Effect of CEO Pay on Bank Performance in Nigeria: Evidence from a Generalized Method of Moments

Abstract

Issues surround the persistent increase in chief executive officers' (CEO) pay of some Nigerian quoted banks have been a subject of debate among stakeholders as touching whether the pay enhances or deteriorates bank performance. In an attempt to unravel the hidden facts around the pay, this study examines the impact of CEO pay on performance of 11 selected Nigerian quoted banks between 2005 and 2012, using a dynamic generalized method of moments (GMM). The study reveals that the CEO pay exerts significant but negative influence on bank performance in Nigeria. This study therefore concludes that rather than being an important corporate governance mechanism to align the interests of CEO with those of shareholders, the CEO pay of Nigerian quoted banks is indeed part of agency problem in the industry. Hence, this calls for appropriate and well- guided incentives and compensation packages that will align interests of bank chiefs with those of shareholders.

1. Introduction

Separation of ownership from managerial control in publicly traded firms has made corporate governance a matter of necessity (Hitt *et al.,* 2009). This is due to the likelihood of asymmetric information which may give managers room to exhibit opportunistic behaviour (Tosi *et al.,* 2000). Empirical studies (John *et al.,* 2010; Kim and Gu, 2005; Tosi *et al.,* 2000; Agrawal and Knoeber, 1996; Jensen and Meckling, 1976) have suggested aligning managers' interests with those of shareholders through appropriate incentive packages, so as to propel managers to act in the interest of shareholders. Similarly, the importance of chief executive officers' (CEO) compensation as one of the governance mechanisms has continued to attract the attention of stakeholders across the globe (Conyon, 2014; Demirer and Yuan, 2010; Hitt *et al.,* 2009). Many scholars have regarded CEO pay as a mechanism that is put in place to align managers' interest with those of shareholders (Amzalega *et al.,* 2014; Zhou and Tian, 2009; Buck *et al.,* 2008; Kim and Gu, 2005; Choo and Tan, 2004; Lewellen *et al.,* 1992; Jensen and Murphy, 1990); while some others found it to be otherwise (Faria *et al.,* 2014; Brookman and Thistle, 2013; Bebchuk *et al.,* 2011; Duffhues and Kabir, 2008; Brick *et al.,* 2006). The empirical results of the relationship have been highly inconclusive and mixed. Meanwhile, buck of empirical studies on the relationship between CEO compensation and firm performance most especially from Europe and

emerging economies have stressed the importance of CEO pay as a reward for firm performance (performance-based pay) rather than as an incentive to perform (Tosi *et al.,* 2000; Buck *et al.,* 2008). The existence of long-term incentives (equity incentives) for manager such as stock options in Europe has made it extremely difficult to separate reward from motivation (see Buck *et al.,* 2008). Hence, majority of empirical studies focused on the effect of firm performance on executive/directors' compensation (performance-based pay), neglecting the effect of the compensation on performance (incentive to perform). Meanwhile, executive directors of publicly traded firms in developing countries are usually paid in cash not in form of long-term incentives such as equity-based pay. This gives ample opportunity to examine CEO pay as an incentive to perform rather than as a reward for performance (see Buck *et al.,* 2008).

Besides, studies in this area from Sub-Saharan Africa are sparse. Specifically, Hearn (2013a) examined it for North Africa IPO firms; Hearn (2013b) concentrated on West Africa; De Wet (2012), and Scholtz and Smit (2012) focused on South Africa; Aduda (2011) only considered nine listed Kenyan banks. Aside from the sparseness of the existing studies in Africa; these studies only examined the determinants of executive/directors' compensation without examining the impact of executive compensation on firm performance. Having observed this, there is a need to explore the likely effect of executive compensation on performance of listed firms in Africa. Similarly, there have been persistent and continued concerns from media, institutions and activist shareholders about what could be the effect of persistent increase in CEO pay of some Nigerian quoted banks on performance (Business World, 2012). However, only few studies (Olaniyan, 2010; Hassan and Ahmed, 2012) that examined the impact of executive compensation on firm performance in Nigeria focused on non-financial firms without exploring the possible effect of CEO pay on firm performance. In view of this obvious gap, this study focuses on financial firms in order to examine the effect of CEO pay on performance of quoted banks in Nigeria.

Also, previous studies on executive compensation in Nigeria have ignored the potential endogeneity problem; and the relationship between CEO pay and firm performance often attracts the problem of simultaneity bias. This is because "CEO pay may be determined by performance and performance might in turn be determined by CEO pay" (Doucouliagos *et al.,* 2012). So, this study has advantage over previous studies in Nigeria as it adopts instrumental variable estimation technique which is capable of handling the problem of dynamic endogeneity (Wintoki *et al.,* 2012; Buck *et al.,* 2008; Wooldridge, 2001; Arellano and Bond, 1991; Arellano and Bover, 1995) in order to forestall spurious estimates.

The remainder of the paper is organized as follows: Section 2 addresses the issues relating to review of both theoretical and empirical literatures. Section 3 critically examines data description and methodology adopted in the work. Section 4 deals with empirical results where descriptive statistics, panel unit root tests and thorough discussion of findings are examined. Finally, section 5 provides a brief conclusion.

2. Literature Review

2.1 Theoretical Issue

Empirical studies on the relationship between CEO pay and firm performance are often situated in agency theory (Jensen and Murphy, 1976; Agrawal and Knoeber, 1996; Murphy, 1999; Kim and Gu, 2005; Hitt *et al.*, 2009; John *et al.*, 2010; Gregg *et al.*, 2011; Brookman and Thistle, 2013). In fact, the heartbeat of principal-agent theory is the CEO pay-performance relation (Kaplan, 1994). So, this study is deeply rooted within the framework of agency theory. In the publicly traded firms, the issue of separation of ownership to managerial control often creates the potential for conflicts of interest between managers and shareholders (Hitt *et al.*, 2009; Ozkan, 2007; Tosi *et al.*, 2000). This situation gives managers opportunity to exhibit opportunistic behaviour at the detriment of shareholders' interests (Tosi *et al.*, 2000). In view of this problem which is tagged "principal-agent problem" (Garen, 1994), the issue of how to motivate the executive directors (agent) to act in the best interest of the shareholders (principal) has been a phenomenal issue across the globe in financial economics, most especially in the realm of corporate governance.

