ISSN Online: 3006-4708
ISSN Print: 3006-4694

SOCIAL SCIENCE REVIEW ARCHIVES

https://policyjournalofms.com

Relationship between CEO remuneration and firm performance: evidence from Pakistan

Muhammad Imran[1], Saima Saqib[2], Naveed Khattak[3], Dr. Muhammad Imran khan[4]

[1] Lecturer Commerce, Govt. Graduate College Taunsa. Email: imrankhosa1989@gmail.com.
[2] Assistant Professor of Economics, Punjab Higher education department, Posted at Govt graduate College for women Shalimar town Lahore. Email: saimasaqib25@gmail.com.
[3] Higher School of Economics, Saint Petersburg, Russia. Email: naveedkhattak2019@gmail.com.
[4] Lecturer Commerce, Govt Associate College Sanawan.
Email: aliimranmuhammad2000@yahoo.com.

DOI: https://doi.org/10.70670/sra.v3i4.1331

Abstract

This study explores the effects of CEO remuneration on performance of listed firms from chemical sector of Pakistan. This study used TobinQ and return on assets for proxies of firm performance. This study used OLS as estimation method and Hausman test suggest that fixed effect is suitable for sample data firms from chemical sector of Pakistan. This study used data 2011-2020 of 15 listed chemical firms belongs to Pakistan. Findings suggest positive impact of CEO remuneration on firm performance of listed chemical firms from Pakistan. These findings indicate that highly paid CEO of chemical industry are more competent, efficient and talented. These results support the assumptions of agency theory. Policymakers, managers, and investors in Pakistan's chemical industry can learn from this study.

Keywords: CEO remuneration, TobinQ, ROA, Chemical firms

Introduction

The "fat cat" scandal, which involved Cedric Brown's compensation at British Gas, was one of the notable cases that garnered international attention in the 1990s. Later in 2003, a shareholder revolt at GlaxoSmithKline was sparked by Jean-Pierre Garner's compensation package. More recently, in 2008, there was an outcry over the revelation that Sir Fred Goodwin, the CEO of the now-defunct Royal Bank of Scotland (RBS), had received a £30 million benefit (Bebchuk & Neeman, 2010). In addition to these examples, there has been growing concern about the total compensation of executive directors and the widening gap between the average employee in firms and the highest point of income for both public and private corporations. The sudden loss of interest in CEO salary coincides with the divide of partnership and control in contemporary business and the widespread acceptance of agency theory (Murphy, 1999). The division of ownership and control in contemporary organizations gives rise to agency concerns (Fama & Jensen, 1983). Pakistan's economy is developing, and since 2002, its corporate governance regulations have been amended three times. The first corporate governance code in Pakistan was put into effect in 2002, followed by another in 2012 and 2017 (Khan et al,.2022). These corporate governance codes are attempting to address the shortcomings in updated versions of earlier codes while also keeping up with global norms. Pay and performance have a complicated relationship. For example, some studies (Ntim et al., 2015; Raithatha & Komera, 2016; Sheikh et al., 2018) found a strong correlation between compensation and performance, while others (Chen et al.,

2011; Haron, 2018) found no significant correlation at all (Conyon & He, 2011; Fernandes, 2008). Because it is believed that the CEO is the most important personality for company performance, the CEO's compensation dominates the literature currently available on executive director compensation. Therefore, the majority of early research on executive director compensation focused on examining the connection between CEOs and company success (Raithatha & Komera, 2016; Sheikh et al., 2018). According to Doucouliagos et al. (2007), CEOs are skilled and experienced individuals who use their abilities to achieve firm goals and secure shareholder investment. Furthermore, Jensen et al., (2004) explained that offering executives competitive incentives tends to improve business performance and lessen the agency problem. Very little study has been done in the context of developing markets, while the majority of the literature on the performance-pay link has been on Anglo-Saxon economies (Raithatha & Komera, 2016). Research on the pay performance framework, specifically for CEOs, has been a persistent problem in Pakistan (Javid & Iqbal, 2010; Sheikh et al., 2018). The influence of economic growth and shifts in the market for managerial skills has resulted in significant adjustments to the compensation strategies used by Pakistani businesses. In this study, we examine how CEO compensation effects on firm performance of listed firms of chemical sector. reason to study from Pakistan context is that because Pakistan exhibits characteristics of a growing business sector economy, such as poor investor activism and immature institutional and administrative components (Rehman & Mangla, 2012).

