

CHIEF EXECUTIVE COMPENSATION – PART AND PARCEL OF THE AGENCY PROBLEM: EMPIRICAL EVIDENCE FROM PAKISTAN

Mohsin Ali Patel^{1*}
Aamir Firoz Shamsi²
Muhammad Asim³

¹Institute of Business Administration, Karachi, Pakistan
Email: mohsinalipatel@hotmail.com

²Karachi Institute of Economics and Technology, Karachi, Pakistan

³KUBS, University of Karachi, Karachi, Pakistan

ABSTRACT

As per the agency theory, there is a conflict of interest between shareholders and managers. Shareholders are the principal and managers are the agents of a company. Both these parties have different objectives. So, these top executives who are hired to safeguard the interests of shareholders, after a period might start working for their own personal interests like, increase in the amount of their compensation and benefits, and, on the contrary, shareholders might wish to decrease operating expenses, salaries and aim for higher profits, or dividends. The objective of this study is to study the agency theory with reference to an insight to compensation for chief executives in Pakistan. It aims to find the effect of shareholder dividends, financial performance and firm size on executive compensation. The results show that market capitalization and return on assets are the major factors effecting executive compensation. However, interestingly, shareholder dividends do not show to have any effect on compensation.

Keywords: executive compensation, agency theory, firm performance, board independence, Pakistan.

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INTRODUCTION

After the relatively recent high profile fraud cases and scandals; like Adelphia, Enron, Harris Scarfe, HIH, Parmalat and WorldCom were revealed to this world; governance has become the focal point of research, calling for improved governance practices by businesses and many of them focusing on antecedents and consequences of executive compensation (Jensen & Murphy, 1990; Agrawal, Makhija & Gershon, 1991; Randøy & Nielsen, 2002). One of the major concepts underlying the corporate governance system is that of agency costs. Thus, in order to see the corporate governance system, deliver its desired results, it is vital to improve the efficiency and effectiveness of executives and structure the executive's pay efficiently. This component has come into a lot of discussion and criticism from different stakeholders of the company, questioning any link between the amount being paid to the top executives and the resulting performance of the company. One of the important functions of the board is to reduce agency cost. Thus, the board can use the tool of designing executive compensation in such a way as to reduce the conflict of interest among managers and owners (Fama & Jensen, 1983).

In spite of the above, much research is yet to be done in developing economies; as in these economies the businesses have different dynamics. They are usually closely owned and controlled by families and these founders of the businesses often try to intervene in business matters. According to Lodhi (2017), in Pakistan the rate of taxation has a significantly negative relationship with domestic investment. Also according to Nishat, Shaheen and Hijazi (2004), there are many issues which are confronting Pakistan's corporate sector. These include: functioning of directors with respect to owners, labor laws and productivity of companies' relationship, dispensation of executives, role of shareholders and the non-availability of accountable reporting frameworks.

The Companies' Ordinance of Pakistan (1984), defines the chief executive as an individual who acts as per the directions of directors, is entrusted with complete or substantially complete powers of managing the affairs of the business. It also includes any director occupying the position of CEO by whatever the given position name is. Agency cost can be reduced, by effective planning and striking the right balance, lessening the conflict of interest i.e. the increase in chief executive's (agent's) salary should not be at the cost of the dividends of shareholders (principal), and vice versa. This study will address the gap, by finding empirical evidence regarding the effect, if any, of shareholder dividends on chief executive's compensation. Further, it will also determine the effect of a company's financial performance and firm size on CEO compensation.

This paper follows the following pattern: Section - 2 presents the review of relevant literature, Section - 3 shows the methodology used, Section - 4 gives the findings of the study and Section - 5 gives the conclusion for this paper.

LITERATURE REVIEW

According to Berle and Means (1932) separation of ownership and control is the root cause of all agency problems. Agency relationship is like a contract in which a principal engages to perform the operations of the company on his behalf. This also means delegation. So, the powers of some of the decisions will have to be now shared with the agents of the company. If both the parties wish to try to maximize their utilities, then an agent will not be always working in the principal's best interest.