Agency theory shows that compensation based on firm performance is a means by which incentives can be provided to executives to act in the interest of shareholders (Abe *et al.*, 2005). Specifically, the theory suggests that CEO compensation is an important motivation mechanism to the CEO to improve corporate performance. In the same line of thought Jensen and Murphy (1990) hinted that the rationale for executive pay packages is to give the manager incentives to select and implement actions that will increase shareholders' wealth. This shows that CEO pay may serve as an incentive to enhance firm performance (Buck *et al.*, 2008; Choo and Tan, 2004). In view of this assertion, it is evidently clear that CEO pay can be designed to serve as an incentive to CEO to improve firm performance $(CEO\ pay \rightarrow firm\ performance)$ and this is functionally expressed as follows:

$$Firm\ performance = f(CEO\ pay) \quad \ldots\ldots (1)$$

So, the functional relationship expressed above show how CEO pay relates to firm performance with a view to serving as an incentive to motivate CEO to improve firm performance.

2.2 Empirical Evidences

Bulk of the studies on the relationship between CEO compensation and firm performance, most especially in Europe and emerging economies, concentrate on the aspect of performance-based pay; that is the effect of firm performance on CEO pay (Amzaleg *et al.*, 2014; Lakhal *et al.*, 2014; Faria *et al.*, 2014; Balafas and Florackis, 2014; Khan and Vieito, 2013; Doucouliagos *et al.*, 2012; Conyon and He, 2012; Sigler, 2011; Bebchuk *et al.*, 2011; Sigler, 2011b; Zhou *et al.*, 2011; Aduda, 2011; Duffhues and Kabir, 2008; Buck *et al.*, 2008; Ozkan, 2007; Brick *et al.*, 2006, Kim and Gu, 2005). On the other hand, there are handfuls of studies that examine the impact of CEO pay on firm performance in publicly traded firms. Ahmed *et al.*, (2014) examined the effect of CEO compensation on firm performance in a sample of U.S. firms, using ordinary least squares (OLS) estimation technique. The study established that CEO compensation exerted significant and positive influence on firm performance. Similarly, Kube'94 (1994) studied within the framework of agency theory and got the similar result among U.S. firms. ~~Upneja and Ozdemir (2014) also found a significant positive impact of CEO contemporaneous cash-compensation on the firm performance.~~ Upneja and Ozdemir have found that the CEO contemporaneous cash compensation has a significant positive impact on the firm performance.

~~On the contrary, Khan and Vieito (2013) found the impact of CEO pay on firm performance in a sample of U.S. A. firms between 1992 and 2004 to be significantly negative.~~ This strongly contradicts the tenet of agency theory. Similarly, evidences from empirical studies in Nigeria seem to be in conflict. While Olaniyan (2010) established negative effect of executive compensation on firm performance in a sample of 72 non-financial firms; Hassan and Ahmed (2012) reported a positive impact of executive compensation on firm performance in a sample of manufacturing listed firm. The lack of consensus may not be unconnected with the method of estimation. These studies adopted ordinary least squares and fixed/ random effect estimation in their analyses where the roles of dynamic endogeneity were largely ignored the role of dynamic endogeneity. Apart from the inconclusiveness of previous studies that examined the effect of CEO pay on firm performance, all the related studies in Nigeria focused on non-financial firms. This, however, is against the concern of activist stakeholders about the impact of persistent increase in CEO pay of some Nigerian quoted banks. Hence, there is a need for this study.

3. Methodology

3.1 Data and Data sources

This study covers the 8-year period between 2005 and 2012 for 11 Nigerian quoted banks. These premises form the basis for a balanced panel data setting and it gives 88 firm-year observations. The

choice of 11 Nigerian quoted banks was informed and determined by the availability of data. Meanwhile, this can be justified because these 11 banks represent 50% of the 22 quoted universal banks in Nigeria. These banks are: Access Bank, Diamond bank, First bank, First City Monumental Bank, Guaranty Trust Bank, Skye Bank, Stanbic IBTC Bank, Union Bank, United Bank for Africa, Wema Bank and Zenith Bank. The choice of these banks is not as a result of any special sampling procedure, but it was informed by the need to accommodate as many banks and data points as possible, given available data. Annual data on variables such as annual CEO compensation, earnings per share, total assets, board size, board composition and total debt were sourced from the Annual Reports and Statement of Account of the respective banks. The Annual reports were obtained from the Nigerian Stock Exchange and the African Financials' website.

3.2 Model Specification

In an attempt to examine the effect of CEO pay on bank performance in Nigeria. The trend in equation (1) above is followed, while recognizing some other factors that can also influence firm performance. This study follows the studies of Kube'94 (1994), Yermack (1996), Agrawal and Knoeber (1996), Bhagat and Black (2002), Sanda *et al.,* (2005), Kajola (2008), Kama and Chuku (2009), Wintoki *et al.,* (2012), Obembe *et al.,* (2010), Duke II and Kamkpang (2011) and, Osuji and Odita (2012) which examined the impact of corporate governance mechanisms on firm performance. Since CEO pay ($LCEOP_{it}$) is one of the internal mechanisms of corporate governance, hence its impacts on bank performance ($PERF_{it}$) are examined along with other governance mechanisms such as board size ($LBDS_{it}$), board composition (BDC_{it}), leverage (LEV_{it}) while bank size ($LBKS_{it}$) which is a firm-specific characteristic enters as a control variable. Following the trend in the empirical literatures, the equation is specified as follows:

$$PERF_{it} = \delta_0 + \delta_1 LCEOP_{it} + \delta_2 LBKS_{it} + \delta_3 LBDS_{it} + \delta_4 BDC_{it} + \delta_5 LEV_{it} + \mu_i + \varepsilon_{it} \ldots\ldots\ldots\ldots\ldots (2)$$

Meanwhile, Doucouliagos *et al.,* (2012) in an attempt to analyze the relationship between CEO pay and firm performance posited that "CEO pay may be determined by performance and performance might in turn be determined by CEO pay". They further argued that this situation might result in the potential endogeneity problem. Also, Buck *et al.,* (2008) established bi-directional relationship between executive pay and firm performance. Based on these circumstances in the literatures, it is obvious that estimating equation (2) above via ordinary least square (OLS) or widely adopted fixed/random effects estimator could result into the problem of simultaneity bias which is another source of endogeneity problem (see

