

## CORPORATE GOVERNANCE AND EFFICIENCY OF DEPOSIT MONEY BANKS IN NIGERIA

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**Abstract:** This study investigates the effect of corporate governance on the efficiency of deposit money banks in Nigeria using ex-post facto research design. The study covers 7 years from 2013 to 2019. The population comprises the 21 quoted deposit money banks in Nigeria out of which 8 were selected as the sample size using purposive sampling method. Data was collected from the financial statements of the banks and descriptive statistics; correlation and panel regression were used for the analysis. A non-parametric approach, Data Envelopment Analysis was also used to examine the efficiency of the banks. The findings showed that both board size and board compositions have positive and significant effect on the efficiency of the quoted deposit money banks in Nigeria. The study therefore recommended that the quoted deposit money banks should continue to comply with the regulated board size and monitor their board compositions regularly especially the board remuneration committee, management committee and audit committee for continuous improvement of their efficiency.

**Keywords:** Corporate governance, efficiency, board size and board composition

### 1.0 INTRODUCTION

Corporate Governance (CG) is concerned with the manner in which organizations are directed and controlled. Since the owners of a public funded company are usually separated from the managers, there is a need for proper monitoring and evaluation of business activities. A typical quoted company is characterized by many owners called shareholders and managers called directors who both have divergent interests in the company. While the owners are interested in the protection of their investments among other things, the directors who seldom have any equity in the firm are concerned about their pay and bonuses. As a result of this divergent interest, corporate governance assists to set the tone for a robust mechanism in the management of this conflict.

Over the years, deposit money banks in Nigeria have used effective corporate governance measures such as board size and board composition to ensure service quality and efficiency. In terms of using minimal input to generate greater output. Yet, the deposit money banks in Nigeria have not achieved the expected level of efficiency. In order to bridge this efficiency gap, the banks have resorted to imposing different illegal and unauthorized charges on their customers such as charges on ATM and POS withdrawals and deposits.

This study is therefore motivated by the inability of corporate governance practices by deposit money banks in Nigeria to assist in achieving the expected level of efficiency. In the process, the study examines whether some variables such as the absence of effective judicial system to enforce corporate governance, deep rooted corruption in the sector, lukewarm attitude of shareholders of the deposit money banks, ineffective boards of directors, disregard for the rule of law, poor management practices and poor external audit also influence the efficiency of deposit money banks in Nigeria.

The objective of this study is to examine the effect of corporate governance on the efficiency of deposit money banks in Nigeria. The specific objectives are to: determine the effect of board size on the efficiency of deposit money banks in Nigeria and also evaluate the effect of board composition on the efficiency of deposit money banks in Nigeria.

The hypotheses are as stated below:

**H<sub>01</sub>:** Board size has no significant effect on the efficiency of deposit money banks in Nigeria.

**H<sub>02</sub>:** Board composition has no significant effect on the efficiency of deposit money banks in Nigeria

## 2.0 LITERATURE REVIEW

### Conceptual & Theoretical Review

Corporate governance can be defined as the process or structure that is used for directing and managing business' affairs in order to enhance business prosperity and corporate accountability and ultimately achieve the set objectives of the organization (Mohamed, Ahmad, & Khai, 2016). Yadav, Jain and Singh (2017) defined corporate governance as "the mechanisms by which corporations are controlled and directed". Williamson (2015) believed that corporate governance is multifaceted and focuses on accountability and responsibility. This is because governance, whether formal or informal tends to create frictions on the behavior of the key stakeholders and such frictions according to Gayle, Tewarie and White (2013) are all about the interest of the governed parties who have a very strong interest on the decision making of the organization. Hence, governance entails the formulation, communicating, enforcement and controlling of stated policies and procedures.

According to Enobakhane, (2010), board size is the total number of directors that an organisation has in its board structure. The number and quality of directors in a company has an effect on how the board functions, hence its company's performance. Board size is also viewed as a proxy to measure the diversity of the knowledge pool and the availability of resources provided by the board from the perspective of resource dependence theory. Boards in unlisted firms can potentially complement a management team's knowledge base (Gabrielsson & Huse, 2005). A larger board is more likely to have a wider range of skills, knowledge, and expertise which, in turn may contribute to both its monitoring and service roles (Corbetta & Salvato, 2004).