The rest of the work is organized as follows: Section 2 covers the literature review; Section 3 covers the methodology; Chapter 4 elaborates the findings; Section 5 concludes the discussion; and lastly, sources are cited.

Literature review

The basic tenet of the agency theory is the conflict of interest between managers and shareholders. Fair compensation for management helps lessen this conflict of interest between shareholders and managers (Jenson and Meckling, 1976). According to Perry and Zenner (2001), compensation is a contract that is dependent on performance. According to Shao et al., (2012), compensation agreements can successfully address the issue of organization between directors and investors. The effective director's compensation agreements should produce the most remarkable level of performance, according to the optimal contracting theory. Monem and Ng (2013) discovered that shareholder wealth is sensitive to changes in executive director compensation.

Moreover, the board of directors' remuneration usually comprises of several separate payments depending on different tasks in different departments in the organization. Normally these will incorporate a fundamental pay and various performance related profits e profits in terms of money and/or shares. These profits are typically identified with measures of corporate performance, both short and long-term (Holm & Zaman, 2012). Corporate governance deals with the controlling and monitoring of the company and its members as well, which also encompasses issues related to the remuneration of board of directors. Controlling and monitoring include observations on the fairness, transparency, accountability, and responsibility of organizational operations and all these aspects are expected to improve further under a certain code of corporate governance. In fact, literature agrees that poor corporate governance is demonstrated by poor execution of firms (Chen et al., 2011; Javid & Iqbal, 2010). Even though the executive remuneration framework is critical, the foundation of an efficient system is challenging. Not just are the commitments and endeavors of managers hard to quantify, their choices influencing the execution of the firm cannot generally be precisely surveyed. Among the various incentive and monitoring mechanisms, executive remuneration is especially important for the senior managers. On the other hand, a few economists believe that these executives deserve every nickel they receive (Ewers et al., 2002). According to several research (Conyon & He, 2011; Kent et al., 2018; Raithatha & Komera, 2016; Sheikh et al., 2018), there is a positive correlation between the CEO and board of directors' salary and the performance of the company. This is in line with the agency hypothesis. Furthermore, Perry and Zenner (2001) discovered that changes to CEO compensation had a substantial impact on the success of the company. According to Merhebi et al.,

(2006), company performance in Australia is positively and significantly correlated with the compensation of the board of directors. Furthermore, for both public and private companies in China, Conyon and He (2011) found a positive correlation between an increase in CEO salary and the growth of shareholder wealth. So, the current study empirically supported the performance-pay framework in Pakistan of non-financial chemical sector, where CEOs perform better in the future based on prior amounts and structure of remuneration packages.
The hypothesis can be expressed as follows in light of the discussion above:
H1. There is a positive relationship between CEO remuneration and firm performance.

Methodology

Sample selection

This study evaluated data from firms in the chemical industry that were listed on the Pakistan Stock Exchange. The study's data set covered the years 2011 through 2020. This study population included all of Pakistan's listed chemical firms. After applying filters such missing values, variable-related outlier values, firms with negative equity value, and the difficulty to get data from annual reports, 15 firms and 150 year-wise observations are left for study.

Variables

The variables examined in this study are listed in Table 1. Khan et al. (2022),Harymawan et al. (2020), Field and Mkrtchyan (2017), Harymawan and Nowland (2016), Muttakin et al. (2015) and Cashman et al. (2012), Khan & Kouser (2023) were all cited in this study.

Variable	Proxy	Measurement
Dependent variables		
Tobins'Q	TBNQ	The sum of Market value of equity and total liabilities, divided by total assets.
Return on Assets	ROA	EBIT scaled with total assets.
Explanatory variables		
Chief executive remuneration	CEO	Chief executive officer remuneration in Pak thousands rupees scaled with natural logarithm.
Control variables		
Size	SIZE	Natural logarithm of total assets.
Capital intensity	CAP	Fixed assets scaled by total assets
Cash holding ratio	CHR	Cash and bank balance scaled by total assets
Age	AGE	Natural logarithm of firm years since formation.

