

CEO Compensation and Firm Performance: Evidence from Nigeria Conglomerates Firms

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Abstract

The purpose of this study is to examine whether CEO compensation impact on firm performance to determine whether independent board directors mediate the relationship between CEO compensation and firm performance. This study sample is the five conglomerate companies listed on the Nigeria stock exchange from the period of 2013 to 2020, 8 years. CEO compensation is proxy by the natural logarithms of the pay of the CEO and firm proxy is proxy by ROA. The secondary were sources from the annual report and accounts of the study companies. The study uses a balanced panel data consisting of 40 firm-year observations. The OLS regression model was used after adjusting for heteroskedasticity and hausman test breusch and pagan lagrangian multiplier test. The results, which were tested, revealed that CEO compensation has a positive and significant impact on firm performance. However, the independent directors have a negative and insignificant impact on firm performance. This study contributes to the field of the agency and alignment theories, and provides policymakers insight into improving CEO compensation. Given that efficient of CEO compensation packages may lead to long term value creation to shareholders and reduce agency problems.

Keyword: *CEO Compensation, ROA, Conglomerate firms, Nigeria*

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I. Introduction

Chief Executive Officer (CEO) compensation is an important corporate governance mechanism to align the interest of managers and shareholders by increasing their working incentives and efforts (Chou & Buchdadi, 2018). Companies constitute the remuneration and nomination committee under the board of director supervision which provides the recommendation about the remuneration for both boards of directors and CEOs in general annual meeting of shareholders. However, the recommendation of remuneration policy needs to consider on the financial performance of the firm. According to Omoregie and Kelikume, (2016) compensation refers to the remuneration package awarded to the Chief Executive Officers (CEO) with the responsibilities of managing the affairs of the firm. This package awarded to the CEOs is normally in the form of salary, annual bonus, perks, stock option and restricted shares.

Chief Executive Officer (CEO) is the highest position appointed by a firm through the board of directors. The CEOs often play a moderating role between the firm management and the board of directors. As the CEO's compensation are usually dependent on a firm's performance, they often make short-term decisions to enhance and boost the company's performance. According to Zandi, Mohamad, Keong and Ehsanullah, (2019) CEO knows what decisions will be taken to improve the firm performance and increase the shareholder's value. However, CEO's make valuable and strategic decision and monitor their activities in order to achieve their objective of profit maximization.

Firm boards of directors involve in arm's length transaction with CEO and design compensation plans which provide CEO with efficient incentives to maximize the shareholder wealth (Jensen & Meckling, 1976). This predicts a positive link between CEO compensation and firm performance. However, Bebchuk and Fried (2003) challenge the assumption of arm's length transactions between CEO and the board of directors over

compensation arrangements and argued that CEOs, being in power, set their own pay excessively which is less likely to correlate with firm performance. Therefore, CEO compensation contract is an agency problem itself rather than a tool to reduce agency problems.

The debate over the nature, structure and pattern of CEO compensation and its effect on the overall firm performance has remain on the front burner of arguments among economists, board of directors, shareholders and other stakeholders (Kabiru, 2017). In recent years, CEO incentives have been linked to some of the biggest corporate accounting scams, because CEOs encourage management to take actions that boost share price, benefiting shareholders. As witnessed recently at Barclays Bank, the CEO manipulated earnings to gain more incentives, and thereby reported poor-quality financial information (Sadiq et al., 2019).

Compensation issues have not been topical in Nigeria, unlike other advanced economies. Little or no attention is paid to this area by academics, corporate directors and regulators as evidenced by paucity of literature and contribution to this discourse. The 2008 global financial crisis and the accompanying reforms centered largely on CEOs tenure and external auditors' maximum contractual duration. Nothing was mentioned about CEOs compensation across different industrial spectrum. Previous empirical studies evidenced from practice and key economic analysis have pointed to the facts that the compensation of CEO's is largely accounting information based. This debate continues as the empirical evidence does not fully support any of the two viewpoints.

The research examining the CEO compensation on firm performance is still attracted to many scholars (Alves, Barbosa and Morais, 2016; Slomka-Golebiowska and Urbanek, 2016). Perhaps, polemics on the argument regarding the CEO compensation needs more research on different condition to confirm the previous results. One argument stated that executives' compensation should be linked to past performance. In contrast, there is also the argument that the reward of the executive is for the action will benefit the firm in the long run that is not always reflected in currently observable performance (Chou & Buchdadi, 2018).

