of inflation is. This suggests that the positive relation between real rate of interest and growth was actually reflecting a negative relation between inflation and growth in financially repressed regimes, where nominal interest rates are kept fixed (World Bank 1993).

Relationship between inflation, interest rate, and growth has been the consideration of researchers since very long. An examination of this relationship in USA shows that the U.S. inflation of the 1970s and 80s can be fully accounted for by the corresponding increase in money supply growth rates, and the return to relatively low inflation rates in the 1990s can be explained by the correspondingly low average rate of money supply growth in that decade. Inflation in the 90s was about 3.5 percentage points lower than its average in the 70s and 80s, and the growth rate of money supply was about 5 percentage points lower (Alvarez, 2001).

All of the above discussion shows that there is a non-linear relationship between inflation and economic growth. However inflation does affect economic growth directly. Monetary Policy variables such as Money Supply and Interest rates with affect the economic growth & inflation in economy.

## Research Data and Methodology

This study is on the effect of monetary policy on the economic growth of Bangladesh for the last 35 years. Major two tools: Interest Rate & Money Supply have been used to evaluate their impact on GDP growth. Secondary data were obtained from Bangladesh Bank's published and unpublished sources of various years. The data would be analyzed, interpreted and tested in order to facilitate a valued conclusion on the effect of interest rate fluctuation in Bangladesh.

Non-stationary is a very common property that is found in many macroeconomic and financial time series. It usually can incorporate the spurious correlation error into the econometric methodology. That is why; the differencing and logarithmic transformation are used to make the time series stationary and used for further processing too. Only for the purpose of modeling the long-run equilibrium which can be referred as a stationary linear combination of respective time series, the non-stationary data are utilized by the econometric researchers. Then, each & every deviation from the equilibrium is assumed to be amended or corrected in the next time period (Engle, Granger, 1987).

There are many econometric methods are available for investigating the long-run equilibrium co-integration approach with multiple time series variables. Examples of the boosting research of the late 20<sup>th</sup> century include the seminal works of Phillips and Hansen (1990), Engle and Granger (1987), and Johansen (1988) are some of the most prominent ones. In this present study, the Autoregressive Distributed Lag (ARDL) modeling approach developed by Pesaran and Pesaran (1997), Pesaran and Smith (1998), and Pesaran et al. (2001) have been chosen. The reason behind the popularity of ARDL is because of multiple advantages in comparison with other single equation co-integration procedures. It is able to estimate the long and short-run parameters of the model simultaneously to avoid of the problems that are posed by non-stationary time series data. Moreover, among the five variables of this study, two are stationary at I (1) and three are stationary at I (0). In this type of scenario, ARDL model is used. If all the variables were stationary in I (0), then OLS method would be used. But it is really unusual and happens very hardly. If all the variables get stationary at I(1), the Johansen test is used to find out whether VECM or VAR would be used to investigate the long-term equilibrium of co-integration.

But before implementing the co-integration and ARDL model, econometric methodology needs to ensure that the data are stationary. To do that Augmented Dickey-Fuller (ADF) test (Dickey and Fuller, 1979) has been used to verify that whether the data series are stationary and to determine the order of integration of each of the data series studied.

The conceptual model formulated for the study is given by:

$$MEG = f (INR, INF, MNS2, REER, U) \text{ ----- (i)}$$

Here,

INTR = Interest rate

INF= Inflation Rate

MEG = Macro-economical Growth (Gross demotic product growth)

MNS2= Money Supply (M2)

REER = Real Effective Exchange Rate

After analyzing for the optimum number of lags, the following ADRL model has been found:

$$\Delta LGDP_t = \alpha_1 + \sum_{i=1}^k \alpha_i \Delta LGDP_{t-i} + \sum_{i=1}^k \beta_1 \Delta LINF_{t-i} + \sum_{i=1}^k \beta_2 \Delta LIR_{t-i} + \sum_{i=1}^k \beta_3 \Delta LM2_{t-i} + \sum_{i=1}^k \beta_4 \Delta LREER_{t-i} + \rho_1 ECT_{t-1} + u_{1t}$$

In equation (2),

LGDP = LOG of GDP

LINF = LOG of Inflation

LIR = LOG of Interest Rate

LM2= LOG of M<sub>2</sub>

LREER= LOG of Real Effective Exchange Rate

$\Delta$  = First Difference operator

$\Delta$  LGDP,  $\Delta$  LINF,  $\Delta$  LIR,  $\Delta$  LM2,  $\Delta$  LREER are the differences in these variables that capture their short run disturbances.

ECT<sub>t-1</sub> = the lagged error correction term, which captures the long run effects. It refers to the speed of adjustment or correction from the deviation of dependent variable that will adjust to minimize the long run equilibrium error.

$\rho_1$  = the error correction coefficient

$u_{1t}$  = pure white noise disturbance term

## Research Questions and Hypothesis

The study is on the effect of monetary policy on the GDP of Bangladesh for the last 35 years. It has been tried to find out the effect of interest rate and money supply on the gross domestic product. Money supply, M2, has been taken to the study The hypotheses are the following:

H1: The Explanatory variables (Monetary Policy) has association with the GDP in the Long Run

H2: Inflation The Explanatory variables (Monetary Policy) has association with the GDP in the Short Run

H3: The Explanatory variables (Monetary Policy) is associated with the GDP significantly in the long run

H4: The Explanatory variables (Monetary Policy) is associated with the GDP significantly in the short run

## Empirical Results and Findings

The results of the descriptive statistics have been presented in Table 1. All the variables have positive mean. LOG of GDP, LOG of MONEY-2 SUPPLY & LOG of REAL

EXCHANGE RATE are positively skewed. On the other hand, LOG of INFLATION and LOG of INTEREST RATE are negatively skewed. Apart from LOG of M2, all the variables are relatively symmetric.

**Table 1:** Descriptive statistics of the variables of the study

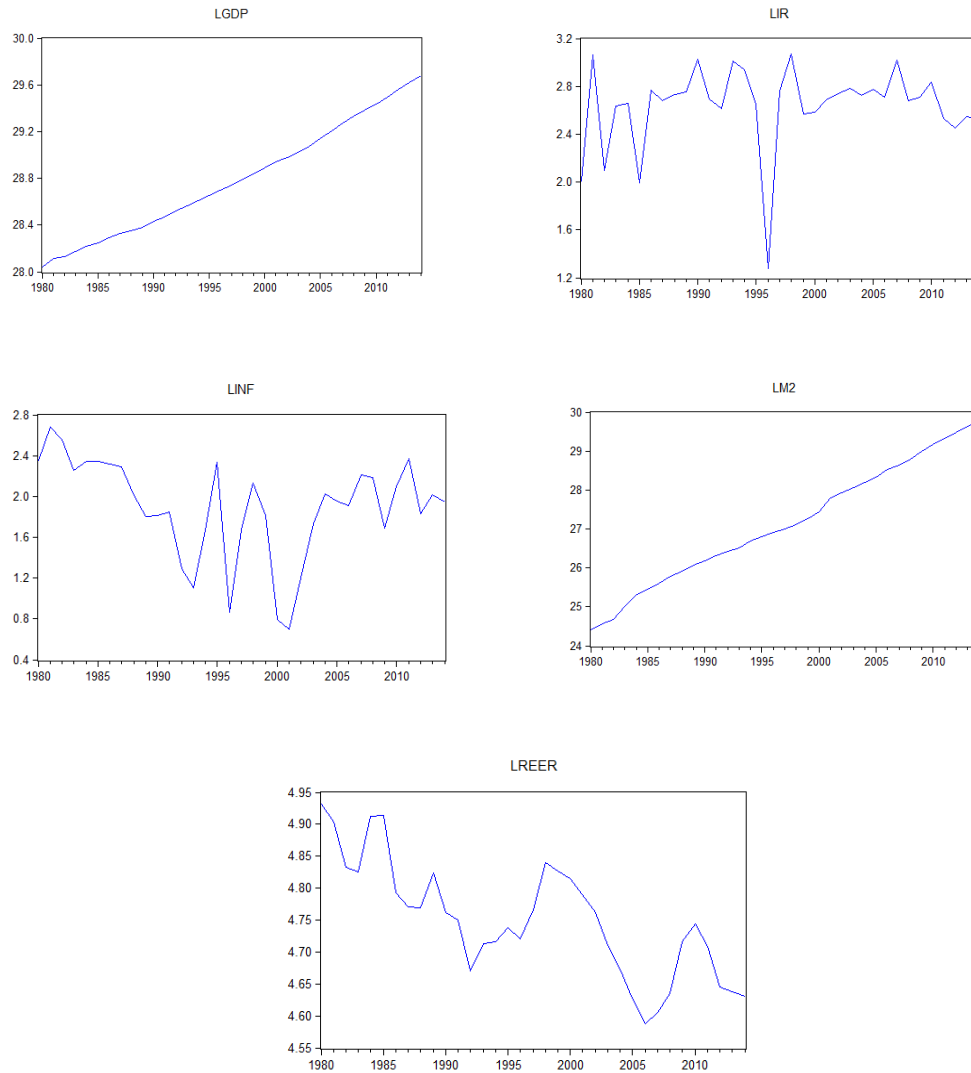
	LGDP	LINF	LIR	LM2	LREER
Mean	28.78985	1.889505	2.636851	27.14507	4.750428
Median	28.74438	1.952548	2.692717	27.00424	4.750442
Maximum	29.67812	2.677247	3.068977	29.76917	4.931158
Minimum	28.04153	0.696728	1.276433	24.40868	4.588238
Std. Dev.	0.486639	0.492620	0.347046	1.561714	0.091353
Skewness	0.232859	-0.898422	-2.013837	0.009814	0.183748
Kurtosis	1.861017	3.196306	8.313011	1.928313	2.332493
Jarque-Bera	2.208173	4.764647	64.82328	1.675478	0.846735
Probability	0.331514	0.092336	0.000000	0.432688	0.654838
Sum	1007.645	66.13269	92.28978	950.0775	166.2650
Sum Sq. Dev.	8.051794	8.250943	4.095000	82.92434	0.283742
Observations	35	35	35	35	35

The figure1 represents the variables graphically. By analyzing the graph, it seems that LGDP, LM2 & LREER have trends with time series. On the other hand, LIR & LINF are found to be a bit stationary. To clarify this issue, Augmented Dickey-Fuller test (ADF test) has been used. The statistical results from the ADF test are on the Appendix-2. From the test, it is found that LIR and LREER are stationary in level (Integrated of Order Zero, I (0)). On the other hand, LGDP, LM2 & LINF are non-stationary in level (Integrated of Order Zero, I (0)) but stationary in first difference (Integrated of Order One, I (1)).

So from the result of ADF, it has been finalized that ARDL model will be perfect for this study. But before that optimum number of lags needs to be identified and to do so AIC and SC test have been used. The result is available in the Appendix 3. It proves that we could take any number of lags between 1 and 4.

In lag 4 and lag 3 the models are found to be highly auto-correlated. In the lag 2, the model has been found to be perfect in both auto-correlation test and Cusum test. But all the betas of the explanatory variables are found to 0 in the WALD test.

**Figure1:** The graphical presentation of the variables under study



The null and Alternative hypothesis of the WALD test of ARDL model with lag 2 are the following:

$$H_0: C(12)=C(13)=C(14)=C(15)=C(16)=0$$

$$H_0: C(12) \neq C(13) \neq C(14) \neq C(15) \neq C(16) \neq 0$$

The probability of the test has been more than 5%. So the Null hypothesis could not be rejected. That is why, the Lag1 ARDL model has been used to conduct the study. The result is in Appendix. The model has been:



The outcome of the model is in the Appendix-5. The result shows that the explanatory variables are insignificantly associated with the dependent variable. And even after dropping the explanatory variable  $\Delta LGDP$  and  $\Delta LINF$  from the model, the remaining explanatory variables of the model are found to be associated with the dependant variable but the association is insignificant. All the result has been shown in the Appendix 5.

So from these results we could conclude that GDP is associated with the Inflation Rate, Interest Rate, M2 supply and Real Effective Exchange Rate in the Long-run significantly but the association is insignificant in the short run.

### **Conclusion**

The main function of Central Bank is to manage the expansion and cost of money and credit. Other functions of central bank include conducting monetary policy, maintaining the stability of the financial system and performing banking supervision and regulation. Central bank does all these functions as means of achieving the predetermined goals. This study focused on the association of monetary policy on GDP of Bangladesh and attempted to discover the degree of association between monetary policy and economic growth. It is found that the supply of M2 has significant association on GDP in long run in Bangladesh. It can be concluded that in addition to money supply policy there are several other tools of monetary policy which can alter the assumptions found in this study. Therefore further study analyzing the impact of other tools of monetary policy such as reserve requirements, lending & deposit facilities etc can be conducted for more reliable findings. So finally we can conclude that, although monetary policy is one of the vital tools to impact on macro-economy, and according to this study we can ensure that it has significant association with the macro-economy in the long run.



## Appendix

### A1- 1-ADF test of LINP

Null Hypothesis: LINP has a unit root  
Exogenous: Constant, Linear Trend  
Lag Length: 0 (Automatic - based on SIC, maxlag=6)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-3.063513	0.1310
Test critical values:		
1% level	-4.252879	
5% level	-3.548490	
10% level	-3.207094	

\*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation  
Dependent Variable: D(LINP)  
Method: Least Squares  
Date: 04/05/16 Time: 07:54  
Sample (adjusted): 1981 2014  
Included observations: 34 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LINP(-1)	-0.465083	0.151814	-3.063513	0.0045
C	0.928142	0.354607	2.617384	0.0136
@TREND("1980")	-0.003545	0.007621	-0.465089	0.6451
R-squared	0.235061	Mean dependent var	-0.011912	
Adjusted R-squared	0.185710	S.D. dependent var	0.465238	
S.E. of regression	0.419821	Akaike info criterion	1.186122	
Sum squared resid	5.463745	Schwarz criterion	1.320800	
Log likelihood	-17.16407	Hannan-Quinn criter.	1.232051	
F-statistic	4.763048	Durbin-Watson stat	1.881440	
Prob(F-statistic)	0.015711			

### A2- 2 ADF test of LIR

Null Hypothesis: LIR has a unit root  
Exogenous: Constant, Linear Trend  
Lag Length: 1 (Automatic - based on SIC, maxlag=6)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-4.697186	0.0034
Test critical values:		
1% level	-4.262735	
5% level	-3.552973	
10% level	-3.209642	

\*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation  
Dependent Variable: D(LIR)  
Method: Least Squares  
Date: 04/05/16 Time: 07:59  
Sample (adjusted): 1982 2014  
Included observations: 33 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LIR(-1)	-1.239498	0.263881	-4.697186	0.0001
D(LIR(-1))	0.168082	0.172529	0.974224	0.3380
C	3.181024	0.690309	4.608118	0.0001
@TREND("1980")	0.005333	0.006343	0.840784	0.4073
R-squared	0.552890	Mean dependent var	-0.016221	
Adjusted R-squared	0.506638	S.D. dependent var	0.484041	
S.E. of regression	0.339989	Akaike info criterion	0.793406	
Sum squared resid	3.352185	Schwarz criterion	0.974801	
Log likelihood	-9.091200	Hannan-Quinn criter.	0.854440	
F-statistic	11.95368	Durbin-Watson stat	1.748530	
Prob(F-statistic)	0.000029			

### ADF test of LINP at First Difference

Null Hypothesis: D(LINP) has a unit root  
Exogenous: Constant, Linear Trend  
Lag Length: 1 (Automatic - based on SIC, maxlag=6)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-6.981978	0.0000
Test critical values:		
1% level	-4.273277	
5% level	-3.557759	
10% level	-3.212361	

