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# Firm Performance and Executive Compensation in Private Commercial Banks: Evidence from a Developing Country

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# **Firm Performance and Executive Compensation in Private Commercial Banks: Evidence from a Developing Country**

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## **ABSTRACT**

*This paper aims to investigate the relationship between Chief Executive Compensation and firm performance amongst the private commercial banks in Bangladesh. Based on five years data for 21 private commercial banks, we compared the growth of various firm performance indicators, namely, EPS, P/E ratio, cost of fund and total asset, with that of CEO compensation. We found moderate but significant relationship between CEO compensation and EPS, and P/E ratio; which are consistent with extant literature. However, our findings show that total asset and cost of fund are both negatively associated with CEO compensation and thus open a new paradigm in this field. We conclude that private commercial banks in Bangladesh have put much emphasis on market based earnings, which may not pay off in the long run.*

**Keywords:** Firm Performance, CEO Compensation, Private Commercial Banks, Agency Theory, Developing Country

## **INTRODUCTION**

Chief Executive Officer (CEO) compensation and its impact on firm performance has been an issue that had received a considerable attention from both academics and various stakeholders for several decades. The taxonomy of this plethora of researches would reveal that researchers have taken two different paths whilst studying this issue. One group of studies had looked at the sensitivity between firm performance and CEO compensation (Jensen & Murphy, 1990; Conyon & Peck, 1998; Aggarwal & Samwick, 1999; Conyon, Peck, & Sadler, 2001; Leone, Wu, & Zimmerman, 2006; Duffhues & Kabir, 2008; Ozkan, 2011);

these studies tend to believe that, pay reflects past performance and hence works as a tool of reward for executives. The second body of research took more indirect path to establish the relationship between CEO compensation and firm performance. These studies viewed compensation as a mean of regulating the managerial behaviour, and hence shed lights on the impact of CEO compensation on various managerial decisions like information disclosure strategies (Nagar, Nanda, & Wysocki, 2003), risk preference (Low, 2009), earnings manipulation (Bergstresse & Philippon, 2006), innovation (Firth et al., 2006), information manipulation (Aboody & Kasznik, 2000) and shares repurchasing (Sanders & Carpenter, 2003). This group of scholars are the proponent of the idea that, should executive pay is tied to the performance, then they would behave or take decisions in a way which would maximize their pay whilst improving firm performance simultaneously. Both group of studies actually emanated from the agency theory which posits that there is a misalignment between the interests of managers (agents) and owners (shareholders), and managers' compensation should be tied to performance in order to reduce it.

The hegemony of these studies has taken place in Anglo-American context and yet results have been nothing short of equivocal with regard to pay-performance sensitivity. The extant literature also illustrates that there has been a few endeavours to explore these issues in the context of emerging countries with a few exceptions (Jaiswall, 2005; Ghosh, 2003; Haque & Aabed, 2011), and thus ignoring another important aspect of executive compensation, national culture (Tosi & Greckhamer, 2004).

Human capital theory advocates that employing superior managers would lead to superior performance and thus becomes a proponent of following a lead policy with regard to compensation. The significance of having the right man at the helm is much bigger in the banking sector, as it has the potential to create a ripple effect that might lead to country wide economic crisis. Besides designing the compensation with a much higher proportion of variable pay might also prompt CEOs to take high risk decisions, whilst pursuing higher salary for themselves. This study aims to deepen our understanding on these issues in the context of a developing country, namely, Bangladesh.

## LITERATURE REVIEW

There is a myriad of studies on executive compensation, most of which had been investigated from the perspective of shareholders. Hence, it is not surprising to see the primacy of principal-agent theory as the basis of these studies. Adam Smith was the first to recognise this problem associated with the separation of ownership and control in *The Wealth of Nations* (1776). Berle and Means (1932) developed these ideas within a managerialist perspective, which recognize that there is a difference between the interests of managers and the owners, and hence, self-serving managers might put their own interest first ahead of that the shareholders and the firm. The theory postulates that since not all the managerial activities and efforts are, and in some cases cannot, be observed, self-serving managers are inherently not likely to maximise shareholder s' value (Bebchuk & Fried, 2003).