Studies of Al-Shammari, (2021) Sheikh et al., (2019), Sadiq et al., (2019), Chou & Buchdadi, (2018), Kabiru, (2017), Raithatha & Komera, (2016) reported that CEO compensation is positively associated with future operating performance, on the other hand, the study of Zandi et al., (2019; Olaniyi & Obembe, (2017), Cai & Zheng, (2016), Omoregie, (2016) reported that CEO compensation is negatively impacted on firm performance. Based the mixed and divergent findings on the relationship between the CEO compensation and firm performance, It is important to make a confirmation to the previous studies in developed countries as the developing countries, like Nigeria, has different political, economic, technological and cultural condition.

Furthermore, the expectation is that CEO of a firm should work in the interests of the shareholders. But the possibility that this will not happen and that the CEO will work for his personal interest as opposed to the interests of the shareholders is always there (Khanna, 2016). Hence, this possible discrepancy can be taken care of by aligning the interests of the CEO with the interests of the shareholders. This can be done by tying the compensation of the CEO to the performance of the firm. Furthermore, CEO compensation may largely depend on the relative power of the CEO over the board of directors and the size of the firm. If the firm is larger in size, then, the CEO is likely to be more powerful, he will try to make sure that his compensation is tied to the firm turnover and not the performance. By doing this he ensures that his compensation is secured against the possible downfalls in the performance of the firm.

Further, though previously studies have explored the association of CEO compensation with the firm performance, firm size and managerial shareholders, however, there has been no study exploring the influence of the management pattern on the CEO compensation. Management pattern means whether the firm is professionally managed by the independence of board of directors of the companies. The study examine this relationship brings to light the role the managerial ownership can play in CEO compensation, thus, contributing towards the theory of executive compensation. Therefore, the study is to;

- i. Examine the impact of CEO compensation on firm performance of listed conglomerate companies
- ii. Examine the mediating role of board independence on the impact of CEO compensation on firm performance of listed conglomerate companies

In order to achieve the objective of the study, the hypotheses are stated in a null form;

H₀₁: CEO compensation has no significant impact on firm performance of listed conglomerate companies

H₀₂: mediating role of board independence has no significant relationship between CEO compensation and firm performance of listed conglomerate companies

II. Literature Review

Agency theory is the building block of theoretical development in the area of CEO compensation. This theory states that an agency relationship develops between two (or more) parties when one (the agent) acts on behalf of the (principals) in a particular domain of decision problems (Ross, 1973). CEO acts as an agent of the shareholders (principal) and the way a CEO is compensated has a major role to play in making him/her responsible for respective duties as an agent (Harun & Hamid, 2016). Ideally, compensation of a CEO should be

aligned with the performance of the firm as good performance reflects the fact that a CEO is successfully performing his/her cardinal responsibility. Furthermore, the alignment theory, which asserts that higher compensation is capable of increasing firm performance as it tends to motivate the executives and thus improve firm efficiency. Therefore, Agency theory has its role to play in the dynamics of the firm performance deciding the compensation of the CEO (Khanna, 2016). Compensation of Chief Executive Officer (CEO) is one of the fundamental and effective strategies that influence firm performance.

A number of studies have been carried out on the relationship between CEO compensation and firm performance, but there is no consensus as regards the existence and direction of the relationship between these variables. However, there are two conflicting divergent views held by researchers have attempted to explain the relationship between executive compensation and firm performance. Findings of Al-Shammari, (2021) analysis the effect of CEO compensation on firm performance of 204 manufacturing companies in U.S. The result of the study that revealed CEO pay has a strong, positive relationship on firm's performance.

Sheikh et al., (2019) examines the impact of CEO compensation on unobserved firm performance in an emerging market of Pakistan. The study uses an unbalanced panel data consisting of 1508 firm-year observations from 225 non-financial listed companies in Pakistan Stock Exchange (PSX) for period 2005 to 2012. The study used multiple regression models adjusted to heteroskedasticity and autocorrelation in error terms. The study finds that, in general, CEO compensation is positively associated with future operating performance.

Zandi et al., (2019) investigate the impact of CEO compensation on firm performance. The study sample data consists of 96 companies belonging to different business sectors in Malaysia. The findings of study revealed that CEO compensation has a strong positive significant impact on ROA and ROE, whereas profit margins also have a positive significant relationship but weaker than CEO compensation. In the same vein, Deysel et al. (2015) while examining the relationship between CEO compensation in South African and firm performance in the banking industry discovered that there is a statistically significant positive relationship between CEO compensation and banking sector market performance.