The study of Bebchuk and Fried (2003), discussed that financial economists view executive compensation arrangements as a (partial) remedy to the agency problem. Under this view, the board of directors need to design remuneration schemes, usually known as "optimal contracting approach", to provide incentives to the executives to maximize shareholder value. Murphy (1999); Core, Holthausen and Larcker (1999) are the recent of these financial economists' work. There are reasons to believe that CEO compensation can be fruitfully examined not only as a problem arising from divorce of ownership and control but as a part and parcel of the problem itself (Bebchuk & Fried, 2003). Furthermore, Iqbal (2016) suggests that the number of board members sitting on the board i.e. the size of the board and their experience also impacts the financial performance of pharma companies in Pakistan. According to Agarwal (1981), firm size is an important factor for determination of executive compensation, however the previous researchers were not able to clearly specify what exactly the interpretation of this relationship is. Variable firm size has also been used by Chalmers, Koh and Stapledon, (2006).

The study of Masson (1971) showed that performance of companies is better if the CEO's returns are aligned with the shareholder's interest. However, they did not see any relationship between CEO compensation and net sales of the company. According to Yermack (1995) out of the nine compensation theories, seven do not have much data backing, furthermore, contingent pay instruments are not well designed to reduce agency costs. On the contrary to this, Kato and Kubo (2003) in their research done in the Japanese region using panel data from the period 1986-1995, found that executive compensation is associated with firm performance but there is a weak relationship between executive compensation and market performance.

Mehran (1995) concluded that firms with more outside directors have a positive relationship with CEO compensation. The data was taken from 1979-80 by random selection of one hundred and fifty-three U.S companies. According to Agrawal, Makhija, and Mandelker, (1991) the level and structure of compensation is fundamentally different for utility firms. According to the study of Ballout (1992), there exists a positive relationship between CEO compensation and firm performance. Strategic initiatives such as research and development intensity were reported to have direct positive influences on CEO compensation. Similarly, a broad ranging study was performed by McKnight and Tomkins (1999), examining the data of companies from 1991 – 1995 of company's performance. The results suggested that there is a positive yet weak relationship between the salary of the CEO and the performance of companies. The study by Anderson and Bizjak (2003) suggested that the board committees having insiders do not make much difference in increasing / decreasing the overall pay or incentives.

According to Attaway (2000), who conducted his study on the electronics and computer industry, found that there is a direct relationship between the performance of the company. Similarly, Merhebi, Pattenden, Swan and Zhou (2006) studied data from 1990 – 1999 and found a significant and positive relationship between CEO's compensation and company performance.

However, according to Lone, Hasan and Afzal (2015) who conducted their research on the Banking sector of Pakistan, which is one of the sectors paying very high salaries and benefits to their executives. A panel data of 22 banking firms for the years 2006 – 2013 was analyzed, which showed that size of the firm. It was found that if the assets increase, the compensation also goes up by a small percentage. However, on the other hand, return on equity which was used as a variable for measuring performance of the firm has a negative yet insignificant impact on the compensation of CEOs. Moreover, the study by Iqbal (2016) resulted that duality of position of the CEO negatively impacts the performance of the companies in the Pharmaceutical industry.

METHODOLOGY

Data Collection

For the purpose of this study, secondary data was extracted from annual financial statements of the companies. This was done from the company's official websites and the website of the Pakistan Stock Exchange (PSX). Apart from this, the Securities and Exchange Commission of Pakistan (SECP) website was also referred to for the updated code of corporate governance for the listed companies in Pakistan.

Sample

The companies listed on the PSX – 100 (Pakistan stock exchange), was the population for this research study. The banking, insurance and financial institutions sector was excluded for the purposes of sample selection, as this sector has different characteristics than the other sectors. The total number of observations were extracted from 66 companies. Data from 2010-2015 was collected for this research.

