An empirical investigation of the determinants of bank executives compensation in Nigeria

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**Abstract**

In this study we investigated the determinants of executive compensation in some selected quoted banks in Nigeria. The study used eight (8) banks which were drawn from the quoted banks in Nigeria that disclosed executive compensation from 2005 to 2010 in their annual financial report. In identifying the determinants of banks executive compensation in Nigeria using our sampled banks, we conducted pooled OLS and panel data fixed and random effect regression analysis. In all, our results based on the Hausman test shows that the panel regression model best explains bank executive compensation in the selected quoted banks in Nigeria and that bank size (total asset) and profitability are two key factors that determine positively, the compensation of banks executives in Nigeria. This study recommends that further studies be conducted in this area using SEC filling to increase the data on executive compensation.

**Introduction**

Executive compensation is the economic reward given to companies’ executives and it is measured by basic pay, bonuses and stock options. During the 20th century, extensive research has been conducted and the debate on executive compensation has gotten much more attention and controversy especially in the banking industry where there has been cases of abuse of bank funds. Tosi & Colleague (1989) pointed out, that about 250 studies on executive compensation and performance have been conducted during last century but the outcomes of these studies are disappointing (Miller, 1995), since many writers have attempted to find the determinants of executive compensation using different methods.

Still, controversy exists among the researchers regarding the most important determinants of executive compensation, their attributes, and how they influence executive compensation. The reliability of the sources used to acquire data on executive compensation by different studies is also controversial and debatable. In Nigeria, most quoted companies do not publicly disclose their executive compensation but in the banking industry, banks are expected to publish their executive compensation in their annual financial reports. This makes empirical studies on banking industry executive compensation in Nigeria more interesting. Other disagreements arise due to different methods used by different studies to find relationship among various determinants of executive compensation. Hill and Phan (1991) used executive tenure as a determinant of executive pay while Finkelstein (1992) used power in top management teams as a determinant of executive compensation. The academic works on executive compensation have been diversified, as different writers see the determinants of executive compensation from different perspectives.

Throughout history, researchers have found many but complex determinants of executive compensation and most of the academic debate on the determinants of executive compensation move around the economic factors due to the varying market demands, workplace diversity, heterogeneity in organizational levels, and growth opportunities, the operations of firm have gotten complex and as a result, the executive’s ability to sustain in this dynamic environment and the level of his compensation has gained extensive attention both in academic and non-academic concerns. In the academic works on the determinants of executive compensation, firm size, firm performance, corporate governance, market risk, power, tenure, CEO ownership, institutional investor’s ownership and firm growth have been used to determine the compensation of executives (Phan, 1991). The executive compensation in almost all research done is measured by cash compensation and bonuses paid to the executives yearly.

From the above, the outcome of internationalization, workplace diversification, profit maximization and the demise of various large banks strengthen the need for a synthesis on the determinants of executive compensation globally. Some writers attempt to find the economic determinants, some try to find the social factors of executive compensation. Some have used agency theory approaches by focusing on governance/ power/ ownership attributes, while others try to find the determinants on the basis of profit or performance, but they have their own limitations which give a misleading picture of the issue. These attempts of exploring the relationship between executive compensation and its determinants have brought the debate on a crucial stage especially in the banking industry. In Nigeria, less empirical work has been done on the links between motivation and compensation in the context of bank executive’s compensation.

**Statement of the Research Problem**

Executive compensation packages have been a focus of much public and media interest in the world banking industry and Nigeria inclusive. Since the 20th century, the determinants of compensation have remained the main focus of discussion and debate among the academic works. As the academic progress has been growing in this field, the dilemma remains unsolved and even more complicated for the banking industry. There were and still disagreements exist regarding various
attributes that determine bank executive compensation and most of these studies have been limited to developed economies with organized banking systems. Our study is motivated by the desirability of exploring the determinants of bank executive compensation in a developing country like Nigeria where the banking industry is currently facing increasing cases of bank fraud and excess executive pay. In this study, we identified the problem of non-disclosure of executive compensation in most Nigerian quoted companies except in the banking industry; this therefore justifies our use of banks in understanding executive compensation in Nigeria and the banking industry specifically. Unlike previous studies on executive compensation determinants, we use panel data including time series data from 2005 to 2010 and a cross section of Nigerian quoted banks that publish executive compensation in their annual financial reports. Following the above, there is very little literature on bank executive compensation in Nigeria and to the best of our knowledge, no well known empirical study on the issue of banks executive compensation in Nigeria has been conducted especially in the case of applying panel data. To fill this gap, this research seeks to find answers to the following research questions:

