



International Journal of Economic Research

ISSN : 0972-9380

available at <http://www.serialsjournals.com>

© Serials Publications Pvt. Ltd.

Volume 14 • Number 15 (Part-II) • 2017

The Moderating Role of Risk-taking between CEO Compensation and Firm Performance: Evidence from Financial Sector of Pakistan

Zahiruddin Ghazali¹ and Farzan Yahya²

¹ Othman Yeop Abdullah Graduate School of Business, Universiti Utara Malaysia, Sintok 06010, Malaysia

E-mail: uddin@uum.edu.my

² School of Economics, Finance and Banking, Universiti Utara Malaysia, Sintok 06010, Malaysia

E-mail: farzan.yahya@yahoo.com

Abstract: Although the trend of pay for performance has been increased since last few years but still it is a controversial argument if CEO compensation actually increase the firm performance. It is also argued by prior studies that performance based CEO compensation increase the potential risk of the firm which could further effect the long-term firm negatively. This study attempts to illustrate the impact of CEO compensation on firm performance (operating and market performance) along with the moderating role of risk-taking among these variables. The total 66 financial firms and banks listed on Karachi Stock Exchange has been included under the investigation from the year 2010 to 2014. In addition, Hierarchical linear regression has been employed to analyze the results though the assumption were precisely fulfilled. The results shows the significant negative impact of CEO compensation on operating performance which could be due to the high managerial power, cronyism, rent extraction or weak corporate governance. Nevertheless, the study revealed significant positive impact of CEO compensation on market performance but solely this determinant can be relied as a strong predictor of market performance due to lesser effect size of the model. Therefore, it is suggested that futuristic studies in this context should include different other control variables (corporate governance mechanisms, economic variables etc.) to improve the model's goodness of fit. Additionally, this study does not find any moderating role of risk-taking between CEO compensation and firm performance (both operating and market).

Keywords: CEO Compensation, Risk-taking, market performance, operating performance, cronyism

I. INTRODUCTION

The acceptance of Modern Corporation as highlighted by Berle and Means [1] marked a new era in managing business where owners do not manage the business himself but rather by hiring professional managers to do the job. Until today, despite of several available studies in this area, conflicts between shareholders and

CEOs is controversial and a debatable issue among academicians. A cast of qualms on the CEOs integrity has been on the rise researchers observed the CEOs chasing their self-interest and rent extraction rather than fulfilling their duty in maximizing shareholders' wealth. Therefore, criticism in this perspectives can be observed through a wide range of studies such as the work by, Barontini and Bozzi [2]; Connelly, Limpaphayom, and Nagarajan [3], Dickins and Houmes [4], and Junarsin [5].

Earlier studies such as by Ding and Sun [6]; Hartzell and Starks [7], and Hillegeist and Penalva [8], suggest that when there is very little or no ownership by CEOs then it will escalate agency costs and subsequently reduce the firm value. Nevertheless, Jensen and Meckling [9], in their seminal paper proposed equity-based compensation to align the interest of CEOs with those of the shareholders. Furthering the discussion on the matter, Murphy [10] argues that executives try to increase the stock returns to gain their wealth if there is equity-based compensation. Consequently, the behaviour of rent extraction or empire building of executives would be diminished and CEO actions could work in the best interest of shareholders in increase their wealth and his own via stock performance of the firm.

Nevertheless, several doubts regarding these compensation plans has also been recognized in the studies as it is observed that executive pay arrangements were also one of the prominent cause leading to financial crises. The attitude of excessive risk taking by executives to increase their incentives affects the long-term performance negatively. Inopportunately, despite of paying incentives to avoid excessive risk-taking, compensation plans were designed which promote excessive risk-taking especially in financial firms. In addition, these pay plans focused enough on aligning both equity and bonus compensation with short-term shareholder value (Bebchuk and Freid [11]; Bebchuk and Spamann [12]).

Before the severe financial crises in 2008, Bebchuk and Fried [13] related the executive compensation and risk-taking in very comprehensive manner. Moreover, according to them, "under the standard design of pay arrangements, executives were able to pocket bonuses based on short-term results and were permitted to unload substantial parts of their equity incentives based on short-term stock prices. These arrangements provided executives with incentives to seek short-term increases in profits even when these came at the expense of piling up latent and excessive risks of an implosion later on".

The authors thanks Universiti Utara Malaysia's for funding of this research under its' Postgraduate Grant Scheme Misalignment of executive compensation with long-term shareholder value could leads to creative risk-taking. For instance, previously, it is observed that there were misaligned compensation plans and poor governance in the companies like AIG, Merrill Lynch and Bear Stearns who came to a halt by taking excessive risk. Therefore, researchers such as Cheng, Hong, and Scheinkman [14] suggested that reforming inefficient pay packages and enhancing shareholders rights by aligning long-term firm value with compensation could control this incongruous risk-taking behavior.

