

## EXECUTIVE COMPENSATION AND BANKING SECTOR PERFORMANCE: EVIDENCE FROM NIGERIA

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### ABSTRACT

The recent global financial crisis believed to have in part been created by excessive risk taking by bank executives has heightened the concerns around the compensation paid to bank CEOs and executives. The question being asked is whether bank executive compensation is justified by bank performance. This study 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). The variance decomposition revealed that LNCDP accounts for greater variation in LNEXC. Using the PVECM granger causality/block test, the study further indicates that there is no causal relationship between the performance variables investigated with executive compensation despite the positive relationship between executive compensation, customers' deposits, and equity asset-ratio. The outcome of the study suggests that some factors, other than the banks' performance variables, determine the executive compensation in the Nigerian banking sector.

**JEL classification codes:** C23, L25, M12

**Key words:** Executive Compensation, Banking Sector Performance, PVECM, Nigeria

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### INTRODUCTION

Following the global financial crisis and the massive erosion of shareholder value as a result of wide spread market collapse; there has been a renewed interest in the levels of executive compensation, especially in the banking sector. The growing interest in executive compensation is not only limited to academia but also to the public (Southam & Sapp, 2010). This interest is informed by the general perception that the financial services industries, especially the banks, were responsible for the crisis. Also, there is the general perception that the executive compensation of bank CEOs and executives is excessive and not correlated to the performance of the banks. In addition, in the face of weak corporate governance, CEOs generally set their own compensation at excessively high levels limited only by the so called "outrage constraint", the notion of possible public outrage to excessive CEO and executive compensation (Bedchuk & Fried, 2002).

Over the years, studies on executive compensation became necessary to better understand the drivers of CEO and executive compensation and to better align it to shareholder interest and organizational performance (Bedchuk & Fried, 2003).

Two dominant theories, the principal-agent theory and the managerial power theory (Weisbach, 2006) have attempted to explain the basis of CEO and executive compensation and relate it to performance of the organization and shareholder value. The principal-agent approach views executive compensation as an optimization problem wherein the objective for CEOs and executives is to contract a compensation level that aligns their interest with those of the shareholders resulting in a strong correlation between the contracted pay and organization performance (See Murphy, 1999 for a detailed survey of the literature).

With support from the work of Hermalin and Weisbach (1998), who argue that power struggle is an important determinant of executive compensation. Bedchuk and Fried (2002) offer the managerial power theory as an alternative view on the determinant of CEO and executive compensation. Their argument is that the power imbalance between the CEO and the board gives the CEOs the ability to negotiate compensation levels that are excessively high and which have little correlation to performance.

According to the standard theory, executive compensation is regarded as a valuable tool in aligning the interest of CEOs and executives with the interest of shareholders (Murphy, 1999). Proponents of the managerial power theory such as Bebchuk and Fried (2003), Bebchuk, Fried, and Walker (2002), attempted to explain high executive compensation by positing that CEO and executives have some degree of control and power over their boards, giving them a higher bargaining power and thus the capacity to negotiate executive compensation that have no direct correlation with the performance or wealth creation attributable to their decision making and managerial competence (Bedchuk & Fried, 2004). CEO and executives are thus overpaid and incentive compensation is often abused by powerful executive at a cost to their shareholders.

Executive compensation refers to the remuneration package awarded to the Chief Executive Officers (CEO) and other executives who are charged with the responsibilities of managing the affairs of the firm. The executive compensation package awarded to the CEOs is normally in the form of salary, annual bonus, perks, stock option and restricted shares. The remuneration package may also include guarantee such as severance agreement, change in control provision if the company is bought out and pension.

Before the recent global financial crisis of 2007-2008, most empirical work on executive compensation focused on firms in the non-financial industries. However, the aftermath of the financial crisis shifted attention to financial industries. The occurrence of the financial crisis generated a lot of questions among academia, scholars, media, regulators on whether bank executives are overpaid, if the executive compensation paid to CEO induce them in taking excessive risk and from the public perspective, whether the government should regulate executive compensation package of financial institutions.

While some scholars are of the opinion that excessive risk-taking by bank CEOs are the major contributing factor to the financial crises (Rajan, 2009) others noted in their studies that there is no correlation between what is being paid to executives of financial institutions and the excessive risk they take (Fahlenbrach & Stulz, 2011).