(i) What is the relationship between bank size and bank executive compensation in Nigeria?
(ii) What is the relationship between bank performance and bank executive compensation in Nigeria?
(iii) What is the relationship between bank institutional investors’ ownership and bank executive compensation in Nigeria?
(iv) What is the relationship between bank CEO ownership and bank executive compensation in Nigeria?
(v) What is the relationship between bank board Independence and banks executive compensation in Nigeria?

Objectives of The Study

The broad objective of this study is to provide empirical evidence on the determinants of bank executive compensation using data from some selected quoted banks in Nigeria. The specific objectives will include:

(1) evaluate the impact of bank size on bank executive compensation in Nigeria;
(2) investigate the influence of bank performance on bank executive compensation in Nigeria;
(3) determine the influence of bank institutional investors’ ownership on bank executive compensation in Nigeria;
(4) find out the impact of bank CEO ownership on bank executive compensation in Nigeria and
(5) investigate how banks board Independence exerts influence on banks executive compensation in Nigeria.

Research Hypotheses

In line with the research problems and objectives, the following hypotheses are formulated to be tested:

H1: Bank size is positively related to bank executive compensation
H2: Bank profitability has a positive relationship with bank executive compensation
H3: Bank institutional investors’ ownership has a positive relationship with bank executive compensation

Compensation

H4: Bank executive compensation is positively related with bank CEO ownership
H5: Bank executive compensation is positively related with banks board Independence

Literature Review

Concept Of Executive Compensation

Executive compensation is a mechanism that aligns the incentives of investors and managers so as to mitigate agency problems arising from separation of ownership and control. Executive compensation designed to align the goals of investors and managers imposes an additional risk on managers (Holmstrom, 1979, Harris & Raviv, 1979, Grossman & Hart, 1983, Jensen & Murphy, 1990). Like most individuals, if executives are risk averse, they would demand a premium for the additional risk that is imposed on them through their pay packages.

There are many forms of executive compensation that offer a variety of tax benefits and performance incentives. Below are the most common forms:

(i) Cash Compensation: This is the sum of all standard cash salary compensation that the executive receives for the year.
(ii) Option Grants: This is a list of all options granted to the executive; the information includes strike prices and expiration dates.
(iii) Deferred Compensation: This is compensation that is deferred until a later date, typically for tax purposes. However, changes in regulations have lessened the popularity of this type of compensation.
(iv) Long-Term Incentive Plans (LTIPs): Long-term incentive plans encompass all compensation that is tied to performance for tax purposes. Current tax laws favour pay for performance-type compensation.
(v) Retirement Packages: These are packages given to executives after they retire from the bank. These are important to watch because they can contain the so-called "golden parachutes" for corrupt executives.
(vi) Executive Perks: These are other perks given to executives, and they include private cars, travel reimbursements and other rewards.

Measures Of Executive Compensation

There are different measures of the structure of executive compensation. We have the level of pay, where pay is alternatively defined as salary and total direct compensation (total direct compensation consists of the sum of salary, bonus, option and stock grant, long-term incentive plan payouts, and other compensation). Also, there is the pay-for-performance sensitivity and this is through three measures but more attention is given to the options granted to managers i.e. the sensitivity of the value of option granted to changes in stock price. Furthermore, two measures of changes in compensation are used and they are (1) the change in cash compensation (salary plus bonuses) and (2) the change in total direct compensation.