Many believe that this misalignment of the objectives of managers and shareholders can be minimized through the efficient design of level and structure of executive compensation. For instance, an executive compensation contract will have elements of 'fixed promised payoffs' and 'incentive payoffs' (Fama & Jensen, 1983). Whilst the principal may prefer the 'fixed pay' arrangement should all the actions taken by the agents are observable, incentive payment would be favoured otherwise. The agent on the other hand would always favour the 'fixed pay' should they wish to be risk adverse. Conyon and Sadler (2001), hence argue that if executives were to be motivated to augment the shareholders' wealth, it has to be done through an incentive contract relating pay to performance.

Researchers examining the influence of performance on executive pay generally depicted compensation as a reward for prior performance, or as a means of ex post settling up (Fama, 1980). Scholars examining the influence of pay on performance on the other hand, conceptualize compensation as a motivational tool; thus it is the predictor, rather than the predicted variable. However, considerable literature suggests that firm performance is not only a function of managerial decisions, but also of factors outside of managers' control (McGahan & Porter, 1997; Yermack, 1997). Our paper follows the first one of these two schools and would attempt to examine various aspects of financial performance on CEO payment. We postulate that in an emerging country like Bangladesh with various socio-economic variables like the political instability, poor institutionalization, inefficient capital market; it might be relatively difficult to motivate executives with compensation, as they might simply think the targets are out of reach due to extenuating factors.

Grounded on strong theoretical framework agency theory and ex post relationship between performance and executive pay, Jensen and Murphy (1990) in their seminal work examined the pay the pay-performance sensitivity, but found it too low to be consistent with agency theory predictions and speculated that political pressures, designed to constrain executive pay, mean that executive pay is not optimally tied to shareholder wealth. By using relatively recent data, Hall and Liebman (1998) concluded that CEO pay– performance sensitivity was about four times higher than Jensen and Murphy’s study had indicated. This might indicate that firms have become more prudent in designing CEO compensation, which would give a better alignment between CEO pay and firm performance.

More recent studies of Gregg et al. (2005), Girma et al. (2007), Ogden and Watson (2007), Ozkan (2007), Eichholtz et al. (2008), and Liu and Stark (2009) in the UK and Canarella and Gasparyan (2008) and Nourayl and Daroca (2008) and Albuquerque (2009) in the US suggest that there is a positive relationship between firm performance and CEO pay, albeit a weak one.

Whilst different studies have taken different approaches to measure firm performance and its relationship with CEO payment, most of the studies had either followed the accounting approach (Guest, 2009) or the market based approach (Canyon et al., 2001; Leone, Wu, & Zimmerman, 2006; Buck et al., 2003). Boschen, Duru, Gordon, and Smith (2003) used time-series analysis to combine both and found that unexpectedly good market and accounting performance both led to initial increases in CEO pay; even though unexpectedly good accounting performance may lead to lower pay in subsequent years after an initial increase in the pay.

Some studies use a measure of shareholder returns which is typically capital gains plus dividends divided by the beginning of year share price (Janakiraman et al., 1992; McKnight & Tomkins, 2004). Other studies use measures of shareholder wealth, which are calculated as the market value of the firm multiplied by the annual percentage return (Jensen & Murphy, 1990; Rajgopal et al., 2006). As stated earlier, the results are equally mixed regardless of which precise measure of market-based performance is used. Canyon (1995) using a measure of shareholder return found no association between firm performance and pay, while Janakiraman et al. (1992) and McKnight and Tomkins (2004) also using a measure of shareholder return found a positive association.