Doucouliagos *et al.*, 2012), because CEO pay (LCEOP) may not be truly exogenous in nature (Wintoki *et al.*, 2012). With respect to the problems identified above, this study follows Wintoki *et al.*, (2012) by adopting a dynamic generalized method of moments (GMM) panel estimator. This estimator was put forward by Holtz-Eakin *et al.*, (1988) and Arellano and Bond (1991), and further developed by Arellano and Bover (1995). The estimation technique is well suited to handle the endogeneity problem and capable of providing consistent and unbiased estimates (Wooldridge, 2001; Buck *et al.*, 2008; Wintoki *et al.*, 2012; Doucouliagos *et al.*, 2012). Hence, equation (2) above is re-specified in a dynamic form as thus:

$$PERF_{it} = \delta_0 + \delta_1 PERF_{it-1} + \delta_2 LCEOP_{it} + \delta_3 LBKS_{it} + \delta_4 LBDS_{it} + \delta_5 BDC_{it} + \delta_6 LEV_{it} + \mu_i + \varepsilon_{it} \quad \ldots (3)$$

All variables are as defined above while δ_1 to δ_6 are coefficients of the respective variables. Also, δ_0 is the intercept term. However, the presence of lagged dependent variable in equation (3) above renders pool ordinary least square (OLS), fixed or random effect inappropriate because there may be linear correlation between lagged dependent variable ($PERF_{it-1}$) and firm-specific effect (μ_i) [$E(PERF_{it-1}, \mu_i) \neq 0$]. In an attempt to overcome this problem, this study takes after Arellano and Bover (1995) to remove firm-specific effect from the dynamic panel data model in equation (3). That is, to get rid of $E(PERF_{it-1}, \mu_i) \neq 0$ problem by forward demeaning transformation processes. In view of this, equation (3) is re-specified for each cross-sectional unit by averaging this equation over time periods (t).

$$\overline{PERFF_i} = \delta_0 + \delta_1 \overline{PERF_{i-1}} + \delta_2 \overline{LCEOP_i} + \delta_3 \overline{LBKS_i} + \delta_4 \overline{LBDS_i} + \delta_5 \overline{BDC_i} + \delta_6 \overline{LEV_i} + \mu_i + \bar{\varepsilon}_i \quad \ldots (4)$$

Where:

$$\overline{PERFF_i} = T^{-1}\sum_{1}^{T} PERF_{it};\ \overline{PERF_{i-1}} = (T-1)^{-1}\sum_{1}^{T} PERF_{it-1};\ \overline{LCEOP_i} = T^{-1}\sum_{1}^{T} LCEOP_{it};\ \overline{LBKS_i} = T^{-1}\sum_{1}^{T} LBKS_{it};\ \overline{LBDS_i} = T^{-1}\sum_{1}^{T} LBDS_{it};\ \overline{BDC_i} = T^{-1}\sum_{1}^{T} BDC_{it};\ \overline{LEV_i} = T^{-1}\sum_{1}^{T} LEV_{it} \text{ and } \bar{\varepsilon}_i = T^{-1}\sum_{1}^{T} \varepsilon_{it}$$

To complete the forward demeaning transformation processes, the equation (4) is subtracted from equation (3) and this process leads to the equation (5) below.

$$\widehat{\widetilde{PERF}}_{it} = \delta_1 \widehat{\widetilde{PERF}}_{it-1} + \delta_2 L\widehat{\widetilde{CEOP}}_{it} + \delta_3 L\widehat{\widetilde{BKS}}_{it} + \delta_4 L\widehat{\widetilde{BDS}}_{it} + \delta_5 \widehat{\widetilde{BDC}}_{it} + \delta_6 L\widehat{\widetilde{EV}}_{it} + \hat{\tilde{\varepsilon}}_{it} \ldots\ldots\ldots (5)$$

The variables in equation (5) are defined as follows: $\widehat{\widetilde{PERF}}_{it} = (PERF_{it} - \overline{PERF}_i)$; $\widehat{\widetilde{PERF}}_{it-1} = (PERF_{it-1} - \overline{PERF}_{i-1})$; $L\widehat{\widetilde{CEOP}}_{it} = (LCEOP_{it} - \overline{LCEOP}_i)$; $L\widehat{\widetilde{BKS}}_{it} = (LBKS_{it} - \overline{LBKS}_i)$ and so on while $\hat{\tilde{\varepsilon}}_{it}$ is also defined as $(\varepsilon_{it} - \bar{\varepsilon}_i)$. This within transformation is more efficient than differencing transformation; as forward orthogonal deviation tends to work better than the first-differenced transformation (Brüderl, 2005; Hayakawa, 2009). It is obvious that the problem of correlation between firm-specific effect and lagged dependent variable has been dealt with in equation (5) but it creates another problem of endogeneity: that is, correlation between lagged dependent variable and error term $[E(\widehat{\widetilde{PERF}}_{it-1}, \hat{\tilde{\varepsilon}}_{it}) \neq 0]$. As noted earlier the estimation technique to overcome this endogeneity problem $[E(\widehat{\widetilde{PERF}}_{it-1}, \hat{\tilde{\varepsilon}}_{it}) \neq 0]$ is GMM, taking clues from Arrelano and Bover (1995). Studies (see Arellano and Bond, 1991; Arellano and Bover, 1995; Ozkan, 2007; Wooldridge, 2001; Chang *et al.*, 2011) have suggested using a lag of 2 or higher as good choice for the instrument variables. Similarly, Doucouliagos *et al.*, (2012) opined that lagged values of explanatory variables as instruments are fundamentally significant in the analysis of corporate governance and agency issues.

Meanwhile, empirical studies (Holtz-Eakin *et al.*, 1988 and Buck *et al.*, 2008) have shown that when the number of cross-section (N) is greater than the number of time series observation (T), as it is the case in this study (N = 11 > T = 8), the problem of non-stationarity of variables which is prevalent in time-series data may also surface in panel data analysis. In order to forestall spurious estimate, this study conducts the panel unit root tests to examine the stationarity property of the variables with a view to determining appropriate estimation technique, using both Levin, Lin and Chu's t-test and Im, Pesaran and Shin's Wald test. This also goes in line with the assertion that one of the requirements for using the dynamic panel data model is that all variables must be stationary (Chang, Huang and Yang, 2011).