Regression Model

The following model was considered for the purpose of this study, considering executive compensation, dividends, firm performance and corporate governance variables. One year lag was used, as according to the previous researchers like Randøy and Nielsen (2002) compensation decisions of the current year are made on the basis of last year's structure and performance. Similar models were also found in the literature used by Randøy and Nielsen (2002); Core et al., (1999); Mikko Mäkinen (2008).

$$\ln(\text{CEO comp})_t = \alpha + \alpha_1 \ln(\text{Market Cap})_{t-1} + \alpha_2 \ln(\text{DPS})_{t-1} + \alpha_3 \ln(\text{ROA})_{t-1} + \alpha_4 \ln(\text{FS})_{t-1} + \varepsilon_{it}$$

Where:

CEO comp = Chief Executive Officer's Compensation

Market Cap = Market Capitalization

DPS = Dividend per share

ROA = Return on Assets

FS = Total Assets

Dependent and Independent Variables and their definition:

Chief Executive Compensation = Natural log of the total compensation of CEO

Market Capitalization = No. of outstanding shares x Closing share price

DPS (Dividend per share) = Log of (Dividends / No. of ordinary shares)

ROA (Return on Assets) = Log of (Net Profit after tax / Total Assets)

Size of the firm = Log of Total assets (Control var.)

RESULTS

Descriptive Statistics

The Table - 1 below shows the descriptive statistics of the research results. The dependent variable used in this study i.e. total CEO compensation mean value is shown to be Rs. 27,146,247 whereas, the median compensation reports at Rs. 18,398,000. It is interesting to note that the maximum compensation paid to CEO is reported to be Rs. 238,812,000 which is around 8.75 times higher than the mean compensation.

Table 1: Descriptive Statistics

	TOTAL_CEO_ COMPENSATION	DPS	ROA	LNTOTAL_ MARKET_CAP	LNTASSETS
Mean	27146247	11.24080	0.096965	23.20725	23.72726
Median	18398000	4.000000	0.089475	23.57291	23.88175
Maximum	238812000	190.0000	0.633480	27.74769	27.04005
Minimum	0.000000	0.000000	-1.507220	14.51305	15.36986
Std. Dev.	33034444	24.31469	0.137451	2.315801	1.510357

The independent variable dividend per share mean value shows to be 11.24 with a median of 4.00 and a maximum of 190. The mean value of return on equity (ROA), had a mean value of 9.60% with a median ROA reported at 8.90%. Some companies also reported a loss

which was shown in the minimum value of the descriptive at a low of -1.50%, however, the maximum ROA was reported to be as high as 63% by the companies.

Correlation Analysis

Table – 2 below shows the correlation among different variables. It shows that CEO compensation has a positive correlation with all the variables, except for the log of total assets. Similarly, market capitalization has a positive relationship with all the other variables in the model. Dividends per share has a positive correlation noticeably of 0.29 with market capitalization and 0.27 with ROA. The log of total assets have a correlation of 0.49 with market capitalization.

Table 2: Correlation

	LNTOTAL_C EO_COMP	LNTOTAL_MA RKET_CAP	LNDPS	LNROA	LNTASSETS
LNTOTAL_CEO_CO MP	1.000000	0.188926	0.031322	0.108346	-0.010247
LNTOTAL_MARKET_ CAP	0.188926	1.000000	0.290496	0.205027	0.495807
LNDPS	0.031322	0.290496	1.000000	0.276887	0.088369
LNROA	0.108346	0.205027	0.276887	1.000000	0.053797
LNTASSETS	-0.010247	0.495807	0.088369	0.053797	1.000000

Regression Analysis

Table 3, shows the results of Fixed Effects specification. The results of regression show that the R^2 is 88% and adjusted R^2 is 84% which shows the explanatory power of the model. It means that the model explains 84% of the variance in CEO compensation and the remaining 16% is unexplained by the model. The F-statistic has a significant value of 19.94, with a significant p-value which is less than 5%. The Durbin-Watson value is 1.74, which is well in the relevant range.

The regression results show that market capitalization has a negative but significant impact on CEO compensation, with a p – value of 0.0149. Further, ROA has a positive and significant impact have p-value of 0.089. However, the dividends and firm size do not show a statistically significant impact on CEO compensation.