In the Nigeria banking sector, the subject of executive compensation has not received much attention due to the fact that executive compensation in Nigeria seems to be limited to salary, allowances and cash bonuses as reflected in the various annual report of operating banks, compared to what operates in other developed countries (Jegade, 2012). According to Yusuf & Abubakar (2014), the issue of executive compensation in Nigeria became relevant following concerns over the perceived lavish and reckless lifestyles of some banks executive, which resulted in huge non-performing loans. In August, 2009, the then governor of the Central Bank of Nigeria (CBN) sacked the MD/Chief Executives of five banks (Afribank Plc, Finbank Plc, Intercontinental Bank Plc, Oceanic Bank Plc and Union Bank Plc) due to the excessive risk taking by the CEOs of the aforementioned banks and poor corporate governance practices that was in operation among the affected banks.

Using empirical analysis, this paper intends to address the basic question: Is the perceived relatively high and apparent increases in bank executive compensation over the years correlated to bank performance? The rest of the paper is divided into the following sections. Section (II) review of relevant literature, section (III) discusses the methodology adopted and the source of data and variable used, section (IV) reports the empirical findings while section (V) concludes the research findings.

## **LITERATURE REVIEW**

Studies abound on the relationship between executive compensation and firm performance, but there is no consensus as regards the existence and direction of the relationship between these variables. Two conflicting theories representing the divergent views held by researchers have attempted to explain the relationship between executive compensation and bank performance. The first theory is the alignment theory, which asserts that higher compensation is capable of increasing bank performance as it tends to motivate the executives and thus improve bank efficiency (Jensen et al., 1990; Murphy, 1999; Becher et al., 2005). The second theory known as the entrenchment theory holds that higher compensation leads to poor bank performance as bank executives tends to abuse their power in designing the compensation package that maximizes their own benefits at the detriment of the banking firm (Crystal, 1991, Bebchuk et al., 2009, Fahlenbrach & Stulz, 2011).

The findings of Mehran and Rosenberg (2007) showed that executive compensation decreases bank leverage while the empirical work conducted by Fahlenbrach & Stulz (2011) discovered that the performance of banks was poor when executive compensation was more align with the shareholder's interest.

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. In the same vein, Waweru et al. (2009) in their studies found that the relationship between CEO compensation and the value of the firm to be positive. Their empirical result also shows positive relationship between CEO compensation and growth opportunities.

Adithipyangkul et al. (2011) in their studies investigated whether there is a relationship between compensation and corporate performance in China. The outcome of their findings revealed that executive compensation is positively related to firm performance.

Guo et al. (2014) in their research examined the relationship between executive compensation and bank performance and risk in 2007-2008 crises for a cross section of banks in the US. The result of the empirical work shows that banks who executive compensation is aligned with shareholder's interest do not perform better. Also, Abowd (1990) assert in their research findings that there is a positive relationship between executive compensation and corporate performance thus supporting the pay- performance link.

Herdan et al. (2011) in their study examines the relationship between directors' remuneration and company performance using a sample of companies listed on London Stock Exchange (LSE) and Warsaw Stock Exchange

(WSE) between the periods of 2007 to 2010. The outcome of their research revealed the existence of a positive relationship between directors pay and companies performance. In the same vein, the study conducted by Merhebi et al. (2006) also confirmed the existence of a positive relationship between CEO remuneration and firm performance after investigating 722 Australian firms between the period of 1990 and 1999.

Main et al. (1996) in their study investigated total boardroom remuneration and company performance using 60 large UK firms within the period 1981-1989. The outcomes of their findings show that the inclusion of executive share options significantly increases the pay-performance link. Crespí-Cladera, et al. (2003) in their research investigated total board compensation, governance, and performance of large Spanish firms. The results of their findings also confirm the existence of positive relationship between board compensation and firm performance. Doucouliagos et al. (2007) examine the relationship between directors' pay and performance within Australian banking using panel data covering the periods of 1992 -2005. The outcome of their work revealed the existence of a positive relationship between CEO remuneration and bank performance.

In contrast, Yusuf & Abubakar (2014) studied the influence of firm size, firm performance, and corporate governance on CEO pay in the Nigerian banking industry using a sample of 14 commercial banks in Nigeria. Adopting ordinary least square regression, it was established in their findings that firm performance have no significant relationship with CEO pay. Similarly, Haid et al. (2006) in their study carried out an investigation by analyzing the relationship between ownership structure and executive compensation in Germany using a sample of large listed German firms between the periods of 1987 to 2003. The results of their findings indicate that identity of owners has significant influence on the level of executive compensation and the link between performance and compensation is weaker in firms where ultimate owners raise their voting rights in surplus of their cash flow rights.

Keller (2014) investigated if there is a relationship between CEO compensation and the stock price and net income of public traded corporation in the state of Wisconsin, USA. Using CEOs of 48 publicly traded firms in the state of Wisconsin, USA as a sample. The result of the research revealed that there is no relationship between the CEO compensation and the net incomes and stock prices of their entities in 2008, but in 2010 the result tends to be different, as there was no relationship between CEO compensation and the stock prices in 2010, there was significant relationship between CEO compensation and net incomes.