Although, there are abundance of literature regarding pay-performance sensitivity or alignment of CEO compensation with firm performance (Banker, Darrough, Huang, and Plehn-Dujowich [15]; Matolcsy and Wright [16]; Ozkan [17]; Zou, Zeng, Lin, and Xie, [18]). A few studies have ensured the impact of CEO compensation on both operating and market performance. In addition, as per the best knowledge of the authors, there is no previous study who have validated empirically the moderating role of risk-taking between CEO compensation and firm performance. This study which focus to assess the impact of CEO compensation on firm performance (operating and market performance) and to validate the moderating

impact of risk-taking between CEO compensation and firm performance (operating and market performance). This study has opted the model (see Figure 1) proposed by Yahya and Ghazali [19] in their conceptual review to empirically test its validity on the financial sector of Pakistan.

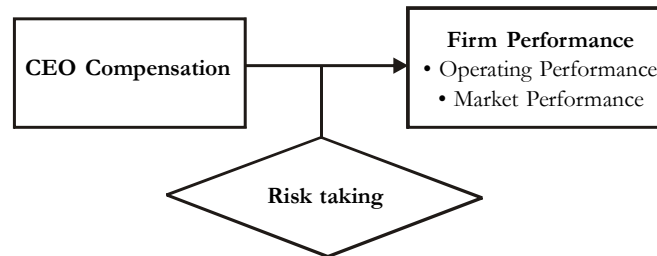


Figure 1: The Moderating Role of Risk-taking between CEO Compensation and Firm Performance

Source: Yahya and Ghazali, 2015

II. REVIEW OF LITERATURE

Researchers Luhman & Cunliffe, [20] questioned why CEOs are being paid even after losing the value of shareholder value. Agency theorists Pugh, Oswald, and Jahera, [21] suggested that principal-agent problem can be reduced if agents (executives) work in the best interest of principals (shareholders). Therefore, it is argued that high CEO compensation should also increase firm performance and shareholder wealth.

During the financial crisis of 2007 to 2008, excessive compensation of CEO was one of many the central point of condemnation. Pertaining to pre and post crises, Yang, Dolar and Mo [22] examined the effects of financial crises on the association between firm performance and CEO compensation. Their study revealed, through the database of Standard and Poor's that incentive-based contracts were not efficient compensation tools which leads to crises. Nevertheless, researchers found mixed results on the relationship between CEO compensation and firm performance.

Based upon agency theory and managerial power theory, Tien, Chen and Chuang [23] conducted a study on computer related industry of U.S. with a sample of 112 firms. They revealed that CEO pay has a positive impact on international performance and return on asset, however, negative impact on the market value of the firm. On the other hand, an empirical study on Korean firms by Byun, Kim and Shin [24] shows that both performance-base and deferred compensation has positive relationship with firm value. Their studies measure the value of firm through Tobin's Q and found that deferred compensation enhance ROA. In addition, their study also found that performance based compensation elevate sales growth of the firm. In the same lines, a previous study by Core, Holthausen and Larcker [25] revealed that the firms who pay their CEOs a higher compensation also experience high operating performance as well as high returns as compared to the other firms.

In contrast, many researchers also purported that high CEO compensation induce over-confident behavior in CEOs. Over confident CEOs do not work all the time in the best interest of the shareholders rather they get involved in empire building and wasteful capital expenditures (Ben-David, Graham, and Harvey [26], Malmendier and Tate, [27]). Consequently, Cooper, Gulen and Rau [28] found negative relationship between CEO compensation and firm' future returns due of over confident behavior of CEOs.

Moreover, it is also argued that aligning the CEO compensation just with operating or accounting performance is not enough. CEOs should be paid a reasonable lucrative compensation if they are also able to enhance the firm's market performance. Ang, Lauterbach and Vu [29] supported the evidence that although high quality CEOs receive a high compensation but they also able to grow the firm's market value instantaneously. In the same context, a study by Deysel and Kruger [30] has also come into view who found positive correlation between CEO compensation and market performance in South African banking industry. On the other side of the coin, Core, Holthausen, and Larcker [25], criticized excessive CEO compensation as it is associated with negative market performance. Similarly, a Malaysia base study by Ghazali and Taib [31] finds that companies does pays its executives not due to any performance reasons. Align with the criticism, Ronen, Cohen and Lauterbach [32], in their studies of 122 Israeli companies, also revealed that CEOs having excessive remuneration effect the market value of the firm at the expense of small public investors.

However, most studies previously conducted in the Pakistani financial sector found no relationship between CEO compensation and firm performance (see Iqbal, Khan, and Ali [33], Hussain, Obaid, and Khan, [34]; Lone, Hasan, and Afzal [35]). Therefore, this study is pursuing slightly different perspective given that after the Code of Corporate Governance (2012) it is expected that the results could be quite different as compared to previous studies because they considered the data before the implication of Corporate Governance Act in Pakistan. Thus, it is hypothesized that:

H1: CEO compensation has a positive impact on operating performance

H2: CEO compensation has a positive impact on market performance

Different risk preferences between principal and agent are also a reason for agency conflicts as purported by Eisenhardt [36] (1989). To maintain their reputation and integrity in the company, most of the times CEOs avoid risky investment. However, shareholders want their CEOs to invest in positive NPV projects despite of project riskiness because shareholders want to diversify their portfolio across firms and they want to get benefit from limited liability (Mann, [37] 2005). To transform the risk-averse attitude of CEOs, researcher such as Ross [38] (2004) proposed different practices, for instance, the managerial risk-shifting hypothesis suggested that option grants in the compensation plans of CEOs could encourage them to take more acceptable risk. Moreover, Chen, Steiner & Whyte [39] (2006) also agrees that executive compensation structure should encourages risk-taking. Although, these types of compensation practices are intended to align the interest of shareholders with CEOs but it also comes with very high risk, which could affect the long-term performance of the firm negatively (Mann [37]).