Estimation method

In this study, OLS was used as an estimation approach. The Hausman test is used to evaluate the relative merits of fixed and random effects models. For estimation, the following formulas are employed.

$$TBNQ_{it} = \alpha_{it} + \beta_1 CEO_{it} + \beta_2 SIZE_{it} + \beta_3 CAP_{it} + \beta_4 CHR_{it} + \beta_5 AGE_{it} + \mu_{it} \quad \text{.....1}$$

$$ROA_{it} = \alpha_{it} + \beta_1 CEO_{it} + \beta_2 SIZE_{it} + \beta_3 CAP_{it} + \beta_4 CHR_{it} + \beta_5 AGE_{it} + \mu_{it} \quad \text{.....2}$$

Results

Table 2: Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
CEO	150	3.864	1.135	0.000	4.838
TBNQ	150	1.403	0.627	0.739	3.032
ROA	150	0.091	0.092	-0.065	0.297
SIZE	150	15.717	1.770	12.288	18.033

CAP	150	0.591	0.216	0.208	0.918
CHR	150	0.053	0.064	0.002	0.216
AGE	150	3.184	0.532	2.197	4.025

Table 2 shows the descriptive statistics of the study. Average value of CEO remuneration is 3.864. TobinQ average is 1.403. Mean of return of assets is 0.091. Mean of size is 15.717. Average value of capital intensity is 0.591. Cash holding ratio is 0.053. Average of firm age is 3.184.

Table 3: Correlation Matrix

	CEO	TBNQ	ROA	SIZE	CAP	CHR	AGE
CEO	1						
TBNQ	0.239**	1					
ROA	-0.0170	0.590***	1				
SIZE	0.603***	0.276***	0.0507	1			
CAP	0.386***	-0.125	-0.388***	0.216**	1		
CHR	-0.000684	-0.0526	0.177*	0.0880	-0.435***	1	
AGE	0.110	0.227**	0.0375	0.0336	0.113	-0.0644	1

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 3 displays the correlation analysis from this empirical study. Correlation is required to determine the likelihood of multicollinearity among variables. According to the literature, a threshold value of +/-0.70 is used to determine the possibility of multicollinearity between variables. Correlation analysis indicates that there is little chance of multicollinearity across variables because the correlation value is so low.

Equation	1			2		
	OLS	Fixed	Random	OLS	Fixed	Random
CEO	0.163	0.505*	0.163	0.0180	0.101**	0.0180
	(0.128)	(0.244)	(0.128)	(0.0179)	(0.0386)	(0.0179)
SIZE	0.101	0.323	0.101	0.000937	0.0214	0.000937
	(0.0828)	(0.177)	(0.0828)	(0.0115)	(0.0280)	(0.0115)
CAP	-0.400	0.00713	-0.400	-0.189***	-0.232***	-0.189***
	(0.334)	(0.398)	(0.334)	(0.0514)	(0.0629)	(0.0514)
CHR	-1.930**	-1.546*	-1.930**	0.226*	0.249*	0.226*
	(0.714)	(0.757)	(0.714)	(0.114)	(0.120)	(0.114)
AGE	0.224	-0.290	0.224	-0.0283	-0.208***	-0.0283
	(0.195)	(0.370)	(0.195)	(0.0276)	(0.0586)	(0.0276)
_cons	-1.196	-4.617	-1.196	0.197	0.149	0.197
	(1.237)	(2.397)	(1.237)	(0.173)	(0.379)	(0.173)
N	150	150	150	150	150	150

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 4 shows the regression result of the study. Hausman test is utilized to select better model between fixed and random. Hausman test suggest fixed model is appropriate for the data of chemical listed firms of Pakistan. Panel 1 shows the effect of CEO remuneration on TbinQ. CEO remuneration has

positive & significant effect on TobinQ. This finding is align with Conyon & He, 2011; Kent et al., 2018; Raithatha & Komera, 2016; Sheikh et al., 2018 and Khan et al., (2022). From control variables, cash holding ratio has negative & significant effect on TbinQ. While size & capital intensity has positive & insignificant and firm age has negative & insignificant effect on TbinQ.

Panel 2 shows the effect of CEO remuneration on return on assets. Hausman test suggest fixed model is appropriate for the data of chemical listed firms of Pakistan. CEO remuneration has positive & significant effect on return on assets. This finding is align with Conyon & He, 2011; Kent et al., 2018; Raithatha & Komera, 2016; Sheikh et al., 2018 and Khan et al., (2022). From control variables, cash holding ratio has positive & significant effect return on assets. On the other side, capital intensity & firm age has negative and significant effect on return on assets. Firm size has insignificant and positive effect on return on assets.

Discussion and Conclusion

This study explores the effects of CEO remuneration on performance of listed firms from chemical sector of Pakistan. This study used TobinQ and return on assets for proxies of firm performance. This study used OLS as estimation method and Hausman test suggest that fixed effect is suitable for sample data firms from chemical sector of Pakistan. This study used data 2011-2020 of 15 listed chemical firms belongs to Pakistan.