None of these measures consider the change in compensation that managers derive from an increase or decrease in the value of the stocks and options they already hold. Whether the consequence of this exclusion is an underestimation of the managers’ true pay-for-performance sensitivity depends upon the managers’ activity with respect to their personal portfolios. Recent evidence suggests that these activities may substantially alter the pay-for-performance sensitivity of managers’ current holdings. Ofek & Yermack (2000) reported evidence that managers’ alter their portfolios in response to the composition of their pay packages. Given the difficulties of controlling managers’ activities, using current compensation has the advantage of measuring only the compensation components over which the board of directors has direct control. Our interest is in the potential influence institutional investors have on executive compensation, rather than an analysis of the optimal
managerial ownership dynamics. Since any institutional investor influence, whether direct or indirect, would presumably come through the board’s decisions, current compensation measures are more appropriate for our tests. The board has limited control (for example, through vesting and trading restrictions) over the amount of stock and options executives choose to retain in their portfolios, Ofek et al (2000) and Bettis, Carr & Michael (2001). The use of current compensation is further justified by Core and Guay (1999). They concluded that firms use flow of equity to re-optimize incentives for future performance.

Firm Size And Executive Compensation

The ultimate purpose of business for both shareholders and executives is profit maximization of the firm and executives efficiently contributing to profit maximization get more in terms of remuneration. Tosi, Werner, Katz and Gomez-Mejia (2000) found a strong relationship between organizational size and executive compensation, which shows that executives may put their efforts to increase the size in order to maximize their compensation. ). Lambert et al (1991) found weaker relationship between size (measured by sales) and executive compensation than suggested by the previous researches and argued that changes in organizational size do not primarily affect executive compensation. Boyd (1994) found weak relation between executive compensation and firm size measured by log of net sales.

Firm’s Performance And Executive Compensation


Kubo (2001) surprisingly found a strong association between executive pay and company’s stock market performance in Nigerian firms and a weak relation between executive pay and company stock market performance in Japanese firms. Chalmers et al at (2006) shows that return on assets was positively associated with all compensation components except shares, only bonus component of executive compensation was associated with annual stock market returns, and executive cash bonus was positively associated with both market and accounting returns. Kubo (2001) surprisingly found a strong association between executive pay and company’s stock market performance in Nigerian firms and a weak relation between executive pay and company stock market performance in Japanese firms. Chalmers et al at (2006) shows that return on assets was positively associated with all compensation components except shares, only bonus component of executive compensation was associated with annual stock market returns, and executive cash bonus was positively associated with both market and accounting returns.

Institutional Ownership And Executive Compensation

According to the efficient-monitoring hypothesis, institutional investors and large block holders are better at monitoring management activities at lower cost than atomic shareholders because of greater expertise as well as the vested fiduciary responsibilities of the former group (Pound, 1988). Based on this hypothesis, a positive relationship between institutional ownership and firm value is expected. Empirical evidence in favour of such a hypothesis reveals that ownership concentration enhances firm’s value (Clay, 2001; McConnell and Servaes, 1990; Hutton, 2002), and it has a positive effect on long-term return-earnings relation (Rajgopal, Venkatachalum and Jiambalvo, 1999), and constrains earnings management (Mitra, 2002; Rajgopal, Venkatachalum and Jiambalvo, 1999). This hypothesis also predicts that, the efficient monitoring exerted by concentrated shareholders may have greater vigilance to curb undue management power (in the form of rent seeking) and puts pressure on directors to discipline rent seeking behaviour by optimizing executive compensation level.

Larger concentration of institutional shareholders might result in greater monitoring and scrutiny of executive officers and the board. Examining executives’ pay in almost 2000 firms during the period 1991-1997, Hartzell and Starks (2002) found out that more concentrated institutional ownership leads to lower executive compensation. They also found out that a larger institutional presence results in more performance - sensitive compensation. Cyert, Kang, and Kumar (2002) found a negative relationship between the equity ownership of the largest shareholder and the amount of executive compensation; doubling the percentage ownership of the outside shareholder hence reducing non-salary compensation by 12-14%. Bertrand and Mullainathan (2000) found that executives in firms that lack a 5% (or larger) external shareholder tend to receive more “luck-based” pay, that is pay associated with profit increases that are entirely generated by external factors (for example., changes in oil prices and exchange rates) rather than by managers’ efforts. Thus, if an institution is committed to retaining a major shareholding in a company, it would have more interest in improving the company’s performance. Consequently, institutional shareholders appear to become more active in their role as shareholders. Despite these recent developments in the potential role of institutions in executive remuneration in the developed and developing countries, there is not much empirical research investigating the extent to which institutions play a significant role in the determination of executive compensation.