Therefore, in general, firms are believe to align the compensation of their CEOs with short-term financial performance which is can be manipulated by CEOs to increase their incentives. However, this false wealth could affect the long-term performance of the firm negatively whilst increasing the firm risk. Additionally, it is also associated to financial or accounting fraud due to executives trying to justify losses with good risky projects (Mann [37]). Nevertheless, Houston & James [40] (1995) reported total inverse case in this set-up. They purported that CEOs in banking sector receive less cash remuneration and very less stock options plan. Consequently, banking sector does not encourage risk-taking through compensation plans. Nonetheless, this study is interested to know if risk-taking could affect the relationship between CEO compensation and firm performance. Accordingly, the hypotheses are formulated in the following way:

H3: Risk-taking moderates the relationship between CEO compensation and operating performance

H4: Risk-taking moderates the relationship between CEO compensation and market performance

III. RESEARCH METHODOLOGY

(A) Population and Sample

In this study, the entire financial sector of Pakistan listed in Karachi Stock Exchange in Pakistan has been taken under investigation to fulfill the study objectives. Despite there are five major financial sectors in Pakistan, i.e. commercial banks, investment banks, insurance companies, leasing companies and Modaraba firms, nevertheless, Modaraba companies has been excluded from the study because they have not stated the CEO compensation in their annual reports. Moreover, although there are total 95 financial companies/banks listed in KSE but only 66 companies/banks from the year 2010 to 2014 data are accessible and as shown in Table 1.

Table 1
Population and Sample

<i>Sector</i>	<i>Total Listed</i>	<i>Data Available</i>
Commercial Banks	24	20
Investment Banks	28	16
Insurance Companies	32	22
Leasing Companies	11	8
Total	95	66

(B) Definition of the Variables

Operating Performance: This study has measured operating performance through operating margin as it depicts company's revenue is left over after paying for variable costs of production such as raw material, wages etc. Operating margin is also known as Return on Sales (ROS) and can be measured through operating income divided by net sales.

Market Performance: Price to earnings ratio (P/E) has been utilized to measure the market performance. It can be calculated simply by market value of share divided by earning per share. Higher P/E ratio is considered as high market value of the company.

CEO Compensation: This variable has been measured through the total remuneration paid to CEO annually including basic salary, bonus, medical allowance, maintenance etc.

Risk-taking: Owing to firm's risk taking, systematic risk may increase (Choi [41]) and usually executives are behind all these actions. Therefore, systematic risk has been considered to measure risk-taking which can be calculated through Beta. First of all, stock returns and market returns has been aligned using "VLOOKUP" function in excel and then "SLOPE" function has been employed to estimate the beta..

(C) Models

There are two operational models designed to accomplish the study. In first model, operating performance is criterion variable though in the second model, the dependent variable is market performance. Following are the OLS model, which are formulated to test through Hierarchical Linear Regression:

$$OP_{it} = a_0 + \beta_1 CEO_{it} + \beta_2 RT_{it} + \beta_3 RTCEO_{it} + e_{it} \tag{1}$$

$$MP_{it} = a_0 + \beta_1 CEO_{it} + \beta_2 RT_{it} + \beta_3 RTCEO_{it} + e_{it} \tag{2}$$

Where;

OP_{it} = Operating Performance in time by annually data

MP_{it} = Market Performance in time by annually data

CEO_{it} = CEO compensation in time by annually data

RT_{it} = Risk-taking in time by annually data

$RTCEO_{it}$ = Interaction for CEO compensation with risk-taking

(D) Descriptives

Descriptive statistics has been explained in Table 2. According to Table 2, the operating performance of financial sector in Pakistan is demonstrating negative ROS, which means that on average the financial sector is within deficit phase. Nevertheless, the market performance is positive (P/E is almost 12.17). Moreover, the average CEO compensation is almost 27 million Rs., the minimum value is 0 which means some companies have not paid any remuneration to their CEOs if the company is facing loss. The maximum value of CEO compensation indicates the remuneration of Standard Chartered Bank CEO who grabbed about 278 million Rs. in year 2010. The last variable is risk-taking which has been measured by beta. As the value is between 0 and 1 so it can be purported that there is low-volatility in the financial sector of Pakistan. In addition, the Skewness and Kurtosis columns in Table 2 exhibits that the data is not normal due to extreme values so data cleaning and validity is required before analysing Hierarchical Linear Regression.

Table 2
Descriptive Statistics

	<i>N</i> <i>Statistic</i>	<i>Minimum</i> <i>Statistic</i>	<i>Maximum</i> <i>Statistic</i>	<i>Mean</i> <i>Statistic</i>
Operating Performance	330	-98.93	20.48	-0.191
Market Performance	330	-160.15	957.35	12.165
CEO Compensation	330	.000	277516.00	26571.673
Risk-taking	330	-2.29	5.61	0.839
Valid N (listwise)	330			

Table 2
Descriptive Statistics (cont.)

