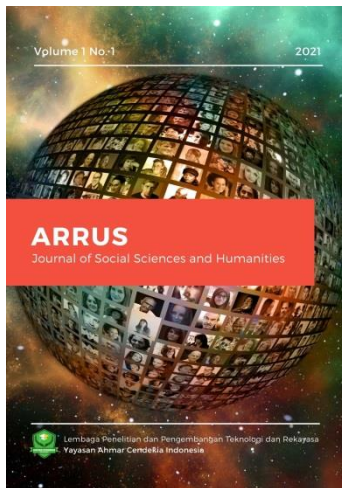




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RESEARCH ARTICLE

Impact of Selected Corporate Governance Variables on the Financial Performance of Selected Quoted Deposit Money Banks in Nigeria

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Abstract: This study examined the impact of selected corporate governance variables on the financial performance of selected quoted deposit money bank in Nigeria. More specifically, the study explores the relationship between board size, board composition, audit committee independence, gender diversity, and financial performance - return on equity (ROE) and return on assets (ROA). Arguing from the agency and resource dependency theories, data covering the period 2010-2019 were collected from the audited annual accounts of ten purposively-chosen deposit money banks. To provide robust analysis of data and ensure triangulation of methods, the multiple regression analysis in SPSS version 21 and the Smart PLS structural equation modeling (SEM) were applied. Findings indicate that while board size and audit committee independence are negatively related with corporate financial performance, gender diversity showed positive relationship, and board composition demonstrated mixed relationship. The study recommends among others that firms should try to reduce their board size to plus or minus ten, and also reduce the number of outside (external or non-executive) board members, but with strict adherence to the regulatory guideline. The study proposes a SEM-based model to guide financial institutions post-Covid-19.

Keywords: corporate governance, financial performance, quoted deposit money banks

1. Introduction

Recent global events concerning high-profile corporate failures have intensified the debate on the efficacy of corporate governance mechanisms as a means of increasing organization's financial performance. Also, the International financial landscape is changing rapidly; economies and financial systems are undergoing traumatic years. Globalization and technology have been on a continuing speed, the financial arenas are also becoming more open, new products and services are been invented and marketed and regulators everywhere are scrambling to assess the changes and master the turbulence. An international wave of mergers and acquisitions has swept the banking industry as boundaries between financial sectors and products have blurred dramatically. In this brave new world of global challenges, one fact remains unchanged, the need for countries to have sound resilient banking systems embodies with good and strong corporate governance practice. The World Bank Report – Improving Corporate Governance in Emerging Markets (2011) asserts that good corporate governance reduces the emerging markets



vulnerability associated to financial crisis, reduces transactions and capital cost and, contributes to the development of capital markets.

The merits of good corporate governance are evidenced in its role towards financial firmness through corporate profitability improvement and boosting organizational opportunities to obtain outside funds, serving government policy goal, lowering vulnerability of the economic disaster, and reducing expenditure incurred in obtaining funds (Latif, Shahid, Haq, Waqas, and Aeshad, 2013). Good governance also encourages support and assurance in the banking system (Mohammed, 2012). Wolfensohn in his contribution in financial times of 1999 opined that corporate governance is about promoting corporate fairness, transparency and accountability. Hence, this practice is encouraged in all organizations, in order to foster the confidence of all stakeholders.

The Nigerian banking environment is a vibrant and challenging financial environment and is endemic with systemic governance problems, capacity constraints and defaulting in compliance and implementation of laws which has inhibited economic growth (Suberu and Aremu, 2010). This requires enhanced investigations, and more detailed reporting of activities. The penalties of organizational collapse are very expensive for an emerging economy such as Nigeria (Muhammed, 2012). Mmadu (2013) reported that the global economic crisis and the decline in the value of investment collections of deposit money banks particularly in Nigeria are due to distorted credit management and this problem can be traced to poor corporate governance.