3.3 Description and Measurement of Variables

1. **CEO Pay (LCEOP)**: This is defined as the annual pay of the chief executive officer/managing director of the respective banks. It is measured by the log of annual CEO pay.
2. **Earnings per Share (EPS)**: This is an accounting-based measure of performance. It is defined as earnings per unit of ordinary shareholding and it is measured as the profit attributable to ordinary

shareholders of the Bank divided by the weighted average number of shares outstanding during the period.

3. **Bank Size (LBKS)**: This is defined in terms of total assets owned by each bank. It is measured by the log of total assets of the respective banks.
4. **Leverage (LEV)**: This is debt ratio and it is defined and measured by the ratio of total liabilities to total assets.
5. **Board Size (LBDS)**: This is the number of individuals on the main board. It is measured by the log of total board size.
6. **Board Composition (BDC)**: This is measured by the proportion of non-executive directors on the board.

4. Empirical Results

4.1 Descriptive Statistics

The descriptive statistics of all the pertinent variables in this study are presented in Table 1 below. On average, the average CEO pay of the 11 quoted banks is ₦47.53 million (US$297,062.5) and the median is ₦30.402 million (US$190,012.5). For the entire studied period, the highest paid CEO receives ₦353 million (US$2.206 million) while least paid CEO gets ₦3.868 million (US$24,175). Also, bank size indicates that the biggest bank has assets worth value of ₦3,186.128 billion (US$19,913.3 million) while the bank with least assets value stands at ₦31.991 billion (US$199, 943.75). The average of bank size is ₦789.059 billion ($4,931.62 million) and median of it worth ₦620.982 billion (US$3,881.14 million). The overall average value of earnings per share is 77.32K. The earnings per share (bank performance) range between-1266K and 830K while the median is 78.26K. It is evidently clear that the bank with highest board member has 20 members on board while the bank with lowest board members has 6. Average board size is approximately 14. The board composition indicates, on average, that 59% of board members are non-executive directors. The bank with the highest proportion of non-executive members on

Table 1: Summary of Descriptive Statistics

	Mean	Median	max	Min	Std. Dev.
CEO PAY (₦'Million)	47.530	30.402	353	3.868	54.444
Bank Size (₦'Billion)	789.059	620.982	3186.128	31.991	644.044
Earnings Per Share (in Kobo)	77.32	78.26	830	-1266	213.62
Board Size	13.85	14	20	6	3.05
Board Composition (%)	0.59	0.57	0.92	0.33	0.09
Leverage	0.82	0.84	0.99	0.00	0.12

Source: Authors' Computations, 2015

board has 92% while the bank with least proportion of non-executive directors on board has 33%. Lastly, average value of leverage is 82%. This shows that 82% of total assets of the 11 quoted banks were financed with debt. The bank with highest leverage has 99% while the one with lowest debt ratio has 0.03 %.

Besides, the results of the Pearson correlation matrix between variables are presented in the Table 2 below. The results show pairs of correlation between variables and it produces coefficients that are less than 0.5 (50%). The pair with highest coefficient (0.435) is between board composition and earnings per share. This is less than 50%. The evidence indicates that the problem of multicollinearity is not a threat in this study. Similarly, as a robustness check, Variance Inflation Factors (VIF) is also used to further confirm the authenticity of no multicollinearity. This evidence shows that the coefficients are far less than 10. This is worked out using the conventional formula $[1/(1-r_{ij})]$, where r_{ij} is pair of each correlation

Table 2: Pairwise Correlation Matrix

	CEOP	BKS	EPS	BDS	BDC	LEV
CEOP	1.000					
BKS	0.162	1.000				
EPS	-0.082	0.203	1.000			
BDS	0.135	0.432	0.257	1.000		
BDC	0.276	-0.100	-0.435	-0.018	1.000	
LEV	-0.238	-0.294	0.149	0.113	-0.096	1.000

Source: Authors' Computation, 2015

coefficient (see Gujarati and Porter, 2009). Having critically done this, it is very obvious that correlation coefficients among control variables do not suggest any threat of multicollinearity.

4.2 Panel Unit Root Tests

One of the fundamentals and requirements for using a dynamic panel data model is to ensure that the

Table 3: Summary of the Results from Panel Unit Root Test

Variables (Level)	Levin, Lin and Chu's t-test [LLC] (Assume common unit root process)	Im, Pesaran and Shin's Wald test [IPS] (Assume individual unit root process)
Log of CEO pay (LCEOP)	-28160.66***	-8670.90***
Log of Bank size (LBKS)	-11.61***	-4.63***
Earnings per share (EPS)	-6.13***	-1.94**
Log of Board size (LBDS)	-10.63***	-1.95**
Board composition (BDC)	-7.85***	-1.53**
Leverage (LEV)	-5.32***	-2.02**

Note that *** and ** represent 1% and 5% significant levels respectively, given the null hypothesis: LCEOP, LBKS, EPS, LBDS, BDC and LEV contain panel unit root

Source: Authors' Computations, 2015

variables maintain stationarity properties (Chang *et al.*, 2011); most especially when the number of cross-sectional units is greater than the number of time-series observation (Buck *et al.*, 2008; Holtz-Eakin *et al.*, 1988) as it is the case in this study. In order to ascertain the robustness of results, this study adopts panel unit root test by Levin, Lin and Chu or LLC (2002) and Im, Pesaran and Shin or IPS (2003). The main difference between the two is that the LLC assumes a common unit root test process while IPS allows for individual unit root process. The results of these unit root tests are presented in Table 3 below. The results show that the variables contain neither individual unit root nor common unit root based on the principles of Im, Pesaran and Shin's (2003) Wald test and Levin, Lin and Chu's (2002) test. The two tests reject null hypothesis that the variables contain the unit root process at 1% and 5% levels of significance. Hence, the results depict that all the variables portray the stationarity processes [that is, they are all integrated of order zero I(0)] and as such, the issue pertaining to testing for co-integration among the variables is not relevant in this study.