\*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation  
Dependent Variable: D(LINP,2)  
Method: Least Squares  
Date: 04/05/16 Time: 07:57  
Sample (adjusted): 1983 2014  
Included observations: 32 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LINP(-1))	-1.741420	0.249416	-6.981978	0.0000
D(LINP(-1),2)	0.490859	0.162524	3.020220	0.0053
C	-0.170448	0.170624	-0.998965	0.3264
@TREND("1980")	0.007470	0.008238	0.906834	0.3722
R-squared	0.686003	Mean dependent var	0.001491	
Adjusted R-squared	0.652361	S.D. dependent var	0.723395	
S.E. of regression	0.426521	Akaike info criterion	1.250158	
Sum squared resid	5.093761	Schwarz criterion	1.433375	
Log likelihood	-16.00252	Hannan-Quinn criter.	1.310889	
F-statistic	20.39096	Durbin-Watson stat	2.204822	
Prob(F-statistic)	0.000000			

### A2- 3 ADF test of LM2

Null Hypothesis: LM2 has a unit root  
Exogenous: Constant, Linear Trend  
Lag Length: 0 (Automatic - based on SIC, maxlag=6)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-2.090223	0.5326
Test critical values:		
1% level	-4.252879	
5% level	-3.548490	
10% level	-3.207094	

\*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation  
Dependent Variable: D(LM2)  
Method: Least Squares  
Date: 04/05/16 Time: 08:00  
Sample (adjusted): 1981 2014  
Included observations: 34 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LM2(-1)	-0.207583	0.099311	-2.090223	0.0449
C	5.235311	2.424301	2.159513	0.0387
@TREND("1980")	0.030924	0.015118	2.045518	0.0494
R-squared	0.131660	Mean dependent var	0.157661	
Adjusted R-squared	0.075638	S.D. dependent var	0.062079	
S.E. of regression	0.059685	Akaike info criterion	-2.715380	
Sum squared resid	0.110431	Schwarz criterion	-2.580701	
Log likelihood	49.16146	Hannan-Quinn criter.	-2.669451	
F-statistic	2.350153	Durbin-Watson stat	1.472068	
Prob(F-statistic)	0.112122			

**ADF test of LM2 at First Difference**

Null Hypothesis: D(LM2) has a unit root  
 Exogenous: Constant, Linear Trend  
 Lag Length: 0 (Automatic - based on SIC, maxlag=8)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-4.413071	0.0069
Test critical values:		
1% level	-4.262735	
5% level	-3.552973	
10% level	-3.209642	

\*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation  
 Dependent Variable: D(LM2,2)  
 Method: Least Squares  
 Date: 04/05/16 Time: 08:01  
 Sample (adjusted): 1982 2014  
 Included observations: 33 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LM2(-1))	-0.786714	0.178269	-4.413071	0.0001
C	0.133858	0.038162	3.507658	0.0014
@TREND("1980")	-0.000547	0.001161	-0.471292	0.6408
R-squared	0.393721	Mean dependent var		-0.000378
Adjusted R-squared	0.353302	S.D. dependent var		0.078678
S.E. of regression	0.063271	Akaike info criterion		-2.596262
Sum squared resid	0.120098	Schwarz criterion		-2.460216
Log likelihood	45.83832	Hannan-Quinn criter.		-2.550486
F-statistic	9.741068	Durbin-Watson stat		1.925642
Prob(F-statistic)	0.000550			

**A2-3 ADF test of LGDP**

Null Hypothesis: LGDP has a unit root  
 Exogenous: Constant, Linear Trend  
 Lag Length: 0 (Automatic - based on SIC, maxlag=8)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	0.275369	0.9977
Test critical values:		
1% level	-4.232879	
5% level	-3.548490	
10% level	-3.207094	

\*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation  
 Dependent Variable: D(LGDP)  
 Method: Least Squares  
 Date: 04/05/16 Time: 07:26  
 Sample (adjusted): 1981 2014  
 Included observations: 34 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LGDP(-1)	0.011758	0.042700	0.275369	0.7849
C	-0.293531	1.193202	-0.246002	0.8073
@TREND("1980")	0.000197	0.002008	0.098307	0.9223
R-squared	0.370254	Mean dependent var		0.048135
Adjusted R-squared	0.329625	S.D. dependent var		0.012273
S.E. of regression	0.010049	Akaike info criterion		-6.278663
Sum squared resid	0.003130	Schwarz criterion		-6.143984
Log likelihood	109.7373	Hannan-Quinn criter.		-6.232734
F-statistic	9.113103	Durbin-Watson stat		1.881532
Prob(F-statistic)	0.000771			

**A2-4 ADF test of LREER**

Null Hypothesis: LREER has a unit root  
 Exogenous: Constant, Linear Trend  
 Lag Length: 4 (Automatic - based on SIC, maxlag=8)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-4.034429	0.0183
Test critical values:		
1% level	-4.296729	
5% level	-3.568379	
10% level	-3.218382	

\*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation  
 Dependent Variable: D(LREER)  
 Method: Least Squares  
 Date: 04/05/16 Time: 08:04  
 Sample (adjusted): 1985 2014  
 Included observations: 30 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LREER(-1)	-0.649544	0.161000	-4.034429	0.0005
D(LREER(-1))	0.614440	0.176607	3.479126	0.0020
D(LREER(-2))	0.332291	0.163887	2.027557	0.0543
D(LREER(-3))	-0.058535	0.154218	-0.379562	0.7078
D(LREER(-4))	0.501365	0.157571	3.181827	0.0042
C	3.153206	0.786456	4.009385	0.0005
@TREND("1980")	-0.003916	0.001320	-2.965902	0.0069
R-squared	0.551160	Mean dependent var		-0.009432
Adjusted R-squared	0.434071	S.D. dependent var		0.045156
S.E. of regression	0.033970	Akaike info criterion		-3.725707
Sum squared resid	0.026541	Schwarz criterion		-3.398761
Log likelihood	62.88560	Hannan-Quinn criter.		-3.621114
F-statistic	4.707200	Durbin-Watson stat		2.347504
Prob(F-statistic)	0.002911			

**ADF test of LM2 at First Difference**

Null Hypothesis: D(LGDP) has a unit root  
 Exogenous: Constant, Linear Trend  
 Lag Length: 0 (Automatic - based on SIC, maxlag=8)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-8.064099	0.0000
Test critical values:		
1% level	-4.262735	
5% level	-3.552973	
10% level	-3.209642	

\*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation  
 Dependent Variable: D(LGDP,2)  
 Method: Least Squares  
 Date: 04/05/16 Time: 07:22  
 Sample (adjusted): 1982 2014  
 Included observations: 33 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LGDP(-1))	-1.112605	0.137970	-8.064099	0.0000
C	0.034576	0.005527	6.219149	0.0000
@TREND("1980")	0.001027	0.000175	5.851209	0.0000
R-squared	0.690034	Mean dependent var		-0.000318
Adjusted R-squared	0.669370	S.D. dependent var		0.013438
S.E. of regression	0.007727	Akaike info criterion		-6.801707
Sum squared resid	0.001791	Schwarz criterion		-6.665661
Log likelihood	115.2282	Hannan-Quinn criter.		-6.755932
F-statistic	33.39241	Durbin-Watson stat		1.670231
Prob(F-statistic)	0.000000			

**A3-1**

VAR Lag Order Selection Criteria

Endogenous variables: LGDP LINF LIR LM2 LREER

Exogenous variables:

Date: 04/06/16 Time: 13:23

Sample: 1980 2014

Included observations: 31

Lag	LogL	LR	FPE	AIC	SC	HQ
1	198.9824	NA	9.31e-12	-11.22467	-10.06823*	-10.84770
2	228.9030	40.53756*	7.53e-12	-11.54213	-9.229244	-10.78818
3	264.8672	37.12438	5.12e-12*	-12.24950	-8.780173	-11.11858*
4	294.0534	20.71281	8.50e-12	-12.51958*	-7.893811	-11.01169

\* indicates lag order selected by the criterion

LR: sequential modified LR test statistic (each test at 5% level)

FPE: Final prediction error

AIC: Akaike information criterion

SC: Schwarz information criterion

HQ: Hannan-Quinn information criterion

**A3-2**

AIC and SC at different lags

	Lag-1	Lag-2	Lag-3	Lag-4
Akaike info criterion	-6.39247	-6.29702	-5.98976	-6.86074
Schwarz criterion	-5.89363	-5.56415	-5.01835	-5.64637

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# Compliance of BFRS 7 by Private Commercial Banks in Bangladesh

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**Abstract:** *This paper is aimed to scrutinize the disclosure requirements of private commercial banks in Bangladesh under Bangladesh Financial Reporting Standard (BFRS) 7 and find out the degree of compliance by them. To find out the degree of compliance of BFRS 7 the researcher has gone through the annual reports of all the six sample banks. This analysis shows that the degree of compliance with BFRS 7 by private commercial banks is satisfactory, though not absolute. The study reveals the existence of a monitoring and enforcement mechanism which finds to be not too rigorous. This study suggests that central bank in collaboration with other regulators should come together to develop a unique model for banks and mandate the compliance of BFRS to ensure transparent representation to the stakeholders.*

**Keywords:** *BFRS, disclosure, banks, compliance, private commercial banks.*

## Introduction

International Accounting Standards Board (IASB), the standard setting body of IFRS foundation has become increasingly influential in the world of commerce as they develop high quality, understandable, and worldwide accepted accounting standards. Its principal objective is to issue International Accounting Standards (IASs) in order to increase comparability in financial reports produced by companies regardless of their country of origin. The issued accounting standards by IASB are known as International Financial Reporting Standards (IFRSs). Under Rule 12 of the Securities and Exchange Rules 1987 of Bangladesh describe that the financial statements of an issuer of a listed security shall be prepared in accordance with requirements laid down in the IASs as adopted by the Institute of Chartered Accountants of Bangladesh (ICAB). As a member of the International Federation of Accountants (IFAC), the ICAB adopts IFRSs and IASs as BFRSs and BASs respectively. The security and exchange commission has circulated a notification (SEC 1997) requiring all listed companies to conform to the Bangladesh Accounting Standards (BAS) as adopted by the ICAB. Therefore, compliance with the BFRSs is mandatory for the companies listed under stock exchanges of Bangladesh. However, the previous study shows there is always significant gap between claiming to have complied and complying with accounting standards. The same could be true for companies listed on the stock exchanges claiming to have complied with BFRS.

This paper examines the compliance of BFRS by listed banks in Bangladesh from 2012 and 2013, paying particular attention to BFRS 7 which deals with financial instrument disclosures. BFRS 7 supersedes BAS 30 which was related to financial statements of

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banks and similar financial institutions. Although, IFRS 7 was issued by IASB in August 2005, in Bangladesh it became effective on or after January 1, 2010. Bangladeshi banking companies need to follow the disclosure requirements for ensuring greater transparency for the stakeholders. In spite of being flourishing and major sector prior work on compliance with BFRS 7 shows a questionable conclusion as to the degree of compliance. Moreover, prior works were done on commercial banks with other standards, hence comes the scope of scrutinizing compliance of BFRS 7. As people have more reliance on the commercial banks, so it has deep importance to find out the compliance status of the private commercial banks in Bangladesh.

### **Objectives of the study**

1. To determine compliance of private commercial banks interims of disclosure requirement of BFRS 7.
2. To find out the deviance from the standard requirements of BFRS7.

### **Methodology of the study**

The study is exclusively a descriptive research and thus it is purely based on the information from secondary data sources. The data collected for the purpose of the study involves the examination of annual reports for the year 2012 and 2013 of commercial banks listed on the Dhaka Stock Exchange (DSE), documents, magazines, books, journals, newspapers, subject related websites, research documents and relevant acts. The six banking companies considered as sample in this study include United Commercial Bank Ltd. (UCBL), Dutch Bangla Bank Ltd. (DBBL), BRAC Bank, NCC Bank, Mutual Trust Bank (MTB), and Standard Bank Ltd. This paper is done through content analysis which is widely being used in a social science research that involves reading the annual report and picking up both qualitative and quantitative information. So this technique has been used for this empirical study. Moreover, to determine average percentage of compliance, weight was given for full compliance of each requirement 1, for partial compliance 0.5 and for noncompliance 0.

### **Limitations of the study**

The study is done on sample basis on the annual reports of six private commercial banks among 39 scheduled commercial banks in Bangladesh. If all the commercial banks were taken for the study there might be a difference in results. The analysis is limited to whether the financial statements have been prepared according to the BFRS 7. Other required standard has not been scrutinized. The entities whose financial statements have been analyzed are basically guided by separate guideline than that of other bank like specialized Banks, or other Islamic banks. These banks are merely conventional, non-Islamic commercial Bank. So there is a risk of matching disclosure of certain important items regarding BFRS 7. Other limitations include the difficulty in obtaining data for the study. Banks, by their nature, place much emphasis on confidentiality and thus could not disclose certain information. The researcher does not strive to build any theory, prove any hypothesis or conclude correlations. The study is simply aimed at exploring for future research. In spite of the limitations, the researcher gathered sufficient data to facilitate a reliable conclusion.

## **Literature Review**

Banks are selected for the study because the banking sector is one of the most important sectors in every economy. Commercial banking is the oldest area in the banking world and it's an integral part of current and future financial market. As the history of commercial banking in the legal format is so long but research study on the financial reporting disclosures by the conventional commercial banking is not so rich. Financial instrument was selected for the study because there is wide evidence of problems in the accounting for financial instruments around the world. At the time of adoption of IAS 30 in Bangladesh, Khan and Kumar (2001) acknowledged that to ensure discipline and accountability in the accounting system we have no other option but go for implementation of the standard.

Before adoption of BFRS 7, Hossain (2011) opined that banking companies of Bangladesh were complying with most of the regulations including IAS 30. Before adopting and implementing accounting standard it was found that disclosure and reporting in banking sector of Bangladesh are not only inadequate but also biased and misleading (Akter and Hoque 1993). Hossain S, and Baser M.A described the compliance of IAS 30 of the specialized banks is not satisfactory. Hossain M and Uddin (2012) found that banks are still following the prescribed format of Bangladesh Bank which is based on BAS 30 rather than compliance of BFRS 7. Hossain I (2013) states about the compliance of IFRS 7 in state owned commercial banks in Bangladesh showing that state owned commercial banks comply IFRS 7 average 75%. Hossain I and Hossain A (2013) show in their article that foreign commercial banks in Bangladesh complies the IFRS 7 guidelines in annual report 78.78%. In this study the researcher determine the degree of compliance of BFRS 7 in the annual report by the private commercial banks of Bangladesh since this is mandatory compliance required by the Bangladesh Bank.

## **Theoretical Background**

### **Overview of the Banking Sector in Bangladesh**

Banking sector is the driving force of any country for its sustainable development. It is more than truth for a developing country like ours. Banks accept deposit from depositors and grant loans to individuals, governments and corporate organizations. They also play a major role in maintaining confidence in the monetary system through their close relationship with regulatory bodies and the government. Thus, the well-being of banks, particularly their liquidity and solvency position is of interest to every economy. Banks in Bangladesh are primarily of two types- scheduled banks and non-scheduled banks. There are 56 scheduled banks in Bangladesh who operate under full control and supervision of Bangladesh Bank which is empowered to do so through Bank Company Act, 1991. Scheduled Banks are classified into following types:

- i. **State owned commercial banks:** There are 6 banks which are fully or majorly owned by the government of Bangladesh.