1.1. Statement of the problem

In the recent past, financial institutions in Nigeria witnessed untold financial distress in which banks that were considered healthy by investors happened to be the most distressed. The banking sector crises remained a subject of concern because of its role in facilitating and stimulating economic development.

In Nigeria, a series of widely publicized corporate governance issues and accounting improprieties have been recorded in the banking sector. Board of Directors have been largely criticized for the decline in shareholders wealth and corporate failure. They have been in the spotlight for the fraud cases that had resulted in the failure of major corporations such as Enron World.com and Global Crossing. Some of the reasons stated for these corporate failures are lack of vigilant oversight functions by the boards of directors, the board relinquishing control to the corporate managers, who pursue their own self-interest, the board being negligent in its accountability to stakeholders and lack of independent of the audit committee. As a result, the various corporate governance reforms have specifically emphasized on appropriate changes to be made to the board of Directors in terms of its composition, size and ownership configuration. It is against this backdrop that the study examines the impact of selected Corporate Governance variables on the Financial Performance of selected quoted deposit money banks in Nigeria.

1.2. Objectives of the study

The primary objective of this research is to assess the impact of selected corporate governance variables on the financial performance of selected quoted money deposit banks in Nigeria. However, the specific objectives drawn from the primary objectives include:

- 1) To determine if there is any significant relationship between Board of Directors Size and Return on Equity of Banks in Nigeria
- 2) To assess if there is any significant relationship between Board of Directors Composition and Return on Equity of Banks in Nigeria
- 3) To examine if there is any significant relationship between Audit Committee Independence and Return on Equity of Banks in Nigeria
- 4) To investigate the extent to which gender diversity influences return on equity of banks.

- 5) To explore if there is any significant relationship between Board of Directors Size and Return on Assets of Banks in Nigeria
- 6) To ascertain if there is any significant relationship between Board of Directors Composition and Return on Assets of Banks in Nigeria
- 7) To determine if there is any significant relationship between Audit Committee Independence and Return on Assets of Banks in Nigeria.
- 8) To explore the relationship between gender diversity and return on assets of banks.

1.3. Research hypotheses

This research was carried out under the following hypotheses:

- 1) There is no positive and significant relationship between Board of Directors size and Return on Equity of Banks in Nigeria
- 2) There is no positive and significant relationship between Board of Directors Composition and Return on Equity of Banks in Nigeria
- 3) There is no positive and significant relationship between Audit Committee Independence and Return on Equity of Banks in Nigeria
- 4) Gender diversity does not influence return on equity of banks.
- 5) There is no positive and significant relationship between Board of Directors Size and Return on Assets of Banks in Nigeria
- 6) There is no positive and significant relationship between Board of Directors Composition and Return on Assets of Banks in Nigeria
- 7) There is no positive and significant relationship between Audit Committee Independence and Return on Assets of Banks in Nigeria
- 8) Gender diversity does not influence return on assets of banks

1.4. Scope of the study

The scope of this study is limited to ten (10) years financial statements of selected quoted deposit money Banks in Nigerian Stock Exchange (NSE) between 2010 to 2019, for the purpose of making judicious use of the available scarce fund for this study. Firms of interest include the following banks; Access banks Plc, Eco banks Plc, Fidelity banks Plc, First banks Plc, First City Monument banks (FCMB) Plc, Guarantee Trust bank Plc, Polaris banks Plc, Union Bank Plc, Sterling bank Plc, Zenith bank Pls.

2. Review of Related Literature

2.1. Conceptual framework

The term ‘corporate governance’ is uniquely complex and multi-faceted. It has been looked at and defined variedly by different scholars and practitioners. Jayashree (2006) defines it thus: corporate governance when used in the context of business organization is a system of making directors accountable to shareholders for effective management of the companies in the best interest of the company and the shareholders along with concern for ethics and values. Wessels and Wansbeek (2014) relate governance to the exercise of authority, direction and control. It is a concept that has a history that could be traced to Chaucer, which carries with it the implication of prudence (Uwuigbe, 2011). Corporate governance represents methods through which organizations are being administered, a structure through which the welfare of different parties with vested interests are harmonized, showing group of interaction between a company’s administration, its board, its shareholders and other interested parties (Cheema and Din, 2013).

