

Relationship Between Executive Compensation And Financial Performance Of Commercial State Owned Enterprises In The Energy Sector In Kenya

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Abstract

Purpose - This paper focused on the relationship between executive compensation and financial performance of commercial state owned corporations in the energy sector in Kenya

Methodology - This study adopted a cross - sectional research design. Secondary data on net income, total assets and executive compensation were extracted from the individual company published financial statements for a five year period

Findings - The study finds weak negative relationship between executive compensation and financial performance. Regression analysis models infer that 38.9% and 45.2% of variations in financial performance of the commercial state owned firms is explained by variations in the firm size and by variations in both the firm size and the levels of executive compensation respectively. The study found that any unit increase in firm size has a commensurate decline in ROA for the firms to an extent of 0.059 and a unit increase in executive compensation has a commensurate decline in ROA for the firms to an extent of 0.027.

Implication – the findings imply that there is no increased value for higher executive compensation in the public sector corporations. Thus, Corporations boards should re evaluate the comensation to justify value for the executive pay levels.

Value – It is recomended that there be harmonization and review of the executive remuneration system to include pay for performance perks and to rationalize productive capacity of assets acquired to ensure they are utilized in value creation.

Key Words: *Executive compensation, financial performance in commercial state owned enterprises*

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Introduction

Crystal (1991) observe that compensation paid to the top executives of corporations is a politically sensitive area with critics claiming that amounts paid to executives are too high. The levels of compensation in all countries have been rising dramatically over the past decades. Not only is it rising in absolute terms, but also in relative terms. Gabaix and Landier (2008) established that the compensation of other senior executives has risen more rapidly than that of rank and file workers but has not kept pace with CEO pay. A reason for these huge increases is a result of the addition of this risky pay which necessitated an increase in compensation of the risk averse executives.

Tosi, *et al.* (2000) opine that corporate governance scholars have long attempted to understand a myriad of factors that underpin executive compensation. The most popular stream of research based on agency theory suggests that the board of directors and performance based incentives are among the critical governance mechanisms that allow reducing opportunistic behavior of executives and aligning their interests with those of shareholders.

Executive compensation (also executive pay), is financial compensation received by an officer of a firm. It is typically a mixture of salary, bonuses, shares of and/or call options on the company stock, benefits, and perquisites, ideally configured to take into account government regulations, tax law, the desires of the organization and the executive, and rewards for performance (Maijoor & Vanstraelen, 2006). Bebchuk and Grinstein (2005) and Murphy (1999) opine that executive compensation is pay received by an officer of a firm, often as a mixture of salary, bonuses, and shares of and/or call options on the company stock, paid expenses (perks) or insurance. It refers to the benefits and remuneration accruing to top management of a corporation mostly the Board of Directors including the CEO.

Financial performance on the other hand is a measure of the extent the corporation has attained its goals and objectives thereby meeting the needs of all stakeholders and specifically shareholders. Leah (2008) explain that financial performance refers to the

measurement of the results of a firm's strategies, policies and operations in monetary terms. These results are reflected in the firm's return on assets (ROA) and return on investments (ROI). Various researchers have used different measures to capture organizational performance including net income, Sales (Dollinger, 1984), Return on Investments (ROI), Return on sales (ROS), and a combination of ROI and ROS (Pegels and Yang, 2000), return on assets (ROA) (Birley and Wiersema, 2002) and market to book value of the equity as well as profitability and market share/ growth (Entrialgo, et al. 2000).

Executive compensation and financial performance are perfectly correlated, but associative studies on executive compensation and performance have yielded mixed results. For instance, Jensen and Murphy (1990), reported that there is little relationship between executive pay and company performance. Main et al (1996), Izan, Sidhu and Taylor (1998), and Benito and Conyon (1999) have confirmed these low pay performance sensitivities and Lishenga (2011) observe that CEO remuneration is insensitive to firm performance.

Tosi *et al.* (2000) observed a weak correlation between CEO pay and performance but a strong positive correlation with CEO pay and firm size. Conversely, Shah *et al.* (2006) found a positive relationship between total CEO compensation and firm performance and explain that CEO compensation is a function of performance measures, size and corporate governance variables. Similar positive relationship was found by Ozkan (2007) in UK, Aduda and Musyoka (2011), Ongore and K'obonyo (2011) and Busaule (2014) in separate studies done Kenya, while in Sweden, Tariq (2010) established that compensation of the CEO is an increasing function of size of the firm and also growth of the company.