	<i>Skewness</i>		<i>Kurtosis</i>	
	<i>Statistic</i>	<i>Std. Error</i>	<i>Statistic</i>	<i>Std. Error</i>
Operating Performance	-12.655	0.134	194.514	0.268
Market Performance	11.816	0.134	179.458	0.268
CEO Compensation	3.013	0.134	12.674	0.268
Risk-taking	0.580	0.134	4.584	0.268

(E) Data Cleaning and Validity

A new variable has been computed by multiplying z-scores of CEO compensation and risk-taking to create the moderating variable. Owing to the negative values in the data, “POWER” function through MS Excel has been used and then through Box-Cox power transformation techniques (Box & Cox [42]), the data has been transformed with Lambda 0.05 for all variables. As there are two model of the study so data has been analyzed on two separate files of SPSS. Potential outliers from the data were detected through Mahalanobis distance (Mahalanobis [43]). There are 3 predictors in each model so the rows showing the value above the critical chi-square value ($\alpha = 0.001$, $df = 3$, $\chi^2 = 16.27$) were excluded from the data. Consequently, Table 3 and Table 4 indicates no outliers in the model. Although, there were 330 total observation but after excluding outliers, the final sample stand at 286 in first model and 260 for the second model.

The normality of the data has been assured through histogram. Figure 2 and 3 are demonstrating that the data is neither positively nor negatively skewed.

Table 3
Operating Performance: Residuals Statistics^a (N = 286)

	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Std. Deviation</i>
Predicted Value	.8474	0.934	0.888	0.0179
Std. Predicted Value	-2.260	2.568	0.000	1.000
Standard Error of Predicted Value	0.006	0.023	0.011	0.003
Adjusted Predicted Value	0.847	0.936	0.887	0.018
Residual	-0.308	0.297	0.000	0.093
Std. Residual	-3.283	3.173	0.000	0.995
Stud. Residual	-3.294	3.182	0.000	1.001
Deleted Residual	0-.310	0.299	.0000	.0944
Stud. Deleted Residual	-3.353	3.235	0.000	1.006
Mahal. Distance	0.136	15.806	2.990	2.753
Cook's Distance	0.000	0.028	0.003	0.005
Centered Leverage Value	0.000	0.055	0.010	0.010

a. Dependent Variable: Operating Performance

Table 4
Market Performance: Residuals Statistics^a (N = 260)

	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Std. Deviation</i>
Predicted Value	1.136	1.286	1.200	0.0249
Std. Predicted Value	-2.550	3.327	0.000	1.000
Standard Error of Predicted Value	0.007	0.024	0.012	0.004
Adjusted Predicted Value	1.138	1.285	1.200	.02498
Residual	-0.336	27960	.00000	.10039

contd. table 4

	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Std. Deviation</i>
Std. Residual	-3.330	2.769	0.000	0.994
Stud. Residual	-3.341	2.777	0.000	1.001
Deleted Residual	-0.338	0.281	-.0000	.10176
Stud. Deleted Residual	-3.410	2.814	0.000	1.007
Mahal. Distance	0.110	13.635	2.988	2.640
Cook's Distance	0.000	0.034	0.003	0.005
Centered Leverage Value	0.000	0.053	0.012	0.010