2.2. The board of directors and its size

It is the responsibility of the board of directors to guarantee that the business is enjoying maximum benefits of prevailing occasions and ensuring that the economic worth of the organization is enhanced, being successful when its ability to make choices and affect the administrators is incredibly strong (Uwuigbe and Fakile, 2012).



The board should check the behaviour of managers for owners' welfare, decide on crucial issues, hire set of administrative officers and oversee that organizations adhere to the rule while taking responsibility for managing and supervising (Akinyomi, 2013). The board of directors uses its powers and responsibilities within the structure of legislation, maintain contract regulations and policies, and represent the company in line with the authority given to it at the general meeting of shareholders (Dogan and Yeildiz, 2013). The economic worth of an organization would further be enhanced as the board carries out its functions which include supervision of the operations of administrative officers and choosing the employees of an enterprise, appointing and monitoring the activities of an autonomous auditor to boost the worth of the company (Uwuigbe, 2011). When the number of board membership goes up, there would be possibility for divergent opinions which could result in more confusion among board membership (Dar, Naseem, Rehman and Niazi, 2011; Adegbelemi, Donald and Ismail, 2012). Previous studies on this concept observed that organizations select size of board to create equilibrium between the requirements for timely advice and the financial implications of maintaining large board membership (Akinyomi, 2013). The board of directors performs its duties in the form that it would ensure and provide a long term and stable earnings to the company shareholders while aiming at the maximization of market facilities by the companies (Dogan and Yildiz, 2013). The board includes internal and external directors (Akinyomi, 2013); whose role includes chief executive officers' and organizational administrator's regulation in order to boost the economic worth of the company (Uwuigbe, 2011).

2.3. Board composition and corporate financial performance

Board composition refers to the number of independent non-executive directors on the board relative to the total number of directors. An independent non-executive director is defined as an independent director who has no affiliation with the firm except for their directorship (Isik&Ince, 2016). Eluyela, Akintimehin, Okere, Ozordi, Osuma, Ilogho, and Oladipo (2018) also examined how profitability responds to board meetings and observe that more frequent board meetings correlate positively with firm performance (proxied as Tobin's Q). The authors also reported a non-robust positive relationship between firm performance and board size. Further evidence from the study reveals a strong positive correlation between firm size and performance. Erena and Tehulu (2012), posited that the proposition of board composition is to help reduce agency problem. From this position, a positive relationship is expected between firm performance and the proportion of outside directors sitting on the board. Conflicting empirical evidence has evolved with respect to board composition in the recent past. There exist mixed results from empirical studies on the effects of board composition and performance. Kajola (2008) examined corporate governance and firm performance on some Nigerian listed banks between 2000 and 2006 and found no significant relationship between board composition and firm performance. He further added that the performance of banks tends to be worse when there are more external board members.

2.4. Audit committee size and financial performance

Shareholders' interests are protected through the activities of audit committee because management may not always act in the interest of corporation's owners. Studies in favour of larger audit committee posited that when more people are involved in checking the activities of manager, wrongdoings will be reduced and performance will be enhanced. A number of studies which revealed positive relationship between audit committee size and firm performance include that of Kajola (2008). However, other researchers reported that there is no positive relationship between audit committee size and the performance of firms. From the foregoing, there exist a mixed reaction with the respect to the relationship between audit committee size and firm performance. The position of Sanda et al make logical sense as the interest of shareholders can be protected by a number of individuals who will be difficult to manipulate especially when they are large in number.