- ii. **Specialized banks:** 2 specialized banks are now operating which were established for specific objectives like agricultural or industrial development. These banks are also fully or majorly owned by the government of Bangladesh.
- iii. **Private commercial banks (PCBs):** There are 39 private commercial banks which are majorly owned by the private entities. There are 31 conventional PCBs and 8 Islami Shariah based PCBs in Bangladesh.
- iv. **Foreign commercial banks:** 9 foreign banks are operating in Bangladesh as the branches of the banks which are incorporated in abroad.

### **Commercial Banking in Bangladesh**

Commercial bank is an institution providing services for businesses, organizations and individuals. Services include offering current, deposit and saving accounts as well as giving out loans to businesses and individuals. The branches of private banks spread to the rural areas increases the banking habit of people. People keep their money in banks and withdraw at the time of need. This leads to the monetization of rural areas. This helps farmers to undertake agricultural and non-agricultural works. The banks collect people's money and keep them safe as people have fear of theft, robbery when kept at home. In addition, the banks provide interest on deposits. The people can keep their valuables in the 'safe deposit vault' of the banks. They also provide all modern facilities to their customers like internet banking, credit card, debit card, ATM booth facilities, mobile banking etc. Thus private commercial bank has become the part and parcel of people's economic activities. Therefore, the stakeholders of commercial bank want to know true and fair information. Different accounting standards (IASs and IFRSs) will ensure these expectations. Thus it is needed to determine this regulatory compliance of these standards. As it is mentioned above there are 39 private commercial banks including 8 Islami Shariah based banks in Bangladesh. Out of these thirty nine commercial banks in Bangladesh six private commercial banks is taken as sample for this study.

### **Disclosure Requirements under BFRS 7**

IASB issued IFRS 7 in August 2005 that supersedes IAS 30. In Bangladesh, ICAB adopted it as BFRS 7 and made it effective from on or after January 1, 2010. Bangladesh Bank did not issue any circular requiring compliance with BFRS 7. Therefore, it is mandatory for listed banking companies to comply with BFRS 7 but not mandatory for all schedule banks. Now banks are using different techniques for measuring and managing exposure to risks arising from financial instruments. The users of financial statements need information about an entity's exposure to risks and how those risks are managed. For ensuring greater transparency regarding risks this standard was issued. For the disclosures an entity must group its financial instruments into classes of similar instruments as appropriate to the nature of the information presented [BFRS 7.6]. The two main categories of disclosures required by BFRS 7 are:

- a) Information about the significance of financial instruments.
- b) Information about the nature and extent of risks arising from financial instruments



### **Information about the significance of financial instruments:**

**Balance sheet:** Disclose the significance of financial instruments for an entity's financial position and performance. [BFRS 7.7] This includes disclosures of financial assets measured at fair value through profit and loss, showing separately those held for trading and those designated at initial recognition, held-to-maturity investments, loans and receivables, available-for-sale assets, financial liabilities at fair value through profit and loss, showing separately those held for trading and those designated at initial recognition and financial liabilities measured at amortized cost [BFRS 7.8]. Other balance sheet-related disclosures includes special disclosures about financial assets and financial liabilities designated to be measured at fair value through profit and loss, including disclosures about credit risk and market risk, changes in fair values attributable to these risks and the methods of measurement [IFRS 7.9-11], reclassifications of financial instruments from one category to another (e.g. from fair value to amortized cost or vice versa) [IFRS 7.12-12A], information about financial assets pledged as collateral and about financial or non-financial assets held as collateral [IFRS 7.14-15], reconciliation of the allowance account for credit losses (bad debts) by class of financial assets [IFRS 7.16], information about compound financial instruments with multiple embedded derivatives [IFRS 7.17], breaches of terms of loan agreements [IFRS 7.18-19].

**Income Statement and Equity:** Items of income, expense, gains, and losses, with separate disclosure of gains and losses from financial assets measured at fair value through profit and loss, showing separately those held for trading and those designated at initial recognition, held-to-maturity investments, loans and receivables, available-for-sale assets, financial liabilities measured at fair value through profit and loss, showing separately those held for trading and financial liabilities measured at amortized cost [BFRS 7.20(a)].

### **Other disclosures**

Disclosure of accounting policies for financial instruments [BFRS 7.21]; information about hedge accounting, including description of each hedge, hedging instrument, and fair values of those instruments, and nature of risks being hedged [BFRS 7.20(a)]; for cash flow hedges, the periods in which the cash flows are expected to occur, when they are expected to enter into the determination of profit or loss,; if a gain or loss on a hedging instrument in a cash flow hedge has been recognized in other comprehensive income, an entity should disclose the amount that was so recognized in other comprehensive income during the period [BFRS 7.23]; for fair value hedges, information about the fair value changes of the hedging instrument and the hedged item [BFRS 7.24(a)]; hedge ineffectiveness recognized in profit and loss (separately for cash flow hedges and hedges of a net investment in a foreign operation) [BFRS 7.24(b-c)].

### **Nature and extent of exposure to risks arising from financial instruments**

**Qualitative disclosures [BFRS 7.33]:** The qualitative disclosures describe about risk exposures for each type of financial instrument; management's objectives, policies, and processes for managing those risk; and changes from the prior period.

**Quantitative disclosures:** The quantitative disclosures [BFRS 7.34] provide information about the extent to which the entity is exposed to risk, based on information provided internally to the entity's key management personnel. These disclosures include:

#### **Credit risk**

Credit risk is the risk that one party to a financial instrument will cause a loss for the other party by failing to pay for its obligation. Disclosures about credit risk includes maximum amount of exposure (before deducting the value of collateral), description of collateral, information about credit quality of financial assets that are neither past due nor impaired, and information about credit quality of financial assets whose terms have been renegotiated [IFRS 7.36]; for financial assets that are past due or impaired, analytical disclosures are required [IFRS 7.37]; information about collateral or other credit enhancements obtained or called [IFRS 7.38].

#### **Liquidity risk**

Liquidity risk is the risk that an entity will have difficulties in paying its financial liabilities. Disclosures about liquidity risk include [IFRS 7.39] a maturity analysis of financial liabilities and description of approach to risk management.

#### **Market risk**

Market risk is the risk that the fair value or cash flows of a financial instrument will fluctuate due to changes in market prices. Market risk reflects interest rate risk, currency risk and other price risks. Disclosures about market risk contains a sensitivity analysis of each type of market risk to which the entity is exposed, additional information if the sensitivity analysis is not representative of the entity's risk exposure, IFRS 7 provides that if an entity prepares a sensitivity analysis such as value-at-risk for management purposes that reflects interdependencies of more than one component of market risk (interest risk and foreign currency risk combined), it may disclose that analysis instead of a separate sensitivity analysis for each type of market risk [IFRS 7.40-42].

#### **Transfers of financial assets:**

An entity shall disclose information that enables users of its financial statements to understand the relationship between transferred financial assets that are not derecognized in their entirety and the associated liabilities; and to evaluate the nature of, and risks associated with, the entity's continuing involvement in derecognized financial assets [BFRS 7.42B]. Transferred financial assets that are not derecognized in their entirety required disclosures include description of the nature of the transferred assets, nature of risk and rewards as well as description of the nature and quantitative disclosure depicting relationship between transferred financial assets and the associated liabilities [BFRS 7.42D]. Transferred financial assets that are derecognized in their entirety required disclosures include the carrying amount of the assets and liabilities recognized fair value of the assets and liabilities that represent continuing involvement, maximum exposure to loss from the continuing involvement as well as maturity analysis of the undiscounted cash flows to repurchase the derecognized financial assets [BFRS 7.42E].

**Analysis and Findings:**

**Compliance of BFRS 7 by the Private Commercial Banks:** In order to provide a standardized report all banks should follow the IFRS 7 (BFRS 7) which is the demand of the modern competitive business world. The study examines the compliance level of BFRS 7 by private commercial listed banks on stock exchange using self-constructed checklist from above disclosure requirements to estimate Mandatory Disclosure. The overall level of compliance level is derived as follows:

**Table 1: Schedule of Compliance**

Disclosure requirements	UCBL	DBBL	BRAC	NCC	MTB	SBL
Classes of Financial Instruments [BFRS 7- Para 6]	√	√	√	√	√	×
Financial Position/ Balance Sheet [BFRS 7- Para 7]	√	√	√	√	√	√
Categories of Financial Assets and Liabilities [BFRS 7- Para 8]	√	√	√	√	√	√
Financial Liabilities at fair value through Profit or Loss [BFRS 7- Para 10 and 11]	×	×	×	×	×	×
Reclassifications of financial instruments [BFRS 7- Para 12]	√	√	√	√	√	√
Collateral Financial Assets [BFRS 7- Para 14 and 15]	√	√	×	√	√	×
Reconciliation of the allowance account [BFRS 7- Para 16]	√	√	√	√	√	√
Compound financial instruments [BFRS 7- Para 17]	√	√	√	√	√	√
Items of income, expense, gains, and losses in the Income Statement [BFRS 7-Para 20]	√	√	√	√	√	√
Other Disclosures: Accounting policies [BFRS 7- Para 21]	√	√	√	√	×	√
Hedge accounting [BFRS 7- Para 22-24]	Partial	√	√	√	√	Partial
Qualitative disclosures: risk exposures for each type of financial instrument, management's policies, and processes for managing those risks, changes from the prior period [BFRS 7- Para 33]	√	×	√	Partial	×	×
Quantitative disclosures: [BFRS 7- Para 34-42] Credit, Liquidity & Market Risk	√	Partial	√	√	Partial	Partial
The nature of the transferred assets [BFRS 7- Para 42 D]	×	×	×	×	×	×
Transferred financial assets that are derecognized [BFRS 7- Para 42E]	×	×	×	×	×	×
<b>Total complied</b>	<b>12</b>	<b>11</b>	<b>11</b>	<b>12</b>	<b>10</b>	<b>9</b>

The empirical findings of the study from table1 are shown below—

No. of companies	6
No. of requirements as per BFRS 7	15
Maximum number of requirement complied by the company	12
Minimum number of requirement complied by the company	9
Weighted Average number of compliance by the companies	10.83

**Table-2:** Summary of compliance by individual commercial bank

Complying banks	Total compliance requirement	No. of requirement by the companies	(%)Compliance by the companies*	Deviation from the industry average (%)
UCBL	15	12	80.00%	(7.80%)
DBBL	15	11	73.33%	(1.13%)
BRAC	15	11	73.33%	(1.13%)
NCC	15	12	80.00%	(7.80%)
MTB	15	10	66.67%	5.53%
SBL	15	9	60.00%	12.20%

\*[(%) of compliance = requirement complied/ Total requirement]

The analysis shows that out of the six banks and of the total 15 requirements, DBBL and BRAC Bank complied with 11 requirements (73.33%), whereas UCBL and NCC Bank complied maximum of 12 requirements (80.00%), MTB complies 10 requirements (66.67%) and Standard Bank complied only 9 requirements (60.00%). It is also worth mentioning that the average compliance of the standard by the companies is 72.20%. Of the six banks the deviation from the industry average are (7.80%) for UCBL and NCC Bank, (1.13%) for DBBL and BRAC Bank, 5.53% for Mutual Trust Bank and for Standard Bank the deviation is much higher of 12.20%.

**Table-3:** Average number of compliance

	No. of requirement	Weight	Weighted score
Fully complied	6	1	6
Partially complied	6	0.5	3
Not complied	3	0	0
Total			9
For full compliance weight = 1			
For non-compliance weight = 0			
For partially complied weight = 0.5			
Weighted score= 9/15 = 60%.			

Another important finding is that some requirements were completely ignored where some were partially followed and others were fully complied. Besides 6 requirements were fully complied by all the six companies, 3 requirements are totally not complied by

any of them. Six requirements are partially complied by the banks. Weighted score of compliance is 60%.

To determine the degree of compliance of BFRS 7 requirements it is also necessary to analyze compliance of the individual disclosure requirements. As some banks in some cases comply partially so the analysis shows in percentage below:

**Table-4:** Compliance of the individual requirement

<b>Disclosure requirements</b>	<b>No. of complied companies</b>	<b>(%) of compliance</b>
Classes of Financial Instruments [BFRS 7- Para 6]	5	83.33%
Financial Position/ Balance Sheet [BFRS 7- Para 7]	6	100%
Categories of Financial Assets and Liabilities [BFRS 7- Para 8]	6	100%
Financial Liabilities at fair value through Profit or Loss [BFRS 7- Para 10, 11]	0	0%
Reclassifications of financial instruments [BFRS 7- Para 12]	6	100%
Collateral Financial Assets [BFRS 7- Para 14 and 15]	4	66.67%
Reconciliation of the allowance account [BFRS 7- Para 16]	6	100%
Compound financial instruments [BFRS 7- Para 17]	6	100%
Items of income, expense, gains, and losses in the Income Statement [BFRS 7- Para 20]	6	100%
Other Disclosures: Accounting policies [BFRS 7- Para 21]	5	83.33%
Hedge accounting [BFRS 7- Para 22-24]	6 [Fully: 4 Partly: 2]	83.33%
Qualitative disclosures: risk exposures for each type of financial instrument, management's policies, and processes for managing those risks and changes from the prior period [BFRS 7- Para 33]	3 [Fully: 2 Partly: 1]	41.67%
Quantitative disclosures: [BFRS 7- Para 34-42] • Credit Risk • Liquidity Risk • Market Risk	6 [Fully: 3 Partly: 3]	75%
The nature of the transferred assets [BFRS 7- Para 42 D]	0	0%
Transferred financial assets that are derecognized in their entirety [BFRS 7- Para 14E]	0	0%
Total		1033.33%
Average compliance of the above 15 requirements		<b>68.89%</b>

From the table it is found that among 15 disclosure requirements the average compliance rate is 68.89%. Apart from above numerical analysis the detailed version of compliance findings are described as follows:

- i. **Classes of Financial Instrument:** From above it is found five banks fully comply with this requirement by showing classes of financial instrument except standard bank Limited. So compliance status of this particular requirement is 83.33%.
- ii. **Financial Position/ Balance sheet:** All the six banks fully comply with this requirement by showing classes of assets, liabilities and equity in balance sheet. The compliance status for this requirement is 100%.
- iii. **Categories of Financial Assets and Liabilities:** Disclosures are presented by all six banks showing separate assets Liabilities and their maturities. This is also full complied.
- iv. **Financial Liabilities at fair value through Profit or Loss:** All the banks can not comply with the requirement as required by the BFRS 7 stating the fair value of Liabilities as there are bindings of Bangladesh bank rules and orders. No Bank comply this requirement. Therefore the compliance status is 0% for this requirement.
- v. **Reclassifications of financial instruments:** Financial Instruments are properly categorized and also reclassify by all the sample banks. So the percentage of compliance is 100.
- vi. **Collateral:** All the banks can not comply with the requirement as required by the BFRS 7 stating the collateral. Six Banks showed and said about collateral in their Reports. Four banks did not say about the pledge or security. So the requirement fulfilled by 66.67%.
- vii. **Reconciliation of the allowance account:** It is a common practice of private banks to reconcile their allowance account. Therefore 100% compliance is achieved.
- viii. **Compound financial instruments:** All non-derivative financial instruments which have both a liability and an equity component are fully [100%] complied by the sample banks.
- ix. **Items of income, expense, gains, and losses in the Income Statement:** Entire revenues, expenses, gains and losses are presented in Income Statement. This requirement is fully complied by all the six banks showing multiple steps in classifying their income and expenses. So compliance status for this requirement is 100%.
- x. **Other Disclosure:**  
**Accounting Policies:** All the six banks disclose their accounting policies except Mutual Trust Bank. This requirement such as valuation of Assets and their own depreciation policy are shown. Moreover the impairment of Assets has been also been shown in the Reports by the five complied banks. Therefore, it is complied by 83.33%.  
**Hedge accounting:** Hedge accounting attempts to reduce the volatility created by the repeated adjustment of a financial instrument's value, known as marking to market. DBBL, BRAC, MTB, and NCC bank are fully complied whereas UCBL and SBL are partially complied. So the weighted compliance rate is 83.33%
- xi. **Qualitative Disclosure:** Three out of six banks are not disclosed the qualitative risks in their annual report. Two banks UCBL and BRAC bank are complied fully

and NCC bank complies partially. Therefore the compliance is 41.67% as the partial bears 0.5 weight.