4.3 Discussion of Empirical Results on the Effect of CEO Pay on Bank Performance

The results of the effect of chief executive officer's (CEO) compensation on bank performance in Nigeria are presented and discussed in this section. This study adopts dynamic panel data model, using dynamic generalized method of moments (GMM), following the footstep of Arellano and Bover (1995). In using GMM, the reliability and validity of the instrument used matter a lot (see Wooldridge, 2001; Arellano and Bond, 1991; Arellano and Bover, 1995; Ajisafe and Akinlo, 2013 and 2014). Lagged two of all the explanatory variables are used as the instrumental variables. Hence, to examine validity of the instruments used, "J-statistic" and "instrument rank" are examined. The results show that instrument rank (30) is more than the number of parameters estimated (6), which indicates that Sargan test of over-

identifying restrictions can be conducted under the null hypothesis that over-identifying restrictions are valid. This is computed using "scalar pval = @chisq (J-statistic, k-p)" which generates the p-value of 0.1407. From this computation the null hypothesis of over-identifying restrictions are valid. This indicates validity of the instruments used and the reliability of the GMM estimates are confirmed. This simply means that the instruments are not correlated with error terms; hence they are valid. Similarly, evidence from the Wald test to examine the joint significance of the parameters showed F-statistic of 4105.341 with the p-value of 0.0000. This further confirms the reliability of the model adopted.

Also, the results indicate that coefficient of previous year bank performance (proxy by earnings per share, EPS, lagged by one) has negative and statistically significant impact on the bank performance in the current year at p-value less than 0.01. This shows that previous bank performance is a significant factor of the current bank performance but its influence is negative. In fact, the significance of the coefficient of previous year bank performance as indicated by the results, confirms the inappropriateness of widely adopted ordinary least square (OLS) and fixed/random effects for this type of study (see Wintoki *et al.,* 2012). Meanwhile, the main focus of this study is to examine the influence of CEO pay on bank performance in Nigeria. In view of this, the coefficient of CEO pay (LCEOP, proxy by log of CEO pay) exerts significant and negative influence on bank performance at 1 percent level of significance. This result shows that the chief executive officers' compensation deteriorates shareholders' value in Nigerian banks; it further depicts the evidence of nonalignment of interests of managers with those of shareholders.

Table 4: Results from the Effect of CEO Pay on Bank Performance (PERF)

Dynamic Panel Generalized Method of Moment (Dependent variable: PERF)

Variable	Coefficient	t-Statistic	Prob.
PERF(-1)	-0.7272***	-37.6634	0.0000
LCEOP	-1.4967***	-6.5934	0.0000
LBKS	1.7347***	3.0223	0.0040
LBDS	5.9433***	6.3034	0.0000
BDC	-18.7811***	-4.0599	0.0002
LEV	2.0098**	2.2565	0.0258

*** and ** denote 1% and 5% significant levels respectively

Instrument Rank	= 30
J-statistic	= 31.4705
Scalar pval =@chisq(31.4705, 30-6)	= 0.1407
F-statistic (Wald Test)	= 4105.341
Prob (F-statistic)	= 0.0000

Source: Authors' Computations 2015

This stands in contrast to the tenet of principal-agent theory. These results raise a question against the existence of explicit contractual arrangement that guides CEO pay of Nigerian banks, given the fact that the chief executive pay deteriorates the shareholders' value. This evidence supports the claim of bank activist shareholders in Nigeria that "the way banks are run today is too expensive and the incredible salaries and allowances of bank chiefs constitute a big drain on the banks" (Business World, 2012). These findings support the study of Lakhal *et al.*, (2014) that CEO compensation was used as a tunneling mechanism to expropriate shareholders instead of being the corporate governance mechanism to converge shareholders' interests with those of managers. Also, this study confirms the result of Khan and Vieito (2013).

Furthermore, size is one of the predominant factors that influence firm performance in the literature. The results from Table 4 revealed that bank size (LBKS, proxy by log of total assets) is positive and significant at p-value of 0.0040. These findings reveal that the bigger the bank, the better the performance. This shows evidence of economy of scale in Nigerian banks, and it indicates that bigger bank sizes command confidence among depositors which could help the banks to raise fund at cheaper costs. However, this situation might have instigated bank executive directors to manoeuvre the compensation processes by linking their pay to size rather than performance, because size is more predictable than performance (Tosi *et al*., 2000). This result supports the findings of Kube'94 (1994) and, Osuji and Odita (2012). In addition, the coefficient of board size (LBDS, proxy by log of board size) shows positive and

significant influence on bank performance at less than 1 percent. This result proves that larger boards are better which indicates that the larger the board, the better the performance of the banks. This suggests that board members from different backgrounds bring to the board different skills and professional expertise, which facilitate better decision making that enhance bank performance. This result is in line with the studies of Sanda *et al*., (2005), Kajola (2008), Kama and Chuku (2009), Uadiale (2010) and, Duke II and Kamkpang (2011).

Moreover, the coefficient of board composition (BDC, proxy by the proportion of non-executive directors) exerts negative and significant influence on bank performance at p-value of 0.0002. This suggests that an increase in the proportion of non-executive directors on board of Nigerian banks tends to make performance of the banks worse. This is evidence that appointment of non-executive directors into Nigerian banks' board of directors might be for political reason which does not help performance but rather deteriorates the shareholders' value. It is obvious from the findings that the efficacy of outside directors as governance mechanism in Nigerian bank is questionable. This finding is consistent with the studies of Yermack (1996), Agrawal and Knoeber (1996), Bhagat and Black (2002), and Babatunde and Olaniran (2009).

Contrarily, the findings indicate that leverage (proxy by total debt as a ratio of total assets, LEV) exerts positive and significant effect on bank performance at p-value less than 0.05. This result is in conformity with the agency theory, because leverage can be used as corporate governance mechanism to put shareholders in a better position as debt level can be used for monitoring the managers (Jensen, 1986; Agrawal and Knoeber, 1996; Osuji and Odita, 2012). In view of this result, high leverage of 82%, on average, in Nigerian banks seemed to have lowered agency costs, reduced inefficiency and thereby led to improvement in bank's performance on average. In fact, it is evident from these analyses that leverage which is an external mechanism of corporate governance serves as necessary impetus to align the interests of managers with those of shareholders in Nigerian banks. This study goes in line with the findings of Agrawal and Knoeber (1996), Sanda *et al*., (2005) and, Osuji and Odita (2012).