These mixed findings globally and locally point to the reality that the studies have not exhaustively explored the link between executive compensation and firm performance.

Research Objective

This study sought to establish the relationship between executive compensation and financial performance of commercial state owned corporations in the energy sector in Kenya.

Methodology

This study adopted a cross - sectional research design. This design is appropriate when data is gathered systematically over a period of time in order to answer a research question. The target population comprised of eight commercial state corporations in the Ministry of Energy as listed in appendix one. Due to the small size of the population, no sampling was done. The study relied on secondary data on firm performance and executive compensation. Data on net income, total assets and executive compensation were extracted from the individual company published financial statements for a five year period (2010 to 2014). The study applied the statistical package for social sciences (SPSS) to run the data for analysis. Specifically, multiple regression analysis and correlation analysis were conducted.

Analytical Model

The relationship was analyzed in a multivariate regression model of the form:

$$\text{Perf} = f(\text{EXREM}, \text{Size}, \text{Capital Structure})$$

$$\text{Perf}_{jt} = \alpha + \beta_1 \text{EXREM}_{jt} + \beta_2 \text{SIZE}_{jt} + \beta_3 \text{CAPSTR}_{jt} \dots \dots \dots 3.1$$

Where:

Perf_{jt} : Performance – Return on Assets (net income/ Total assets)

EXREM_{jt} : Executive Remuneration – Log of directors remuneration

SIZE_{jt} : Firm Size – Log of firms total assets

CAPSTR_{jt} : Capital Structure – debt equity ratio (Total debt/ Total equity)

α : A constant

$\beta_1, \beta_2, \beta_3$: Coefficients

Analysis of variance (ANOVA) was used to test the significance of the overall model at 95% level of confidence. Coefficient of correlation (r) was used to determine the magnitude of the relationship between the dependent and the independent variables.

Coefficient of determination (r^2) was used to show the percentage for which each independent variable and all independent variables combined explain the change in the dependent variable.

Results and Discussions

Descriptive Statistics

Table 4.1 below presents the descriptive statistics for the study variables. As indicated, the mean return on assets for the corporations in the five year period was 0.0764 with a standard deviation of 0.090. The ROA data set has a range from -0.177 to 0.455 and the data has both a positive kurtosis and skewness at 8.138 and 1.309 respectively.

Table 4.1: Descriptive Statistics

		ROA	EXECCOMP	CAPSTR	SIZE	Valid N (listwise)
N	Statistic	40	40	40	40	40
Minimum	Statistic	-.177	9.378	-4.660	15.985	
Maximum	Statistic	.455	13.157	7.579	19.819	
Mean	Statistic	.0764	10.649	.1494	17.747	
Std. Deviation	Statistic	.090	.920	1.513	.934	
Skewness	Statistic	1.309	1.387	2.125	.486	
	Std. Error	.374	.374	.374	.374	
Kurtosis	Statistic	8.138	1.978	17.620	-.564	
	Std. Error	.733	.733	.733	.733	

Executive compensation and capital structure datasets both have positive skewness and positive Kurtosis over the years. The mean capital structure is at 0.1494 as the minimum is -4.66 and the maximum is 7.579. The mean levels of executive compensation transformed into natural logarithm is at 10.649 as the minimum is at 9.378 and the maximum is at 13.157. The mean firm size in terms of natural log of

assets is 17.747 as the minimum is 15.985 and the maximum is 19.819. Size data set has positive skewness and a negative peakdeness.

Correlation Analysis

Table 4.2 below is a correlation matrix presenting the association between firm financial performance, executive compensation, capital structure and firm size.

Table 4.2: Correlations

	ROA	EXECCOMP	CAPSTR	SIZE
ROA	1			
EXECCOMP	-.340*	1		
CAPSTR	.060	-.271	1	
SIZE	-.636**	.107	-.098	1

*. Correlation is significant at the 0.05 level (2-tailed).

** . Correlation is significant at the 0.01 level (2-tailed).

As indicated in Table 4.2, there is a statistically significant weak negative association between executive compensation and performance of the commercial state owned corporations in the energy sector in Kenya ($r = -0.340$). The table presents that there is a weak positive association between firm performance and capital structure ($r = 0.060$) which is not statistically significant. Also, a weak negative association is identified between executive compensation and capital structure ($r = -0.271$) which is not statistically significant.