a) Dependent Variable: Market Performance

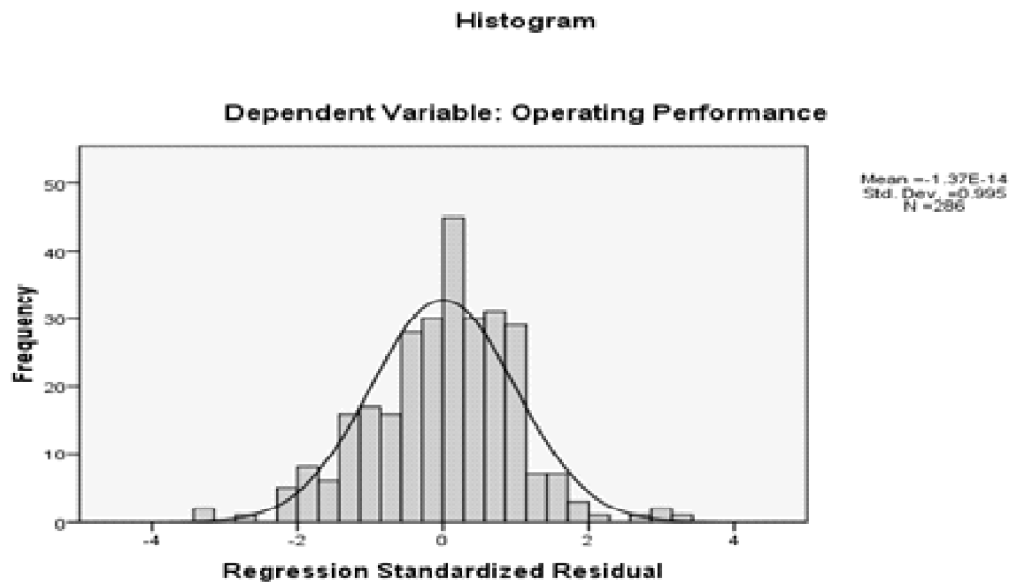


Figure 2: Histogram for First Model

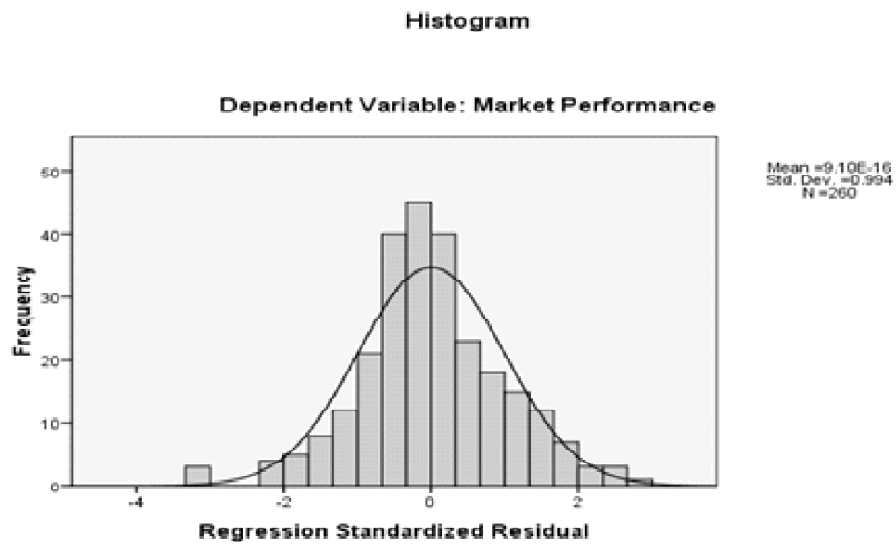


Figure 3: Histogram for Second Model

The assumption for no autocorrelation has also be fulfilled. Both models are specifying the values. The value of Durbin-Watson close to 2 represents no autocorrelation (Durbin & Watson, 1971). According to Table 5 and Table 6, both models are indicating the Durbin-Watson value close to 2 (D1=1.9, D2=2.2). Unfortunately, the goodness of fit of both models are very low (see Table 5 and 6). CEO compensation, risk taking and the moderating variable of risk-taking are contributing only 3.6 percent in operating performance and 5.8 percent in market performance. ANOVA tables show that the model having a significant value of $p < 0.05$, therefore, so it can be assumed that the data is linear (see Table 7 and Table 8).

Table 5
Operating Performance: Model Summary^b

<i>Model</i>	<i>R</i>	<i>R Square</i>	<i>Adjusted R Square</i>	<i>Std. Error of the Estimate</i>	<i>Durbin-Watson</i>
1	0.189 ^a	0.036	0.026	0.094	1.901

a) Predictors: (Constant), CEORisk, Risk-taking, CEO Compensation

b) Dependent Variable: Operating Performance

Table 6
Market Performance: Model Summary^b

<i>Model</i>	<i>R</i>	<i>R Square</i>	<i>Adjusted R Square</i>	<i>Std. Error of the Estimate</i>	<i>Durbin-Watson</i>
1	0.242 ^a	0.058	0.047	0.101	2.154

a) Predictors: (Constant), CEORisk, Risk-taking, CEO Compensation

b) Dependent Variable: Market Performance

Table 7
Operating Performance: ANOVA^b

<i>Model</i>	<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig.</i>
1 Regression	0.092	3	0.031	3.486	0.016 ^a
Residual	2.482	282	0.009		
Total	2.574	285			

a) Predictors: (Constant), CEORisk, Risk-taking, CEO Compensation

b) Dependent Variable: Operating Performance

Table 8
Market Performance: ANOVA^b

<i>Model</i>	<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig.</i>
1 Regression	0.162	3	0.054	5.289	0.001 ^a
Residual	2.610	256	0.010		
Total	2.772	259			

a) Predictors: (Constant), CEORisk, Risk-taking, CEO Compensation

b) Dependent Variable: Market Performance

In addition, scatter plots are showing no issue of heteroscedasticity as the plots are pursuing any systematic pattern (see Figure 4 and 5). Lastly, VIF and tolerance values are taken under consideration to find any issue of Multicollinearity. VIF values for both models are below 10 and tolerance values are about 0.1 so it can be validated that there is no issue of Multicollinearity among the variables as shown in Table 9 and Table 10.

Table 9
Operating Performance: Coefficients^a

<i>Model</i>	<i>Unstandardized Coefficients</i>		<i>Standardized Coefficients</i>
	<i>B</i>	<i>Std. Error</i>	<i>Beta</i>
1 (Constant)	3.795	0.900	
CEO Compensation	-2.634	0.821	-0.194
Risk-taking	0.028	0.074	0.023
RTCEO	0.019	0.074	0.015

a) Dependent Variable: Operating Performance

Table 9
Operating Performance: Coefficients^a (cont.)