2.5. Gender Diversity and Bank Performance

Previous literature has shown mixed results on the role of female participation on bank boards and bank performance: some find that more women on boards enhance financial performance, while others find negative or no effects (Owen & Temesvary, 2020). Geyman, Cooper, and Davis (2018) examined the relationship between board gender diversity and firm performance and risk of financial institutions in the US between 2007 and 2015. The study also examines the effect of the Dodd- Frank Act of 2010 on improving the diversity and inclusion efforts of the industry. The study shows that board diversity as measured by the percent of women on the board of directors is associated with better corporate performance. Applying Instrumental Variables methods to data on approximately 90 US bank holding companies over the 1999-2015 period, Owen & Temesvary (2020) found that these inconclusive results are due to the fact that there is a non-linear, U-shaped relationship between gender diversity on boards and various measures of bank performance. The paper by Boubaker, Dang and Nguyen (2014) tackles the issue gender diversity in the context of the French listed firms over the 2009-2011 period. Their results show evidence of a negative and significant effect of the percentage of female directors on financial firm performance, suggesting that adding more women in an indiscriminate fashion to boards of directors may be counter-productive and lead to lower firm performance.

2.6. Theoretical framework

2.6.1. Agency theory

The study of corporate governance originally arose out of agency theory which was propounded by Jensen and Mecklings in 1976. According to the theory, the principal hires or delegates an agent to perform work. In this kind of relationship, one party acts on behalf of the other party. According to classical agency theory, a dilemma arises due to the fact that the interest of the principal and of the agent is not necessarily aligned.

There has been a focus on the agency theory with emphasis on the principal-agent problem (Sami, Wang and Zhou, 2009); the theory which has its foundation in economic theory has become dominant in the corporate governance literature (Uwuigbe, 2011). The theory asserts that most of the time, the objectives of the organizational administrators do conflict with those of the real owners of the business. This means that business owners have to connect their economic rewards with salaries and other remuneration of the organization's administrators. The moment it becomes difficult to predict the way business administrators would behave, and then their remuneration becomes a governance issue geared towards motivating them to carry out their duties in the best interest of the owners (Vo and Phan, 2013). The theory agrees with the designation and absorption of members of the board and the utilization of encouraging remuneration packages, while the board monitors the managers by means of periodic reporting, evaluation and the adoption of laid down guidelines (Uwuigbe, 2011).

In spite of the fact that some studies on agency theory recommends that appropriate governance may possibly minimize agency expenses and boost the earnings of business owners, some results of other investigations suggest otherwise. One likely explanation to this divergence result may be the utilization of different indicators of organization governance (Sami, Wang and Zhou, 2009).

3. Research Methods

In this study, ex-post facto research design was used especially as the variables involved in the study are already in existence. Only secondary source of data from the annual audited accounts of the 11 listed banks which were accessed online have been used.

3.1. Operational measures of variables



Ogum (2002) observed that, it is very important in statistics to know how a set of observation is measured because this will influence the method of analysis. The main variable for this study are the corporate governance mechanism – which is the predictive explanatory variable, and financial performance – which is the criterion variable. Hence the variables include:

1. **The Dependent Variable i.e. Financial Performance:** This is measured via Return on Equity (ROE) and Return on Asset (ROA).
2. **The Independent Variables i.e. Corporate Governance:** This is measured by features of; Board Size (B Size), Board of Directors Composition (BODCOMP), and Audit Committee Independence (AUDTCOMI) and gender diversity.
 - **Board Size:** Number of board members in a particular year.
 - **Board of Directors Composition:** Proportion of outside directors sitting on the board.
 - **Audit Committee Independence:** Proportion of independent Directors in Audit Committee in a particular year.
 - **Gender diversity:** Proportion of female directors sitting on the board in a particular year.