- xii. **Quantitative Disclosure:** This disclosure includes credit risk, liquidity risk and market risk. Three banks UCBL, BRAC and NCC bank are complied fully whereas other three comply partially. Here the average rate of compliance is 75% as the partial bears 50% weight.
- xiii. **The nature of the transferred assets:** None of the six banks disclose about the nature of the transferred assets. So the compliance is only 0%.
- xiv. **Transferred financial assets that are derecognized in their entirety:** Nothing is mentioned about the transferred financial assets that are derecognized in their entirety by any bank. So the compliance is 0%.

### **Conclusion and Recommendations:**

#### **Conclusion**

Presentation of financial statements complying BFRS is of immense importance to the users of those because it enhances the degree and scope of usefulness of accounting information. Proper accounting and reporting contribute positively to proper functioning of banks. That's why the BFRS 7 is developed to give standardized reporting. It is evident from the above analysis that private commercial banks are good at complying with the required compliance by the standard prescribed for them. Compliance with BFRS 7 is quite high with listed banks in Bangladesh, though not absolute. The score 72.20% is a good achievement. However, this confirms the gap between claiming to compliance and actual compliance with BFRS by banks and this should be a source of worry. Compliance with BFRS relates positively with time trends in Bangladesh. Though it can be argued that it is early days yet, the improvement in compliance level suggests that with time private commercial banks can do much better than the situation now.

It is hoped that due to the globalization, private banking can easily capture the essence of the international requirements, which make them competitive in providing the services. Based on the analysis, it has been found that there is no significant difference in terms of compliance of BFRS 7, among the six private commercial banks. That means all of the sample banks try to follow similar items needed to comply with the international standard in order to provide accountability and transparency in financial reporting, which ensure maximum disclosure of the relevant, reliable and useful information to the interested user groups. To sum up it can be culminated that preparation of financial statements of the companies in line with the BFRS-7 is satisfactory but still subject to solve the different problem raised by central banks stipulated guidelines for noncompliance. So to eliminate the deviation centered by central banks and other bodies should work together to develop a unique standards for the financial reporting standard of commercial banking. So the government and surrounding concerned authorities should create a congenial atmosphere to ensure the full compliance of the standard.

## **Recommendations**

After a vigilant inspection of the annual reports of six private commercial banks it has been found that the companies are presenting their information on the financial statements in accordance with the BFRS-7. Based on the findings of the study, the following recommendations are made:

- i. To have a fair picture of the organization like banks should comply with all the requirements guided by the nationally and internationally recognized standards.
- ii. To facilitate and ensure complete and easy compliance with all BFRS requirement, the ICAB in collaboration with other stakeholders should come together to develop a template for all industries to serve as a guide for at least all public interest entities. Such a template can be reviewed as and when old standards are revised and new ones introduced. This could solve the problems associated with giving different interpretations to a particular standard.
- iii. The ministry for trade and industry, in consultation with the council of ICAB, should set up a BFRS compliance task force whose basic responsibility would be to ensure that at least public interest entities comply with BFRS.
- iv. Training on BFRS, specifically to financial statement preparers and managers of companies, should be an ongoing exercise, especially when a particular standard is revised or new standards introduced. This will keep them abreast of current issues and also know how the new BFRS could be applied. Such an education must be carried out by the ICAB.

## **Future Research**

As the limitations of this study is discussed in chapter one, and the findings of this study, indicates the necessity for more research on BFRS compliance in Bangladesh in the future. As this study is gone through the only BFRS 7 compliance which is not sufficient to measure the overall financial reporting disclosures by commercial banks. Hence, further study is mostly needed to determine the compliance of all listed banks with the entire BFRS requirement. Future researchers can look at the extent of compliance by unlisted banks also. Researchers can also find out the compliance with BFRS and information quality.

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# Assessing Relationship between Working Capital Management and Return on Equity of Islamic Bank Bangladesh Limited

Farhana Rob Shampa<sup>1</sup>

**Abstract:** *This paper is an attempt to investigate the effects of working capital management efficiency as well as effects on the profitability of Islami Bank Bangladesh Limited. The paper tries to find out whether empirical results on the relationship between working capital management practices and profitability of bank like Islamic Bank Bangladesh Limited. The data was collected from secondary sources; this data was mainly collected from published financial statements. This data was over a period of 5 years from 2008 to 2012. The descriptive statistics such as mean and standard deviation were used to measure variations. Correlation and regression analysis were used to analyze the data and testing of hypotheses. This paper found that working capital variables like credits payment period, leverage, growth and credit risk has negative relation with return on equity but there was a positive relation with Cash Conversion Cycle and Debtors collection period. Among six hypotheses only two hypotheses were accepted. It can conclude that there is a relationship with working capital management variables with profitability (ROE uses as a proxy).*

**Keywords:** *Working Capital Management, Profitability, IBBL, ROE*

## Introduction

Working Capital Working Capital refers to that part of the firm's capital, which is required for financing short-term or current assets such as cash marketable securities, debtors and inventories. Funds thus, invested in current assets keep revolving fast and are constantly converted into cash and this cash flow out again in exchange for other current assets. Working Capital is also known as revolving or circulating capital or short-term capital. Among all the problems of financial management, the problems of working capital management have probably been recognized as the most crucial one. It is because of the fact that working capital always helps a business concern to gain vitality and life strength.

Islami Bank Bangladesh Limited was established in 1983 and started functioning with effect from March 30, 1983. It was the first kind of Islamic Bank in Southeast Asia. This bank is committed towards conducting all the banking activities free of interest and based on Profit-loss sharing system. The actual role of Islamic bank inherits in promoting and empowering the banking services and product based on Islamic principles. The main principles of Islamic banking comprise of prohibition of interest in all forms of transactions, and undertaking business and trade activities on the basis of fair and legitimate profit (Haron and Shanmugan, 1997).

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This study seeks to investigate the problems a bank like IBBL bank that is an Islamic bank and its working capital management and its effect on bank profitability. Working Capital has an important role played by banks in developing countries also like Bangladesh. The banking industry also appears not to be doing badly, In spite of its importance and attractiveness, not all banks have had it easy operating in the country. While some banks have had to liquidate like Oriental Banks (bankrupt), BASIC Bank Limited Sonali Bank Limited and Janata Bank Limited have huge cash crisis. Even though strong empirical support may not be found to support the assertion that poor working capital management practices could play a major in bank performance and failures, very few would deny it. These are the major motivations for the current study. Specifically, the study unveils the relationship between working capital management and profitability of Islami Bank Bangladesh Limited (IBBL) as a sample of a case study.

## **1.2 Objectives:**

- To examine the relationship between working capital management and profitability of Islami Bank Bangladesh Ltd (IBBL) during 2008-2012.
- To suggest some measures for improvement in working capital management of Islami Bank Bangladesh Ltd (IBBL).

## **1.3. Literature Review**

Many researchers have studied working capital from different views and in different environments, the following ones were very interesting and useful for this research:

The choice of working capital policy affects the profitability of firms. Aggressive financing policy has greater portion of current liabilities relative to current assets. This working capital structure leads to high liquidity risk and expected profitability. On the other hand, conservative working capital policy has greater current assets to current liability. This is to ensure moderate liquidity risk through lower financing cost which also leads to moderate profitability (Czyzewski and Hicks, 1992 and Afza and Nazir, 2009).

Garcia and Martinez (2007) studied the effects of working capital management on the profitability of a sample of small and medium-sized firms. They found that managers can create value by reducing their inventories and the number of days for which their accounts are outstanding. Moreover, shortening the cash conversion cycle also improves the firm's profitability. Chakraborty (2008) evaluated the relationship between working capital and profitability of companies.

Singh (2008) found that size of inventory directly affects working capital and its management. He suggested that inventory was the major component of working capital and need to be carefully controlled. Singh and Pandey (2008) suggested that for successful working capital of any business organization, fixed and current assets play a vital role, and that the management of working capital is essential as it has a direct impact on profitability and liquidity.

Lazaridis and Tryfonidis (2006) investigated the relationship of corporate profitability and working capital management for firms listed at Athens Stock exchange. They

reported that there is statically significant relationship between profitability measured by gross operating profit and cash conversion Cycle.

Furthermore, Managers can create profit by correctly handling the individual components of working capital to an optimum level. Similar results with very few disparities are shown in Kenya (Mathuva, 2009).

Siddiquee and Khan (2009) found that, firms which are better at managing working capital are found to be able to make counter cycle moves to build competitive advantage. They are also better at generating fund internally and also face lesser trouble while seeking external sources of financing.

Rahman and Naser (2007). Studied the relationship between working capital management and corporate profitability for 94 firms listed on Karachi Stock Exchange using static measure of liquidity and ongoing operating measure of working capital management during 1999-2004. It was found that there exit a negative relation between working capital management measures and profitability.

All the above studies provide us a solid base and give us idea regarding working capital management and its components. They also give us the results and conclusions of these researchers already conducted on the same area for different countries and environment from different aspects. On basis of these researchers done in different countries, this paper developed own methodology for research.

## 2. METHODS:

The researcher attempted to study the secondary data have been collected and the data were collected from annual reports. The study covers five years from 2008-2012. There are 9 Islamic Banks in Bangladesh, among them eight (8) banks are private commercial and one (1) bank is Foreign Islamic bank in Bangladesh. Among eight private commercial banks one Islamic bank that was the Islami Bangladesh Limited (IBBL) has been selected as a case study for said research.

### Variables:

This study undertakes the issue key variables that may influence working capital management of Islami Bank Bangladesh Limited (IBBL). Choice of the variables is influenced by the previous studies on working capital management. All variables stated below have been tested the hypotheses of this study. They include dependent and independent and some control variables:

For the purpose of analysis the ultimate measurement of profitability has been chosen to be return on equity (ROE).

Variables calculations

**Dependent variable:** Return on equity (ROE)  $(y) = \text{Net Income after Taxes} / \text{Total Equity Capital}$ .

**Independent Variables are:** CCC, CPP, DCP, TDA, GRO and LLR.

$x_1$  =Cash Conversion Cycle (CCC): Debtors collections period –Creditors payment period

$x_2$ =Creditors Payment Period (CPP): Short term debt/Interest expense

$x_3$ =Debtors Collection Period (DCP): Current Assets/Investment Income

$x_4$ = Leverage (TDA): Total Debt/Net Asset

$x_5$ =Bank Growth (GRO) = Year on Year change in interest Income

$x_6$ =Credit Risk (LLR): Non Performing Loan/Gross Loan

### Hypothesis of the Study:

$H_{01}$  - There is a no statistically significant relationship between CCC and profitability of the bank.

$H_{02}$  - There is a no statistically significant relationship between CPP and profitability of the bank.

$H_{03}$  - There is a no statistically significant relationship between DCP and profitability of the bank.

$H_{04}$  - There is a no statistically significant relationship between TDA and profitability of the bank.

$H_{05}$  - There is a no statistically significant relationship between GRO and profitability of the bank.

$H_{06}$  - There is a no statistically significant relationship between LLR and profitability of the bank.

### 3. RESULTS AND DISCUSSION

The Table-1 gives the descriptive statistics of the collected variables. The mean and median of Return on Equity (ROE) is 20.32% and 20.01% respectively. The Cash Conversion Cycle (CCC) shows that, it takes the bank's around 203 days on average (median 276 days). While creditors' payment period (CPP) average is 311 days (median 312 days). On the other hand, Debtors collection period (DCP) shows average is 518 days. It means Islamic bank takes longer time to collect money then it disburses cash to its customers. Leverage (TDA) mean is 52.42%. Growth rate (GRO) mean is 15.87% and median is 19.44%. Credit risk (LLR) is mean is 2.94 and median is 2.85.

**Table-01: Descriptive Statistics**

	Min	Max	Mean	Median	Stand Deviation	Variance
CCC	37	313	2.03	2.76	121.1	1.469
CPP	281	351	3.1180	3.12	28.64	820.7
DCP	349	640	5.1880	5.57	114.54	1.312
TDA	1.87	2.53	52.42	2.49	112.12	1.257
GRO	1	24.41	15.868	19.44	9.86	97.206
LLR	2.35	3.81	2.9460	2.85	0.63	0.392
ROE	13.85	24.70	20.32	20.01	4.59	21.062

### 3.1 Pearson's Correlation Coefficient Analysis (IBBL)

Table 2 presents Pearson Correlation coefficients for all variables are considered. There is a strong positive correlation between Return on Equity (ROE) with Cash Conversion Cycle (CCC) and Debtors Collection Period (DCP) that is 76.4% and 65.5% respectively. But there is a negative relationship between the Creditors Payment Period (CPP), Leverage (TDA), Growth (GRO) and Credit Risk (LLR) that is -39.5%, -42.9%, -25%, -72.3% respectively relations with profitability. By analyzing the results it is concluded the result is significant and If IBBL increases working management then bank's profitability will be decreased.

#### Correlation between Profitability Ratio and Working Capital Ratios

**Table-02:** Correlation Matrix.

VAR	PROF (ROE)	CCC	CPP	DCP	TDA	GRO	LLR
PROF (ROE)	1						
CCC	.764	1					
CPP	-.395	-.452	1				
DCP	.655	.954	-.175	1			
TDA	-.429	.021	.207	.135	1		
GRO	-.250	-.848	.118	-.901	-.396	1	
LLR	-.723	-.972	.312	-.966	-.197	.900	1

Source: SPSS

### 3.3 Regression Analysis

From the below (Table 3 and 4) calculation it shows that there is a significant relationship between dependent variable and independent variables. And at 5% level of significance the correlation for Cash conversion cycle is 75.4%. Here, adjusted R square is .445 which means that about 44.5% variation of dependent variable is explained by independent variables included in this model. Table 3 and 4 shows the regression results run on Islamic Bank Bangladesh Limited. From ANOVA test it is revealed that the table significance value is grater that the calculated value. So, it rejected four (4) null hypotheses (CPP is .119, DCP is .06, TDA is .064, and LLR is .09) and two (2) null hypotheses are accepted (CCC is .02 and Growth is .02) at % 5 level of significance. It means there is a significant relation between dependent variable and independent variables. But there is not significant relationship between bank Cash conversion cycle and growth with profitability. Thus, it can conclude that the there is a strong significant relationship between working capital management and bank profitability.

From below table (3 and 4) shows that, R are 76.4%,  $R^2$  is 58.4% and Adjusted R square for CCC is 44.5% and F statistics for CCC is 42.08%. That means Cash Conversion Period is positively related with ROE that means its profitability. If bank increases its Cash Conversion Period (CCC) then it increases banks profitability.

But For Creditors Payment Period (CPP) results show that the R is 39.5%,  $R^2$  is 15.6%, and Adjusted R square for CCP is 12.5%. But coefficient is -2.9%. That means Creditors Payment Period is negatively related with profitability.

Deferral Cash Payment (DCP) results shows that, R is 65.5%,  $R^2$  square is 43% and Adjusted R Square is 23.9% and F statistics for DCP is 22.59% and  $t=1.503$ . It means that Deferral Cash Payment period (DCP) is positively related with Return on Equity (ROE). If bank increases its Deferral Cash Payment period then it increases banks profitability.