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.

Molyneux et al. (2014) examine the executive compensation, board independence and bank efficiency in China using a sample of deposit money bank from 2004 to 2011. The result of their findings shows that higher compensation for executives reduces bank efficiency and this becomes more severe when banks face financial crisis. However, an increase in the number of unpaid non-executive directors on the board improves bank efficiency although the positive influence becomes weaker during the financial crisis.

Jegade (2012) investigated the effect of executive compensation structure and ownership on firm performance. Adopting random sampling techniques of 240 employees from a cross-section of banks in Lagos State Nigeria were selected. The outcome of their findings revealed that executive compensation structures do not affect bank's market value and that size is a key criterion for determining executive compensation as it is significantly negatively related to compensation.

Elayan et al. (2003) in their study examine executive incentive compensation schemes and their impact on corporate performance in New Zealand. Using a final sample of 73 listed firms in New Zealand, the result of the research revealed that there is no significant relationship between compensation level or the adoption of an incentive compensation scheme and firm performance. The research findings were similar to other findings that indicated that there is no relationship between executive compensation and firm performance.

Ampuero et al. (2009) in their research examines the relationship between compensation and company performance within the banking sector, using a sample of twelve banks involving Swedish and foreign banks in Sweden covering 2006 to 2008 and adopting a combination of qualitative and quantitative method, the outcome of their findings shows that only turnover shows a significant p-value while other variables ( total compensation, variable salary, and net income) are not related to the CEO compensation.

Cuñat & Guadalupe (2009) in their study examined the executive compensation and competition in the banking and financial sectors in the US using a panel of US executives in the 1990s. The outcome of their research findings shows that while the variable components of pay, rise along with performance, the fixed component of pay, fell thus showing that the overall effect on total pay was small.

Duffhues & Kabir's (2008) research examines the widespread belief that executive pay should reflect firm performance. After using a variety of accounting-based and capital market-based performance measures on the data set of compensation paid to executive directors of Dutch listed companies, their empirical analysis fails to detect a positive pay-performance relationship.

Gregg et al. (2012) in their research assess the relationship between executive pay and firm performance using a sample of large UK firms. The result of their findings indicated that firm size has a main influence on the level of executive compensation. Also, their result also shows that although total boards pay and the pay of the highest director was relatively high in the financial sector compare to other industries, the cash-plus-bonus pay-performance sensitivity of financial firms is not significantly higher than in other sectors.

Furthermore, Kato et al. (2006) in their research examined executive compensation, firm performance and corporate governance in China. Using data obtained from China Stock Market and Accounting Research Database for the period 1998 to 2004, the results of their findings revealed that there are statistically significant sensitivities and elasticity of executive compensation with respect to shareholder value in China. The result of their findings also revealed that the ownership structure of firms in China's has an effect on the pay-performance link, as state ownership of listed firms shows weak pay-performance link for top managers.

Erick et al. (2014) examine the effect of executive compensation on the financial performance of insurance firms in Kenya using 46 firms in Kenya covering a period of 2006 to 2010. The outcome of their findings revealed that there is a non-significant relationship between executive compensation and financial performance.

Hubbard & Palia (1995) in their study investigated the executive pay in the banking industry and the effect of deregulating the market for corporate control using a panel data on 147 banks in the US over the 1980s. The outcome of their findings revealed that both higher level of executive compensation and a more pronounced compensation-performance relationship exists when interstate banking is permitted than when it is not permitted.

The preceding literature suggests that the relationship between executive compensation and banking sector performance is inconclusive. This, therefore, has induced this study to examine the relationship between executive compensation on banking sector performance in Nigeria.

## **METHODOLOGY**

### **Source of Data and Description**

The study employed secondary data sourced from the annual financial statements of commercial banks in Nigeria. The set of data used for the study consist of annual time series data of 12 commercial banks in Nigeria over the period of 2005-2014. These banks are Access Bank, Diamond Bank, First Bank of Nigeria, Guaranty Trust Bank, Skye Bank, Union Bank of Nigeria, United Bank for Africa, Wema Bank, Zenith Bank, Fidelity Bank, Sterling Bank, and Eco Bank Nigeria Limited. The rationale for selecting these banks out of 22 commercial banks in Nigeria is hinged on the availability of data on the choice of variables. The variables employed in the study are executive compensation (EXC), customers deposit (CDP), return on equity (ROE), and the equity-asset ratio (EAR). These variables are selected based on some of the relevant empirical studies such as Samad & Hassan (1999), Staikouras & Wood (2011), and Aduda (2011).

