



**CORPORATE GOVERNANCE AND PERFORMANCE OF THE
NIGERIAN BANKS DURING THE POST 2005 CONSOLIDATION
PERIOD – A PANEL DATA ANALYSIS**

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Abstract

This study examines the impact of corporate governance mechanisms on financial performance of listed banks in Nigeria; in post consolidation era. Tobin's q was used as the dependent variable, while board size, board independence and ownership concentration as the independent variables. The study employed correlation research design, and the population comprise deposit money banks listed on the Nigeria Stock Exchange (NSE). Secondary data was obtained from audited accounts of banks covering twelve-year period (2006-2017). The technique of data analysis used in this work is multiple regression. The findings of the study are that the three variables of interest to the research (board size, board independence and ownership concentration) are negatively related to the firm performance. It is, therefore, recommended that the banks should continue to keep their boards size manageable not minding pressure of inclusion from their consolidating constituent banks. Banks are encouraged to maintain a highly diversified composition in their board structure for synergy effect while further research is recommended on the ownership concentration to enhance performance.

Keywords: *Post-Consolidation Era, Corporate Governance Mechanism, Performance*

Introduction

Nigerian banking sector has undergone major reform in the year 2005 with the consolidation and recapitalization of the sector. This resulted in significant

mergers and acquisitions across the industry the consequence of which might induce cultural shifts and changes. This is more glaring by considering the bifurcation of the banking firms into ‘Old Generation’ and ‘New Generation’ according to their service culture leading to the renewed expectations on their financial performance. However, the cultural mix from the consolidation effect may affect the smooth establishment of new governance structure that is key to financial performance. It is, therefore, important to examine how the relationship between corporate governance mechanisms and the performance of the banks over the post consolidation period evolves.

On the part of corporate governance, the major concern of this study is that despite the adoption of corporate governance codes in 2003, 2007, 2014 and 2019, there is an increasing spate of noncompliance by listed firms. According to This day newspaper of 26th March 2019, the continued rise in the number of listed firms that violated pre-listing rules and timely release of annual reports is a sad commentary on Nigeria’s corporate governance environment. For most stakeholders, key regulators such as Nigerian Stock Exchange (NSE), SEC and CBN are to blame for the rising cases of noncompliance with code of corporate governance. According to reports, 28% of listed firms violated prelisting rules in 2017, unfortunately, the rate violation rose to 36% in 2019. While the level of violation is on the increase, surprisingly, the quantum of penalty charged for noncompliance dropped by 12.6% from N229.0 million in 2018 to N200.30 million in 2019. Consequently, there is the need to re-examine corporate governance mechanisms in Nigeria in relation to the performance of listed firms generally with special focus on deposit money banks in view of the critical role of banks to the health and well being of any economy/nation.

This study contributed to the existing literature on corporate governance issues of banks in the post-consolidation period of the banking sector in Nigeria.

Theoretical Underpinning and Review of Related Literature

The study is anchored on the agency theory. In its simplest version, the theory assumes that there are two parties involved in any business organization – the owner (principal) and the worker (agent). The theory is built upon further assumption that the principal is such a busy individual that has no luxury to time to manage the organization and as such has no option than to hire the services of an agent to manage the business on his behalf.

However, due to the problem of information asymmetry, agents (directors and business managers) are likely to take decisions that suit their interest regardless of whether the decisions are healthy for the business or not. In recognition of this reality, scholars have suggested various ways to mitigate the agency problem. In the subsequent subsection, we review literature on several such corporate governance mechanisms believed to play some role in minimizing the agency problem.

Variables of interest to this study are: board size, board independence and ownership concentration as exogenous and Tobin's q as endogenous. Traditionally, these variables are key in settlements of heterogeneous stakeholders after mergers and/or acquisition. In line with this, selected studies on the relationship between each of these variables and firm performance are reviewed. This study uses Tobin's q as a measure of performance of banks in Nigeria. The choice of Tobin's q is predicated on its hybridisation of both market and accounting measures and as such is considered more reliable.

Board Size

Generally, boards are expected to play two major roles – advisory and monitoring (Raheja, 2005; Adams & Ferreira, 2007). As a result, the impact of board size on the board and firm performance has been extensively investigated. Findings emanating from such studies are quite conflicting. While some researchers argued in favour of a large board size, others counter such argument from the view point that larger boards tend to be less efficient due to indecisiveness mostly emanating from too many ideas in resolving issues.

One of the pioneer empirical studies conducted to examine the board size effect of firm performance is Yermack (1996). The researcher was also the first to report a negative effect of board size on firm performance. The researcher employed fixed effect regression model to examine the effect of board size on firm performance using Tobin's Q as a measure of firm performance. The study utilized data spanning 1984 – 1991 on a large sample of 452 United States (U.S) industrial corporations. Controlling for company size and other firm features, the study found evidence of inverse relationship between board size and firm value measured by Tobin's Q .