A leverage (TDA) result shows that, R is 42.9%,  $R^2$  is 18.4%, Adjusted R square is 8.8%,  $F=67.5$ ,  $t=-82.2$ , coefficient is -42.9% and at 5 % level of significance. TDA results shows that there is strong negative relation between leverage ratios with ROE. If leverage increases then banks profits of the banks will be declined.

The result of multiple regression test results shows that growth (GRO) R is 51.6%,  $R^2$  is 26.6%, Adjusted R square is 2.2%,  $f=1.088$ ,  $t=-1.043$  and coefficients is -51.6%. The result indicated that ROE has more negative relationship with GRO. If banks increase its growth then it reduces its profitability.

A multiple regression test done to credit risk (LLR) the results shows that the R is 72.3%,  $R^2$  is .52.2%, Adjusted R square is 52.2%  $f=3.280$ ,  $t=-1.811$  and coefficients is -72.3%. The result indicated that ROE has significant relationship with LLR. The result indicated that ROE has strong negative relationship with LLR. If banks increase its credit risk then it reduces its profitability.

**Table-03: Regression Model**

Model (a)	ROE	14.574+0.013X	CCC	.02	Accept
Model (b)	ROE	26.267-0.29X	CPP	.119	Reject
Model (c)	ROE	11.512+0.011X	DCP	.06	Reject
Model (d)	ROE	24.086-2.930X	TDA	.064	Reject
Model (e)	ROE	18.993-0.110X	GRO	.02	Accept
Model (f)	ROE	24.378-2.418X	LLR	.09	Reject

\*\* Significant at the level of 0.005

Source: SPSS Result

**Table-04: Regression Analysis**

Dependent variable	Independent variable	R	R Square	Adjusted R Square	Coefficients	F-test	T-Stat	Std. Error
ROE	CCC	.764	.584	.445	.764	.4208	2.051	.013
ROE	CPP	.395	.156	.125	-.029	.556	-.746	.039
ROE	DCP	.655	.430	.239	.655	.2259	1.503	.007
ROE	TDA	.429	.184	.088	-.429	.675	-.822	.014
ROE	GRO	.516	.266	.022	-.516	1.088	-1.043	.105
ROE	LLR	.723	.522	.363	-.723	3.280	-1.811	1.335

Source: SPSS Result

#### 4. Conclusion:

It can conclude that there is a significant relationship between working capital management and IBBL profitability. Efficient working capital management has a direct effect on a firm's profitability even though a greater proportion of these studies are based on one Islamic bank. This paper focused and analyzed on working capital practice of Islami Bank Bangladesh Ltd. Throughout its life its contribution in socio economic prospect of Bangladesh has the greater significance. The conclusion is in confirmation this paper finding are similar with (Deloof 2003), (Eljelly 2004), (Shin and Soenan 1998) who found a strong negative relationship between the measures of working capital management including the average collection period, inventory turnover in days, average payment period and cash conversion cycle with corporate profitability. On basis of the above analysis it may further conclude that these results can be further strengthened if the banks manage their working capital in more efficient ways. There is much to be done about working capital in Islamic Bangladesh in future. This paper suggests that further research be conducted on the same topic with different banks and extending the years of the sample.

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# A Study on Shoppers' Preference for Online Shopping

D Uday Kumar<sup>1</sup>  
Sheelan Misra<sup>2</sup>

**Abstract:** *E-commerce is buzzing word in today's generation where a rigorous study required last one decade there is an exponential growth in e-commerce industry so the aim of the present study is to analyze the various factors that influence the shoppers to prefer online shopping. Study was undertaken at two tier cities in Andhra Pradesh i.e. Rajahmundry, Vijayawada & Tirupati cities. Exploratory Factor analysis is used as a statistical tool for the study. The data is collected primarily from a sample of 1200 from the shoppers. The findings show that there are 4 major factors with Eigen value greater than 1.0. The factors with highest scores are Economic, product, convenience and credibility that influence more on shoppers.*

**Keywords:** *E-commerce, Factors, Eigen values and online shopping.*

## Introduction

Internet and *e-commerce* had followed, inevitably, a similar road since these concepts cannot be mutually excluded one from the other one. Innovations in the field of Internet technologies have had instant repercussions in the online business world. From a simple usage having a regional origin located in the United States of America, the phenomenon of electronic commerce has seen a rapid spread globally, according to the innovations related to Internet technologies. The projection of electronic commerce is in perfect accordance with the development stage of the real economy.

## Review of literature

Electronic commerce (e-commerce) is the buying and selling, marketing of products and services, and providing information via computer networks (O'Brien & maracas, 2006). Many companies are now engaged in or sponsor three basic categories of e-commerce applications, i.e., e-commerce business-to-consumer, business-to-business, and consumer-to-consumer (O'Brien, 2005).

Lee et al. (2011) conducted a study in Malaysia in 2010; the instrument used was questionnaire survey using seven Likert scale. Data collection method used was a snowball effect for 102 respondents. Through regression and correlation analysis, it was found that perceived value, perceived ease of use, perceived usefulness, firm's reputation, privacy, trust, reliability and functionality have a significant linear relationship to online repurchase intentions.

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**Delafrooz et al. (2011)** who conducted a study in Malaysia with 370 respondents obtained from a private university in Selangor by using path analysis found that the trust and consumer attitudes have the strongest direct effect on buying online intention. While the utilitarian orientation, convenience, price, broader product selection, and earnings have also strong indirect effect on online shopping intentions through attitudes toward online shopping as mediation.

**Kwek et al. (2010)** conducted a study of 242 respondents in Malaysia by using multiple regression analysis and found that impulse buying intentions, consumer orientation to quality, customer orientation to brands, online trust and online purchasing experience is positively related to prior purchase intention of online customers.

**Shergill & Chen (2005)** collected data by conducting surveys via e-mail randomly to 102 respondents in New Zealand. Then, using exploratory factor analysis and ANOVA found that the site design, site reliability, customer service sites, and site safety are the four dominant factors that influence consumer perceptions of online purchases.

#### **Objectives of the study:**

- To study the various factors that influences the shoppers to opt for online shopping.
- To examine the relationship among the variables those are within the factors by using exploratory factor analysis.

#### **Research methodology**

##### **Sample design:**

The researcher selected online shoppers in the cities of Rajahmundry, Vijayawada and Tirupati as a sample for the study. The online shoppers constitute universe for the study. The sample size is 1200 comprising 400 shoppers from each city. Simple random sampling method has been adopted for the study.

##### **Data collection:**

Both primary and secondary data has been collected for the purpose of the study. The survey method has been used to gather primary information for the study. The required data has been collected from the sample respondents with the structured questionnaire designed for the purpose. The secondary data has been collected through books, journals, magazines, internet, articles related for the study.

##### **Questionnaire:**

Based on the objective of the study, close ended questionnaire is prepared. Likert Scale method has been used, respondents have been asked to state their level of agreement or disagreement on 5 point scale where 5= strongly agree; 4= agree; 3= neutral; 2= disagree; 1= strongly disagree.

## Hypothesis

**H<sub>0</sub>:** There is no significant relationship among variables in factors

**H<sub>1</sub>:** There is a significant relationship among variables in factors

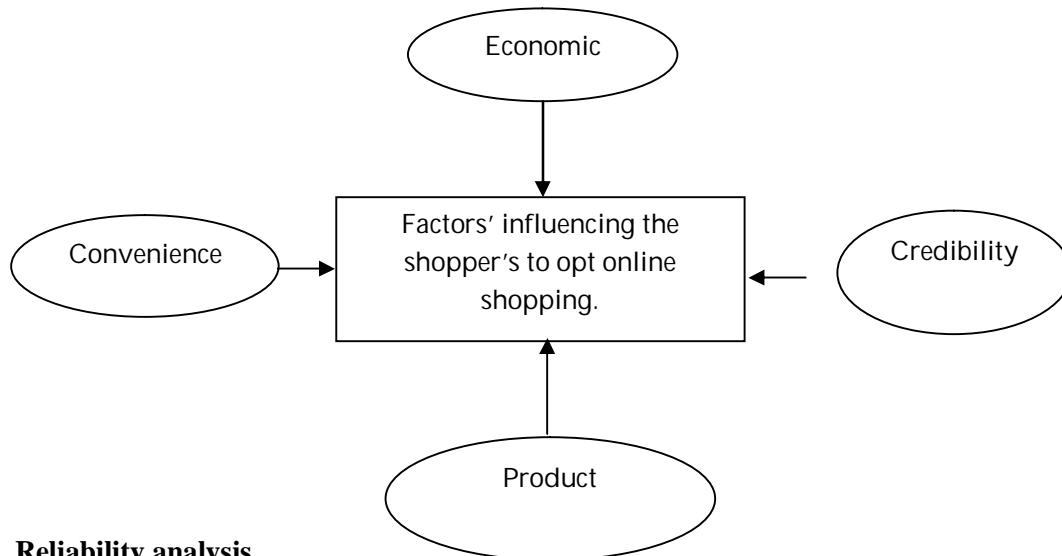
## Data Analysis

Exploratory factor analysis is used with the help of SPSS-22

## Results and discussion

The researcher has applied the exploratory factor analysis to study the various observed variables that influence the shoppers to opt for online shopping. There are 16 variables are considered for the study and 4 major factors was extracted from the study. The following figure-4.1 shows the 4 factors of the study.

**Figure 1**



## Reliability analysis

**Table 1 - Reliability Statistics**

Cronbach's Alpha	N of Items
.837	16

The first step in exploratory factor analysis is to check the reliability of the observed variables, the reliability of the data will be checked by using Cronbachs alpha. Table 1 shows the value of 0.837 as Cronbachs alpha for 16 variables. The cutoff point of cronbach alpha is 0.7, where 0.837 is very much greater than cut off rate, therefore all the sixteen variables are reliable to carry out with exploratory factor analysis.

**Testing of hypothesis****Table 2 - KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.825
Bartlett's Test of Sphericity	Approx. Chi-Square	30842.350
	df	120
	Sig.	.000

**Results**

KMO and Bartlett's Test is established in order to know the strength of the factor analysis solution and to test the hypothesis. The above table 2 gives the results that KMO measure of sampling adequacy is .825 which is greater than cut off rate 0.7, indicating that factor analysis could be used for the given set of data. Further, Bartlett's test of sphericity used to test the hypothesis, where the  $p$  value is 0.000, which is less than significant value 0.05, where there is no proper evidence to accept the null hypothesis; therefore there is a significant relationship among variables in factors.

**Table 3 – Factor loadings**

Sl. No	Dimensions	Variables	Factors Loadings
1.	Economic	• I shop online because of the cheaper price.	0.955
		• I can compare price in online shopping.	0.974
		• Discounts are high in online shopping.	0.962
		• Free delivery influences me to go for online shopping.	0.981
		• Competitive price availability compare to solid shops.	0.985
2.	Product	• To buy limited edition products I prefer online shopping.	0.915
		• I prefer online shopping due to wide products availability.	0.906
		• I prefer online shopping due to non availability of products in solid shops.	0.819
		• I prefer online shopping for sensitive products.	0.869
3	Convenience	• I prefer online shopping as I can do even during office time.	0.860
		• 24/7 convenience make me to prefer online shopping.	0.883
		• Easy return policy makes me to prefer online shopping.	0.855
		• I can sell or buy second hand goods through online.	0.804
4	Credibility	• While shopping online I can see the ratings and prefer products.	0.944
		• Online feedback from the existing users increases my trust to prefer online shopping.	0.939
		• Online rating is pre authentication to the quality assurance.	0.851

### **Inference:**

Table 3 presents factor matrix (component matrix). The result includes the correlation coefficient between the relevant factor score with the original standardized variables. The correlation coefficient between the factor score and the variables included in the study is called factor loadings which are presented in the above table. The factor loadings are used to compute Eigen values for each factor.

### **Factor 1: Economic factor**

The variables like, I shop online because of the cheaper price, I can compare price in online shopping, Discounts are high in online shopping, Free delivery influences me to go for online shopping, Competitive price availability compare to solid shops analysis, is having the higher factor loadings and grouped under one component. Hence all the observed variables are related to monetary benefits, the researcher named this factor as economic factor and it is observed that it is the major factor that influence the shoppers to opt online shopping.

### **Factor 2: Product**

The variables like, To buy limited edition products I prefer online shopping, I prefer online shopping due to wide products availability, I prefer online shopping due to non availability of products in solid shops, I prefer online shopping for sensitive products, all the above variables are related to tangible product based where grouped under one component, therefore researcher named the component as product factor. It is observed another major factor that influences the shoppers.

### **Factor 3: Convenience**

The variables like, I prefer online shopping as I can do even during office time, 24/7 convenience make me to prefer online shopping, Easy return policy makes me to prefer online shopping, I can sell or buy second hand goods through online. All the said variables are grouped under one component where they are highly correlated and all the variables are related to convenient of shoppers; therefore it was labeled as convenience factor. This is also a major factor that influences the shopper preference for online shopping.

### **Factor 4: Credibility**

Variables like, while shopping online I can see the ratings and prefer products, online feedback from the existing users increases my trust to prefer online shopping, online rating is pre authentication to the quality assurance, all the variables are grouped under one component where all the said variables are related to trust worthiness of the shoppers, therefore researcher labeled as a credibility factor, it is found that credibility also place an important role that influence the shoppers to opt for online shopping.

**Table 4 - Total Variance Explained**

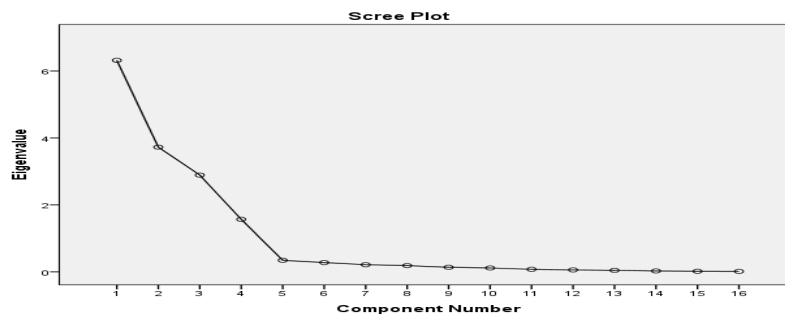
Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.319	39.491	39.491	6.319	39.491	39.491	5.053	31.583	31.583
2	3.725	23.282	62.773	3.725	23.282	62.773	3.387	21.171	52.755
3	2.890	18.061	80.834	2.890	18.061	80.834	3.304	20.649	73.404
4	1.567	9.794	90.628	1.567	9.794	90.628	2.756	17.224	90.628
5	.343	2.147	92.775						
6	.277	1.729	94.503						
7	.213	1.330	95.834						
8	.186	1.163	96.997						
9	.136	.848	97.845						
10	.116	.724	98.569						
11	.074	.463	99.032						
12	.058	.359	99.391						
13	.043	.272	99.663						
14	.026	.161	99.824						
15	.016	.098	99.922						
16	.013	.078	100.000						

Extraction Method: Principal Component Analysis.

Table 4 gives the output of total variance. The table explains the total variance contributed by each component. We can see that the percentage of total variance contributed by first component is 39.491, second component is 23.282, third component is 18.061 and fourth component is 9.784. From the above table it is also clear that there are total 4 distinct components for the given set of 16 observed variables.

### Scree Plot

The scree plot gives the number of components against the Eigen values and helps to determine the optimal number of components. The components having steep slope indicates that good percentage of total variance is explained by that component, hence the component is justified. The following scree plot, the first 4 components have steep slope that is they are greater than one and later the slope is shallow that is less than one. This indicates the ideal number of components is 4.