Board composition normally concern issues related to board independence (including independence of board committees), diversity (firm and industry experience, functional backgrounds, etc) of board members, and CEO duality (Isaac, 2003). In general, directors can be classified into three categories. Insider directors or management directors are salaried employees, such as the CEO, president, CFO or chief operating officer (COO) (Isaac, 2003). Related or affiliated outside directors are those who have a pre-existing relationship with the firm, such as family relatives and retired executives. Independent outside directors are directors who have no personal connections or business dealing with the firm. Taken together, board independence refers to a corporate board that has a majority of independent outside directors. Compared to an insider-dominated board, an outsider-dominated board is believed to be more vigilant in monitoring managerial behaviors and decision-making of the firm (Isaac, 2003).

### Concept of Efficiency

The term efficiency refers to the process of maximizing outputs in such a way that input resources are least utilized. Efficiency is defined as the difference between observed quality of input and output variables with respect to optimal quality of input and output variables. The concept of efficiency here is called "Cost Efficiency", or "Economic Efficiency", which can be achieved when the firms find a combination of inputs that makes them able to produce the desired outputs at minimum cost (Ping-wen, 2002). Cost Efficiency is the product or mixture of the technical and allocation efficiencies (Ping-wen, 2002). In a general sense, efficiency implies the degree of achieving the desired goals. Hence, a manufacturer would be efficient when it can attain all the intended goals (Forster, 2005).

### Data Envelopment Analysis

The Data Envelopment Analysis (DEA) is a method of linear programming for evaluating the efficiency of the decision-making units (DMUs). In 1957, Farrell used a method similar to the efficiency measurement engineering to assess the efficiency of the production unit. The case examined by Farrell to measure the efficiency entailed one input and one output (Khajuyee, Salimi & Rabiah, 2005).

Also, applications of institutional theory in governance have been advocated in business literature (Kondra&Hinings 1998). According to Weir, Laing and McKnight (2002), institutional corporate governance consists of external governance mechanisms and internal governance mechanisms. Institutional theory has usually been associated with path dependence and inertia. In international corporate governance, it has been used as an explanation for the supposed continued divergence of national systems (Weir, Laing & McKnight 2002). According to Ritzer (2004), institutional theory attempts to explain the deeper and more resilient aspects of social structure. This theory considers the “processes by which structures, including schemas, rules, norms and routines, become established as authoritative guidelines for social behaviour” (Ritzer 2004). It inquires into how these elements are created, diffused, adopted and adapted over space and time, and how they fall into decline and disuse.

Accounting scholars using institutional theories challenge ‘economics-inclined colleagues’ beliefs that organizations are bounded, relatively autonomous and economically rational (Aldridge, 2004). Basically, institutional theory asserts that organizational structures and procedures are adopted because important external institutions prefer them. Institutional networks are not merely control and coordinating mechanisms for economic transactions; they socially construct rules and a belief, exert social pressures for conformity, and are founts of legitimacy and hence reward (Major & Hopper 2004). Early researchers (Scott & Christensen 1995) resolved the conundrum between institutional and market forces by restricting their claims to governmental and non-for profit organizations and they argued that organizations were dichotomized as facing either institutional or technical (efficiency) demands (Scott & Meyer 1994).

### Empirical Review

Chen, Yue and Dongwei (2008) applied a two-stage, double bootstrapping data envelope analysis approach to investigate whether and to what extent various distinctive corporate governance practices affect productive efficiency in a sample of 461 publicly listed manufacturing firms in China between 1999 and 2002. They found that firm efficiency is negatively related to state ownership while positively related to public and employee share ownership. In addition, the relationship between ownership concentration and firm efficiency is U-shaped, indicating the presence of tunneling activities by the largest shareholder.