Similarly, Eisenberg, Sundgren and Well (1998) conducted a study using dataset from the U.S. The authors examined the impact of board size on firm financial performance amongst small and midsize firms. Covering a sample of

785 healthy firms and 94 bankrupt firms, the researchers found evidence of significant negative correlation between board size and firm financial performance. In their multi-country study, Conyon and Peck (1998) examined the impact of board size on firm performance using datasets for 3,690 firms across five European countries [UK (2886), France (360), Netherlands (196), Denmark (132) and Italy (126)]. In each of the five countries a negative relationship was observed to exist between the board size and firm performance. Guest (2009) examined the impact of board size on firm performance using a sample comprising of 2,746 UK listed firms over the period 1981–2002. Using Tobin's Q and share returns as measures of performance, the author reported similar findings to those of Yermack (1996) and Eisenberg *et al.* (1998) of a negative relationship between the board size and performance of sampled UK firms. The author further investigated on whether the relationship between board size and firm performance depends on some firm characteristics, such as firm size. The study found evidence of stronger negative effect of board size on the performance of larger firms compared to the smaller ones.

In a recent study, Wang, Chen, Fang, and Tian (2018) estimated both linear and nonlinear relationships between board size and firm performance amongst Taiwanese hotels. Results from panel data regression techniques showed an inverted U-shaped relationship between board size and hotel performance in Taiwan. In specific terms, there is a positive relationship between board size and hotels performance in Taiwan up to a size of 10, beyond which the relationship turns negative.

Literature on the link between board size and firm performance is generally skewed in favour of small board size. However, a number of empirical studies have reported positive relationship between the variable. For example, Adams and Mehran (2005) examined a group of 32 U.S banks over two sample periods, 1986-96 and 1997-99. The researchers reported evidence of positive relationship between board size and firm performance. Moreover, Coles, Daniel and Naveen (2008) documented that the nature of the relationship between firms performance and board size depends largely on the nature of firm and hence suggesting that there is no one size that fits all. The authors found that relatively larger boards are healthy for complex firms as opposed by simple firms that perform better with relatively small board size.

In a related study, Beiner, Drobetz, Schmid and Zimmermann (2004) delved on whether board size exerts an independent effect on firm performance using data

for 165 Swiss firms. The study attempted to validate or refute findings that board size has any significant impact on firm performance. The authors reported no evidence of significant relationship between board size and firm valuation as measured by Tobin's Q .

Board Independence

On Board independence, it is hypothesized that firms with boards having relatively larger proportion of outside directors tend to perform better than those with relatively smaller proportion of outside directors on their boards. This is the case since outside directors are expected to be better able to check the excesses of the CEO than the inside directors.

Pioneer amongst studies on the impact of board independence is Fosberg (1989). Fosberg reported no evidence of significant relationship between firm performance and board independence, measured by the proportion of outside directors in the board. Barnhart, Marr and Rosenstein (1994) examined the relationship between board independence, and performance amongst a sample of 376 firms. The researchers utilized both OLS regression model and instrumental variable regression method in estimating the relationship. Findings from the study showed that there is significant positive relationship between board independence and firm performance.

Similarly, Liu, Miletkov, Wei and Yang (2014) investigated on the relationship between board independence and firm performance amongst Chinese firms. After addressing the inherent endogeneity in independence-performance relationship, the researchers documented evidence that proportion of independent outside directors sitting on the board of a firm is positively related to the performance of the firm. However, the authors observed that such positive relationship is more pronounced in government-controlled firms and firms with lower information acquisition and monitoring cost.

Li, Lu, Mittoo and Zhang (2015), investigated on whether board independence exerts an independent impact on the firm performance amongst Chinese firms. The author found evidence that the relationship between board independence and firm performance depends largely on the ownership concentration of a firm. In specific terms, it was found that the impact of board independence on firm performance increases with a decline in ownership concentration of a firm.

Bhagat and Black (1999), examined the impact of board independence on performance of 957 large U.S firms. The study found no evidence that higher

proportion of outside directors has any significant impact on the performance of U.S firms. Similarly, Klein (1998) found negative relationship between board independence and firm performance.

Ownership Concentration

A number of researches were carried out to study the relationship between ownership concentration and various measures of firm performance. Results from such studies are quite conflicting.

Chen, Cheung, Stouraitis and Wong (2005) conducted a study on a sample of 412 publically listed Hong Kong firms. The study was undertaken to examine the relationship between the family ownership concentration and the operating performance of the sampled firms. Analyzing data spanning 1995-1998, the researchers reported no evidence that family ownership has any significant effect on firm's operating performance as measured by the return on equity, return on assets or the market-to-book ratio.