<i>Model</i>	<i>t</i>	<i>Sig.</i>	<i>Collinearity Statistics</i>	
			<i>Tolerance</i>	<i>VIF</i>
1 (Constant)	4.215	0.000		
CEO Compensation	-3.207	0.001	.933	1.072
Risk-taking	.377	0.706	.934	1.070
RTCEO	.254	0.799	.978	1.023

a) Dependent Variable: Operating Performance

Table 10
Market Performance: Coefficients^a

<i>Model</i>	<i>Unstandardized Coefficients</i>		<i>Standardized Coefficients</i>	
	<i>B</i>	<i>Std. Error</i>	<i>Beta</i>	
1 (Constant)	-0.897	1.017		
CEO Compensation	2.102	.927		.142
Risk-taking	-.342	.101		-.209
RTCEO	.100	.090		.069

a) Dependent Variable: Market Performance

Table 10
Market Performance: Coefficients^a (cont.)

<i>Model</i>	<i>t</i>	<i>Sig.</i>	<i>Collinearity Statistics</i>	
			<i>Tolerance</i>	<i>VIF</i>
1 (Constant)	-.882	.378		
CEO Compensation	2.268	.024	.942	1.061
Risk-taking	-3.385	.001	.962	1.040
RTCEO	1.120	.264	.972	1.029

a) Dependent Variable: Market Performance

IV. RESULTS AND DISCUSSION

The results of the study are elaborated in Table 9 and 10. Table 9 exhibits significant negative impact of CEO compensation on operating performance ($\beta_1 = -2.634$, $p = 0.001$). However, risk taking has no impact on operating performance ($\beta_2 = 0.028$, $p = 0.706$) and it also does not moderate the relationship between CEO compensation and operating performance ($\beta_3 = 0.019$, $p = 0.799$). Consequently, this results accept H1 but reject H3. Table 10 illustrates the coefficients for second model in which criterion variable is market performance. The table reveals that there is significant positive impact of CEO compensation on market performance ($\beta_1 = 2.102$, $p = 0.024$). In addition, inconsistent with prior model, risk-taking has a significant negative impact on market performance ($\beta_2 = -0.0342$, $p = 0.001$). Nevertheless, this model also does not find any moderating effect of risk-taking between CEO compensation and market performance ($\beta_3 = 0.100$, $p = 0.972$). Therefore, H2 has been accepted but the results reject the H4.

As there is negative impact of CEO compensation on operating performance so there is an indication of agency conflicts in financial sector of Pakistan. Previously, Core *et al.* (1999) also found that there is negative relationship between CEO compensation and firm performance. Their reason for that inverse relationship was weaker corporate governance. Nonetheless, corporate governance structures in Pakistan has been improved after the implications of SECP's revised Code of Corporate Governance (2012) as most of the studies found positive impact of corporate governance on firm performance (Cheema and Din[44]; Javaid and Saboor [45]). However, these results put a question mark on the efficiency of corporate governance so it should be further improved.

Reason for the negative impact of operating performance cannot be fully authenticated. However, the results are consistent with the finding of Brick, Palmon and Wald [46] that there is a negative relationship between CEO compensation and firm performance due to cronyism by directors and CEOs. Younas, Mehmood, Ilyas and Bajwa [47] analyzed 151 Pakistani firm and purported that firm performance is negatively associated to CEO compensation which holds managerial power theory. Managerial power and rent extraction issue has also detected in this context as they have substantial influence over setting their remuneration.

Although there is a negative impact of CEO compensation on operating performance but the results reveals positive impact of CEO compensation on firm performance. This outcome is consistent with the results of Deysel and Kruger [48]. Nevertheless, the effect size of the model is much lower so the increase in market performance of financial sector in Pakistan cannot be solely relied on this predictor. Market performance and equity returns fluctuates with unobservable and exogenous economic events so CEO's decisions are less effective in this case (Voulgaris, Stathopoulos, and Walker [49]). Therefore, CEOs should be held more accountable for accounting or operating measures.

The study also discovered that risk-taking has a significant negative impact on market performance. It can be purported that poor decisions of CEOs are affecting the market performance. However, it cannot be claimed that this negative relationship is due to the greed of CEOs to increase their compensation as the results do not find any moderating role of risk-taking between CEO compensation and market performance. In addition, no moderating influence of risk-taking has been found on the relationship between CEO compensation and operating performance.

V. CONCLUSION

For the past few years, academicians and researchers are concern on CEO compensation structures that has been on the increased due to its involvement in the financial crises of 2008. Immense literature can be found in which researchers tried to align the CEO compensation with different accounting and market based indicators. Nevertheless, just aligning their compensation with firm performance is not enough, it should have sound effect on firm performance. Therefore, this study attempts to find the impact of CEO compensation on operating and market performance. The results revealed that there is a negative impact of CEO compensation on operating performance which is supporting managerial power hypothesis in this perspective. Nevertheless, this inverse relation could be due to many reasons, e.g. cronyism, rent extraction or weak corporate governance.