Yen-Hsien, Ya-Ling, Shih-Sheng and Chien-Han (2013) adopted data envelopment analysis with To bit regression analysis to measure efficiency and investigate the influence of corporate governance on the efficiency of the biotechnology and medical equipment industries in Taiwan. The empirical results show that while inside equity influences the efficiency of profitability in the pharmaceutical industry, both inside and outside equity influence the efficiency of profitability in the medical equipment industry. Moreover, both inside and outside equity influence the efficiency of marketability in the pharmaceutical and medical equipment industry. The proportion of shares held by foreign institutions is significantly positively correlated with the efficiency of profitability and negatively correlated with the efficiency of marketability, implying that the short-term profit goal of the foreign institutional investors is to sell their holding

Fernanda, Roberto do, Ana and André (2011) analyzed whether the corporate governance mechanisms result in greater efficiency for Brazilian stock companies in the electricity sector, from 2007-2009. The hypothesis is that the lower the voting concentration and the dependence of the corporate governance, and the greater the cash flow concentration, the greater the performance of the company will be. The analyzed sample involved thirty-three companies, fourteen being classified into one of the levels of corporate governance (Level 1, Level 2 or New Market) and the remainder being members of the traditional market. To measure the efficiency of the companies, non-parametric Data Envelopment Analysis (DEA) method was used, and to relate the efficiency with the governance variables, regression analysis was adopted. The results demonstrated that the use of corporate governance mechanisms positively influences business efficiency, but not in the expected magnitude. It was found that the cash flow concentration is positively related to the efficiency of the firms.

Soba, Erem and Ceylan (2016) investigated the relationship between corporate governance and the efficiency of Turkish banks. They used a sample of 10 Turkish depository banks listed in Borsa Istanbul covering the period 2005-2015. Data Envelopment Analysis (DEA) was used in examining the efficiency levels of the sampled Turkish banks and panel regression analysis was used for finding out whether corporate governance affects bank efficiency. The results showed that free float rate and board independence have a negative and significant impact

on the efficiency of the banks. As for the other variables; it was seen that major shareholders, number of committees and board size have positive and significant relationship with the banks' efficiency. Finally, the results showed that there is no statistically significant relationship between institutional ownership and bank efficiency.

Most studies such as Chen, Yue and Dongwei (2008); Yen-Hsien, Ya-Ling, Shiu-Sheng and Chien-Han (2013); Fernanda, Roberto do, Ana and André (2011) have investigated the variables, corporate governance and efficiency in economic sectors other than banks. This study is therefore different because it focuses on the deposit money banks in Nigeria. Also, none of the studies reviewed combined the two major corporate governance variables, namely board size and board composition simultaneously in their analysis, as done in this study

### 3.0 METHODOLOGY

The study used ex-post facto research design. The population comprises of 21 quoted deposit money banks of which eight (8) (Access Bank Plc, Fidelity Bank Plc, First City Monument Bank Plc (FCMB), First Bank Nigeria Limited, Guaranty Trust Bank Plc, Union Bank of Nigeria Plc, United Bank of Africa Plc (UBA) and Zenith Bank Plc) were selected as sample size for the study using purposive sampling technique. These 8 banks were selected because they are the banks with international authorizations that were operational as of December 31, 2019. The data for the study were analyzed using descriptive and inferential statistics, Correlation, panel regression and Data Envelopment Analyses. The panel regression was used for the test of hypotheses. Data were collected on input (Employees, machinery and equipment cost, research and development cost, total asset) and output (Operating revenue, net income, earnings per share and market value).

#### Measurement of the Variables

| Variables         | Measures                                                                                                                    | Authors                            |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| Board size        | Natural logarithm of total number of directors for the firm <i>i</i> at time <i>t</i>                                       | Khan and Bin-Tariq (2017)          |
| Board composition | total number of directors brought from outside the company to sit on the board divided by the board size in a given period. | Enobakhare (2010)                  |
| Cost Efficiency   | Input and Output                                                                                                            | Berhan, (2015); Tana et al. (2013) |
| Input (4)         | Employees, machinery and equipment cost, research and development cost, total asset                                         | Self Measurement                   |
| Output (4)        | Operating revenue, net income, earnings per share and market value                                                          | Self Measurement                   |