One possible explanation of this weak relationship was put forward by Gomez-Mejia and Wiseman (1997), who claim that the lack of support for agency theory is partly because of the performance measure used in empirical work. They suggest the literature puts too much emphasis on market or accounting performance rather than other non-financial measures of corporate performance such as customer satisfaction or product development. They argue that whilst earnings information is generally touted as a good indicator of management's efforts, they are subject to vulnerability of manipulation as managers may manipulate them for their own self-interest (Conyon, Peck, & Sadler, 2000).

Another possible reason of that weak relationship could come from managerial power theory, which states that managers extract pay premiums by gaining control over their firms' compensation processes (Combs & Skill, 2003). Managerial power theory assumes that managers reduce risk by controlling their pay and suggest that in reality executives have considerable power over their own pay (Hoskisson et al., 2009). Executive power can be a function of a weak board, the lack of a single large shareholder, a small number of institutional shareholders or anti-takeover provisions (Bebchuk & Fried, 2003). Previous studies suggest a number of other factors that are potentially related to CEO power; these include CEO tenure, CEO ownership, board size, firm size, and board ownership (Elhagrassy et al., 1998/1999). These corporate governance issues are beyond the scope of this paper and we did not investigate them in this paper.

From 1970s, the banking sector of Bangladesh witnessed different phases of banking operations. During the first phase there was a period of denationalization and privatization, in the second phase, starting from 1980s the banking sector experienced a period of financial sector reforms and its implementation, along with the emergence of Islamic Banking in 1983 (Saha, Khan, Banerjee, Siddique, & Mehdee, 2011). In the 1990s we have seen a spur in the growth of private commercial banks, resulting in significantly higher salaries compared to the public banks.

In one of the earlier studies conducted, results showed that changes in CEO compensation depend on performance, as measured by stock returns and changes in earning yields (Barro & Barro, 1990). James (1995) suggested that on average bank CEO's receive less cash compensation are less likely to participate in stock option plans, hold fewer stock options, and receive a smaller percentage of their total compensation in the form of options and stocks than do CEOs in other industries.

Lauterbach and Schreiber (2000) found differences in executive compensation structure between banks and other industries. These studies in general show that CEO compensation is tied with performance of the firm.

Banks differ from other industries in a number of ways. Firstly, banks form an integral part of financial stability for any country. A bank with troubled assets or non-performing loans could have an adverse effect on the economy and can create ripple effect, which might lead to economy wide panic and a resultant financial crisis (Mishkin, 2003). As such it is one of the most heavily regulated industries in most countries.

From 2010 to 2011 the inflation of consumer prices rose from 8.1% to 10.7%, whereas the prime lending rate for the commercial banks in the same period rose from 13% to 13.25% (CIA handbook, 2012). This exhibits a 2.6% jump in inflation amounted to only 0.25% in lending rate, and as such deposits (debt for banks) turned out to be more costly and as such CEO's needs to take risks to negate the effect of the inflation and make profit. Therefore, incentive structure should be set so that the performance of the firm is tied with CEO's compensation, while aligning the compensation with equity interests in banks. John, Saunders, and Senbet (2000) argue that regulation that takes into account the incentives of top management will be more effective than capital regulation in ameliorating risk-shifting incentives. With rising inflation in a country like Bangladesh the CEOs need to take risks to make profit, and as such incentive structure should be set in a way that the performance of the firm is tied with CEO's compensation, while aligning the compensation with equity interests in banks.

Another important aspect that differentiates banks from manufacturing firms is the significantly higher leverage of banks. In addition to conventional agency problems, these highly leveraged financial institutions are susceptible to the well-known risk-shifting agency problems. In these institutions, where depositors are the primary claimholders, the objective of corporate governance is not to align the interest of top management closely with the equity holders but also be given incentives to act on behalf of debt-holders to an adequate degree. In such cases, providing managers with compensation structures that have low pay-performance sensitivity may be optimal. John and John (1993) predict that managerial compensation in the banking industry should have low pay-performance sensitivity.

### **Hypothesis Development:**

Based on the wave of literature that we had reviewed, we propose that there is a relationship between bank performance and CEO compensation and hence we hypothesize the following hypothesis:

H1: There is a positive relationship between change in firm performance and change in CEO compensation.