5. Conclusion

In spite of the importance of CEO pay as a vital tool in the realm of corporate governance to bring interests' alignment between shareholders and CEO, the findings from this study emphasize that rather than being a mechanism that would motivate the CEOs to pursue the shareholders' interests, the CEO pay of Nigerian banks deteriorates bank performance and shareholders' value. This evidence shows that the CEO pay worsens the poor corporate governance practices in the banking industry. This situation signals

nonalignment of interests between the CEO and shareholders of Nigerian banks. These findings support the claim made by activist shareholders of Nigerian banks that the incredible salaries and allowances of bank chiefs constitute a big drain on the banks (Business World, 2012). However, the conclusions drawn from other governance variables showed that the impact of board size on bank performance was significant and positive. This suggests that the effectiveness of board in terms of different skills and professional expertise which facilitate better decisions that enhance bank performance.

Meanwhile, the influence of board composition (proportion of non-executive directors on board) on bank performance was negative. This suggests that appointments of non-executive directors into board might be for political reasons rather than meritocracy and integrity. Also, the findings revealed that leverage exerted significantly positive influence on bank performance. This proves that high leverage of Nigerian bank on average has lowered agency costs, reduced inefficiency and thereby facilitated bank performance. The outcomes of the findings likewise produced evidence that bank size has strong positive influence on bank performance in Nigeria. This shows that the industry has started to reap the benefits of bank consolidation exercise that was introduced in 2005. It also depicts that the bigger the banks, the better the performance. In a nutshell, there is evidence of economy of scale in Nigerian banks. The study therefore concludes that there should be a sound framework and appropriate contractual arrangement that will guide the CEO pay of Nigerian quoted banks in order to ensure better practices of corporate governance in the industry.

References

Adenikinju, O. and Ayorinde, F. (2001). Ownership structure, corporate governance and corporate performance: The Case of Nigerian quoted companies. Final Report presented at the AERC biannual research workshop, Nairobi

Aduda, J. (2011). The relationship between executive compensation and firm performance in the Kenyan banking sector. *Journal of Accounting and Taxation,* 3(6): 130-139

Agrawal, A. and Knoeber, C. R. (1996). Firm performance and mechanisms to control agency problems between managers and shareholders. *Journal of Financial and Quantitative Analysis*, 31(3): 377-397

Ajisafe, R. A and Akinlo, A. E. (2013). Testing for competition in the Nigerian commercial banking sector. *Modern Economy*, 4(1): 501-511.

Ajisafe, R. A. and Akinlo, A. E. (2014). Competition and efficiency of commercial banks: An empirical evidence from Nigeria. *American Journal of Economics*, 4(1): 18-22

Ahmed, M. U., Kristal, M. M. and Pagell, M. (2014). Impact of operational and marketing capabilities on firm performance: Evidence from economic growth and downturns. *International Journal of Production Economics*, 154: 59–71 61

Amzaleg, Y. and Mehrez, A. (2004). The 'one million clubs:' executive compensation and firm performance. *Israel Economic Review*, 2(1): 107-147

Amzalega, Y., Azarb, O. H., Ben-Zionb, U. and Rosenfeld, A. (2014). CEO control, corporate performance and pay-performance sensitivity. *Journal of Economic Behavior & Organization*, 106, 166–174

Amzaleg**,** Y., Azar, O. H., Ben-Zion, U. and Rosenfeld, A. (2010), CEO control, corporate performance and pay-performance sensitivity. Peres Academic Center, Gad Finstein St., Rehovot 76102, Israel.

Anthony-Uko, N. (2012). NDIC alarmed over banks' jumbo pay. Leadership Newspaper, March 30

Arellano, M. (2003). Panel data econometrics. Oxford: Oxford University Press.

Arellano, M. and Bond, S. (1991). Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *Review of Economic Studies*, 58(2): 277- 297

Arellano, M. and Bover, O. (1995). Another look at the instrumental variables estimation of error component models. *Journal of Econometrics*, 68(1): 29–51

Babatunde, M. A. and Olaniran O. (2009). The effects of internal and external mechanism on governance and performance of corporate firms in Nigeria. *Journal of Corporate Ownership and Control*, 7(2): 330-344

Bebchuk, L. A; Cremers, K. J. M. and Peyer, U. C. (2011). The CEO pay slice. *Journal of Financial Economics*, 102: 199–221

Bhagat, S. and Black, B. (2002). The non-correlation between board independence and long-term firm performance. *Journal of Corporation Law*, 27**(**2): 231-273

Bhagat, S. and Bolton, B. (2014). Financial crisis and bank executive incentive compensation. *Journal of Corporate Finance*, 25: 313–341

Borjas, G. J. (2008). Labour Economics. 4th Mc Graw Hill International, Americas, New York, 10020

Brick, I. E., Palmon, O. and Wald, J. K. W. (2006). CEO compensation, director compensation and firm performance: Evidence of cronyism? *Journal of Corporate Finance*, 12: 403– 423.

Brookman and Thistle (2013). Managerial compensation: luck, skill or labor markets? *Journal of Corporate Finance*, 21: 252–268

Brüderl, J. (2005). Panel data analysis. University of Mannheim, March: Available at http://www.sowi.uni-mannheim.de/lehrstuehle/lessm/veranst/Panelanalyse.pdf>Accessed on May 15, 2015.

Buck, T., Liu, X. and Skovoroda, R. (2008). Top executive pay and firm performance in China. *Journal of International Business Studies*, 39(5): 833–850

Business World (2012). Shareholders worry over bank CEOs' jumbo pay. Business World News, 18th June.