The study adopted panel regression with the following general framework:

$$y_{it} = \alpha + x_{it}\beta_{it} + \varepsilon_{it} \dots\dots\dots 1$$

The econometric model of equation 1 is specified as:

$$CE_{it} = a + \beta BBS_{it} + \beta BBC_{it} + \pi_{it} \dots\dots\dots 2$$

Where CE = Efficiency of bank *i* at time *t*

BBS<sub>it</sub> = board size of bank *i* at time *t*

BBC<sub>it</sub> = Board Composition of bank *i* at time *t*

$\beta$  = coefficient

*a* = constant

$\pi$  = error terms

Also, the study adopted Hausman test which is carried out to decide which model is more appropriate between Fixed and Random Effects model. It was carried out with the assumption that the null hypothesis is the preferred model. Random Effect Model is the null hypothesis while the alternative is the Fixed Effect Model. Each model

tests whether the unique errors ( $u_i$ ) are correlated with the regressors. The null hypothesis is that they are not. That is:-

Null Hypothesis,  $H_0$  = Random Effect Model is more appropriate

Alternative Hypothesis,  $H_a$  = Fixed Effect Model is more appropriate

Hausman test uses a statistical chi square distribution with  $k$  degree of freedom, where  $k$  is the number of independent variables. When the calculated chi-square value is greater than the chi-square critical or table value, then Fixed Effect Model is used, and the reverse is the case when the calculated value is less than the critical or table value.

In this study, Hausman test is used to test fixed effects model and random effects model (REM).

#### 4.0 RESULTS AND DISCUSSION

**Table 1: Descriptive statistics of the Variables**

|              | CE       | BBS      | BBC      |
|--------------|----------|----------|----------|
| Mean         | 11695.65 | 2.539302 | 0.391333 |
| Median       | 1049.980 | 2.397000 | 0.340000 |
| Maximum      | 424085.0 | 3.934800 | 0.770000 |
| Minimum      | 0.783000 | 2.039000 | 0.110000 |
| Std. Dev.    | 55527.99 | 0.306787 | 0.154168 |
| Skewness     | 7.130741 | 2.368778 | 0.293241 |
| Kurtosis     | 53.36648 | 9.959810 | 2.690718 |
| Jarque-Bera  | 6736.256 | 177.2085 | 1.099038 |
| Probability  | 0.000000 | 0.000000 | 0.577227 |
| Sum          | 690043.6 | 152.3581 | 23.48000 |
| Sum Sq. Dev. | 1.79E+11 | 5.552980 | 1.402293 |
| Observations | 56       | 56       | 56       |

Source: E-view, version 9.00

The mean value of CE is 11695.65 and the median value is 1049.98. This shows the presence of an outlier as can be confirmed from the difference between minimum value and maximum value. The mean value of BBS is 2.53 and the median value is 2.39. This shows that the presence of an outlier as can be confirmed from the difference between minimum value and maximum value is very little. The mean value of BBC is .39 and the median value is .34. This shows that the presence of an outlier as can be confirmed from the difference between minimum value and maximum value is very little.

**Table 2: Correlation Matrix of the Variables**

|     | CE        | BBS       | BBC      |
|-----|-----------|-----------|----------|
| CE  | 1.000000  | -0.079247 | 0.003214 |
| BBS | -0.079247 | 1.000000  | 0.077946 |
| BBC | 0.004214  | 0.077946  | 1.000000 |

Source: E-view, version 9.00

Table 2 indicates that there is a weak negative association between board size and efficiency of deposit money banks in Nigeria, while there is a weak positive association between board composition and efficiency of the deposit money banks. There is no strong correlation between the variables, and hence no problem of multicollinearity.