We take earning per share as an indicator of firm performance, which has relations to CEO compensation. Studies used EPS as an indicator include Gregory-Smith (2009); Eichholtz, Kok, and Otten (2008); Mcknight and Tomkins (1999), and Smith and Szymanski (1995). We follow Mcknight and Tomkins's (1999) method of taking the natural log of EPS as it is unlikely to be normally distributed due to the age difference amongst the private commercial banks in Bangladesh. Based on this, we formulate the following sub hypothesis:

H1<sub>a</sub>: There is a positive relationship between natural log of changes in EPS and changes in CEO compensation.

Based on the literature review we propose that there is a positive relationship between the change in total asset of the bank and the change in CEO compensation. We assume that, while growth in ROA has generally been used in CEO compensation literature, total asset could be a better predictor as recent meta-analysis shows that firm size accounted for over 40% of the variance in total CEO pay (Tosi, Werner, Katz, & Gomez-Mejia, 2000). We take total asset as another indicator of bank performance and thus formulate the following hypothesis:

H1<sub>b</sub>: There is a positive relationship between change in total asset and change in CEO compensation for private commercial banks in Bangladesh.

In line with Ozkan's argument (2009), we anticipate that there would be a positive relationship between market based indicator and CEO compensation. We take P/E ratio as an indicator of the relationship between market price and stock return. Based on that we formulate the following hypothesis:

H1<sub>c</sub>: There is a positive relationship between change in P/E ratio and change in CEO compensation.



In line with Jensen's (1989) argument that firms with higher debt ratio would not be able to pay higher salary as they have little free cash to spend, we hypothesize that banks with higher cost fund are also likely to face the same problem. Based on that we formulate the following hypothesis:

H<sub>1d</sub>: There is a negative relationship between growth in cost of fund and changes in CEO compensation.

The above mentioned hypotheses thus lead us to the following theoretical framework.



## METHODOLOGY

Our data included 21 out of the 32 private commercial banks in Bangladesh, thus representing a 65% of the total population of private commercial banks. Convenience sampling method was used to select these banks, as data on many variables for all the private commercial banks were not accessible. We took data on all the concerned variables for five years for all the 21 selected banks, and thus making a sample consisting of 105 observations.

We took change in total compensation as the dependent variable which was defined as the change of the sum of salary, actual bonus, benefits, share option grants, restricted share grants (valued at 100% of performance contingent awards) and other components of compensation wherever applicable. We did not include exercised share options as it may not represent the current compensation appropriately since it reflects the investment choice of the CEO (Conyon, Peck, & Sadler, 2009).

We use two measures of accounting based (total asset and EPS), and two variables which are a combination of market based and accounting based measure (P/E ratio and cost of fund) as our independent variables.

Following the works of Coakley and Iliopoulou (2006); Conyon and Nicolitsas (1998), and Eichholtz, Kok, and Otten (2008), one year lag between these variables and CEO compensation was taken to run the regression as we assume that compensation in year t, would indicate the performance of the banks in year t-1. We used moving average data of three years in calculating all the variables.

We used a stepwise regression to find the relationship between change in CEO compensation and change in other independent variables. We used additional independent variables, namely, change in ROE, change in ROA, change in net profit, change in log of age of the bank (Conyon & Leech, 1994) and change in number of employees. These additional independent variables were later ruled out due to multi-collinearity (table III). This leads us to the following regression equation:

$$\Delta\text{Compensation} = \alpha + \beta_1\Delta\text{Log}(\text{EPS}) + \beta_2\Delta\text{TotalAsset} + \beta_3\Delta(\text{P/E}) + \beta_4\Delta\text{Cost of Fund}$$

We also had a measure of variance Inflation Factor (VIF) to detect any further multi-collinearity. Since all the values were less than 5, it indicated no multi-collinearity concern.