Table 3: Applying Fixed Effects

Dependent Variable: LNTOTAL_CEO_COMP

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	18.42701	0.866506	21.26587	0.0000
LNTOTAL_MARKET_CAP(-1)	-0.064854	0.026347	-2.461537	0.0149
LNDPS(-1)	0.025661	0.047959	0.535051	0.5934
LNROA(-1)	0.073029	0.042753	1.708154	0.0895
LNTASSETS(-1)	0.001793	0.036843	0.048658	0.9613
R-squared		0.887986		
Adjusted R-squared		0.843458		
F-statistic		19.94244		
Prob(F-statistic)		0.000000		
Durbin-Watson stat		1.749832		

Further, the Random effects model was applied on the panel data.

Table 4: Random Effects

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	18.16223	0.832808	21.80842	0.0000
LNTOTAL_MARKET_CAP(-1)	-0.041263	0.025232	-1.635313	0.1034
LNDPS(-1)	0.008132	0.045440	0.178963	0.8581
LNROA(-1)	0.076005	0.039545	1.921994	0.0559
LNTASSETS(-1)	-0.008976	0.035246	-0.254680	0.7992

The Hausman Test was applied, to check whether the fixed effect model is preferable or Random effects. The results of the Hausman Test is given in Table – 5 below, and shows that the probability value is significant, having a p-value of 0.0176, which is less than 0.05; the null hypothesis of using the random effects is rejected. Thus, it can be said that the fixed effects model is appropriate here for conducting this research

Table 5: Applying Hausman Test

Correlated Random Effects - Hausman Test

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	11.970993	4	0.0176

The probability value is less than 5% so the null hypothesis is rejected. This confirms that using the Fixed Effects model is appropriate for this research.

Table 6: Generalized Method of Moments (GMM)

Dependent Variable: LNTOTAL_CEO_COMP

Method: Panel Generalized Method of Moments

R-squared	0.801957
Adjusted R-squared	0.695934
Durbin-Watson stat	2.352196
Instrument rank	55
J-statistic	1.743628

The Generalized Method of Moments (GMM) estimation technique was formalized by Professor Hansen (1982) and it has become one of the widely used methods of estimation for models. Its usage has a lot to offer, as it reduces the possible problems of endogeneity, autocorrelation and heteroscedasticity in the data. GMM is efficiently applied when the data has more cross sections and relatively lesser number of time periods i.e. when $T < N$. As in our case, we can efficiently use the GMM. Table – 5, shows the results of GMM estimation. These results show that the R^2 is 80.94%. Interestingly, this value supports and is near to the R^2 of the previously calculated value shown in the results of fixed effects. It shows that the model explains around 80% of the variance in CEO compensation, which shows a good explanatory power of the model. The J-statistic value is a part of the GMM results. The results show the J-stats value of 1.74 showing that the model is fit. Now, the p-value is calculated. Here the null hypothesis is that the model is properly specified i.e. instruments are valid. The results show that the Scalar p-value is 1.000, which is quite higher than 0.05, so we fail to reject the null hypothesis. Thus, it means that the instruments used are valid and the model is fit.

CONCLUSION

This research examined CEO compensation in Pakistan. It aimed to find the effect of shareholder dividends, financial performance and firm size on CEO compensation. The results conclude that in our country there is no significant effect of shareholder dividends on executive compensation. Further, there is a very weak correlation between them. It means that an increase in CEO compensation does not bring any change in the dividends of shareholders (owners). So, it can be said that during a bad performance year, a decrease in dividends to shareholders, will not necessarily affect the CEO and probably will not lead to a decrease in the compensation of the CEO. However, the results show that performance of the firm (ROA) does affect the compensation of CEO's in Pakistan. This means that if the ROA increases, it will also lead to an increase in CEO compensation in Pakistan.

In short, the research results show that market capitalization and ROA does affect the CEO, whereas, firm size and shareholder dividends do not show to have an influence on the compensation of the CEO. Research in future could be done by increasing the number of years, by trying to get data of more companies as well. Also, similar research could also be conducted in other Asian regions.

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