Similarly, a related study by Omran, Bolbol and Fatheldin (2008) was carried out to examine the nature of the relationship between ownership concentration and firm performance across a sample of four Arab economies – Egypt, Jordan, Oman and Tunisia. Data spanning 2000 – 2002 was obtained for a total of 304 firms across various sectors of the selected economies. Findings from this study corroborate those of Chen *et al.* (2005) that ownership concentration has no significant effect on firm performance. Findings from Demsetz and Villalonga (2001) on 223 U.S firms over the period 1976-1980 are also in line with those of Omran *et al.* which report no significant relationship between ownership structure and firm performance.

Claessens and Djankov (1999) utilized data covering a period of 1992-1997 for a sample of 706 Czech firms in order to examine the effect of ownership concentration on corporate performance. The study documented some evidence that there exist a positive relationship between the ownership concentration and firm performance. The researchers therefore maintain that firms with more concentrated ownership tend to perform better in terms of profitability and labour productivity compared to those with less ownership concentration. However, the authors caution that the relationship tends to be weaker with the inclusion of control variables for the ownership type.

In a related study, Margaritis and Psillaki (2010) delved on the interaction amongst capital structure, equity ownership and firm performance using data

from chemicals industry and computers industry in the French economy. Employing non-parametric data envelopment analysis method, the researchers reported similar findings to Claessens and Djankov (1999) that there is positive link between ownership concentration and firm performance in the French chemical industry. However, the authors observed that low ownership concentration has detrimental impact on the performance of firms in the computers industry.

Omran (2009) investigated on the post-privatization relationship between private ownership concentration and firm performance using data for a sample of 52 privatized Egyptian firms. While it was observed that ownership concentration is positively related with firm performance, reverse is the case with employee ownership concentration. In other words, firms with high ownership concentration by employees tend to perform poor compared to those with less employee ownership concentration. Shahrier, Ho and Gaur (2018) also reported evidence of positive relationship between ownership concentration and firm performance as measured by the return on equity using data spanning 2014 to 2017 for a sample top 200 *shari'ah*-compliant firms listed on the Kuala Lumpur Stock Exchange.

Methodology

The study utilized data on four variables. They are: Tobin's q , board size, board independence and ownership concentration. Tobin's q is the dependent variable while board size, board composition and ownership concentration are independent variables. Data covering a period of 13 years (2006-2018) were sourced from the annual reports of listed banks. The choice of variables is mainly determined by data availability. The choice of period on the other hand is intended to examine the relationship using data during post-consolidation period of the Nigerian banking sector. Table 3.1 shows how each of the variables is measured.

Table 3.1: Variables and their measurement

Variable	Measurement
Tobin's q	Ratio of year-end market capitalization to the book value of company's total assets
Board size	Is the total number of executive and non-executive directors on the board of a firm

Board independence	This is measured as the fraction of board size that comprises of non-executive directors.
Ownership concentration	Proportion of share ownership of the largest shareholders in relation to total number of shares held.
Company asset	Total assets of a firm
Company age	Number of years of firm listing

Depending on the assumptions made about the intercept, slope coefficients and the error term, there are several options for researchers in estimating econometric relationships using panel data (Gujarati & Sangeetha, 2007). These options include: pooled regression, the fixed effect regression model and random effect regression model.

The first stage in making choice amongst the three models (fixed effect, random effect and pooled OLS) is to decide on the appropriate model between the fixed effects and the random effects. At this state, Hausman (1978) specification test was employed. The test statistic for Hausman specification test uses Wald statistic and follows chi-square distribution with k (number of parameters) degrees of freedom. If null hypothesis of no correlation is rejected, then the test is in favour of random effect model. In specific terms, the null hypothesis $H_0: E(a_i|x_{it}) \neq 0$ would be tested, where a_i and x_{it} are heterogeneity effect and explanatory variable respectively.

The second stage involves making choice between random effect model and pooled OLS. This study therefore utilized Breusch-Pagan (BP) Lagrange Multiplier (LM) test. The test was developed by Breusch and Pagan (1980) and modified by Baltagi and Li (1990). The null hypothesis in the LM test is that variance across entities is zero [$\text{Var}(v_i = 0.)$]. In other words, the null hypothesis states that there is no significant difference (panel effect) across units. Failure to reject the null shows preference for pooled OLS over random effects.