Central Bank of Nigeria (2006). Code of corporate governance for banks in Nigeria post consolidation. CBN, March 1. Available at http://www.google.com.ng 2/12/2012

Chang, H.–C., Huang, B. N. and Yang, C. W. (2011). Military expenditure and economic growth across different groups: A dynamic panel Granger-causality approach. *Journal of Economic Modelling*, 28(6): 2416-2423

Choo, F. and Tan, K. B. (2004). A structural equation modelling of CEO pay-performance relationships. *Journal of American Academy of Business*, Cambridge, 5: 116-124

Conyon, M. J. (2014). Executive compensation and board governance in US firms. *The Economic Journal*, 124(574), F60–F89

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

Conyon, M. J. and He, L. (2012). Executive compensation in China. Working paper, Lancaster University and The Wharton School, available at www.google.com 6/12/2012.

Conyon, M. J. and Murphy, K. J. (2000). The prince and the pauper? CEO pay in the United States and United Kingdom. *The Economic Journal*, 110(467): F640-F671

Demirer, I. and Yuan, J. J. (2011). Executive compensation and firm performance in the U.S restaurant industry: An agency theory approach. Department of Nutrition, Hospitality, and Retailing, Texas Tech University

De Wet, J.H.vH. (2012). Executive compensation and the EVA and MVA performance of South African listed companies. *Southern African Business Review*, 16(3): 57-80.

Doucouliagos, H. Graham, M. and Haman, J. (2012). Dynamics and convergence in chief executive officer pay. Monash University, Department of Accounting and Finance, Building H, 900 Dandenong Road, Caulfield East, Victoria, 3125, Australia Available at: http://ssrn.com/abstract=2033535 27/11/2012

Doucouliagos, C., Haman, J. and Askary, S. (2007). Directors' remuneration and performance in Australian banking. *Journal of Corporate Governance*, 15(6): 1363-1383.

Duffhues, P. and Kabir, R. (2008). Is the pay-performance relationship always positive?: Evidence from the Netherlands. *Journal of Multinational Financial Management*, 18(1): 45-60

Duke II, J. and Kankpang, K. (2011). Linking corporate governance with organizational performance: New insights and evidence from Nigeria. *Global Journal of Management and Business Research*, 11(12): 45-58

Enobakhare, A. (2010). Corporate governance and bank performance in Nigeria. Master in Business Administration, University of Stellenbosch,

Everaert, G. (2012). Orthogonal to backward mean transformation for dynamic panel data models. SHERPPA, Ghent University December 5

Faleye, O., Reis, E. and Venkateswaran, A. (2013). The determinants and effects of CEO–employee pay ratios" *Journal of Banking and Finance* xxx (2013) xxx–xxx, Available@www.elsevier.com/locate/jbfORhttp://dx.doi.org/10.1016/j.jbankfin. 03. 003. 28/11/2013

Faria, P., Martins, F. V. and Brandão, E. (2013). Executive compensation: pay-for-performance in high-technology firms. FEP Working Papers No. 517.

Faria, P., Martins, F. V. and Brandão, E. (2014). The level of CEO compensation for the short and long-term –a view on high-tech firms. *Procedia - Social and Behavioral Sciences*, 110: 1023 –1032.

Garen, J. E. (1994). Executive compensation and principal-agent theory, *Journal of Political Economy*, 102(6): 1175-1199.

Ghosh, S. (2010). Firm performance and CEO pay: evidence from Indian Manufacturing. *Journal of Entrepreneurship*, 19(2): 137–147

Gregg, P., Jewell, S. and Tonks, I. (2011). Executive pay and performance: did bankers' bonuses cause the crisis? School of Management, University of Bath, Bath, BA2 7AY, United Kingdom.

Gujarati, D. N. and Porter, D. C. (2009). Basic econometrics. Fifth Edition, Mc Graw Hill, International Edition

Hassan, S. U. and Ahmed, A. (2012). Corporate governance, earnings management and financial performance: a case of Nigerian manufacturing firms. *American International Journal of Contemporary Research*, 2(7): 214-226

Hayakawa, K. (2009). First difference or forward orthogonal deviation- which transformation should be used in dynamic panel data models?: A simulation study. *Economics Bulletin*, 29(3): 2008-2017

Hearn, B. (2013a). The determinants of director remuneration, executive tenure and individual executive disclosure in North African IPO firms. *Research in International Business and Finance*, 27: 162–182.

Hearn, B. (2013b). The determinants of director remuneration in West Africa: The impact of state versus firm-level governance measures. *Emerging Markets Review*, 14: 11–34.

Hermalin, B. E. and Wallace, N. E. (2001). Firm performance and executive compensation in the savings and loan industry. *Journal of Financial Economics*, 61:139–170.

Hitt, M. A., Ireland, R. D. and Hoskisson, R. E. (2009). Strategic management: competitiveness and globalization (concepts and cases). 8th Edition, South-Western Cengage Learning, 5191 Natorp Boulevard Mason, OH 45040, USA

Holtz-Eakin, D., Newey, W., and Rosen, H. (1988). Estimating vector auto-regressions with panel data. *Econometrica*, 56(6): 1371- 1395.

Hsiao, C. (2003). Analysis of panel data. Cambridge: Cambridge University Press

Im, K. S., Pesaran, M. H. and Shin, Y. (2003). Testing for unit roots in heterogeneous panels. *Journal of Econometrics*, 115(1): 53-74

Jegede, C. A. (2012). Executive compensation structure, ownership and firm performance nexus: An empirical analysis. *European Journal of Humanities and Social Sciences*, 17(1): 881-882

Jegede, C. A., Akinlabi, B. H. and Soyebo, Y. A. (2013). Corporate governance efficiency and bank performance in Nigeria. *World J of Social Sciences*, 3(1): 178 – 192

Jensen, M. C. (1986). Agency costs of free cash flow, corporate finance and takeovers. *American Economic Papers and Proceedings*, 76(2): 323-329.

Jensen, M. C. and Meckling, W. H. (1976). Theory of the firm: managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3: 305-360.

Jensen, M. C. and Murphy, K. J. (1990a). CEO incentives—it's not how much you pay, but how. *Harvard Business Review*, 3: 138-153

Jensen, M. C. and Murphy, K. J. (1990b). Performance pay and top-management incentives. *The Journal of Political Economy*, 98(2): 225-264.

John, K., Mehran, H. and Qian, Y. (2010). Outside monitoring and CEO compensation in the banking industry. *Journal of Corporate Finance*, 16: 383–399.