Board Characteristics And Executive Compensation

Boards of directors are widely believed to play an important role in monitoring management. The main responsibility of the board is to evaluate management and ensure that managers perform well. The non-executive directors (outside directors) who are not full employees of the firm are believed to play a larger role in monitoring managers than executive directors (inside directors). Core, Holthausen and Larcker (1999) also find that executive compensation is an increasing function of the percentage of outside directors appointed by the executive, which shows the ability of the executive to influence compensation decisions through its ability to influence outside directors. According to Carothers (2004), top executive salary is found to be statistically associated with the number of years the executive remains with the company. Hill & Phan (1991) argued that age and tenure have little or no effect on executive compensation. Conversely, Bertsch & Mann (2005) found a strong relationship between executive pay and tenure. Again, there is no consensus on the issue of whether executive tenure can be used to determine the executive cash compensation or not.

Stock Ownership And Executive Compensation

The power of executive comes from different sources. It may be the formal authority delegated by the person himself, to make high level decisions. It may come as a result of ownership of executives or their family members in the stock. He may have direct or indirect effect on the compensation committee, external
consultants or board of directors. Executive duality is another source of power and this occurs when the chief executive officer of the bank is also the chairperson of the board of directors (Rechner & Dalton, 1991). According to Salancik & Pfeffer (1980), executive ownership or shareholdings is one of the sources of power that affects executive compensation (Finkelstein & Hambrick, 1989). Garen (1994) found out that the stock based incentives are about 76% of the total compensation given to executive and the stock based programs are three times greater than pay based programs. This may show that executives want to acquire more power having ownership in the firm by acquiring more stock options. Finkelstein & Hambrick (1989) found that executive compensation in banks was influenced by size, bank performance, complexity, and the executive's general management experience, however, in both owner-managed and externally controlled firms; pay was affected only by size and executive tenure. Fong (2004) found out that overpaid executives having high power do not respond to pay inequity, while those with low power respond to inequity and they are more likely to increase bank performance than their counterparts. This may show that executives’ of banks strive for power when their compensation needs are being fulfilled and they put more efforts to increase their bank performance to win the trust of shareholders. However, previous studies do not explain how executives respond to power insufficiency. This warrants further investigation on the role of the board of directors in the resolution of conflicts among themselves, shareholders, and the executive while formulating compensation policies for the executives.

**Methodology introduction**

The principal method common to this aspect of research is empirical method. This method entails the use of quantitative, statistical or regression techniques in evaluating the research issues or problems. The population of the study consists of all quoted banks in Nigerian Stock Exchange. The population of this research is made up of banks whose shares are quoted on the floor of the Nigerian Stock Exchange. Each bank in the population must have finished its obligation in delivering annual report for six consecutive years (2005 to 2010). The sampled size for this study will be based on the available data and purposive sampling techniques will be used in selecting the sampled banks. In considering sample size, we will use banks that have maintained six years financial reports with disclosure of executive compensation so as to ensure statistically valid generalizations. The final sampled banks will include mostly active and popularly quoted banks since such banks usually publish regular annual financial accounts. The data for the selected quoted banks will be sourced from both Nigerian Stock Exchange fact books and annual financial reports.

**Model Operationalisation And Measurement Of Variables**

In light of the methodological knowledge gathered and empirical literature in our previous chapters, we specified a panel data multiple regression model. By definition, a panel data multiple regression model is one that seeks to explain change or variation in the value of one variable called the dependent variable (Bank executive compensation) on the basis of changes in other variables known as the independent or explanatory variables using pooled data. The assumption in panel data regression is that the dependent variable is a linear function of the independent variables with consideration to the heterogeneity in the pooled banks. This means that pooled regression assumed that there is no difference in the pooled banks while panel regression assumed cross section heterogeneity (Cross section fixed effect) and period heterogeneity (Time fixed effect).