Based on the foregoing discussion, the following relationship is specified and estimated using pooled OLS, fixed effects and random effects models.

$$Q_{it} = \beta_0 + \beta_1 \text{BSIZE}_{it} + \beta_2 \text{INDEP}_{it} + \beta_3 \text{CONCENT}_{it} + \beta_5 \text{AGE}_{it} + \beta_6 \text{ASSET}_{it}$$

Where:

BSIZE	=	Board size
INDEP	=	Board independence
CONCENT	=	Ownership concentration

AGE	=	Company age
ASSET	=	Company asset
<i>i</i>	=	Index for panel members (banks)
<i>t</i>	=	Time index (years)

Empirical Results

The analysis began by running descriptive statistics of the data. This is with the view to gain some insight into the nature of the variables. Statistics run include mean, standard deviation, minimum and maximum.

Table 4.1: Descriptive results

Variable	N	Mean	Std. Dev.	Min.	Max
Board size	142	13.91	3.13	5.00	20.00
Ownership concentration	142	28.67	23.62	0.00	89.00
Board independence	142	0.57	0.14	0.00	0.90
Tobin's <i>Q</i>	142	0.91	0.23	0.53	2.02
Assets	142	8.96	0.42	8.03	9.75
Average firm age	142	22.04	15.10	7.50	43.50

As can be observed from Table 4.1, the average board size for the sample firms for the period under consideration is 13.91. The Table further reveals that the largest board in terms of size for the period under review has a total of 20 members. This compares with the smallest board with a size of 5 members.

Board independence is another variable of key interest to this study. Information contained in Table 4.1 shows that on the average the fraction of non-executive directors is 0.57 (close to 60 percent) with a maximum of 90% and a minimum of 0 percent. On the ownership concentration, it is palpable that there is evidence of high ownership concentration amongst companies in the financial sector of Nigeria. This is clear with a mean proportion of 28.67 (nearly 30 percent).

Regression results

Table 4.2 reports estimations of the specified relationship in the methodology section. The relationship was estimated using three methods – fixed effects, random effects and pooled OLS. Results from Breusch-Pagan (BP) Lagrange Multiplier (LM) test and Hausman (1978) specification test are reported beneath the Table. The tests are meant to decide on the appropriate model amongst the three models.

Table 4.2: Regression results

Independent variables	Pooled OLS	Fixed effects	Random effects
Board size	-0.0103* (-2.5)	0.0007 (0.14)	-0.0019 (-0.42)
Board independence	-0.0525 (-0.59)	0.0115 (0.13)	-0.0159 (-0.18)
Ownership concentration	-8.818e-06 (-0.02)	-0.0015* (-2.23)	-0.0012 (-1.86)
Assets	-0.2280 (-7.4)	-0.3645*** (-9.92)	-0.3345*** (-9.71)
F- statistic	16.21***	29.76***	108.61***
Hausman specificity test	14.07***		
LM Test	139.29***		
Note: ***, ** and * represent statistical significance at 1%, 5% and 10% levels of significance respectively			
Values in parentheses are t-ratios			

The first stage of analysis involves running Hausman specification test in order to decide on the appropriate model between the fixed effect and random effect model. Results from the test favoured random effect. This therefore further requires performing a test to choose between the random effects model and pooled OLS. To achieve that goal, LM test was carried out. From the LM test, it is clear that null hypothesis is rejected at 1% level of significance and as such we settled for the OLS as the appropriate model describing the specified relationship.

Reading from the Table, it can be observed that each of the three variables of interest to the research (board size, board independence and ownership concentration) are negatively related to the firm performance as measured by Tobin's Q. However, it is worth noting that except for the board size, the relationships between the dependent variable and independent variables is not statistically significant. The negative relationship between board size and Tobin's Q translates to the fact that smaller boards tend to be more effective compared to the larger ones. This may not be unrelated to the fact that larger boards are mostly associated with delays in taking decision and too many bureaucratic bottlenecks in dealing with issues that might need urgent treatment. Although not statistically significant, the signs of the parameter estimates for board independence and ownership concentration communicated a message. In clear terms, the result show that boards dominated by outside directors tend to perform less compared to the boards with more of inside directors. On the ownership concentration, the results indicated that firm performance is negatively related to high ownership concentration.

Conclusions and Recommendations

From the results discussed above, the following conclusions are made:

- a) To perform better, financial companies in Nigeria should have relatively small board size. Having a relatively small board size would go a long way in improving the efficiency of a firm and by extension better performance.
- b) Though the relationship between board independence and ownership concentration are not statistically significant, the signs assumed by the parameter estimates of the variables are informing. At the surface, it can be concluded that high ownership concentration and higher fractions of outside directors are not healthy for a business. However, a call for caution is hereby made in respect of this conclusion. This calls for more research to ascertain the nature of the relationship in the Nigerian context and within the financial sector.

It is, therefore, recommended that in spite of the pressure for inclusion from their consolidating constituents, banks should continue to keep their boards sizeable manageable. It is further recommended that banks should maintain diversified board composition for synergy effect. Finally further research is recommended on ownership concentration in the Nigerian context.

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