Kajola, S. O. (2008). Corporate governance and firm performance: the case of Nigerian listed firms. *European Journal of Economics, Finance and Administrative Sciences*, 14: 16-28.

Kale, J., Reis, E. and Venkateswaran, A. (2009). Rank order tournament and incentive alignment: The effect on firm performance. *Journal of Finance*, 64: 1479-1512

Khan, W. A. and Vieito, J.P. (2013). CEO gender and firm performance. *Journal of Economics and Business*, available at http://dx.doi.org/10.1016/j.jeconbus.2013.01.003 28/07/2013

Kim, H. and Gu, Z. (2005). A preliminary examination of determinants of CEO cash compensation in the U.S. restaurant industry from an agency theory perspective. *Journal of Hospitality and Tourism Research*, 29(3): 341-355

Kube'94, B. (1994). CEO compensation and firm performance – are they related? *The Park Place Economist*, 2(1): 57-71.

Kama, U. and Chuku, C. (2009). The corporate governance of banks in Nigeria: how effective are the boards of directors? available at: http://ssrn.com/abstract=1350735 17/12/2013.

Lakhal, F., Lakhal, N. and Cheurfi, S. (2014). Does pay for performance reduce earnings management in France? *European Journal of Business and Management*, 6(13): 49-57

Levin, A., Lin, C. F., and Chu, C. (2002). Unit root tests in panel data: asymptotic and finite-sample properties. *Journal of Econometrics*, 108(1): 1-24

Lewellen, W., C. Loderer, K., Martin K. and G. Blum (1992). Executive compensation and the performance of the firm. *Managerial and Decision Economics*, 13(1): 65-74

Murphy, K. (1999). Executive compensation. *Handbook of Labor Economics*, 3B: 2485–2563

Obembe O., Adebisi, S.A. and Adeleye, O. K. (2010). Corporate governance, ownership structure and performance of manufacturing firms in Nigeria. *Journal of Corporate Ownership and Control*, 8(1): 696-708

Obiyo, O. C. and Torbira, L. L. (2011). Corporate governance and firm performance in Nigeria. *IJEMR*, 1(4): 1-12

Olaniyan S. O. (2010). Corporate Governance Mechanisms and Performance of Selected Non-Financial Firms in Nigeria Stock Exchange. An Unpublished M.Sc. Thesis, Department of Economics, Faculty of Social Sciences, Obafemi Awolowo University, Ile – Ife, Nigeria

Olatunji, O. R. and Ojeka, S. (2011). The role of non-executive directors in the profitability of banks: A study of universal banks in Nigeria. *International Journal of Business and Management*, 6(2): 248 - 257

Onakoya, A. B. O., Ofoegbu, D. I. and Fasanya, I. O. (2012). Corporate governance and bank performance: A pooled study of selected banks in Nigeria. *European Scientific Journal* 8(28): 155-164

Osuji, C. C. and Odita, A. (2012). Impact of capital structure on the financial performance of Nigerian firms. *Arabian Journal of Business and Management Review*, 1(12): 43-61

Ozkan, N. (2007). CEO compensation and firm performance: An empirical investigation of UK panel data. School of Economics, Finance and Management University of Bristol, UK, 8 Woodland Road, Bristol, BS8 1TN, UK.

Sanda, A., Mikailu, A. S. and Garba, T. (2005). Corporate governance mechanisms and firm financial performance in Nigeria. *AERC Research Paper 149 African Economic Research Consortium, Nairobi*

Sanusi, L. S. (2011). Public statement on the recapitalization of eight Nigerian Banks. Central Bank of Nigeria

Sarkar, J. (2013). Investigation into the relationship between executive compensation and firm performance. *Research Journal of Social Science and Management*, 2(10): 91-104

Scholtz, H. E. and Smit, A. (2012). Executive remuneration and company performance for South African companies listed on the alternative exchange (Altx). *Southern African Business Review*, 16(1): 22-38

Sigler, K. J. (2011a). CEO compensation and company performance. *Business and Economics Journal*, 31(1): 1-8

Sigler, K. J. (2011b). CEO pay and company performance in the Media industry. *Business Management Dynamics* 1(5): 17-23

Soludo, C. C. (2004). Consolidating the Nigerian banking industry to meet the development challenges of the 21st century. Being an address delivered to the special meeting of the Bankers' Committee, held on 6 July, 2004 at CBN Headquarters, Abuja

Tian, Y. S. (2013). Ironing out the kinks in executive compensation: Linking incentive pay to average stock prices. *Journal of Banking and Finance*, 37(1): 415–432.

Tosi, H. L, Werner, S., Katz, J. P., and Gomez-Mejia, L R. (2000). How much does performance matter? A meta-analysis of CEO pay studies. *Journal of Management*, 26(2): 301-339.

Uadiale, O. M. (2010). The Impact of Board Structure on Corporate Financial Performance in Nigeria. *International Journal of Business and Management*, 5(10): 155- 166.

Upneja, A. and Ozdemir, O. (2014). Compensation practices in the lodging industry: Does top management pay affect corporate performance? *International Journal of Hospitality Management*, 38: 30–38.

Wan-Hussin, W. N. and Salim, B. (2009). Remuneration committee, ownership structure and pay-for-performance: Evidence from Malaysia. College of Business University Utara Malaysia, available at: http://ssrn.com/abstract=1515166 27/11/2013

Wintoki, M. B., Linck, J. S. and Netter, J. (2009). Endogeneity and the dynamics of corporate governance. European summer symposium in financial markets, Centre for Economic Policy Research, Study Centre Gerzensee.

Wintoki, M.B., Linck, J.S. and Netter, J.M., (2012). Endogeneity and the dynamics of internal corporate governance. *Journal of Financial Economics*, 105 (3): 581–606.

Wooldridge, J. M. (2001). Applications of generalized method of moments estimation. *Journal of Economic Perspectives*, 15(4): 87–100

Yermack, D. (1996). Higher market valuation of companies with a small board of directors. *Journal of Financial Economics*, 40(1): 185-21.1

Zhou, W., Georgakopoulos, G. and Sotiropoulos, L. and Vasileiou, K. Z. (2011). The impact of executive payment on firm performance of the financial enterprises in China. *Asian Social Science*, 7(8): 65–80.