3.2. Data analysis technique

This is the technique or method used in processing data collected into information required for the research work. Multiple regressions as the statistical tool at 95% confidence level and T-test were used via the Statistical Package for Social Science (SPSS) version 21.0 to determine the extent to which the various independent variables contributed or influenced the dependent variables. This help to give a scientific affirmation to the tentative statement (hypotheses) earlier made in chapter one. To further ensure a triangulation of results, a more recent statistical technique, SMARTPLS structural equation modeling (PLSSEM) has been applied. The PLSSEM is a multi-level technique that handles primary and secondary data with or without all the data normality requirements for multiple regression attained (see Hair et al., 2014).

3.3. Model Specification

The economic model that was used in the study (which was in line with what is mostly found in the available literature) is given as:

$$Y = \beta_0 + \beta x_{it} + U_{it}$$

Where, Y is the dependent variable. β_0 is constant, β is the coefficient of the explanatory variable (corporate governance mechanisms), x_{it} is the explanatory variable and U_{it} is the error term (assumed to have zero mean and independent across time period). It is important to state that this study employ two financial ratios (ROE and ROA) to measure the firm's performance.

The models are specified as follows:

Model I

$$ROE = f(BSize, Bodcomp, Auditcomi, Gendiv) \text{ ----- (i)}$$

The econometric transformation of the model:

$$ROE = a_0 + a_1Bsize + a_2Bodcomp + a_3Auditcomi + a_4Gendiv + U_1 \text{ ----- (ii)}$$

Model II

$$ROA = f(Bsize, Bodcomp, Auditcomi, Gendiv) \text{ ----- (iii)}$$

The econometric transformation of the model:

$$ROA = \beta_0 + \beta_1Bsize + \beta_2Bodcomp + \beta_3Auditcomi + \beta_4Gendiv + U_1 \text{ ----- (iv)}$$

where:



ROE	=	Return on Equity as proxy for Financial Performance
ROA	=	Return on Asset as proxy for Financial Performance
β_0	=	Intercept coefficient
β_1	=	Coefficient for each of the independent variable
Bsize	=	Board size
BODI	=	Board Composition (Proportion of outside director sitting on the board)
Auditcomi	=	Audit Committee (i.e. Proportion of Independent directors in audit committee in a particular year)
Gendiv	=	Gender diversity (proportion of female members of the board).
$U_1 \& U_2$	=	Error term

Decision rule:

At 5% (0.05) level of significance, (for the purpose of the study), if the calculated t-value is greater than tabulated t-value, we reject the null hypothesis; otherwise we accept the null and reject the alternative hypothesis.

4. Data Presentation and Analysis

To analyze the presented data, both descriptive and inferential statistical techniques were deployed, and the SPSS 21.0 and SMARTPLS SEM 3.6.2 software used.

Table 1. Descriptive Statistics

		Board Size	Return on Equity	Return on Assets	Gender Diversity female	Audit committee Independence	Board Composition
N	Valid	100	100	100	100	100	100
	Missing	0	0	0	0	0	0
Mean		14.17	.183442	.030452	4.10	2.97	1.98
Std. Deviation		2.383	.271023	.037283	5.723	.731	1.303
Skewness		-.128	2.234	1.474	2.812	-2.486	-.214
Std. Error of Skewness		.241	.241	.241	.241	.241	.241
Kurtosis		-.027	5.489	6.370	6.872	10.186	-.826
Std. Error of Kurtosis		.478	.478	.478	.478	.478	.478

Source: SPSS 21.0 Output.

The table shows the values of mean, standard deviation, skewness, and kurtosis for the data set, which are descriptive outputs. From the Table 1, mean values ranged from 0.030 (ROA) to 14.14 (board size). Standard deviations ranged from 0.037 (ROA) to 5.723 (gender diversity – proportion of board members that are female). The skewness and kurtosis values ranged from -0.128 (board size) and -0.027 (board size) to 2.812 (gender diversity) and 10.186 (Audit Committee Independence) for skewness and kurtosis respectively. In line with the Hair et al. (2014), these values show that the data are normally distributed. Besides, the data sets were subjected to test of normality using the Shapiro-Wilk method in SPSS 21.0. Outputs indicate that for each of the dependent variables (ROA & ROE), all the independent variables have p-values that are well above 0.05. Values ranged from 0.095 to 0.842. These show that test of normality is ascertained. Again, Multicollinearity was assessed using variance inflation factor (VIF). According to Hair *et al.* (2014), multicollinearity is not present if the variance inflation factor (VIF) is below 5. Results show that all VIF are 1.00.