Chou & Buchdadi, (2018) examine the relationship between executive's compensation and firm performance in the banking industry in Indonesia from 2006 to 2015. This study also determines the impact of remuneration and nomination committee (RNC) on executive's compensation (EC) and firm performance. The study used regression based on two stage least square (2SLS) with unbalanced panel data. The findings reveal that performance on pay and pay on performance are valid in Indonesia. However, the performance is only for accounting-based performance but not for market value-based performance. The study findings reveal that EC has a positive impact on firm's performance. However, the study of Olalekan et al. (2015) examined the effect of CEO pay on bank performance in Nigeria using a sample of 11 deposit money banks in Nigeria between the periods of 2005 to 2012. Adopting a dynamic generalized method of moments, the outcome of their research revealed that there is a negative relationship between CEO pay and bank performance in Nigeria.

Kabiru, (2017) examines the effect of top executive compensation on the financial performance of Nigerian banks using causal research design. The study documentary data was generated from the annual financial reports and accounts of the sampled banks. Panel data was used to analyze the compensation-performance impact of nine banks (both old and new generations) over five year period. The study found a positive and significant link between executive compensation and the profit before tax of the sampled banks. On the other hand, Kazan (2016) study the CEO compensation and firm performance for Scandinavian firms as cited in work of Forbes Global 2000 List of 2016. The firm performance was proxy by return on equity (ROE) and return on asset (ROA). The results indicated a non-significant negative relationship between CEO compensation and firm performance.

Raithatha & Komera, (2016) examines the impact of executive compensation on firm performance among Indian firms. The study measure firm performance by accounting and market-based methods and the executive compensation was employed with the support of system- generalised methods of moments (GMM) estimator. Finding of the study revealed that executive compensation is significant positive on Indian firm's performance.

Omoregie, (2016) examined the relationship between executive compensation and banking sector performance in Nigeria using the panel vector error correction model (PVECM). The impulse response of the PVECM showed that executive compensation (LNEXC) response positively to customers' deposits (LNCDP) and equity-asset ratio (EAR) while it negatively response to return on equity (ROE). Also, study of Harun & Hamid, (2016) examine the impact of CEO Compensation on firm performance of 24 commercial banks listed for the period 2004-15 in Bangladesh. The regressions result revealed that CEO compensation has a positive and significant impact on firm performance.

III. Methodology

The study adopts an ex-post facto research design. This research highly depends on secondary data. The five lists of companies forming the population of conglomerate as on 31st November, 2021 were listed with Nigeria Stock Exchange (NSE) and from the population of five, all the companies are selected for a study period of 8 years i.e. 2013 to 2020. The secondary data were selected from the annual audited report and account of the conglomerates companies to prepare the database used in this research. The sample companies are CHELLARAMS PLC, JOHNHOLT PLC, SCOA PLC, TransCorp PLC, and UAC Plc. The panel data set was analyzed using the Stata software.

The basic model used to test the hypothesis is

$$FP_{it} = \beta_0 + \beta_1 CC_{it} + \beta_2 IBD_{it} + \mu_{it}$$

Where, FP is firm performance, CC is the CEO Compensation and IBD is the independent board of directors, μ = error term, β = Intercept, β_1 - β_5 parameters to be estimate, it = firm i , time t

Dependent Variable

Firm Performance

Return on assets is used as a measure of performance. It is an accounting based measure; the measure is calculated by dividing net profit by total assets.

Independent Variables

CEO Compensation

The compensation of the CEO is his/her total remuneration. The total remuneration comprises of basic salary, Director's sitting fees, bonus and commission, perquisites, retirement benefits and contribution to provident fund. The logarithms of the total compensation.

Mediating Variables

Professionally managed of Independent Directors

A firm is considered professional managed if its Independent director because they companies appoint an independent directors that has the professional skills in terms of experience and knowledge and that will contribute to the progress of the companies. They usually don't have shares in the companies. The management is measured in terms of the ratios of total number of independent directors to the total number of board of directors in the companies.