**Figure 2**

**Table 5 - Summary of results of factor analysis**

	Factors			
	Price	Product	Convenience	Credibility
• I shop online because of the cheaper price.	.944			
• I can compare price in online shopping.	.955			
• I prefer online shopping as I can do even during office time.			.873	
• To buy limited edition products I prefer online shopping.		.921		
• I prefer online shopping due to wide products availability.		.940		
• I prefer online shopping due to non availability of products in solid shops.		.858		
• Discounts are high in online shopping.	.948			
• While shopping online I can see the ratings and prefer products.				.932
• Online feedback from the existing users increases my trust to prefer online shopping.				.934
• Free delivery influences me to go for online shopping.	.954			
• 24/7 convenience make me to prefer online shopping.			.934	
• Competitive price availability in compare to solid shops.	.962			
• I prefer online shopping for sensitive products.		.880		
• Easy return policy makes me to prefer online shopping.			.896	
• Online rating is pre authentication to the quality assurance.				.883
• I can sell or buy second hand goods through online.			.893	

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

The above table 5 gives the summary of the results of the factor analysis. The items deleted indicate that they do not come under any of the component factors.



## Conclusion

From the above discussion it can be inferred that major four factors have huge impact on shoppers online purchase decision, it clearly observed that five variables are observed by economic factor, four variables are observed by product related factors, four other variables are observed by convenience factor and three variables are observed by credibility factor.

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## Changing Scenario of India's Business Environment: A Lesson To Bangladesh

S.K.S. Yadav<sup>1</sup>

**Abstract:** India is poised to become the world's fastest growing major economy in 2015, reports our 2015 India Attractiveness survey. Economic fundamentals stand strong, and global interest is on a steady upswing. The election of a pro-reform Government and its various initiatives - Make in India, Digital India and 100 Smart Cities - have added to increased optimism. India has emerged as the number one FDI destination in the world during the first half of 2015. With FDI capital inflows of US\$30.8b, India has outpaced all other economies, moving up to the premier position from being in the fifth spot during the corresponding period of the previous year. A leading 32% of the investors ranked India as the most attractive market this year, while 60% placed the country among the top three investment destinations. Manufacturing has regained its share in FDI capital flows in 2014, amounting to approximately 46%. Investors are most optimistic about the sector, with 62% of those interested to expand or enter India over the next year, saying that they plan manufacturing activities. Within six months of its announcement, 55% of our survey's respondents were aware of the Make in India program and 69% of those who are aware of the initiative are likely to invest in manufacturing in the next five years. Business leaders find India's macroeconomic and political stability, FDI policy and ease of doing business more attractive in 2015, compared with EY's 2014 India attractiveness survey. Investors see India speeding up pace toward becoming one of the world's top destinations for manufacturing, as well as a regional hub for operations. A number of recent government reforms are being well received by investors, who expect them to increase India's FDI attractiveness significantly. Bangladesh offers opportunities for investment under its liberalized Industrial Policy and export-oriented, private sector-led growth strategy. All but four sectors (i.e. arms and ammunition and other defence equipment and machinery, forest plantation and mechanized extraction within the bounds of reserved forests, production of nuclear energy, and security printing and mining) are open for private investment in Bangladesh. Therefore India has got opportunity to invest in Bangladesh.

**Keywords:** FDI, Make in India, Business Environment, Government Reforms, Bullet Train, Industrial Corridor, Economic Corridor.

### Introduction

By the end of 2016, India is set to emerge as the fastest-growing economy in the world, even ahead of China, as per a report by The World Bank. The GDP of the country is expected to grow at a rate of 7.5 per cent during the current year, prompting many prominent global companies to create a niche in this emerging market. Further, the

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Government is making several policy announcements and changes to facilitate ease of doing business in India.

The last decade has shown rapid development in the information technology and its application. This has helped changed the way we look at the world as well as the way business is conducted. Both business and trade have gained under the wave of information technology with improvement in efficiency, productivity and bottom line. Productivity improvement has facilitated speedy and accurate production in large volumes. Indian financial sector has also benefited from advancement in information technology.

Current global and competitive business environment constantly asks for innovation, existing knowledge base is getting obsolete, continuously thriving for advancement in process improvement. The learning curve is always put to test, and every company is striving to remain ahead of the curve. Due to this shift in the way business is getting conducted has thrown out new reality of ever shortening product and service life cycle. More and more companies are coming out with customized products and finding ways to differentiate from competition.

### **Business Process Outsourcing**

Business Process Outsourcing involves contracting one or many front end (customer related) or back end (finance, HR, accounting, etc.) activities within a company to a third party service provider. The number of jobs within BPO industry has increased exponentially in last decade. BPO is one of the new faces in business environment.

India has seen tremendous growth in BPO industry within function like customer care, finance/accounts, payroll, high end financial services, human-resource, etc.

### **Emerging Trends**

The recent explosion of information technology has seen few but significant emerging trends, for example, mobile platform for doing business, cloud computing, technology to handle a large volume of data, etc. These fresh technologies and platforms are offering numerous opportunities for companies to drive strategic business advantage and stay ahead of the competition. Companies need to work on new plans as to maintain flexibility and deliver customer satisfying products and services.

### **Changes took place in the Business Environment of India**

#### **Essentials of the 3Ds – Democracy, Demography and Demand**

Despite a diverse demography, India's democratic system has been integral for the progress in the country, helping bind its 65 per cent young population with the India growth story. With a population base of more than 1.25 billion, stable parliamentary system, technological advancement, and quality resources at competitive price, India has over the years emerged as a preferred investment destination for manufacturers and service providers alike. In the recent past, the Government has also been playing a crucial

role in highlighting the above advantages – the essential Ds – Democracy, Demography and Demand – in the global arena, inviting foreign companies to set shop in India.

### **Benefit of manufacturing in Make in India Campaign**

Taking the growth story forward, India is being projected as a manufacturing hub through the Make in India campaign, with the Government promising to provide a conducive environment for investors. Panels have been formed to help fast-track investment proposals, overcome bottlenecks that obstruct the efforts for investing in India and provide consistent efforts in creating investor-friendly environment. It is expected that the manufacturing sector in the country could reach USD 1 trillion by 2025, with the sector accounting for around 25 per cent of the GDP and creating 90 million domestic jobs by that period.

### **Easy to set business operation**

Setting up operations in India is now becoming far more flexible, thanks to the policy changes initiated by the Government. With most of the information and submission options available online, India is providing easier and flexible programs for investors ready to ship their operations in the country. One of the myths, that one needs an Indian partner to root themselves in India, is a fallacy of the past, as major companies are now setting up their hubs in the country on their own.

### **Easy Industrial Policy Guidelines**

The Department of Industrial Policy and Promotion (DIPP) has been focused at improving policies and guidelines for doing business in India. The emphasis has been mainly to rationalise and simplify the existing rules, along with introducing technology for making governance more effective and efficient. A prominent change had been online availability of applying for Industrial License and Industrial Entrepreneur Memorandum 24\*7.

### **Breaking red tapism / corrupt Practices**

The Government has progressed on environmental clearances for more than 300 projects and has made sure that it would be red carpet in India rather than red tapism. Also committed to fast-track reform process, Government has been able to take ordinance route for increasing foreign investment limit in various sectors such as insurance.

### **Developing Smart cities and industrial corridors**

Being an emerging economy, major emphasis is given on developing infrastructure in the country. With the Government announcing an outlay of around USD 8 billion for creating 100 smart cities, many international companies may express interest to collaborate with Indian companies and the Government to build infrastructure, transportation, renewable energy and other Greenfield projects in the country. With regards to industrial corridors, Delhi Mumbai Industrial Corridor, Ahmedabad-Dholera Special Investment Region,

Chennai Bangalore Industrial Corridor, Bengaluru-Mumbai Economic Corridor and Vizag-Chennai Industrial Corridor are now showing great progress.

### **Offering strategic locations for doing business in India**

Along with the major industrial cities and towns, India is rapidly developing various strategic locations for companies to establish their base in the country. With the availability of multiple clusters for centres of excellence for manufacturing, engineering & design, and skilled talent at competitive cost, India is at an advantageous position for establishing manufacturing facilities, engineering design and development centres as well as for sourcing from the country. Further, the country is emerging as one of the best global locations for talent arbitrage, as foreign companies are hiring Indians for top leadership positions for their global operations.

### **India's Vision To Run Bullet Train**

Railway Minister Sadananda Gowda, while presenting the railway budget last year, had opined that every Indian has a dream that the bullet train would be launched in the country at the earliest. Stating that the Indian Railways is on the right path to fulfil that dream, he proposed India's first bullet train to run from Ahmedabad-Mumbai. The proposal envisaged by the minister is set to cost around USD 9.17 billion or INR 60,000 crore per train. And since then, the Government has been engaged with investors for raising funds as a part of alternative sourcing for the project.

With that, a lot of feasibility studies were conducted by the Government to understand the economics of running the train between the two cities as mentioned above. As of the current status, the fastest train to run between cities is Shatabdi Express. It has been estimated by the analysts that these high-speed bullet trains would run at a speed of 320 km per hour – maximum speed.

In the budget, the minister had also said that other routes proposed for the bullet train include Delhi-Agra, Mysore-Bangalore-Chennai, Delhi-Chandigarh, Hyderabad-Secunderabad and Mumbai-Goa.

Launching the bullet train in India had been a key campaign for Narendra Modi. He had also announced diamond quadrilateral for bullet trains which would connect the major metros in the countries – Delhi, Mumbai, Chennai and Kolkata. The speed of the trains would be around 160km-200km per hour. This was as per the announcement made by the railway minister.

With this, India has seen a lot of investment interest from countries such as China, Japan, Korea, France, Germany as well as Spain.

### **Japan runs ahead**

Companies from Japan have become too keen to collaborate with the Indian counterparts on these rail projects. This is under the 'Make In India' initiative launched by the Prime Minister of India. Japan has been able to finance the first bullet train in India. The

estimated cost of the project is around USD 15 billion, given at an interest rate of less than 1 per cent.

Japan has been able to offer 80 per cent of the project cost for Mumbai-Ahmedabad route. This is under the condition that India is able to buy nearly 30 per cent of the equipments which also includes coaches as well as locomotives from Japanese firms. The Cabinet in India would be taking a decision on this soon.

JICA – Japan International Cooperation Agency – has given a report to the Railway Ministry and has said that the time taken for travelling 505-km long corridor between two cities would reduce to two hours from the present seven hours or more. And this bullet train would run at a speed of approximately 300-350 km/hour.

The agency was able to conduct the feasibility survey and had revealed that travelling time between Ahmedabad and Mumbai would come down drastically from the seven hours. This route would require 11 new tunnels and one undersea near Mumbai.

### **China is not far behind**

In the recent past, even China was able to secure a contract for assessing high-speed train from Delhi to Mumbai. The distance of 1,200-km route would be double the cost for Ahmedabad-Delhi route. No companies or countries have given their offer as yet.

Subsidiary of China Railway Corporation – Third Railway Survey and Design Institute Group Corporation – would be working with Indian firms and dispatching experts for initiating study for this route.

India has also been able to invite global tenders for three high-speed rails which includes New Delhi-Mumbai sector. This has attracted 12 consortiums to show interest from seven countries looking for the contracts.

And along with this, China has been conducting feasibility study for the section between New Delhi-Chennai.

### **France signing pact**

The Government of France would be signing a pact with the Indian Government in November for developing semi-high speed train track from Delhi to Chandigarh. This project would be completed within the period of five years. After the corridor comes to place, the distance between the two cities would be cut to two hours.

Representatives from the Government had visited the city railway station and were able to collect data from the platforms. The data included passenger footfall as well as the services being offered at the stations. This was done to understand the estimated cost as well as time span by which this project could be completed.

### **Germany looking for high speed train contract with India**

A delegation from Germany has recently come to India, and there had been a deal for German initiative on high-speed rail. This would help in getting collaboration on various fronts, including technology, financing, training and operation.

Also, high-speed trains were one of the top priorities of India during German chancellor Angela Merkel's visit to the country in October 2015.

### **Spain in the fray to get high speed train project**

Spain would be undertaking a feasibility study as well. It would be able to find the cost and project timeline for running high-speed trains on the high demand sector of Delhi-Kolkata. Spain company, Ineco would be undertaking this exercise for the route. And, this would be a part of the Diamond Quadrilateral project. Railways in the year 2012, had signed a MoU with Spain for cooperating in building high-speed rail.

On the other hand, Talgo – which is also a Spain based company – plans to launch its lighter as well as faster trains in the country. In principal, the company has already got consent. And, if everything goes in accordance to the plan, fast train sets might be imported inside the country by the end of the current year. Tango which is a manufacturer of intercity passenger trains – that runs on high-speed, was able to suggest that they would be using legacy network for Railways in India for providing connectivity at a faster pace.

### **Future to come on fast track**

Transport industry in India is looking bright with the announcement of launching high-speed trains. And if they are introduced, it would give a tough competition to domestic airline companies, as in the countries like Italy.

But, a lot of investments might be needed for making this a reality. With new tracks to be laid down, advanced automatic signalling systems to be introduced for seeking higher success for high-speed trains, the Government has been inviting tenders for foreign participation.

With the introduction of high-speed trains in India, the railways industry in the country is poised to provide many investment opportunities to foreign companies – in infrastructure, rail components and railways, technology transfer and other areas.

### **India-UK Bilateral Trade Opens Investment Opportunity**

Prime Minister Narendra Modi in his recent visit to the UK agreed with his counterpart David Cameron for continuing to work together for creating sustainable, strong, as well as balanced growth, by further improving investments and bilateral trade. India over the period of time has been able to invest more in Britain in comparison to the combined investment made in European Union. And, for India, Britain has been the largest G20 investor. For ease of doing business, Modi was able to define some key developments with the UK. The two countries were able to talk on various issues and topic for promoting higher investments.

Some key industries to benefit from Modi's visit to the UK are as under:

#### **Information Technology**

India and UK were able to underline the importance of IT and digital industries. The Prime Ministers agreed on the progress made on 2015 India-UK Cyber Dialogue. Both the countries propagated inclusive, open, transparent and multi-stakeholder system on

Internet governance. Agreeing to working together for promoting cyber security, advance voluntary norms and curbing cyber crimes, both the countries now want to promote responsible state behaviour. Both the countries have also agreed to promote public-private partnerships for supporting every aspects of cyber security.

As per Gartner Inc., with Indian Government increasing its spending on the sector – information technology – specifically on services and products by around 5.2 per cent and would touch USD 6.88 billion by this year, it would create higher avenues for digitally-connecting the country. It would also give immense opportunity for people to connect with the Government through the use of mobile devices.

### **Infrastructure Sector**

Prime Minister Narendra Modi and David Cameroon have opined that London would play a pivotal role in channelling investments in India focusing on infrastructure and railways.

They agreed on a new MoU for Technical Cooperation in railways, this would boost business opportunities in India in the sector. They also agreed that institutions in the both the countries would be encouraged to develop infrastructure financing, deepening research and development as well as on sharing knowledge. P.M. N. Modi also announced that Indian Government was intending to launch the Government backed rupee bond in London for funding the developing railway infrastructure.

Both the prime ministers were also able to recognise the importance of infrastructure for sustainable development. In the view of this, they launched Low Income State Infrastructure Equity Partnership which is being co-invested by the UK Department of International Development and SBI – State Bank of India. This would provide equity partnerships for infrastructural development of smaller size. Sectors that would get benefitted would be water and sanitation, urban infrastructure and others.