The equity to asset ratio (EAR) measures the overall capital strength of the commercial banks. The ratio is used to measure the average safety and financial soundness of banks and other financial institutions. A deteriorating equity-asset ratio signals either an increasing debt financing of the banks over its total assets, given the total asset to be constant, or a declining total assets, while its total equity remains constant, or both over a given period of time (Staikouras & Wood, 2011). Customer deposits (CDP) is the total deposits by customers which include the saving, current, and time deposit and it is used to capture the size of the commercial banks (Aduda, 2011). The return on equity (ROE) is use to measure managerial efficiency (Sabi, 1996; Hassan, 1999). It is calculated as the percentage ratio of net earnings to the equity capital. A higher ratio signals higher managerial efficiency and vice-versa (Samad & Hassan, 1999).

### **Panel Unit Root Test**

The study used the panel unit root test to investigate the properties of the data. Panel unit root test is used to examine the presence of a unit root. It is pertinent to mention that the first generation of panel unit-root test such as Im et al. (2003), assumed cross sectional independence among panel units. However, the second generation test, which includes Smith et al. (2004); and Pesaran (2007), relax the assumption of cross-sectional independence and allowed for variety of dependence across the different units. The study employed the Levin, Lin & Chu or LLC (2002); Im, Pesaran and Shin or IPS (2003); ADF-Fisher Chi-square; PP – Fisher Chi-square and the Hadri test to test the presence of panel unit root

## Cointegration Test

The study employed the trace and maximum eigenvalue statistics of the maximum Likelihood method (ML) developed by Johansen (1988; 1991) to test the existence of a long-run relationship between the variables. It is important to assert that the outcome of the trace and maximum eigenvalue statistics will determine whether to use the panel vector autoregressive (PVAR) or the restricted PVAR known as the panel vector error correction model (PVECM). In the presence of long-run relationship, the PVECM becomes appropriate while the PVAR is more suitable in the absence of cointegration.

## Impulse Response Function and Variance Decomposition

The impulse response function (IRF) gives information on the reaction of an endogenous variable to a shock in other variable. However, the IRF does not explain the degree in which a shock in a variable affects the other. Hence, the estimation of the variance decomposition (VDC) becomes pertinent (Kelikume, 2016). The VDC separates the variation in an endogenous variable into component shocks to the VAR. Hence, VDC provides information on the relative importance of each random innovation in affecting the variables in the VAR. The study also used the inverse roots of AR graph to test the stability of the estimated panel autoregressive (PVAR) model and the reliability of the IRF.

## Panel Vector Autoregressive Model

Vector Autoregressive (VAR) methodology is usually employed when there is lack of an a priori theory as regards the relationship between the variables of the model. VAR allows variables to be entered as endogenous within a system of equations, where the short run dynamic relationships could be subsequently identified (Koutsomanoli-Filippaki & Mamatzakis, 2009). The Panel VAR is stated as follow:

$$LNEXC_{it} = \alpha_1 + \sum_{j=1}^n \beta_j LNEXC_{it-j} + \sum_{j=1}^n \theta_j LNCDP_{it-j} + \sum_{j=1}^n \gamma_j ROE_{it-j} + \sum_{j=1}^n \delta_j EAR_{it-1} + \mu_{it} \quad (1)$$

$$LNCDP_{it} = \alpha_2 + \sum_{j=1}^n \theta_j LNCDP_{it-j} + \sum_{j=1}^n \beta_j LNEXC_{it-j} + \sum_{j=1}^n \gamma_j ROE_{it-j} + \sum_{j=1}^n \delta_j EAR_{it-1} + \mu_{it} \quad (2)$$

$$ROE_{it} = \alpha_3 + \sum_{j=1}^n \gamma_j ROE_{it-j} + \sum_{j=1}^n \theta_j LNCDP_{it-j} + \sum_{j=1}^n \beta_j LNEXC_{it-j} + \sum_{j=1}^n \delta_j EAR_{it-1} + \mu_{it} \quad (3)$$

$$EAR_{it} = \alpha_4 + \sum_{j=1}^n \delta_j EAR_{it-1} + \sum_{j=1}^n \gamma_j ROE_{it-j} + \sum_{j=1}^n \theta_j LNCDP_{it-j} + \sum_{j=1}^n \beta_j LNEXC_{it-j} + \mu_{it} \quad (4)$$

Where:

LNEXC = Natural log of Executive Compensation

LNCDP = Natural log of Customers Deposit

ROE = Return on Equity

EAR = Equity-Asset Ratio

$\mu$  = Stochastic error term

it= Banks and year respectively

## RESULTS

Table 1 shows the outcome of the summary descriptive statistics. The result reveals that the annual compensation (remuneration) paid to a board director in the banking industry ranges between 1.55 million naira and 6.54 million naira while the average annual compensation is 4.86 million naira. The result also indicates that the customer deposit of commercial banks ranges from 10.02 and 14.91 billion naira. Also the average value of the return on equity is 97% while the average equity-asset ratio is 16%.