In specifying our panel regression model for the determinants of bank executive compensation, our major variables are Institutional investors (INSH), CEO ownership (CEOP), board independence (BOAIDI), bank size (SIZE) and bank performance (PAT). Also included in the model are cross section (banks) and year dummies (2005-2010) in the panel regressions.

The panel multiple regression with an error term \((E_i)\) is expressed in equation (1)

\[
DIRCOMP = \alpha + \beta_1INSH + \beta_2SIZE + \beta_3BOAIDI + \beta_4CEOP + \beta_5PAT + \alpha + \epsilon_i
\]

Where

\(\alpha\) = Variables that vary across banks but do not vary over time

\(\alpha_i\) = Variables that vary over time but do not vary across banks at any given time

\(\epsilon_i\) = error terms over cross section and time

In other to understand the model for this study, the below are the operational definition and measurement of the variables used in our model:

**Dependent Variable:**

DIRCOMP = Bank executive compensation; proxied by executive compensation published in the annual financial report. It should be noted that banks usually publish their executive compensation as explanatory notes in the financial reports.

**Independent Variables:**

INSH = Institutional investors; Following Hartzell and Starks (2003) we measure the influence of institutional investors through their ownership concentration in firms: institutional ownership by the five largest institutional investors. We expect that large bank institutional investor’s shareholding would lead to lower banks executive compensation. The a priori sign; \(\beta_1 < 0\)

CEOP = Chief Executive Officer’s Ownership or Power; this is proxy by the percentage of executive’s shareholding in the banks. We expect that large CEO ownership will be associated with higher executive compensation. The a priori sign; \(\beta_2 > 0\)

BOARDINP = Board’s Independence; Board independence is best proxy by the proportion of outside directors sitting on the board. A negative relationship is expected between Bank executive compensation and the proportion of outside directors sitting on the board. Unlike inside directors, outside directors are better able to challenge the executive compensations. The a priori sign; \(\beta_3 < 0\)

SIZE = Bank’s size; Proxy by log of company total asset and market capitalization. We expect bank executive compensation to be high in large banks. The a priori sign; \(\beta_4 > 0\)

PAT = Firm Performance; Proxy by return on capital (ROE) = profit after tax/Capital. We also expect that increasing bank profitability will lead to increase banks executive compensation. The a priori sign; \(\beta_5 > 0\) The Panel regression results will be evaluated using individual statistical significance test (t-test) and overall statistical significance test (F-test). The goodness of fit of the model would be tested using the coefficient of determination (R-squared). In this study we will also conduct descriptive statistics and correlation matrix. In conducting all our data analysis, we will use EViews 7.0 software.
Discussion of Results

To examine the relationship between the dependent variable and independent variables and to test our formulated hypotheses we used panel data regression analysis since the data had time series (2005 to 2010) and cross-section properties (eight quoted banks). The panel data regression results obtained are presented in Table 1.

Table 1: Pooled and panel regression results

<table>
<thead>
<tr>
<th>Expected Sign</th>
<th>BEXCOMP (OLS Pooled)</th>
<th>BEXCOMP (Fixed Effect)</th>
<th>BEXCOMP (Random Effect)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>81.4</td>
<td>20.4</td>
<td>53.9</td>
</tr>
<tr>
<td></td>
<td>(-2.5)*</td>
<td>(0.49)</td>
<td>(1.55)*</td>
</tr>
<tr>
<td></td>
<td>[0.02]</td>
<td>[0.63]</td>
<td>[0.13]</td>
</tr>
<tr>
<td>INSOWN</td>
<td>+</td>
<td>200.9</td>
<td>145.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.8)</td>
<td>(0.5)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[0.42]</td>
<td>[0.64]</td>
</tr>
<tr>
<td>SIZE</td>
<td>+</td>
<td>0.0002</td>
<td>0.0002</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(8.6)*</td>
<td>(2.93)*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[0.00]</td>
<td>[0.00]</td>
</tr>
<tr>
<td>BODINDP</td>
<td>+</td>
<td>-213.4</td>
<td>39.4</td>
</tr>
<tr>
<td></td>
<td>(-2.14)*</td>
<td>(0.22)</td>
<td>(-1.07)</td>
</tr>
<tr>
<td></td>
<td>[0.04]</td>
<td>[0.83]</td>
<td>[0.29]</td>
</tr>
</tbody>
</table>