### **Financial services Sector**

With the announcements made by Bharti Airtel, HDFC, State Bank of India as well as Yes Bank for raising funds through the City of London, it also opens up a lot of opportunity for other Indian private sector players to raise capital from the UK.

Cameron and Modi were happy with the collaboration that was witnessed in the financial domain for helping key business and creating new Financial Services course that was sponsored by Standard Chartered. This course has been instituted for mid-career professionals who want to study in Britain. In terms of policy making, both the prime ministers also agreed to launch exchange programme – for the first time – with the economic services for supporting in the making of economic policy.

### **Defense Sector**

The UK and India announced deals close to GBP 9 billion, along with signing the civil nuclear pact. They have also decided to collaborate in the sectors such as cyber security and defence. The UK would now become a strong partner with India for plans regarding modernization, which includes ‘Make in India’ initiative, particularly in the defence sector.



### **Energy Sector and Climate Change**

Britain and India agreed on a comprehensive package for collaborating on climate change and energy sector. Commercials worth of GBP 3.2 billion has been agreed upon. Joint research programs as well as sharing scientific, technical, and financial expertise have been envisaged in the future.

In this package, Britain was able to announce joint venture for UK Climate Investments with Green Investment Bank. They would invest up to GBP 200 million in energy efficiency and renewable energy in Africa and India.

### **Automotive Sector**

The leaders expressed their thoughts on promoting innovation leading to growth in the Indian automotive sector. They also agreed on exchanging and collaborating technical knowledge in the field of research and development, testing systems for automobiles in India. Both the countries agreed to share expertise for developing knowledge as well as experience. They plan to achieve this by signing a MoU between the departments as well as agencies under Indian Government and the UK.

### **Investment Commitments**

- Vodafone announced GBP 1.3-billion investment package for India. GBP 800 million of the total money has been allocated for upgrading and expanding network coverage; GBP 300 million would be invested in centres that are located in Ahmedabad and Pune, thus, creating 6,000 more jobs. GBP 100 million would be invested for creating Tier-4 data centre for providing communication services for businesses.
- King's College Hospital NHS Foundation Trust and India-UK Healthcare Pvt Ltd would open King's College Hospital in Chandigarh.
- Genus ABS would be investing nearly GBP 1 million in India. They would be providing latest dairy genetics as well as opening facility near Pune.
- Lightsource – the Solar PV generator in Europe, would be investing GBP 2 billion in India.
- CloudBuy – cloud platform provider for E-commerce business – signed a contract with CII for creating a marketplace for online business-to-business.
- Holland & Barrett International partnered with Apollo Hospitals for opening 1,000 outlets in the country in the next five years.
- Standard Life, Bupa as well as Aviva committed for investing a total of GBP 238 million in FDI in the Indian joint ventures.
- London Stock Exchange Group and Yes Bank signed MoU for fostering development in the issuance of bond and equity. This is basically focused around Green Infrastructure Finance.
- OPG Power Ventures plc would invest GBP 2.9 billion.

- Kloudpad Mobility Research would invest GBP 100 million in the country. They would be manufacturing smart watches, tablets and wearables in South India.

While, deals worth GBP 9 billion were signed between India and the UK, the number is expected to get on a much higher side with India opening its door and easing policies for the UK investors and companies to set shop in the country.

### **The Changes in the Automotive Safety Sector**

The automotive sector is looking to generate nearly USD 300 billion in terms of annual revenue by the year 2026, increasing its share to more than 12 per cent to the gross domestic product (GDP) of the country. Together with this, it would be able to create over 65 million jobs, as per the Automotive Mission Plan 2016-26. As per the Mission Plan document, India's automotive industry is projected to touch over 70 million units in a year by 2026, helping the country get into the league of the US and China. It would also be one of the driving forces for 'Make in India' initiative taken up by the government in the country.

However, along with the growth in the Indian automotive industry, demand for better safety measures has also seen a remarkable increase over the last few years in the country. In fact, consumers in India and ASEAN countries are also looking at safety innovation as purchasing criteria, found a survey by a leading consulting firm, which saw an increase from 42 per cent in 2013 to 74 per cent in 2015.

A roadmap is being planned by Government of India in the next decade which would lead to vehicles and auto components manufacturers, to comply along-side the global standards for safety. This would be in accordance to World Forum for Harmonization of Vehicle Regulations.

In the draft Road Transport and Safety Bill, the Government has proposed setting up Bharat New Vehicle Safety Assessment Programme – BNVSAP. Under this program, cars would be tested for safety for front-on and side-on crash tests. Additionally, cars which are being sold in the country currently would also have to adhere to the basic global safety measures. Along with other safety measures, cars would have to be equipped with seat-belt alerts, child lock and anti-lock braking system – these are now going to be compulsory.

Apparently, cars would also get star rating which would be in sync with the safety norms. The Government is setting up an administrative body under BNVSAP that would have the authority to choose new vehicle models for assessing them on the compliance issues. The star rating is going to be mandatory for any new models which would be launched in India. With that, voluntary star rating for old and new models would be also undertaken/allowed.

By the year 2017, India would get approximately seven centres for carrying out all safety tests. This also includes side crash test.

- In all the future models, air bags would be mandatory. The vehicles would have to pass through crash test and air bags would be an important component for the new vehicles going forward.

- Mandatory use of anti-lock braking system (ABS) and speed limiters on all the commercial vehicles sold in the country, to be in effect from October 1, 2015.
- Automatic headlamps would be required in all two wheelers – which are similar to Daytime Running Lights as in the cars – from April 2017.
- The Road Safety Bill, that is pending now, will allow the Government at directing the manufacturer for recalling vehicles that might have any defect, which might cause harm to the driver or to the passenger or any other motorist on the road.
- Crash test norms would be made stringent going forward and would be mandatory for all the new cars from October 2017. Minimum safety norms – which are new – would also include frontal as well as side crash tests and would be applicable to all the cars. This would also include entry level cars that are low-cost and small. According to the new order, cars would now be tested for frontal crash norms at 56 kmph and for the side crash test, it would be at 50 kmph.

### **Easy Emission Norms**

SIAM – Society of Indian Automobile Manufacturers – called for the Government to initiate single set of emission norms for the country. This would help simplifying operations for car manufacturers who would then have the opportunity to sell the same car across majority of states in India.

Uniform norms would definitely help the manufacturers in conducting their business in a seamless manner going forward.

Almost all the manufacturers in the country – selling vehicles in cities – follow Bharat Stage IV norms which is equivalent to Euro IV controls. While in the smaller cities, they follow Bharat Stage III norms. The Government has announced in the earlier part of this year that by April 1, 2017 cars that would be sold in the cities should meet Bharat Stage IV norms.

Industry analysts opine that the Government might be looking at adopting strict BS-VI norm, which is equivalent to Euro-VI, and this would place the country India at par with global economies of the world.

Some of the industry experts also state that if the Government is planning to skip BS-V and move towards BS-VI norms directly, it would be an increase in just three years time slot. But, this would definitely increase the price of the commodity in the market that might not be a recommended effort.

With this, refineries in India have now agreed that they would be to provide BS-V compliant fuel by the year 2019. The Government might now be looking at announcing the volumes and predicting the quantity the refineries would be providing for BS-V compliant fuel.

Additionally, Ministry of Transport is also focusing on adopting bio-diesel as well as ethanol as an alternative fuel. This would definitely help in curtailing cost and help in reducing oil import bill.

### **Business Opportunities: Airbag Sector**

Companies that are largest airbag suppliers such as Autoliv Inc, TRW Automotive Inc, Takata Corp, and Toyoda Gosei Co are now planning to set up plants in India. They are looking at increasing their capacity in the country, as the nation is able to provide USD 2 billion opportunity due to stringent rules for improving road safety in India. These changes would also create opportunities for safety equipment manufacturers as cars that do not have airbags would only get lowest safety ratings after passing through the test.

It has been predicted that by the year 2020, the overall revenues from the sale of airbags from the country would rise by 11 per cent in a year and would touch USD 2 billion, which would be higher than China's growth figure in the segment at 9 per cent, as per Transparency Market Research.

Some companies expanding in this segment are:

- Rane TRW Steering Systems Ltd – Air bag maker – had opened a new assembly plant in the month of August in the southern part of the country with a capacity for making nearly 500,000 units per year. They invested around USD 2.7 million.
- Toyoda Gosei Minda India, which is a joint venture between Uno Minda and the Japanese company, is now planning to increase the capacity by six times to touch 150,000 air bags in the next two to three years.

In addition, India would be third largest market for cars by the year 2020. Car sales were high in the month of September – higher by 9.5per cent – with new vehicle launch and the economy now getting into a recovery path. Sales of vehicle are expected to grow by nearly 6-8 per cent by the financial year March 2016.

### **The Profile of Bangladesh**

Bangladesh is one of the world's most densely populated countries, with its people crammed into a delta of rivers that empties into the Bay of Bengal. Poverty is deep and widespread, but Bangladesh has in recent years reduced population growth and improved health and education. Formerly East Pakistan, Bangladesh came into being only in 1971, when the two parts of Pakistan split after a bitter war which drew in neighbouring India. Bangladesh spent 15 years under military rule and, although democracy was restored in 1990, the political scene remains volatile. Islamist extremism has been rising in the usually tolerant country. The low-lying country is vulnerable to flooding and cyclones, and stands to be badly affected by any rises in sea levels.

Some economists see it as one of the "Next Eleven" tier of developing countries with potential for serious foreign-investment-led growth.

The major employer is agriculture, but it is unable to meet the demand for jobs. So, many Bangladeshis - in common with citizens from other countries in the region - seek work abroad, sometimes illegally.

The country is trying to diversify its economy, with industrial development a priority. Overseas investors have pumped money into manufacturing and the energy sector. The collapse of a garment factory in 2013 with the loss of more than 1,000 lives brought workers out onto the streets to demand better conditions.

Onshore and offshore gas reserves could provide a chance for future prosperity. There has been a debate about whether the reserves should be kept for domestic use or exported. International companies are involved in the gas sector.

### **Bangladesh Business Opportunities To India**

Bangladesh is not only India's neighbour, but also offers huge business and investment opportunities for Indian businesses.

However, investment opportunities for Indian industrialists in Bangladesh had not been explored in depth so far.

The Confederation of Indian Industry (CII) took the initiative to correct this disparity when it organised the first ever 'India-Bangladesh Investor's' Meet' in the country.

Kris Gopalakrishnan, President, Confederation Of Indian Industry (CII) and Co-Founder and Executive Vice Chairman, Infosys Limited, highlighted the positive points in the bilateral talks between the two countries when he said, "The interesting feature in bilateral economic engagement between India and Bangladesh is that despite common economic advantages, our two nations have evolved in different industry sectors. While garments and agricultural products are exported from Bangladesh, Indian exports include automobiles and pharmaceuticals. We feel that Indian investment in Bangladesh with the possibilities of re-export to India would help in diversifying the exports of Bangladesh and thereby reduce the trade gap between India and Bangladesh."

He put forth what was on offer: "This meet offers Investment opportunities in the Joint Venture mode in 23 projects with a net value of USD 186.5 million. The 13 important sectors for the Joint venture partnerships include Agro Processing, Automobiles, Ceramics, Chemicals, Gems and Jewellery, Light Engineering, ICT, Hospital and Medical Equipment, Pharmaceuticals, Plastics, Professional Services, Tourism, Textiles (including home textile) etc to attract foreign investments in the country. "

He highlighted that India has offered Bangladesh the facility of zero-duty exports under the Least Developed Country initiative. He urged the Indian companies to take advantage of this facility to export to India and other countries.

Adi Godrej, Past President Confederation of Indian Industry and Chairman, Godrej Group said, "Bangladesh is a winning combination of competitive market, business - friendly environment and competitive cost structure. The Risk factors for FDI are minimum and the country has consistently grown at 6% GDP over the years. Bangladesh offers a well educated, highly adaptive and industrious workforce with the lowest labour cost in the Region. It offers the most liberal FDI regime in South Asia allowing 100% foreign equity ownership with unrestricted exit policy, remittance of royalty and repatriation of equity and dividend. In addition to this, Bangladesh enjoys duty free access to India, European Union, Canada and Japan and is an attractive destination for

potential exporters. India and Bangladesh have signed the Bilateral Investment Promotion and Protection Agreement and Avoidance of Double Taxation Agreement. This encourages us to explore the opportunities in Bangladesh."

He informed the gathering that a large number of Indian firms from both public and private sector have been working on different turnkey projects in Bangladesh. The sectors include power, transmission lines, telecom, textiles, chemicals and pharmaceutical, glass, plastics and engineering.

He added, "During my interactions in Dhaka, I felt that the Government of Bangladesh facilitates and provides all the support to the potential investors from India with the facilities for land allocation, gas / power/ electricity connection, working capital, and fast track documentation including visa facilitation. We are happy to note that with this encouragement, there are 270 direct and joint venture proposals from India constituting US \$2.5 billion that have been registered with Board of Investment till December 2012. The major sectors of Indian interest include Agro- Based, Textile, Chemical industries, Engineering and Service Industries which in turn have created 51,653 jobs in Bangladesh. Yet I strongly believe that at USD 2.5 billion, the Indian Investment into Bangladesh is far below the actual potential."

Dr. Syed Abdus Samad, Executive Chairman, Board Of Investment Bangladesh Govt of Bangladesh, said, "India could do lot more in Bangladesh given how complementary the two countries are in the economic, cultural, historical and political spheres. It is hence disappointing that we do so little in trade and investment. It can multiply manifold if mental and physical barriers can be removed between the two countries."

He added that, "Matching inputs can be mobilized in joint ventures. If India has capital, Bangladesh has labour. India has technology and our people find it easier to do business with Indians. It is but natural that we would like more Indian investment and would like to export more to India."

Matlub Ahmad, President, India-Bangladesh Chamber Of Commerce and Industry (IBCCI), highlighted, "We need Indian industry to look at huge opportunities just across the border. Bangladesh has one of the best mix for low cost production base like a competitively priced and hard working labour force, excellent financial and infrastructure support, sufficient land water and power, friendly and forward business people and an extremely FDI friendly prime minister."

Chandrajit Banerjee, Director General, Confederation of Indian Industry (CII) said, "Our geostrategic location offers much potential for partnership as we are close to the vibrant and rapidly growing economies of East and South East Asia. Further, India's North East is a Region of vast natural resources and human talent. Leveraging the opportunities in the North East in infrastructure and industry as well as services makes eminent sense for Bangladesh. In the context of global economic and trade slowdown, it is necessary for neighbors like India and Bangladesh to tap their inherent advantages for cooperation."

Mohammad Habibur Rahman Khan, Minister (Commercial), High Commission Of Peoples Republic Of Bangladesh informed the gathering that a lot of steps have been taken to reduce the huge trade imbalances between the two countries that include

decreasing visa norms for business people and opening a deputy high commission in Mumbai.

### **Lesson To Bangladesh From India**

Bangladesh must take Lesson from India in the following field since lot of work is going on :

- Infrastructural Development viz., good roads, schools, colleges, medical infrastructure, industrial estates etc;
- Education Expansion among girls;
- Medical Facilities to common people;
- Business Relations with Advanced countries;
- Control on corruption at all level;
- Implementation of Economic Reforms;
- Women Empowerment: to take contribution in industry, film, TV, business, farming, education, piloting aircraft, NGO, Panchayat, etc;
- Power & Energy specially solar energy;
- Focus on Research & Developments, Technological Development, Skill Development, etc.
- Programme like Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA)

In South Asia itself, the much poorer economy of Bangladesh has caught up with and overtaken India in terms of many social indicators (including life expectancy, immunization of children, infant mortality, child undernourishment and girls' schooling). Even Nepal has been catching up, to the extent that it now has many social indicators similar to India's, in spite of its per capita GDP being just about one third. Whereas twenty years ago India generally had the second-best social indicators among the six South Asian countries (India, Pakistan, Bangladesh, Sri Lanka, Nepal and Bhutan), it now looks second worst (ahead only of problem-ridden Pakistan). India has been climbing up the ladder of per capita income while slipping down the slope of social indicators.