**TABLE 1: DESCRIPTIVE STATISTICS**

	<b>Mean</b>	<b>St-Dev</b>	<b>Min.</b>	<b>Max.</b>
LNEXC	4.861	1.039	1.547	6.538
LNCDP	13.127	0.998	10.026	14.910
ROE	97.896	342.09	1.049	2772.376
EAR	16.465	11.482	0.507	69.159

*Source: Author's Computation and EViews 9 Output*

Table 2 reports the correlation matrix showing the degree of the relationship between the variables. The result reveals that there exists a positive relationship between executive compensation (LNEXC) and customers deposit (LNCDP). The result also shows that there is a negative and weak relationship between LNEXC and return on equity (ROE). The result further indicates that positive but weak relationship exists between LNCDP and equity-asset ratio (EAR).

**TABLE 2: CORRELATION MATRIX**

	LNEXC	LNCDP	ROE	EAR
LNEXC	1.000000	0.590667	-0.101358	0.115124
LNCDP	0.590667	1.000000	-0.094215	0.020041
ROE	-0.101358	-0.094215	1.000000	-0.328570
EAR	0.115124	0.020041	-0.328570	1.000000

*Source: Author's Computation and EViews 9 Output*

Table 3 shows the results of the panel unit root test for each variable. The study employed the following test of stationarity to examine the presence of unit root. These tests include the Levin, Lin & Chu or LLC (2002), Breitung (2000), Im, Pesaran and Shin or IPS (2003); ADF-Fisher Chi-square, and the PP – Fisher Chi-square (Maddala & WU, 1999; Choi, 2001). A variable is considered stationary or has no unit root if the probability value(s) of the majority tests is less than 0.05 (5%). The outcome of the panel root test indicates that only LNEXC is stationary at the first difference I(1) while the rest of the variables, LNCDP, ROE, and EAR are stationary at levels I(0). Since one of the variables is stationary at first difference, cointegration relationship might exist (Asteriou & Hall, 2007). Hence, the study tests for cointegration employing the Trace and Maximum Eigenvalue test developed by Johansen (1988; 1991).

**TABLE 3: PANEL UNIT ROOT TEST**

	<u><i>D(LNEXC): lag 1</i></u>		<u><i>LNCDP: lag 1</i></u>	
Method	Statistic	Prob.**	Statistic	Prob.**
Levin, Lin & Chu t*	-24.1264	0.0000	-1.9399	0.0262
Breitung t-stat	-2.9230	0.0017	-2.2135	0.0134
Im, Pesaran and Shin W-stat	-1.9399	0.0262	-0.0181	0.4928
ADF - Fisher Chi-square	36.4734	0.0061	27.7088	0.2725
PP - Fisher Chi-square	60.1773	0.0000	113.901	0.0000
	<u><i>ROE: lag 1</i></u>		<u><i>EAR: lag 1</i></u>	
Method	Statistic	Prob.**	Statistic	Prob.**
Levin, Lin & Chu t*	-4.1390	0.0000	-2.8239	0.0024
Breitung t-stat	-3.7347	0.0001	-2.6741	0.0037
Im, Pesaran and Shin W-stat	-0.4947	0.3104	-0.3017	0.3814
ADF - Fisher Chi-square	32.0315	0.1262	28.4380	0.2420
PP - Fisher Chi-square	100.173	0.0000	48.6474	0.0021

*Source: Author's Computation and EViews 9 Output*

Table 4 reports the result of the optimum lag selection criteria. The study used the Schwarz information criterion (SC) and the Haaran-quinn information criteria (HQ) as the standard information criteria in determining the optimum lag length (Gutiérrez, 2007). Hence, the optimum lag chosen to estimate the PVAR and the cointegration is 1.