The correlation analyses results infer a strong negative association between firm size and firm performance ($r = -0.636$) which is statistically significant. There is also a weak negative association between firm size and capital structure ($r = -0.098$) which is not statistically significant. There is also a weak positive association between firm size and executive compensation ($r = 0.107$). The relationship is however not statistically significant. This finding however rekindles Bizjak, Lemmon & Naveen (2008) and Faulkender & Yang (2009) propositions that firms benchmark their pay on peer

groups to determine levels of executive salary , bonus or option rewards based on the industry and size and as such firm size is a determinant of executive pay. The findings conflict with Tosi *et al.* (2000) reporting that there is a weak correlation between CEO pay and performance and a strong positive correlation with CEO pay and size of the firm.

The study conceptualized a multiple regression model to test the relationship between executive compensation and firm financial performance as controlled by firm size and firm capital structure. The findings are summarized in tables 4.3, 4.4 and 4.5 below.

Table 4.3: Model Summary

Mode	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.636 ^a	.405	.389	.0706645
2	.693 ^b	.480	.452	.0669467

a. Predictors: (Constant), SIZE

b. Predictors: (Constant), SIZE, EXECCOMP

As presented in table 4.3 above, in model one, 38.9% of variations in financial performance of the commercial state owned firms is explained by variations in the firm size (Adjusted R²= 0.389). Model two presents that 45.2% of variations in financial performance of the firms is explained by variations in both the firm size and the levels of executive compensation.

Table 4.4: ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.129	1	.129	25.879	.000 ^b
	Residual	.190	38	.005		
	Total	.319	39			
2	Regression	.153	2	.077	17.086	.000 ^c

Residual	.166	37	.004		
Total	.319	39			

- a. Dependent Variable: ROA
- b. Predictors: (Constant), SIZE
- c. Predictors: (Constant), SIZE, EXECCOMP

From the ANOVA statistics presented in table 4.4 above, the processed data, which are the population parameters, had a significance level of 0.000 for both models which shows that the data is ideal for making a conclusion on the population's parameter. In model one, The F calculated at 5% level of significance was 25.879 which is greater than the critical F value of 3.72 which infer a significant relationship between firm size and firm performance. In Model two, the F calculated at 5% level of significance was 17.086 which is greater than the critical F value of 3.72 which infer a significant relationship between firm size, executive compensation and firm performance.

Table 4.5: Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.170	.215		5.435	.000
	SIZE	-.062	.012	-.636	-5.087	.000
2	(Constant)	1.407	.228		6.163	.000
	SIZE	-.059	.012	-.607	-5.092	.000
	EXECCO MP	-.027	.012	-.275	-2.310	.027

- a. Dependent Variable: ROA

Model one in table 4.5 above shows a statistically significant weak negative relationship between firm size ($\beta=-0.062$, $t =-5.087$, $p<0.05$) and firm financial performance which infers that amongst the commercial state owned corporations in the energy sector, size negatively influence financial performance. This may be

attributable to asset accumulation and idle productive capacity. From Model one, the study derives the following equation:

$$\text{Perf}_{jt} = 1.170 - 0.062\text{SIZE}_{jt}$$

This indicates that without providing for size, the constant firm performance is at a level of 1.17 in ROA. A unit increase in firm size has a commensurate decline in ROA for the firms to the extent of 0.062. This finding conflicts the general expectation that bigger firms perform better than smaller firms.

Model two in table 4.5 above shows statistically significant weak negative relationships between firm size ($\beta=-0.059$, $t=-5.092$, $p<0.05$), executive compensation ($\beta=-0.027$, $t=-2.310$, $p<0.05$) and firm financial performance. From Model two, the study derives the following equation:

$$\text{Perf}_{jt} = 1.407 - 0.059\text{SIZE}_{jt} - 0.027 \text{EXREM}_{jt}$$

This infers that without accounting for firm size and executive compensation, the constant levels of firm performance is represented by ROA of 1.407. Further, a unit increase in firm size has a commensurate decline in ROA for the firms to the extent of 0.059 and a unit increase in executive compensation has a commensurate decline in ROA for the firms to the extent of 0.027.

The finding of a negative effect of executive compensation levels on financial performance of firms is consistent with earlier findings by Ogoye (2002), Tariq (2010) and Aduda and Musyoka (2011) who found that the relationship between management compensation and firm performance was negative. These earlier studies however did not establish statistically significant relationships which the current study attests to. The findings are not consistent with the assertions of Shah *et al.* (2006), Ozkan (2007), Ongore and K'obonyo (2011) and Busaule (2014) who found a positive relationship between total CEO compensation and firm performance.