## FINDINGS AND DISCUSSION

*Table I: Descriptive Statistics of Compensation of CEO (Dependent Variable)*

	N	Range	Minimum	Maximum	Mean	Std. Deviation
Compensation_Dollar	21	7928190.00	3585276.00	11513466.00	7730399.2381	1964653.716
Valid N (listwise)	21					

Table I shows the descriptive statistics for the average salaries of the managing director over the last five years. The sample size was 21 and for each of the bank we had five years data giving us a total of 105 years of CEO compensation. The average salary of the 21 banks of our research had a mean annual salary and allowance of BDT 7,730,399.24, with a standard deviation of BDT 1,964,653.72. The minimum salary and allowance for CEO was BDT 3,585,276, while the maximum was BDT 11, 513,466.

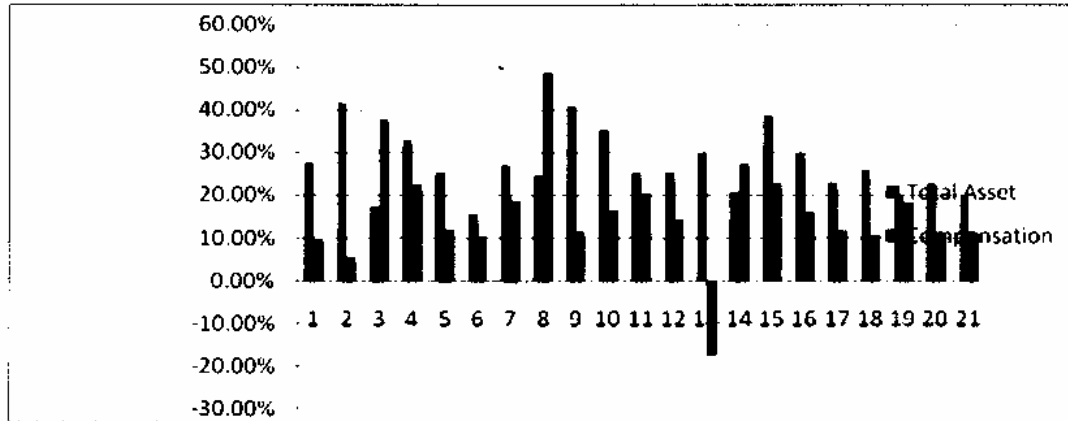


Chart I: Comparison of Percentage Change in Total Asset with Percentage Change in Compensation

The figure above shows the relationship between the growth of the firm and the change in compensation for the firm’s CEO.

Table II: Descriptive Statistics of All the Variables

	N	Mean	Std. Deviation
Compensation	21	16.7421%	13.25005%
EPS(AVG)	21	1.279%	1.1193%
Cost of Fund	21	-4.856816%	14.6764228%
Total Asset	21	27.57514%	7.505645%
Valid N (listwise)	21		

In the table above we can see that the mean compensation for the 21 firms grew by 16.7421% with a standard deviation of 13.25%. The change in log EPS and cost of fund was 1.279% and 1.1193%, with a standard deviation of 1.11193% and 14.67% respectively.

Table III: Correlations Matrix of the Variables and Significance Level

		EPS	Cost of	Total	Age				Net	Number of	
	Compensation (AVG)	Fund	Asset	(Ln)	P/E	ROA	ROE	Profit	Employees		
Pearson	Compensation	1.000	.569	.190	-.257	.097	.429	-.326	-.347	.078	-.210
Correlation	EPS(AVG)	.569	1.000	.048	-.163	-.199	-.129	-.038	-.148	-.190	-.101
	Cost of Fund	.190	.048	1.000	.280	.232	-.049	.060	.301	.091	-.165
	Total Asset	-.257	-.163	.280	1.000	-.205	.285	-.018	.213	.369	.381
	Age(Ln)	.097	-.199	.232	-.205	1.000	.215	.018	.012	.357	-.586
	P/E	.429	-.129	-.049	.285	.215	1.000	-.292	-.252	.691	.052
	ROA	-.326	-.038	.060	-.018	.018	-.292	1.000	.890	-.106	-.219
	ROE	-.347	-.148	.301	.213	.012	-.252	.890	1.000	.022	-.266
	Net Profit	.078	-.190	.091	.369	.357	.691	-.106	.022	1.000	-.045