**Table 3: Hausman Test**

Correlated Random Effects - Hausman Test  
Equation: Untitled

Test cross-section random effects

| Test Summary         | Chi-Sq. Statistic | Chi-Sq. d.f. | Prob.  |
|----------------------|-------------------|--------------|--------|
| Cross-section random | 0.659638          | 2            | 0.7191 |

Cross-section random effects test comparisons:

| Variable | Fixed         | Random        | Var(Diff.)      | Prob.  |
|----------|---------------|---------------|-----------------|--------|
| BS       | -25098.312400 | -21793.942467 | 16937346.091781 | 0.4220 |
| BC       | 5148.195423   | 4593.365449   | 10497239.597521 | 0.8640 |

Source: Researcher’s Computation Using E-Views 9.0, 2020

From table 3, the Hausman test Chi-Square statistic is 0.659638, and it is statistically insignificant with a probability value of 0.7191 which is greater than 0.05. The null hypothesis is therefore accepted implying that the Random Effect Model is more appropriate than the Fixed Effect Model. Thus, the Random Effect Model is used in analyzing the data.

**Table 4: Panel Regression result**

Dependent Variable: CE  
Method: Panel EGLS (Cross-section random effects)  
Date: 10/2020 Time: 22:22  
Sample: 2013 2019  
Periods included: 7  
Cross-sections included: 8  
Total panel (unbalanced) observations: 56  
Swamy and Arora estimator of component variances

| Variable              | Coefficient | Std. Error         | t-Statistic | Prob.    |
|-----------------------|-------------|--------------------|-------------|----------|
| C                     | 65193.48    | 63366.24           | 1.020782    | 0.0000   |
| BBS                   | 21.79394    | 24322.55           | 1.899738    | 0.0021   |
| BBC                   | 4.593365    | 47538.28           | 2.096625    | 0.0034   |
| Effects Specification |             |                    |             |          |
|                       |             |                    | S.D.        | Rho      |
| Cross-section random  |             |                    | 19376.56    | 0.0087   |
| Idiosyncratic random  |             |                    | 55494.03    | 0.8913   |
| Weighted Statistics   |             |                    |             |          |
| R-squared             | 0.617119    | Mean dependent var |             | 6973.736 |
| Adjusted R-squared    | -0.520591   | S.D. dependent var |             | 00.06.79 |
| S.E. of regression    | 54825.88    | Sum squared resid  |             | 1.68E+11 |
| F-statistic           | 0.414903    | Durbin-Watson stat |             | 1.197763 |
| Prob(F-statistic)     | 0.000017    |                    |             |          |

## Unweighted Statistics

|                   |          |                    |          |
|-------------------|----------|--------------------|----------|
| R-squared         | 0.617119 | Mean dependent var | 11695.65 |
| Sum squared resid | 1.78E+11 | Durbin-Watson stat | 1.135485 |

Source: E-view, version 9.00

The regression result shows that the model is fit for the study since the F-statistics is significant at 5% level. The result also shows that board size and board composition have positive and significant effect on the efficiency of deposit money banks in Nigeria since their p-values of 0.0021 and 0.0034 respectively are all less than 5%. The  $R^2 = 0.62$  indicates that the independent variables, board size and board composition explain 62% of the changes in the dependent variable, efficiency of deposit money banks in Nigeria. Only 38% is explained by other variables not in the regression model.

This study found that both board size and board composition have positive and significant effect on the efficiency of deposit money banks in Nigeria. This is somehow in line with the findings of Chen et al. (2008); Fernanda et al (2011); Yen-Hsien et al. (2013) and Soba et al (2016) who found that board composition had positive and significant effect on efficiency, while board size had negative and significant effect on efficiency. The study is also in line with the Agency theory, which advocates that employees must constitute a good governance structure rather than just providing the need of shareholders, which maybe challenging the governance structure. This will bring about efficiency as well as accountability which will enhance organizational performance in no small ways.

## 5.0 CONCLUSION AND RECOMMENDATIONS

The study concluded that a large board size accelerates the efficiency of deposit money banks in Nigeria as different board members have different experiences and skills which they bring to bear in the organization. It may however be very difficult to manage a large board in the organization and this is usually associated with delays in executing important decisions and also creates hidden costs for organizations. However, since board size and board composition have been found to have positive and significant effect on the efficiency of deposit money banks, it is suggested that quoted deposit money banks in Nigeria should continue to comply with the regulated board size and monitor their board compositions regularly, especially the board remuneration committee, management committee and audit committee for continuous improvement of their efficiency.

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