**TABLE 4: PVAR OPTIMUM LAG SELECTION CRITERIA**

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-765.5846	NA	10156986	27.48517	27.62983	27.54125
1	-723.1643	77.26567	3960892.	26.54158	27.26492*	26.82202*
2	-705.9902	28.82795*	3833868.*	26.49965*	27.80166	27.00444

*Source: Author's Computation and EViews 9 Output*

Table 5 and 6 depict the results of the cointegration tests. The outcomes of Johansen cointegration trace test and the maximum eigenvalue test shows a conflicting result that is, the trace test suggests the presence of cointegration while the maximum eigenvalue indicates the absence of cointegration. In this situation, the trace test is preferred to the maximum eigenvalue test because its power performance is superior and more advantageous (Lütkepohl, Saikkonen, & Trenkler, 2001). As a result, there is presence of cointegration. Given this situation, the panel vector error correction model (PVECM) becomes more appropriate than the PVAR

**TABLE 5: JOHANSEN COINTEGRATION TRACE TEST**

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.315293	51.17620	47.85613	0.0236
At most 1 *	0.288402	29.96538	29.79707	0.0478
At most 2	0.125668	10.91181	15.49471	0.2170
At most 3	0.058761	3.391274	3.841466	0.0655

*Source: Author's Computation and EViews 9 Output*

**TABLE 6: JOHANSEN COINTEGRATION MAXIMUM EIGENVALUE TEST**

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None	0.315293	21.21082	27.58434	0.2637
At most 1	0.288402	19.05357	21.13162	0.0953
At most 2	0.125668	7.520536	14.26460	0.4295
At most 3	0.058761	3.391274	3.841466	0.0655

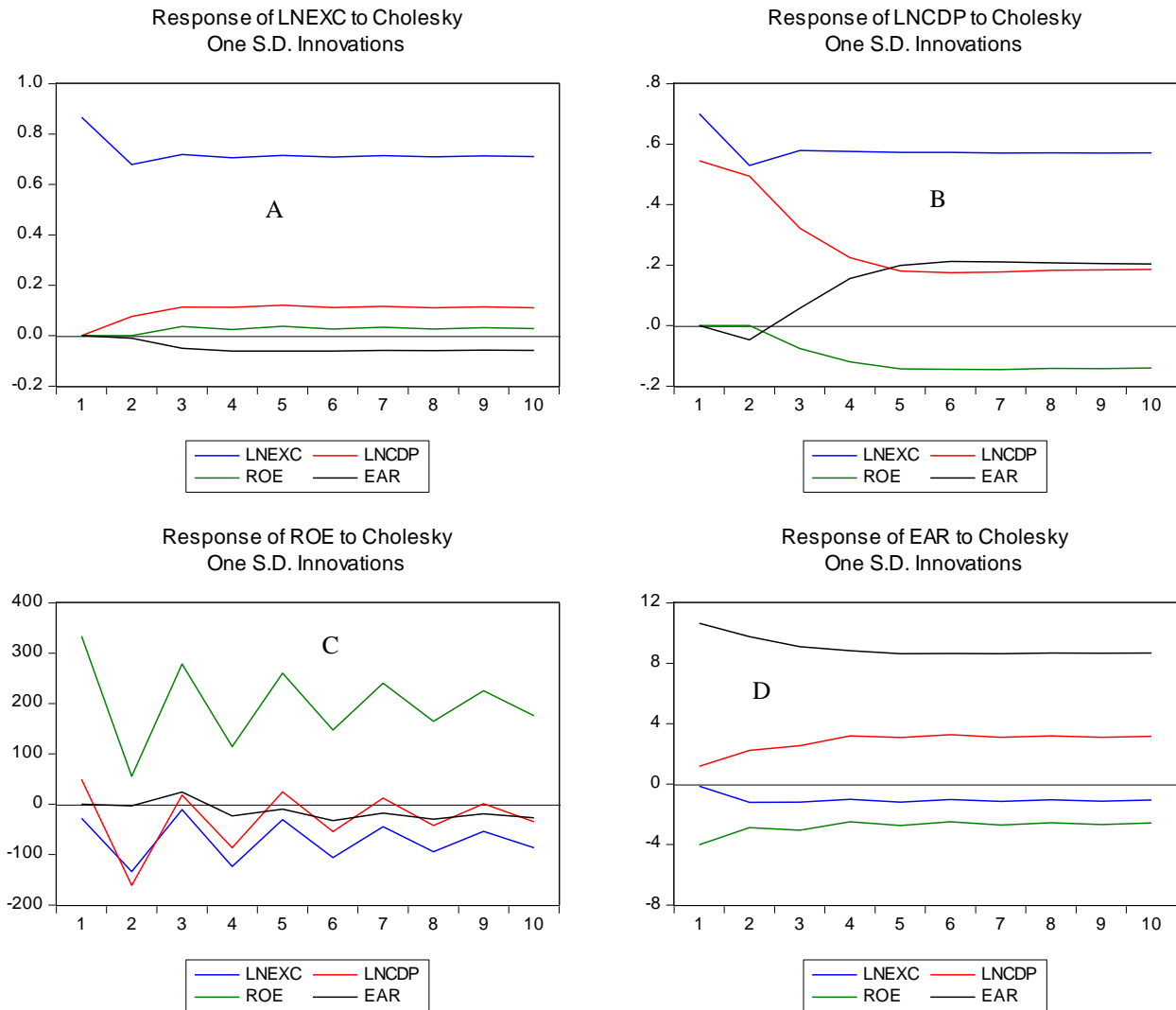
*Source: Author's Computation and EViews 9 Output*