	Number of Employees	-.210	-.101	-.165	.381	-.586	.052	-.219	-.266	-.045	1.000
Sig. (1-tailed)	Compensation	.	.005	.218	.144	.347	.033	.087	.073	.375	.194
	EPS(AVG)	.005	.	.422	.253	.207	.299	.438	.272	.217	.340
	Cost of Fund	.218	.422	.	.123	.170	.421	.404	.105	.356	.250
	Total Asset	.144	.253	.123	.	.201	.118	.471	.191	.060	.054
	Age(Ln)	.347	.207	.170	.201	.	.189	.471	.481	.066	.004
	P/E	.033	.299	.421	.118	.189	.	.112	.149	.001	.416
	ROA	.087	.438	.404	.471	.471	.112	.	.000	.332	.183
	ROE	.073	.272	.105	.191	.481	.149	.000	.	.464	.135
	Net Profit	.375	.217	.356	.060	.066	.001	.332	.464	.	.427
	Number of Employees	.194	.340	.250	.054	.004	.416	.183	.135	.427	.

Table IV shows the results for the stepwise regression performed on the variables. Some of the variables which showed multi-collinearity (table III) were excluded. We can see that when the variable change in P/E ratio was added along with log of change in EPS as the independent variable the adjusted R square was increased by 24.4%, which explains that change in change in P/E ratio alone accounts for this change.

Table IV: Linear Regression (Stepwise Method)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.569 <sup>a</sup>	.324	.284	11.21104%
2	.762 <sup>b</sup>	.581	.528	9.09983%
3	.825 <sup>c</sup>	.680	.616	8.21316%
4	.877 <sup>d</sup>	.770	.704	7.21224%

a. Predictors: (Constant), EPS(AVG)

b. Predictors: (Constant), EPS(AVG), P/E

c. Predictors: (Constant), EPS(AVG), P/E, Total Asset

d. Predictors: (Constant), EPS(AVG), P/E, Total Asset, Cost of Fund

In model 4 (as can be seen in table IV, V & VI), all of the four independent variables: change in EPS, P/E, total asset and cost of fund accounts for 70.4% of the total change in compensation with a highly acceptable 7.21% as the std. error of estimate.

*Table V: ANOVA Analysis*

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1023.463	1	1023.463	8.143	.011 <sup>b</sup>
	Residual	2136.688	17	125.688		
	Total	3160.151	18			
2	Regression	1835.239	2	917.619	11.081	.001 <sup>c</sup>
	Residual	1324.912	16	82.807		
	Total	3160.151	18			
3	Regression	2148.310	3	716.103	10.616	.001 <sup>d</sup>
	Residual	1011.841	15	67.456		
	Total	3160.151	18			
4	Regression	2431.921	4	607.980	11.688	.000 <sup>e</sup>
	Residual	728.230	14	52.016		
	Total	3160.151	18			

a. Dependent Variable: Compensation

b. Predictors: (Constant), EPS(AVG)

c. Predictors: (Constant), EPS(AVG), P/E

d. Predictors: (Constant), EPS(AVG), P/E, Total Asset

e. Predictors: (Constant), EPS(AVG), P/E, Total Asset, Cost of Fund

*Table VI: Linear Regression, ANOVA and Coefficients (Stepwise regression)*

Model		Unstandardized		Standardized	t	Sig.	Collinearity Statistics	
		Coefficients					Tolerance	VIF
		B	Std. Error	Beta				
1	(Constant)	8.126	3.966		2.049	.056		
	EPS(AVG)	6.737	2.361	.569	2.854	.011	1.000	1.000
2	(Constant)	7.366	3.229		2.282	.037		
	EPS(AVG)	7.520	1.932	.635	3.891	.001	.983	1.017
	P/E	36.451	11.642	.511	3.131	.006	.983	1.017
	(Constant)	24.179	8.330		2.902	.011		