Conclusions

The study sought to determine the effect of executive compensation on financial performance of commercial state owned enterprises in the energy sector in Kenya.

Using the secondary data for the period 2010 to 2014, the correlation analysis results suggest statistically significant weak negative association between executive compensation and financial performance of the commercial state owned corporations in the energy sector in Kenya. The findings conflict with Tosi *et al.* (2000) arguments that there is a weak correlation between CEO pay and firm performance. The analysis also confirms a statistically significant strong negative association between firm size and financial performance of the commercial state owned corporations in the energy sector in Kenya.

The findings infer weak non statistically significant negative association between executive compensation and capital structure on one hand, and between firm size and capital structure on the other hand. The study also establishes a non statistically significant weak positive association between firm performance and capital structure. The weak positive association between firm size and executive compensation is a departure from Tosi *et al.* (2000) of a strong positive correlation with CEO pay and size of the firm. This finding should lead to a revisit of Bizjak, Lemmon & Naveen (2008) and Faulkender & Yang (2009) propositions that firms benchmark their pay on peer groups to determine levels of executive and as such, firm size is a determinant of executive pay.

Regression analysis models suggest that 38.9% of variations in financial performance of the commercial state owned firms is explained by variations in the firm size and 45.2% of variations in financial performance of the firms is explained by variations in both the firm size and the levels of executive compensation. The results suggest a weak negative relationship between firm size and firm financial performance which infers that amongst the commercial state owned corporations in the energy sector, size negatively influence financial performance. This may be attributable to asset accumulation and idle productive capacity. From the regression model, the study indicates that without providing for size, the constant firm performance is at a level of 1.17 in ROA and a unit increase in firm size has a commensurate decline in ROA to the extent of 0.062.

Further regression analysis shows statistically significant weak negative relationships between firm size and financial performance on one hand and executive compensation and firm financial performance on the other hand. The study findings infer that without accounting for firm size and executive compensation, the constant levels of firm performance is represented by ROA of 1.407. Further, a unit increase in firm size has a commensurate decline in ROA for the firms to the extent of 0.059 and a unit increase in executive compensation has a commensurate decline in ROA for the firms to the extent of 0.027. The finding of a negative effect of executive compensation levels on financial performance of firms is consistent with earlier findings by Ogoye (2002), Tariq (2010) and Aduda and Musyoka (2011) who found that the relationship between management compensation and firm performance was negative though these earlier studies did not establish statistically significant relationships which the current study attests to.

Recommendations

In view of the research findings, a negative relationship is evident between executive compensation and financial performance which imply that there is no increased value for higher executive compensation in the public sector corporations. There should therefore be harmonization and review of the executive remuneration system in the public sector corporations to enhance performance. This should include pay for performance perks.

The study documents a negative relationship between size and financial performance of the state owned commercial enterprises. This is an indication of excess asset capacity in the public sector organizations where there are chances of idle capacity. Efforts should be directed on rationalization of productive capacity of the assets acquired to ensure they are utilized in value creation.

This study recommends a similar study should be carried out in other government sectors to find out if the same findings will be obtained. The study suggests that further studies can be conducted on CEO and board's turnover so as to establish how change in the boardroom affects public corporations financial performance. Future studies can also be done on the effect of CEO attributes on performance of such firms.

Such studies should review the relationships between CEO turnover and CEO compensation.

References

- Aduda, J. and Musyoka, L. (2011). The relationship between executive compensation and firm performance in Kenyan banking industry, *Journal of Accountancy and Taxation*. 3(6), pp 130 – 139.
- Benito, A. & Conyon, M. (1999). The governance of directors pay from UK Companies, *Journal of Management and Governance*, 3, 117-136.
- Birech, K.W. (2011). *The effect of performance contracting strategy on the performance of state corporations in the energy sector in Kenya*. Unpublished MBA project, University of Nairobi.
- Birley, G.A. and Wiersema, M.F. (2002). New CEOs and the corporate strategic refocusing: how experience and heir apparent influences the use of power. *Administrative Science Quarterly*. 47 (4).
- Busaule, D.M. (2011). *The relationship between financial performance and executive compensation of commercial banks in Kenya*. Unpublished MBA project, University of Nairobi.
- Chakravarthy, B.S. (1986). Measuring strategic performance. *Strategic management journal* (7), 437 – 58.
- Cheruiyot, T. (2013). *The effect of audit quality on executive comepnasation of firms listed at Nairobi Securities Exchange*. Unpublished MBA project, University of Nairobi.
- Colvin, J.G. (1991). Entrepreneurial versus Conservative firms: A comparison of Strategies and Performance. *Journal of Management Studies* 28 (5), pp. 439 – 462.
- Cooper, R.D. and Schindler, P. (2006). *Business Research Methods: 8th edition*, Tata McGraw-Hill Publishing company limited.
- Crystal, G.S (1991). *In Search of Excess: The Composition of American Executives*. Norton, New York.