Figure 1 reports the impulse response function (IRFs) graphs of the estimated PVECM. It is important to state that study focuses more on the IRF graph in panel A because it dwells more on the objective of the study. The horizontal axes of the IRFs represent the number of periods that have passed after the impulse has been given whilst the vertical axes measure the responses of the variables (Anetor et al., 2016). The IRF graph, panel A, depicts the response of LNEXC to shocks in LNCDP, ROE, and EAR. Panel A reveals that one percent shock in customers' deposits (LNCDP) produce positive responses in executive compensation (LNEXC) i.e. positive responses of 0.08, 0.11, and 0.11 in the second, fourth, and the tenth period respectively. Also, the IRF in panel A reveals that a one percent innovation in equity-asset ratio (EAR) will result in positive reactions in LNEXC i.e. positive responses of 0.04, 0.04, and 0.03 in the third, fifth, and the tenth period respectively. The IRFs, however, shows that shocks in return on equity (ROE) amount to a negative response in LNEXC i.e. negative responses of -0.05, -0.05, and -0.06 in the third, fifth, and the tenth period respectively.

These outcomes suggest that the magnitude or the quantum of the compensation paid to directors has to do with the size of the customers' deposit and the capital strength of the bank, as captured by the EAR. Also, the negative responses of LNEXC to ROE indicate that executive compensation is not determined by the bank's performance. It is pertinent to mention that the positive responses of LNEXC to LNCDP and EAR do not justify the fact that both variables significantly cause or determine the executive compensation. Hence, the study further runs a Granger Causality/Block Exogeneity Wald test to bring to bear if these variables cause or determine executive compensation.



**FIGURE 1 IMPULSE RESPONSE GRAPH**



Source: Author's Computation and EViews 9 Output

Table 7 reports the variance decomposition (VDC) of LNEXC. It is important to mention that the study only features the VDC of LNEXC because it captures our core subject or variable of concern. The result suggests that the customers' deposits (LNCDP) accounts for 2.02% variation in executive compensation (LNEXC), return on equity (ROE) accounts for 0.14% while equity-asset ratio (EAR) accounts for 0.5% variation in LNEXC. These outcomes suggest that customers' deposit is the predominant source variation in LNEXC followed by the equity-asset ratio while the return on equity account for the least source of variation.

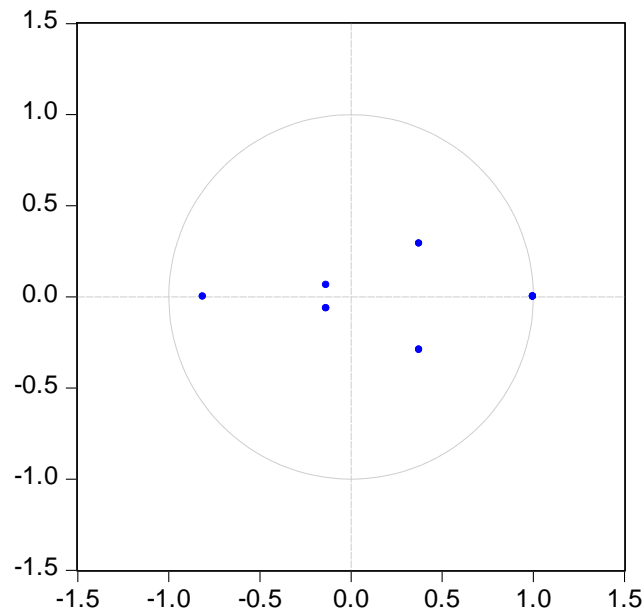
**TABLE 7: VARIANCE DECOMPOSITION OF LNEXC**

Period	S.E.	LNEXC	LNCDP	ROE	EAR
1	0.866797	100.0000	0.000000	0.000000	0.000000
2	1.103985	99.51108	0.481197	8.04E-07	0.007725
3	1.323937	98.70660	1.070853	0.074196	0.148352
4	1.506250	98.25311	1.383556	0.083665	0.279673
5	1.673489	97.87969	1.643700	0.117263	0.359351
6	1.822121	97.70301	1.761468	0.119416	0.416106
7	1.961794	97.55064	1.869029	0.132442	0.447887
8	2.090257	97.46752	1.925679	0.132868	0.473938
9	2.212652	97.38443	1.985003	0.139453	0.491114
10	2.327535	97.33132	2.021646	0.140048	0.506988