3	EPS(AVG)	7.018	1.760	.593	3.988	.001	.966	1.035
	P/E	42.797	10.913	.600	3.922	.001	.912	1.097
	Total Asset	-.585	.271	-.331	-2.154	.048	.903	1.108
	(Constant)	31.105	7.894		3.941	.001		
4	EPS(AVG)	6.699	1.551	.566	4.318	.001	.958	1.043
	P/E	45.796	9.668	.642	4.737	.000	.896	1.117
	Total Asset	-.770	.251	-.436	-3.065	.008	.812	1.231
	Cost of Fund.	.286	.122	.316	2.335	.035	.896	1.116

## a. Dependent Variable: Compensation

The stepwise regression model suggests that we can measure the percentage change in compensation using the mentioned equation, where  $\alpha = 31.105$ ,  $\beta_1 = 0.566$ , suggesting there is a positive, moderate and significant relationship with change in EPS ( $p < 0.01$ ). A change in earning per share has a positive and moderately strong relationship with the change in CEO's compensation in the following year and hence we accept our H1<sub>a</sub>. Our results are consistent with the findings of previous studies (Bruce, Skovoroda, Fattorusso, & Buck, 2007; Smith & Szymanski, 1995).

For H1<sub>b</sub>, we can see that there is a negative coefficient of 0.436 between change in CEO compensation and change in total asset, which suggests that there is a negative relationship between change in compensation and change in total asset. Hence we reject H1<sub>b</sub>. Since the increase of total asset is likely to increase the managerial complexities for the executives; the general notion is that there has to be a positive relationship between these two. We suspect that this simple notion may not be in full force at present for the private commercial banks in Bangladesh. Whilst usage of different mix of compensation components might explain this anomaly, it might also reflect a practice of managerial power theory, also known as 'executive power theory', 'self-serving executive model' or 'rent extraction theory' (Bruce et al., 2005) which has recently been presented as an alternative model to principal-agent theory for explaining executive pay. According to Combs and Skill (2003) "*managerialism is a theory that suggests that managers extract pay premiums by gaining control over their firms' compensation processes*". It is argued that executives have substantial 'authority' over non-executive directors, which allows them to gain more favourable compensation arrangements than if incentive arrangements were designed in shareholders' interests (Bebchuk & Fried, 2003). In a country where political power plays a vital role in selection of members of Board of Directors, managerial theory are likely to stand firm, at least relative to developed nations.

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For  $H1_b$ , we can see that there is a negative coefficient of 0.436 between change in CEO compensation and change in total asset, which suggests that there is a negative relationship between change in compensation and change in total asset. Hence we reject  $H1_b$ . Since the increase of total asset is likely to increase the managerial complexities for the executives; the general notion is that there has to be a positive relationship between these two. We suspect that this simple notion may not be in full force at present for the private commercial banks in Bangladesh. Whilst usage of different mix of compensation components might explain this anomaly, it might also reflect a practice of managerial power theory, also known as 'executive power theory', 'self-serving executive model' or 'rent extraction theory' (Bruce et al., 2005) which has recently been presented as an alternative model to principal-agent theory for explaining executive pay. According to Combs and Skill (2003) "*managerialism is a theory that suggests that managers extract pay premiums by gaining control over their firms' compensation processes*". It is argued that executives have substantial 'authority' over non-executive directors, which allows them to gain more favourable compensation arrangements than if incentive arrangements were designed in shareholders' interests (Bebchuk & Fried, 2003). In a country where political power plays a vital role in selection of members of Board of Directors, managerial theory are likely to stand firm, at least relative to developed nations.