IV. Result and Discussions

Descriptive statistics and Correlation Analysis

The descriptive statistics are shown in Table 1. The statistics reveal the average return on assets is 0.8% and the independent board directors have a mean of 73% and the average value of the CEO compensation is to 2,361million. Furthermore, the correlation matrix reveals the correlation among various variables. There does not seem to be a problem of multi-collinearity, still to be sure the variable inflation factors (VIF) are calculated. The average VIF score is 1.03 and the score does not exceed 2 for any of the variables which is much below the acceptable level of 10. Table 2 illustrates the ordinary least square (OLS) regression model to analyze the impact of CEO compensation on firm performance. The data is analyzed using the OLS regression as the Hausman test and Breusch and Pagan Lagrangian multiplier test reveals that OLS model should be used for analysis rather than the random effects mode.

Table1: Descriptive Statistics and Correlations Matrix

Descriptive Statistics Variable	Descriptive Statistics		Pairwise Correlations		
	Mean	Std Dev.	ROA	IBD	CEOCom
ROA	0.0088	0.0953	1.0000		
IBD	0.72	0.0828	-0.0621	1.0000	
CEOCom	2.3461	0.1814	0.2998	0.1651	1.0000

Sources: Stata Result Output

Diagnostic Tests and Regressions Result

The Breusch-Pagan test is conducted for heteroskedasticity, table 2 shows the heteroskedasticity test in this study and revealed that a P-value of 0.1028 which is quite higher than the standard, that is 0.05. So, it can be concluded that there is no heteroskedasticity which means the squared residual is not correlated with explanatory variables (homoskedastic) or the variance for error term is constant. Furthermore, the mean variance inflation factor (VIF) calculated for the model is 1.3 which is less than 10 and 1/VIF which is tolerance level is more than 0.10 for all explanatory variables of the study. These tests confirm the presence of lower degree of collinearity among the explanatory variables.

Table 2 OLS Regression Result

Variables	Coefficient	P-Value
CEOCom	0.1674	0.051
IBD	-0.1319	0.472
Constant	-0.3084	0.165
R ²	0.1027	
Mean VIF	1.03	
Hetttest	2.66 (p-value= 0.1028)	

Sources: Stata Result Output

Table 2 contains the regression results of CEO compensation as an independent variable and firm performance proxy by ROA as the dependent variable and independent board of director as mediating variables. The regression of results shows that CEO compensation has a coefficient value of 0.1674 with a t-statistic of 2.02 and p-value of 0.05. Therefore, this shows that CEO compensation has positive and significant impact on firm performance (ROA). This means high compensation to CEO improves firm performance. Alignment theory is supported by the finding of the study. The study fail to accept the null hypothesis that CEO compensation has a significant impact on firm performance. The study is support of the research of Al-Shammari, (2021) Sheikh et al., (2019), Sadiq et al., (2019), Chou & Buchdadi, (2018), Kabiru, (2017), Raithatha & Komera, (2016). On the other hand, contract the study of Zandi et al., (2019; Olaniyi & Obembe, (2017).

Secondly, the mediating role of independent board of directors revealed a coefficient value to be -0.1319 and a t-statistics of -0.73 with a corresponding p-value of 0.472. This shows that an independent director has a negative and insignificant impact on firm performance. This implies that an increase in the presences of independent directors will reduce the firm performance. Though, there presence of independent directors increases the efficiency of COE to improve on firm performance.

V. Conclusion and Recommendation

The conflicts between management (agents) and shareholders (principals) can be explained by the agency theory and alignment theory. It is suggested by prior research in corporate governance that this conflict can be mitigated by improving on the compensation package of management of the firm and aligning the benefits of management with the shareholder's interest. Therefore, CEO compensation plays an important role in the efficiency and performance of the firm. It has been shown in this study, that CEO compensation is tied to increase in firm performance. This study found that all the results are significantly positive on return on asset. Therefore, the study recommends that the conglomerates companies should sustain the remuneration and other allowance that constitute the CEO compensation because it has found to improve firm performance.