On the other hand, positive significant impact of CEO compensation on market performance has been found. Owing to the weak effect size of the model, the positive trend in market performance cannot be relied exclusively on CEO compensation as there could be many other exogenous factors who are determining the market performance. Therefore, it is recommended that futuristic researchers should also consider different control variables (corporate governance mechanisms, economic variables etc.) to improve the model's goodness of fit. The model also demonstrated that there is a negative significant effect of risk-taking on market performance. Usually, it is observed that efficient risk-taking effect the performance positively though excessive and unproductive risk-taking could negatively affect the performance. However, it is not clear that negative impact of risk-taking on market performance is owing to the CEOs' gluttony to enhance their incentives by taking excessive risk as the study do not find any moderating role of risk-taking between CEO compensation and firm performance (operating and market performance). It is recommended that there is a need of further study on this perspective which could be conducted on different markets and different sectors.

REFERENCES

- A. Berle, and G. Means (1932). *The Modern Corporation and Private Property*. Macmillan: New York,
- R. Barontini, and S. Bozzi (2011). "Board compensation and ownership structure: Empirical evidence for Italian listed companies", *Journal of Management Government*, vol. 15, pp. 59–89.
- J.T. Connelly, P. Limpaphayom, and N. Nagarajan, N. (2012). "Form versus substance: The effect of family influence and corporate governance practices on firm value in Thailand", *Journal of Banking and Finance*, vol. 36, pp. 1722- 1743.
- D. Dickins, and R. Houmes (2009). "Revisiting the relationship between insider ownership and performance", *Journal of Business and Economics Studies*, vol. 15, no. 2, pp. 32- 43.
- E. Junarsin (2011). "Executive compensation and firm performance: An empirical examination", *European Journal of Economics, Finance and Administrative Sciences*, vol. 28, pp. 163- 179.
- D.K. Ding and Q. Sun (2011). "Causes and effects of employee stock option plans: Evidence from Singapore", *Pacific-Basin Finance Journal*, vol. 9, pp. 563–598.
- J.C. Hartzell and L.T.Starks (2003). "Institutional investors and executive compensation", Working Paper, New York University Stern School of Business.
- S.A. Hillegeist and F. Penalva (2004). "Stock option incentives and firm performance", <http://ssrn.com/abstract=480384>
- M.C. Jensen, and W.H. Meckling (1976). "Theory of the firm: Managerial behavior, agency costs and ownership structure", *Journal of Financial Economics*, vol. 3 no. 4, pp. 305-360.

- K.J. Murphy (1985). "Corporate performance and managerial remuneration: An empirical analysis", *Journal of Accounting and Economics*, vol. 7, 11-42.
- L.A. Bebchuk and J.M. Fried (2003). "Executive compensation as an agency problem" *Journal of Economic Perspectives*, pp. 71-92, Summer.
- L.A. Bebchuk and H. Spamann (2010). "Regulating bankers' pay", 98 *Georgetown Law Journal*, vol. 98, pp. 247-287.
- L.A. Bebchuk and J.M. Fried (2004). "Pay without Performance: The Unfulfilled Promise of Executive Compensation", Harvard University Press, Cambridge, MA.
- I.H. Cheng, H.Hong and J. A. Scheinkman (2015). "Yesterday's heroes: Compensation and risk at financial firms, *The Journal of Finance*, vol. 70 no. 2, pp. 839-879.
- R.D. Banker, M.N. Darrrough, R. Huang and J.M. Plehn-Dujowich (2012). "The Relation between CEO Compensation and Past Performance" (July 18, 2012). *The Accounting Review*, Forthcoming. Available at SSRN: <https://ssrn.com/abstract=2111847>.
- Z. Matolcsy and A. Wright (2011). "CEO compensation structure and firm performance", *Accounting and Finance*, vol. 51 no.3, pp. 745-763.
- N. Ozkan (2011). "CEO compensation and firm performance: an empirical investigation of UK panel data", *European Financial Management*, vol. 17 no.2, pp. 260-285.
- H.L. Zou, S.X. Zeng, H. Lin, and X.M. Xie (2015). "Top executives' compensation, industrial competition, and corporate environmental performance: Evidence from China", *Management Decision*, vol. 53 no. 9, pp. 2036-2059.
- F. Yahya, and Z. Ghazali (2015). "A contemporary approach for mitigating agency conflicts: A conceptual review", *Corporate Ownership and Control*, vol. 13 no. 1, pp. 633-641.
- J.T. Luhman and A.L. Cunliffe (2012). *Key Concepts in Organization Theory*. SAGE.
- W.N. Pugh, S.L. Oswald and J.S. Jahera (2000). "The effect of ESOP adoptions on corporate performance: are there really performance changes?", *Managerial and Decision Economics*, vol.21, Iss. 5; pp. 167-180.
- F. Yang, B. Dolar and L. Mo (2014). "CEO Compensation and Firm Performance: Did the 2007-2008 Financial Crisis Matter?", *Journal of Accounting and Finance*, vol. 14 no. 1, pp. 137-146.
- C. Tien, C.N. Chen and C.M. Chuang (2013). "A study of CEO power, pay structure, and firm performance", *Journal of Management & Organization*, vol. 19 no. 4, pp. 424-453.
- D.H. Byun, J. Kim, and J.Y. Shin (2009). "The effects of deferred compensation and performance-based compensation on firm's value, *Asia-Pacific Journal of Accounting and Economics*, vol. 16 no. 1, 49-67.
- J.E. Core, R.W. Holthausen, and D.F. Larcker (1999). "Corporate governance, chief executive officer compensation, and firm performance", *Journal of Financial Economics*, vol. 51 no. 3, pp. 371-406.
- I. Ben-David, J.R. Graham and C.R. Harvey (2007). "Managerial overconfidence and corporate policies", working paper No. w13711, National Bureau of Economic Research.
- U. Malmendier and G. Tate (2008). "Superstar CEOs", working paper No. w14140, National Bureau of Economic Research.
- M.J. Cooper, H. Gulen and P.R. Rau, "Performance for Pay? The Relation Between CEO Incentive Compensation and Future Stock Price Performance", Available at SSRN: <https://ssrn.com/abstract=1572085>, Unpublished working paper, 2016.
- J.S. Ang, B. Lauterbach and J. Vu (2003). "Efficient labor and capital markets: Evidence from CEO appointments", *Financial Management*, vol. 32, pp. 27-52.
- B. Deysel and J. Kruger (2015). "The relationship between South African CEO Compensation and company performance in the banking industry", *Southern African Business Review*, vol. 19 no. 1, pp. 137-169.
- Z. Ghazali and F.M. Taib (2015). "It pays to be an executive in Malaysia", *The Journal of Developing Areas*, vol. 49 no. 5, pp. 225-237.