*Source: Author's Computation and EViews 9 Output*

Figure 2 represent the AR inverse root of the PVECM. This graph helps to show if the IRFs and the VDCs of the PVECM are stable or not. It is stable if the polynomial roots fall within the unit circle. If all the polynomial roots are within the circle, the PVECM is stable and stationary but if any of the polynomial roots lie outside the circle, it is unstable and unreliable. Figure 2 depict that the polynomial root, dots, lies within the circle hence, the IRFs and VDCs are stable and can be used as a basis for decision.

**FIGURE 2: INVERSE ROOTS OF AR CHARACTERISTIC POLYNOMIAL**



*Source: Author's Computation and EViews 9 Output*

Table 8 reports the PVECM granger causality/Block Exogeneity Wald Test. The result shows that customers' deposit (LNCDP) does not granger cause executive compensation (LNEXC) and executive compensation does not granger cause LNCDP given that the probability value exceeds 0.05 (5%). This outcome suggests that customers deposit (LNCDP) is not the significant determinant of executive compensation (LNEXC) in the Nigerian banking sector, notwithstanding the positive relationship between them as shown by the impulse response graph. The result also indicates the absence of unidirectional or bidirectional causality between LNEXC and LNCDP. The outcome of the causality tests also indicates that the return on equity (ROE), which captures the performance of banks, does not granger cause executive compensation (LNEXC) and LNEXC does not granger cause ROE. This suggests that there is no form of causality between the two variables. Finally, the test has also shown that the equity-assets ratio (EAR),

which captures the overall capital strength of the commercial banks, does not granger cause LNEXC and the LNEXC does not granger cause EAR.

The overall outcome of the causality or the block exogeneity Wald tests have revealed that the customers' deposits (LNCDP), return on equity (ROE), and the equity-assets ratio (EAR) does not cause the executive compensation (LNEXC)

**TABLE 8: GRANGER CAUSALITY/BLOCK EXOGENEITY WALD TESTS**

Dependent variable: D(LNEXC)

Excluded	Chi-sq	df	Prob.
D(LNCDP)	0.005579	1	0.9405
D(ROE)	0.046100	1	0.8300
D(EAR)	0.025107	1	0.8741
All	0.099242	3	0.9919

Dependent variable: D(LNCDP)

Excluded	Chi-sq	df	Prob.
D(LNEXC)	3.003668	1	0.0831
D(ROE)	0.082172	1	0.7744
D(EAR)	0.611116	1	0.4344
All	3.999741	3	0.2615

Dependent variable: D(ROE)

Excluded	Chi-sq	df	Prob.
D(LNEXC)	0.678549	1	0.4101
D(LNCDP)	11.49555	1	0.0007
D(EAR)	0.041960	1	0.8377
All	17.35822	3	0.0006

Dependent variable: D(EAR)

Excluded	Chi-sq	Df	Prob.
D(LNEXC)	0.097023	1	0.7554
D(LNCDP)	0.016167	1	0.8988
D(ROE)	0.099303	1	0.7527
All	0.491326	3	0.9208

*Source: Author's Computation and EViews 9 Output*

## CONCLUSIONS

The study examined the relationship between executive compensation and the banking sector performance in Nigerian banking sector between the period of 2005 and 2014. The variables used in representing the banking sector performance include customers' deposit (LNCDP), return on equity (ROE), and equity-asset ratio (EAR). The study employed the panel vector error correction model (PVECM) and it was found, from the impulse response, that executive compensation (LNEXC) response positively to customers' deposits (LNCDP) and equity-asset ratio (EAR) while it negatively response to return on equity (ROE). In addition, the study, through the variance decomposition, showed that LNCDP accounts for greater variation in LNEXC. In a bid to clarify whether these variables determine the compensation paid to directors, the study employed the PVECM granger causality/block exogeneity Wald test. The test revealed that, the variables do not granger cause executive compensation despite the positive relationship between executive compensation, customers' deposits, and equity asset-ratio.

The result of this study suggests strongly that the compensation paid to the directors of banks in Nigeria is not determine by the size of the bank (LNCDP), performance of the bank (ROE), and capital strength of the banks (EAR) suggesting that some factors, other than the banks' performance variables, determine the executive compensation in the Nigerian banking sector. The possible reason for the insensitive compensation of executives to performance in Nigeria is that most of the activities of the board are largely hidden from the shareholders and most top executives are there to serve their self-interests rather than the overall interest of the company and the shareholders.

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