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Notes:

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1. (/v# option or -set maxvar-) 5000 maximum variables

. *(7 variables, 40 observations pasted into data editor)

. summarize roa bi ceorem

Variable | Obs      Mean      Std. Dev.      Min      Max
-----|-----
   roa   |    40   - .0088   .0952762   - .4026   .1121
    bi   |    40    .725   .0828344     .6     .88
  ceorem |    40   2.36168  .1814033   1.9752   2.5995

. pwcorr roa bi ceorem, sig star(5)

          |      roa      bi      ceorem
-----|-----
   roa   |  1.0000
          |
    bi   | -0.0621  1.0000
          |  0.7033
  ceorem |  0.2998  0.1651  1.0000
          |  0.0602  0.3086

. regress roa ceorem bi

Source |      SS      df      MS              Number of obs =      40
-----|-----
   Model | .036346784    2   .018173392          F( 2,    37) =      2.12
  Residual | .317678111   37   .008585895          Prob > F      =  0.1348
-----|-----
   Total | .354024894   39   .009077561          R-squared     =  0.1027
                                     Adj R-squared =  0.0542
                                     Root MSE     =  .09266

-----|-----
   roa   |      Coef.   Std. Err.      t    P>|t|    [95% Conf. Interval]
-----|-----
  ceorem |   .1673933   .0829313     2.02  0.051   - .0006415   .3354281
    bi   |  - .1319905   .1816155    -0.73  0.472   - .4999785   .2359975
   _cons |  - .3084362   .2177042    -1.42  0.165   - .7495469   .1326745

. estat vif

Variable |      VIF      1/VIF
-----|-----
    bi   |      1.03   0.972733
  ceorem |      1.03   0.972733
-----|-----
Mean VIF |      1.03

. estat hettest

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
Ho: Constant variance
Variables: fitted values of roa

chi2(1)    =    2.66
Prob > chi2 =  0.1028
    
```

Ceo Compensation And Firm Performance: Evidence From Nigeria Conglomerates Firms

```
. xtset firms year
      panel variable:  firms (strongly balanced)
      time variable:  year, 2013 to 2020
      delta: 1 unit

. xtreg roa ceorem bi, fe

Fixed-effects (within) regression              Number of obs   =        40
Group variable: firms                        Number of groups =         5

R-sq:  within = 0.0433                      Obs per group:  min =         8
      between = 0.3053                      avg             =        8.0
      overall  = 0.0300                      max             =         8

                                          F(2,33)        =        0.75
corr(u_i, Xb) = -0.6727                    Prob > F        =        0.4817
```

roa	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
ceorem	-.1229994	.1472016	-0.84	0.409	-.4224833	.1764846
bi	-.2313147	.273063	-0.85	0.403	-.7868654	.3242361
_cons	.4493883	.3912094	1.15	0.259	-.3465332	1.24531
sigma_u	.07915849					
sigma_e	.08413749					
rho	.46953766	(fraction of variance due to u_i)				

F test that all u_i=0: F(4, 33) = 2.97 Prob > F = 0.0337

. estimates store fixed

```
. xtset firms year
      panel variable:  firms (strongly balanced)
      time variable:  year, 2013 to 2020
      delta: 1 unit

. xtreg roa ceorem bi, re

Random-effects GLS regression              Number of obs   =        40
Group variable: firms                        Number of groups =         5

R-sq:  within = 0.0012                      Obs per group:  min =         8
      between = 0.3071                      avg             =        8.0
      overall  = 0.0704                      max             =         8

                                          Wald chi2(2)    =        0.78
corr(u_i, X)  = 0 (assumed)                Prob > chi2     =        0.6779
```

roa	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
ceorem	.063856	.109261	0.58	0.559	-.1502915	.2780036
bi	-.1624668	.2239629	-0.73	0.468	-.6014261	.2764924
_cons	-.041819	.288971	-0.14	0.885	-.6081917	.5245537
sigma_u	.04408363					
sigma_e	.08413749					
rho	.21539151	(fraction of variance due to u_i)				

. estimates store random

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. hausman fixed random

	----- Coefficients -----			
	(b) fixed	(B) random	(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
ceorem	-.1229994	.063856	-.1868554	.0986426
bi	-.2313147	-.1624668	-.0688478	.1562178

b = consistent under Ho and Ha; obtained from xtreg
 B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

chi2(2) = (b-B)'[(V_b-V_B)^(-1)](b-B)
 = 3.70
 Prob>chi2 = 0.1570

. xttest0

Breusch and Pagan Lagrangian multiplier test for random effects

roa[firms,t] = Xb + u[firms] + e[firms,t]

Estimated results:

	Var	sd = sqrt(Var)
roa	.0090776	.0952762
e	.0070791	.0841375
u	.0019434	.0440836

Test: Var(u) = 0

chibar2(01) = 0.42
 Prob > chibar2 = 0.2580

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