Given the objectives of development and equity that India championed as it fought for independence, there is surely a huge failure here. It is not only that the new income generated by economic growth has been very unequally shared, but also that the resources newly created have not been utilized adequately to relieve the gigantic social deprivations of the underdogs of society. Democratic pressures have gone in other directions rather than rectifying the major injustices that characterize contemporary India. There is work to be done both in making good use of the fruits of economic growth to enhance the living conditions of the people and in reducing the massive inequalities that characterize India's economy and society. Maintaining-and if possible increasing-the pace of economic growth will have to be only one part of a larger-much larger-commitment.

India's record of rapid economic growth in recent decades, particularly in the last ten years or so, has tended to cause some understandable excitement. The living standards of the 'middle classes' (which tends to mean the top 20 per cent or so of the population by

income) have improved well beyond what was expected-or could be anticipated-in the previous decades. But the story is more complex for many others such as the rickshaw puller, domestic worker or brick-kiln labourer. For them, and other underprivileged groups, the reform period has not been so exciting. It is not that their lives have not improved at all, but the pace of change has been excruciatingly slow and has barely altered their abysmal living conditions.

To illustrate, according to National Sample Survey data average per capita expenditure in rural areas rose at the exceedingly low rate of about 1 per cent per year between 1993-4 and 2009-10, and even in urban areas, average per capita expenditure grew at only 2 per cent per year in this period. The corresponding growth rates of per capita expenditure for poor households in both areas would have been even lower, since there was growing inequality of per capita expenditures in that period. Similarly, there has been a major slowdown in the growth of real agricultural wages in the post-reform period: from about 5 per cent per year in the 1980s to 2 per cent or so in the 1990s and virtually zero in the early 2000s. It is only after 2006, when the National Rural Employment Guarantee Act (NREGA) came into force, that the growth of real agricultural wages picked up again, especially for women.

The growth of real wages in other parts of the economy has also been relatively slow, especially for casual or (so-called) 'unskilled' workers. The contrast with China in this respect is really striking. According to comparable international data from the International Labour Organization, real wages in manufacturing in China grew at an astonishing 12 per cent per year or so in the first decade of this century, compared with about 2.5 per cent per year in India. There is some possibility of exaggeration in the official Chinese figures, but many independent studies corroborate the fact that real wages in China have been rising rapidly over the last twenty or thirty years. In India, by contrast the growth rate of real wages has been much lower than that of per capita GDP over the same period. Consistently with this, there has been a steep decline in the share of wages in value added.

These facts may surprise some of those who are used to looking at official poverty estimates to assess how poor people are doing. For instance, according to the Planning Commission, the 'head-count ratio' of rural poverty (the proportion of the rural population below the poverty line) declined from about 50 per cent in 1993-4 to 34 per cent in 2009-10. This looks like a big improvement. How does it square with the fact that the growth of real per capita expenditure has been so low? The clue lies in the so-called 'density effect': the fact that many people are just a little below the official poverty line, so that a small increase in per capita expenditure is enough to 'lift' them above the line. And the density effect, in turn, reflects the fact that the official poverty line is abysmally low.

The comparison between Bangladesh and India is a good place to start. During the last twenty years or so, India has grown much richer than Bangladesh: India's per capita income, already 60 per cent higher than Bangladesh's in 1990, was estimated to be about double that of Bangladesh by 2011. However, during the same period, Bangladesh has overtaken India in terms of a wide range of basic social indicators, including life



expectancy, child survival, enhanced immunization rates, reduced fertility rates, and even some (not all) schooling indicators. For instance, life expectancy was more or less the same in both countries in 1990, but was estimated to be four years higher in Bangladesh than in India by 2010 (69 and 65 years respectively). Similarly, child mortality, a tragic indicator, was estimated to be about 20 per cent higher in Bangladesh than in India in 1990, but has fallen rapidly in Bangladesh to now being 25 per cent lower than in India by 2011. Most social indicators now look better in Bangladesh than in India, despite Bangladesh having less than half of India's per capita income.

### **Obstacles to India's Business Environment**

- **Government policy and procedures:** Government policy and procedures in India are among the most complex, confusing and cumbersome in the world. Even after the much publicised liberalisation, they do not present a very conducive situation. One prerequisite for success in globalisation is swift and efficient action. Government policy and the bureaucratic culture in India in this respect are not that encouraging.  
However, fast changes are being done by the present government hence the policy and procedures are being simplified and relaxed.
- **High Cost:** High cost of many vital inputs and other factors like raw materials and intermediates, power, finance infrastructural facilities like port etc., tend to reduce the international competitiveness of the Indian Business.
- **Poor Infrastructure:** Infrastructure in India is generally inadequate and inefficient and therefore very costly. This is a serious problem affecting the growth as well as competitiveness. The present Government is trying its level best to improve infrastructure through smart cities concept.
- **Obsolescence:** The technology employed, mode and style of operations etc., are, in general, obsolete and these seriously affect the competitiveness.
- **Resistance to Change:** There are several socio-political factors which resist change and this comes in the way of modernisation, rationalisation and efficiency improvement. Technological modernisation is resisted due to fear of unemployment. The extent of excess labour employed by the Indian industry is alarming. Because of this labour productivity is very low and this in some cases more than offsets the advantages of cheap labour.
- **Poor Quality Image:** Due to various reasons, the quality of many India products is poor. Even when the quality is good, the poor quality image India has becomes a handicap.
- **Supply Problems:** Due to various reasons like low production capacity, shortages of raw materials and infrastructures like power and port facilities, Indian companies in many instances are not able to accept large orders or to keep up delivery schedules.
- **Small Size:** Because of the small size and the low level of resources, in many cases Indian firms are not able to compete with the giants of other countries. Even the largest of the Indian companies are small compared to the multinational giants.

- **Lack of Experience:** The general lack of experience in managing international business is another important problem.
- **Limited R&D and Marketing Research:** Marketing Research and R&D in other areas are vital inputs of development of international business. However, these are poor in Indian Business. Expenditure on R&D in India is less than one per cent of GNP while it is two to three per cent in most of the developed countries.
- **Growing Competition:** The competition is growing not only from the firms in the developed countries but also from the developing country firms. Indeed, the growing competition from the developing country firms is a serious challenge to India's international business.
- **Trade Barriers:** Although the tariff barriers to trade have been progressively reduced thanks to the GATT/WTO, the non-tariff barriers have been increasing, particularly in the developed countries. Further, the trading blocs like the NAFTA, EC etc., could also adversely affect India's business.

#### **Factors Favouring India's Business Environment**

- **Human Resources:** Apart from the low cost of labour, there are several other aspects of human resources to India's favour. India has one of the largest pool of scientific and technical manpower. The number of management graduates is also surging. It is widely recognised that given the right environment, Indian scientists and technical personnel can do excellently. Similarly, although the labour productivity in India is generally low, given the right environment it will be good. While several countries are facing labour shortage and may face diminishing labour supply, India presents the opposite picture. Cheap labour has particular attraction for several industries.
- **Wide Base:** India has a very broad resource and industrial base which can support a variety of business.
- **Growing Entrepreneurship:** Many of the established industries are planning to go international in a big way. Added to this is the considerable growth of new and dynamic entrepreneurs who could make a significant contribution to the globalisation of Indian business.
- **Growing Domestic Market:** The growing domestic market enables the Indian companies to consolidate their position and to gain more strength to make foray into the foreign market or to expand their foreign business.
- **Niche Markets:** There are many marketing opportunities abroad present in the form of market niches.
- **Expanding Markets:** The growing population and disposable income and the resultant expanding internal market provide enormous business opportunities.
- **Transnationalisation of World Economy:** Transnationalisation of the world economy. i.e., the integration of the national economies into a single world economy as evinced by the growing interdependence and globalisation of markets is an external factor encouraging globalisation of India Business.
- **NRIs:** The large number of non-resident Indians who are resourceful – in terms of capital, skill, experience, exposure, ideas etc. – is an asset which can contribute to the

globalisation of Indian Business. The contribution of the overseas Chinese to the recent impressive industrial development of China may be noted here.

- **Economic Liberalisation:** The economic liberalisation in India is an encouraging factor of globalisation. The delicensing of industries, removal of restrictions on growth, opening up of industries earlier reserved for the public sector, import liberalisations, liberalisation of policy towards foreign capital and technology etc., could encourage globalisation of Indian Business.
- **Competition:** The growing competition, both from within the country and abroad, provokes many Indian companies to look to foreign markets seriously to improve their competitive position and to increase the business.

### Conclusion and Implications

The present Government at the centre is committed towards increasing road safety and is looking at an 'accident-free India'. As India now accounts for one of the highest numbers of road accidents in the world – wherein, 0.5 million road accidents in a year are recorded with 0.15 million fatalities, the Government is pledging to reduce road accidents by at least half of the current figures .

In order to make Indian roads safer, the Government will implement stringent regulations over the next few years, making them in line with global standards practiced worldwide. For automobile companies planning to expand their footprints or making a market entry in India, it is imperative to keep a close watch on the changing regulatory environment with regards to automotive sector in the country. India could do lot more in Bangladesh given how complementary the two countries are in the economic, cultural, historical and political spheres. It is hence disappointing that we do so little in trade and investment. It can multiply manifold if mental and physical barriers can be removed between the two countries.

Matching inputs can be mobilized in joint ventures. If India has capital, Bangladesh has labour. India has technology and our people find it easier to do business with Indians. It is but natural that we would like more Indian investment and would like to export more to India.

Bangladesh needs Indian industry to look at huge opportunities just across the border. Bangladesh has one of the best mix for low cost production base like a competitively priced and hard working labour force, excellent financial and infrastructure support, sufficient land water and power, friendly and forward business people and an extremely FDI friendly prime minister.

Bangladesh geostrategic location offers much potential for partnership as we are close to the vibrant and rapidly growing economies of East and South East Asia. Further, India's North East is a Region of vast natural resources and human talent. Leveraging the opportunities in the North East in infrastructure and industry as well as services makes eminent sense for Bangladesh. In the context of global economic and trade slowdown, it is necessary for neighbours like India and Bangladesh to tap their inherent advantages for cooperation. It is seen that a lot of steps have been taken to reduce the huge trade

imbalances between the two countries that include decreasing visa norms for business people and opening a deputy high commission in Mumbai.

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## **Notes and Comments**

### **GLOBAL BUSINESS EDUCATION IN THE 21<sup>ST</sup> CENTURY**

**Victoria Wise<sup>1</sup>**

The world of business in the 21<sup>st</sup> Century contends with many new, dynamic and powerful influences. Business people are faced with a rapidly globalising economy, volatile economic markets, technological innovations, a greater emphasis on quality (Phipps 1992), environmental and social responsibility, and increasingly commonly, an internationally-spread work force. The business world of the 21<sup>st</sup> Century therefore demands that managers possess a broadened cultural understanding and perspective and decision-making skills which extend beyond the domestic and traditional. The need for global business education can no longer be regarded as optional – it is becoming mandatory (Townsend and Cairns 2003).

There are numerous paths leading toward the objective of globalised business education. For instance, many business schools have been striving for some time to internationalise their curriculum. While a consensus regarding the need for internationalising the curriculum may exist, no such agreement exists regarding how this task might be accomplished. Nor does agreement exist regarding the type of skills business graduates need to possess in order to successfully operate in the global business world. Adler and Bartholomew (1992) attempted to identify the skill set as including broad-based sociability, cultural flexibility, a cosmopolitan orientation and a collaborative approach. The question remains as to how to operationalise a curriculum that delivers graduates who possess these hard to measure characteristics and skills (White et al. 2005).

In response to the globalisation of business, educators are increasingly acting to globalise not only their curricula, but also their classrooms. In a global classroom delivery of materials and learning processes is interactive and flexible; in addition to interacting with their compatriots students may debate issues with their peers in other countries through computer networks; they may take their core curriculum in a foreign language. Instructors faced with developing their understanding of a global business environment are also facing the challenge of developing multicultural perspectives – their own and their students'. One way of doing this may be to include international students and to have them relate or enact their own experiences to their classmates. The experiential exercise draws upon a student's experience and perspective in globalising the curriculum by means of a structured role play in the classroom (Blanchette and Brown 1993). Blanchette and Brown (p.10) conclude that the international student can make a difference in changing the attitudes of domestic business students by broadening their cultural perspective, challenging traditional style decision-making and sensitising students to the competitive disadvantage that results from an ethnocentric or xenophobic perspective.

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Others argue that pedagogical strategies reinforcing service learning and cultural immersion produce graduates who exhibit a broad multicultural perspective and appropriate decision-making skills (White et al. 2005). Service learning involves student participation in course-related community programmes designed to enhance the integration of course material with real-world experience (Petkus 2000). Jacoby (1996) stressed the potential synergistic benefits to the students, businesses, instructors, university and community when describing service learning. While it may be difficult to implement and manage, the benefits of service-learning are obvious. Service learning provides a chance for students to apply theoretical knowledge to real-world business problems (White et al. 2005; Petkus 2000). The value of cultural immersion for tomorrow's global managers has been stressed by Holm et al. (1996) and White and Griffith (1998), as a means to learn to understand different cultural perspectives.

We can look forward to a very public and continuing debate about business education delivery and quality as educators continue to restructure and innovate in the pursuit of educational programmes which are most efficient in producing students able to operate effectively in the global business environment.

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## Book Review

**The Tragedy that Didn't Happen: Malaysia's Crisis Management and Capital Controls, *Marie-Aimée Tourres*, Institute of Strategic and International Studies (ISIS), Malaysia, 2003. Pages: xiv+333**



**REVIEWED BY:  
Nafees Imtiaz Islam<sup>1</sup>**

The book aptly Conveys the Malaysia's response against '1997 Asian Financial Crisis' (also referred to "Asian Contagion") through the economic crisis management process. Few recovery plans were implemented by the Malaysian government like reengineering the financial systems, corporate sectors, capital controls as well as short to medium term outlook. Chapter One represents the background of the Asian Crisis and shows that Asian countries suffered. In Chapter two, we re-discovered the causes of the financial crisis, depicted in the chapter which also highlighted the decision making process of Malaysian government tagging with regional solution. We came to know in detail on the initiative of establishing 'National Economic Action Council' which played a pivotal role in solving the economy crisis during 1997 which was described in Chapter Three. Unlike Thailand, South Korea, Indonesia and the Philippines, Malaysia did not seek financial assistance from the International Monetary Fund rather uses innovative, 'Sinatra Principle' which was described in Chapter Four. In Chapter Five, the author showed how the capital controlling mechanism, the currency pegging and other crisis management tools worked. It was worth reading regarding the pragmatic government policies of Malaysia in Chapter Six which focuses on pre-growth strategy and stimulus package. The book has rightly pointed out the institutional capacity and resources to design the measures for enabling the shift to new horizon of growth and sustainable developmental momentum of Malaysian economy. As such in the conclusion, the author commented that Malaysia's institutional capacity and resources to design and implement the measures with integrity were, therefore, the key success factors (Page: 287).

French Economist Marie-Aimée Tourres wonderfully wrote aforesaid book for which she deserves special thanks and appreciation. We expect that in future she will write another book focusing on "Shock on Global turbulent economy and collaborative effort to reduce adverse impact on BIMSTEC region". which will apt new horizon in the arena of regional antiquation.



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