- B. Ronen, S. Cohen and B. Lauterbach (2008). "The Effect of CEO Pay on Firm Valuation in Closely Held Firms" (January 2008). Available at SSRN: <https://ssrn.com/abstract=1098852>.
- A. Iqbal, M.I. Khan and S. Ali (2012). "CEO Compensation and Bank Performance", *American Journal of Scientific Research*, vol. 78, pp. 93-100.
- A. Hussain, Z. Obaid and S. Khan (2014). "CEO compensation determinants: Is the size or performance of the firm a determinant of CEO compensation in Pakistan", *PUTAJ Humanities and Social Sciences*, vol. 21 no. 1, pp. 115-124.
- R.R. Lone, F. Hasan and M. Afzal (2015). "Factors Effecting CEO Compensation: Evidence from Listed Banks in Pakistan", Proceedings of 10th Annual London Business Research Conference, Imperial College, London, UK.
- K.M. Eisenhardt (1989). "Agency theory: An assessment and review", *Academy of Management Review*, vol. 14 no. 1, pp. 57-74.
- C. Mann (2005). "CEO compensation and credit risk", Special Comment, New York: Moody's Investors Service.
- S.A. Ross (2004). "Compensation, incentives, and the duality of risk aversion and riskiness", *The Journal of Finance*, vol. 59, pp. 207-225.
- C.R. Chen, T.L. Steiner and A.M. Whyte (2006). "Does stock option-based executive compensation induce risk-taking? An analysis of the banking industry", *Journal of Banking & Finance*, vol. 30 no. 3, pp. 915-945.
- J.F. Houston and C. James (1995). "CEO compensation and bank risk: Is compensation in banking structured to promote risk-taking", *Journal of Monetary Economics*, vol. 36, pp. 405-431.
- S. Choi, "Executive Compensation in the Banking Industry and Systemic Risk", (Master's thesis), 2014. Retrieved November 30, 2015, from <http://scholarcommons.sc.edu/etd/2635>
- G.E. Box and D.R. Cox (1964). "An analysis of transformations", *Journal of the Royal Statistical Society, Series B (Methodological)*, pp. 211-252.
- P.C. Mahalanobis (1936). "On the generalised distance in statistics", Proceedings of the National Institute of Sciences of India, vol. 2 no.1, pp. 49-55. Retrieved 2016-09-27.
- K.U. Cheema and M.S. Din (2013). "Impact of corporate governance on performance of firms: a case study of cement industry in Pakistan", *Journal of Business and Management Sciences*, vol. 1 no. 4, pp. 44-46.
- F. Javaid and A. Saboor (2015). "Impact of Corporate Governance index on firm Performance: evidence from Pakistani manufacturing sector", *Journal of Public Administration and Governance*, vol. 5 no. 2, pp. 1-21.
- I.E. Brick, O. Palmon and J.K. Wald (2006). "CEO compensation, director compensation, and firm performance: Evidence of cronyism?", *Journal of Corporate Finance*, vol. 12 no.3, pp. 403- 423.
- Z.I. Younas, B. Mehmood, A. Ilyas and H.A. Bajwa, "Corporate governance mechanism and firm performance as determinants of CEO compensation: A panel data analysis of Pakistani listed companies", *Journal of Global Economy*, vol. 8 no. 4, pp. 2278-1277, 2012. (ISSN Print-0975-3931, Online).
- B. Deysel and J. Kruger (2015). "The relationship between South African CEO Compensation and company performance in the banking industry", *Southern African Business Review*, vol. 19 no.1, pp. 137-169.
- G. Voulgaris, K. Stathopoulos and M. Walker (2014). "IFRS and the use of accounting-based performance measures in executive pay", *The International Journal of Accounting*, 49(4), 479-514.