- Donaldson, L. and Davis, J.H. (1991). Stewardship theory or agency theory: CEO governance and shareholder returns, *Australian Journal of Management*, 16, (1), 49-65.
- Dollinger, M. (1984). Environmental boundary spanning and information processing effects on organizational performance. *Academy of Management Journal*, 27: 351-368.
- Entrialgo, M., Fernandez, E., and Vazquez, C.J. (2000). Linking Entrepreneurship and Strategic management: Evidence from Spanish SMEs, Technovation.
- Faulkender, M., & Yang, J. (2009). Is disclosure an effective cleansing mechanism? The dynamics of compensation peer benchmarking. *Working paper*. R.H. Smith School of Business, University of Maryland.
- Frydman, C., & Saks, R. (2007). Executive Compensation: A new view from long term perspective. *Working paper, MIT & Federal Reserve Board*.
- Gabaix, X., and Landier, A. (2008). Why has CEO pay increased so much? *Journal of Economics*, 123 (1), 49-100.
- Gatewood, E. J., Shaver, K. G., Powers, J., and Gartner, W. B. (2002). Entrepreneurial expectancy, task effort, and performance. *Entrepreneurship Theory and Practice*, 27(2), 187–207.
- Izan, H.Y., Sidhu, B. & Taylor, S. (1998). Corporate Governance. *An International Review*, vol 6, Issue 1, 39-47.
- Jensen, M. (1986). Agency cost of free cashflow, corporate finance and takeovers: *American Economic Review Papers Proceedings*, 76, pp. 323-329.
- Jensen, M. & Meckling, W. (1976). Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure. *Journal of Financial Economics*, vol 3, 305-360.
- Jensen, M. & Murphy, K. (1990). Performance pay and top management incentives. *Journal of Political Economy*, 98, 225-264.
- Leah, M. (2008). Interest Rate Forecasts, Financial Markets Group, *London School of Economics and Political Science*, 42(3), 201-231.
- Lishenga, L. (2011). Corporate governance reaction to declining firm performance: Evidence from the NSE. *International Journal of Governance*, 1.

- Maijor, S. J., & Vanstraelen, A. (2006). Earnings management within Europe: the effects of member state audit environment, audit firm quality and international capital markets. *Accounting & Business Research*, 36(1), 33-52.
- Main, B.G.M., Bruce, A. & Buck, T. (1996). Total board remuneration and company performance. *Journal of Economics*, 106, 1627-1644.
- Mululu, A. K. (2005). *The relationship between board activity and firm performance: A study of firms quoted on the Nairobi Stock Exchange*. (Unpublished MBA Project, University of Nairobi).
- Murphy, K.J. (1999). "Executive Compensation," in Handbook of labor economics. Volume 3. Amsterdam; New York and Oxford: Elsevier Science, North-Holland, pp. 2485-563.
- Ochieng', D.E. (2012). *Executive compensation and firm financial performance: A critical Literature review*. Unpublished PhD independent study paper, University of Nairobi.
- Ogoye, H.K. (2002). Corporate Performance and Management Compensation: An Empirical Investigation of Public Companies in Kenya.
- Ongore, V.O. and K'Obonyo, P.O. (2011). Effects of selected corporate governance characteristics on firm Performance: Empirical evidence from Kenya. *International Journal of Economics and Financial Issues* 1 (3), 99 – 122.
- Pegels, C.C. and Yang, B. (2000). The impact of managerial characteristics on strategic assets management capability. *Team performance Management: An international Journal*. 6 (5/6) 97 – 106.
- Simerly, R.L. and Li, M. (2002). Translating reserach into practical solutions, Unpublished paper.
- Tariq, U. (2010). *CEO compensation: Relationship with performance and influence of the board of directors*, Unpublished MBA project, University of Nairobi.
- Tosi, H., Werner, S., Katz, J. and Gomez-Mejia, L. (2000). How much does performance matter? A metaanalysis of CEO pay studies. *Journal of Management* 26 (2), pp. 301–339.
- Vroom, V. H. (1964). Work and motivation. New York: Wiley.