Our finding shows a change in P/E ratio has a positive and moderately strong relationship with the change in CEO compensation ( $r=0.587$ ,  $p<0.05$ ) and hence, we accept H1c. This shows that the banks like other publicly traded companies reward executives based on the performance of the market price of the stock along with the earning per share.

The fourth independent variable in our model, cost of fund, comprises mainly of the cost of borrowing the capital from the depositors. Our results show that there is a positive and weak relationship between the change in CEO compensation and change in cost of fund with a coefficient of 0.13. So we reject H1d. This suggests that as the cost of fund goes up, the salary of CEOs are also likely to go up. Whilst it goes against traditional theorem, there are some plausible explanations. A rise in cost of fund is likely to decrease profitability or in order to keep the same profit margin the CEO may engage in riskier projects. This may lead banks to finance projects with high risks for higher return. CEOs of these banks might be overpaid as they were involved in managing assets with higher risk. Besides cost of fund, is an indicator of market and in some cases industry confidence, factors which are beyond the control of the top executives (McGahan & Porter, 1997; Yermack, 1997). There is also the possibility of banks with higher cost of fund are following human capital and efficiency wage theory by hiring CEOs with over the market line payment to turn things around.

Finally, we may state based on the data shown in ANOVA table that at a significance level,  $p<0.01$ , 0.0001 to be exact, the model is a good predictor of change in CEO compensation with the variables mentioned above. We may add that a moderate but significant relationship is found between CEO compensation and EPS and P/E ratio which are consistent with extant literature. The findings show that total asset and cost of fund are both negatively associated with CEO compensation and thus open a new paradigm in this field.

## **CONCLUSION**

The foregoing discussions lead to conclude that there is a significant relationship between change in EPS and P/E with change in compensation. This suggests that the agent, the CEO, is compensated for superior performance if he/she manages to increase shareholder's wealth. Both EPS and P/E are a good measure of how lucrative that company's stock is and as such the CEOs are rewarded with higher compensation. This indicates that private commercial firms may have been



putting emphasis on short-term stock price and consequently tying up CEO compensation with that. There is a possibility that in the long run this might have adverse effect on the banks' total asset and profit, as seen by recent crisis that hit the banking sector in Bangladesh.

### **DIRECTIONS FOR FUTURE RESEARCH**

This paper attempted to shed light on the pay-performance sensitivity with the help of various accounting indicators and indicators combined of market and accounting performance. However, there are many other issues like corporate governance, industry growth cycle etc., that can strongly influence CEO compensation. Future research should address these issues. Besides like any other service sector, banking industry has always put a prime on customer satisfaction. Hence, 'soft' performance indicator like customer satisfaction might lead to a better understanding of pay-performance sensitivity.

Since compensation could act as a tool to tie pay to performance, it has the capacity to act as a motivating factor as well. To understand to what extent and how compensation is tied with firm performance, one should try to investigate how different components of CEO compensation are determined by bank performance. Whilst long term stock option has hardly been a feature in banks in Bangladesh, further research could be carried on how this type of components of compensation are gaining currency in the corporate world of Bangladesh.

More importantly whilst reviewing the literature, it is somewhat surprising that the extant literature is relatively silent on labour market influences on CEO compensation. Executive reputation, human capital, industry mobility, and industry pay all have high potential in imbuing a culture of highly paid CEOs in the banking industry. This is particularly important for developing countries as they are more likely to suffer from lack of qualified executives to run big firms while not being able to attract global talents, and thus are left with no choice but to overpay for competent CEOs. Future research should try to unearth the impact of these variables of labour economics in determination of CEO salary.

For developing countries, due to lack of sources of fund, banks remain the only option for many businesses to borrow money from, which in turn makes this a very lucrative sector to invest. As a matter of fact most of the commercial banks operating in Bangladesh have started their operations in the last two decades. Political pressure has played a big role in granting these bank licenses. Not

surprisingly there has been a tendency of political appointment in boards, which may compromise the most efficient design of CEO compensation. Future research should take this avenue of research to investigate how socio-political variables can have an impact on executive compensation.

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