Findings suggest positive impact of CEO remuneration on firm performance of listed chemical firms from Pakistan. These findings indicate that highly paid CEO of chemical industry are more competent, efficient and talented to attain more performance in the perspective of market and efficiency related performance. These results support the assumptions of agency theory which suggest that interest alignment of managers with shareholders improve the firm performance.

Policymakers, managers, and investors in Pakistan's chemical industry can learn from this study. The data and time period pertaining to Pakistan's chemical sector are likewise limited in this study.

References

Bebchuk, L. A., & Neeman, Z. (2010). Investor protection and interest group politics. *Review of Financial Studies*, 23(3), 1089-1119.

Chen, J., Ezzamel, M., & Cai, Z. (2011). Managerial power theory, tournament theory, and executive pay in China. *Journal of Corporate Finance*, 17(4), 1176-1199.

Conyon, M. J., & He, L. (2011). Executive compensation and corporate governance in China. Journal of Corporate Finance, 17(4), 1158-1175.

Conyon, M. J., & He, L. (2011). Executive compensation and corporate governance in China. *Journal of Corporate Finance*, 17(4), 1158-1175.

Doucouliagos, H., Haman, J., & Askary, S. (2007). Directors' remuneration and performance in Australian banking. *Corporate Governance: An International Review*, 15(6), 1363-1383.

Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. *The Journal of Law and Economics*, 26(2), 301-325.

Fernandes, N. (2008). EC: Board compensation and firm performance: The role of "independent" board members. *Journal of Multinational Financial Management*, 18(1), 30-44.

Haron, R. (2018). Do muslim directors influence firm performance? Empirical evidence from Malaysia (pp. 283-305). *Al-Shajarah, Special Issue Islamic Banking and Finance 2018*.

Holm, C., & Zaman, M. (2012). Regulating audit quality: Restoring trust and legitimacy. *Accounting Forum*, 36(1), 51-61.

Javid, A. Y., & Iqbal, R. (2010). Corporate governance in Pakistan: Corporate valuation, ownership and financing. *Working Papers & Research Reports. 2010*.

Jensen, M., Murphy, K., & Wruck, E. (2004). CEO pay and how to fix it. *Harvard Business School NOM Working Paper*, (04-28).

Jenson, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of financial economics*, *3*(4), 305-360.

Kent, P., Kercher, K., & Routledge, J. (2018). Remuneration committees, shareholder dissent on CEO pay and the CEO pay-performance link. *Accounting and Finance*, 58(2), 445-475.

Khan, M. I., & Kouser, R. (2023). Effect of Leverage Deviation from its Target on Equity Cost and its Sensitivity: An Empirical Investigation. *SCMS Journal of Indian Management*, *20*(4).

Khan, M. I., Khakwani, M. S., & Kouser, R. (2022). Remuneration committee, remuneration of executives and firm performance: an empirical study from Pakistan. *Pacific Business Review International*, *14*(10).

Merhebi, R., Pattenden, K., Swan, P. L., & Zhou, X. (2006). Australian chief executive officer remuneration: Pay and performance. *Accounting and Finance*, 46(3), 481-497.

Monem, R., & Ng, C. (2013). Australia's 'two-strikes' rule and the pay performance link: Are shareholders judicious? *Journal of Contemporary Accounting and Economics*, 9(2), 237-254.

Murphy, K. J. (1999). Executive compensation. *Handbook of Labor Economics*, 3(1), 2485-2563.

Ntim, C. G., Lindop, S., Osei, K. A., & Thomas, D. A. (2015). Executive compensation, corporate governance and corporate performance: A simultaneous equation Approach. *Managerial and Decision Economics*, 36(2), 67-96.

Perry, T., & Zenner, M. (2001). Pay for performance? Government regulation and the structure of compensation contracts. *Journal of Financial Economics*, 62(3), 453-488.

Raithatha, M., & Komera, S. (2016). Executive compensation and firm performance: Evidence from Indian firms. *IIMB Management Review*, 28(3), 160-169.

Rehman,R.,&Mangla,I.U.(2012).Does corporate governance influence banking performance? *Journal of Leadership, Accountability and Ethics*, 9(3), 86.

Shao, R., Chen, C., & Mao, X. (2012). Profits and losses from changes in fair value, executive cash compensation and managerial power: Evidence from A-share listed companies in China. *China Journal of Accounting Research*, 5(4), 269-292.

Sheikh, M. F., Shah, S. Z. A., & Akbar, S. (2018). Firm performance, corporate governance and executive compensation in Pakistan. *Applied Economics*, 50(18), 2012-2027.