Note: (1) Parentheses () are t-statistic while bracket [ ] are p-values (2) * and ** are 5% and 10% level of significance respectively

In Table 1, we presented an OLS pooled regression and two panel data estimation techniques (fixed effect and panel data estimator). The three results revealed difference in their coefficients magnitude, signs and number of significant variables. This clearly shows that pooled OLS regression does not reflect the heterogeneity in the sampled banks. This effect is reflected in the two panel data regression results. In selecting from the two panel data models the Hausman test was conducted and the result shows that we should accept H0 (adopt fixed effect model and reject random effect model). This means that we adopt interprete and draw policy recommendation from the fixed effect panel data regression results.

Following the above, it should be noted that fixed effect panel regression models provided the following results; Institutional investors ownership (INSOWN) appears to have a positive influence on executive compensation but was statistically insignificant even at 10 percent. This result supports Hypothesis (H1), which suggests that bank executive compensation is positively related to institutional investor’s ownership. Bank size (SIZE) was found to be a statistically significant determinant of quoted bank executive compensation in Nigeria. Board independence (BODINDP) appeared to have had a positive influence on executive compensation, while this was unexpected, less concerns should be placed on it since it was statistically insignificant in the determination of bank executive compensation in the sampled banks. This result negates Hypothesis H3, which suggest that banks with board independence are likely to pay less for compensating executives. CEO Ownership (CEOSHARE) appears to be consistent with apriori expectation but was statistically insignificant in explaining bank executive compensation in Nigeria. This leads to the reject of Hypothesis (H4). This significant negative relationship implies that banks executives often receive less compensation in banks where there are major owners. This clearly confirms the existence of agency problems in selected quoted banks in Nigeria. Profitability (PBT) also appears to be a statistically significant and positively associated with banks executive compensation in Nigeria. This result to the acceptance of hypothesis (H5), which suggests that banks tend to pay more to their executives when they are making profit. This means that if the profitability of most Nigerian quoted banks is increased they are likely to increase bonus, salary and other take home package for their executives.

Conclusion And Recommendation

This academic project has examined the determinants of banks executives’ compensation in quoted Nigerian banks. Like most previous studies that identified firm size and profitability as a major determinant of banks executive compensation, we observed a similar result except for institutional ownership, board independence and CEO ownership which were statistically insignificant. Though most of these variables maintained their apriori expectation, they were not statistically significant in influencing the selected banks executive compensation. Finally this research calls for further research to be conducted in the area of executive compensation using SEC filling information, as this would help to provide more data on executive compensation. Better still, a study should be conducted on executive compensation of all quoted firms on the Nigerian Stock Exchange.

Based on the findings, this study makes the following recommendation;

(i) It will be interesting to establish from our study that big banks pay more to their executives. This study therefore recommended that stakeholders’ that are interested in executive compensation should pay more attention to banks with large asset. This is very vital, because it shows that big banks executive compensation are tied to the size of assets they manage. This also means that small banks should not compete with big banks in the compensation packages of their executives.

(ii) In this study, we also recommended that executive compensation should be tied to banks profitability. This is because most executives in Nigeria banks will be willing to focus on profit driven venture so as to increase their executive package.

(iii) In this study we also recommended that less attention should be given to banks board independence, institutional investor’s ownership and involvement of banks CEO in the ownership of shares as a means to monitor executive compensation. This is because these variables had no meaningful statistical impact on the compensations of banks executives in Nigeria.

(iv) We also recommended that further research be undertaken in these areas by using all the quoted banks or the entire quoted companies in Nigeria using SEC filling as a source of executive compensation data since most banks or quoted companies do not disclose executive compensation in their annual reports.

References