4.1. Test of Model Fit

To further verify the data and the relationships proposed in the model, the test of model fit was conducted in Smart PLS structural equation modeling. Although this is not mandatory for primary data-based SEM analysis (Hu & Bentler, 1998), it is an important aspect of the secondary data-based analysis in SEM. To do this, the Standardized Root Mean Square Residual (SRMR) was applied. The results are shown in Table 2.

Table 2. Test of Model Fit

SRMR Estimated model	0.073
d-uls	0.290
d-G	0.117
Chi-square	50.669
NFI	0.975
Confidence interval (95%)	0.118

Source: Smart PLS SEM.

Following the guideline by Hair et al. (2017) that is, (SRMR < 0.08 and NFI > 0.90), Table 2 indicates that the model is a good fit since the SRMR and the normal fit index (NFI) fall within the acceptance threshold.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.472 ^a	.222	.190	.2439570	1.070

a. Predictors: (Constant), Gender Diversity female, Board Size, Audit committee independence, Board composition

b. Dependent Variable: Return on Equity

ANOVA^a

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	1.618	4	.404	6.797	.000 ^b
Residual	5.654	95	.060		
Total	7.272	99			

a. Dependent Variable: Return on Equity

b. Predictors: (Constant), Gender Diversity female, Board Size, Audit committee independence, Board composition

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.745	.171		4.358	.000
	Board Size	-.004	.010	-.034	-.370	.712
	Audit committee independ	-.171	.035	-.463	-4.949	.000
	Board composition	-.013	.020	-.060	-.635	.527
	Gender Diversity female	.007	.004	.138	1.454	.149

a. Dependent Variable: Return on Equity

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.262 ^a	.069	.029	.0367300	1.534

- a. Predictors: (Constant), Gender diversity female, Board Size, Audit committee independence, Board composition
 b. Dependent Variable: Return on Assets

ANOVA^a

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	.009	4	.002	1.751	.145 ^b
Residual	.128	95	.001		
Total	.138	99			

- a. Dependent Variable: Return on Assets
 b. Predictors: (Constant), Gender diversity female, Board Size, Audit committee independence, Board composition

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.083	.026		3.236	.002
	Board Size	-.002	.002	-.115	-1.148	.254
	Audit committee indep	-.011	.005	-.224	-2.189	.031
	Board composition	.003	.003	.104	1.000	.320
	Gender diversity female	.000	.001	.021	.202	.840

- a. Dependent Variable: Return on Assets

4.2. Structural Model Assessment and Results Interpretation/Triangulation

The structural models are reported in two parts. The first part verified the effect of the independent variables (board size, board composition, audit committee independence, and gender diversity) on the single dependent variable - Return on Equity (ROE), and this we call Model 1 here. The second part measures the effect of the independent variables (board size, board composition, audit committee independence, and gender diversity) on the next single dependent variable - Return on Assets (ROA), this we call Model 2. While models 1 & 2 were produced separately in SPSS software, they were jointly produced in SEM but specified independent paths as shown in Figure 1.

For Model 1, the proposed model explains 22.2% variance in corporate performance measured with ROE, with an R^2 value of 0.222 in both SPSS and SEM analyses. This indicates that jointly, the independent variables could cause 22.2% variation in the performance of the ten selected banks for the period 2010-2019. This implies medium level, but significant (see F-value = 6.797; p-value = 0.000 which is less than Alpha, 0.05 as shown in the ANOVA section of SPSS output) impact on ROE. Taken separately, results of SPSS and SEM show that board size, audit committee independence, and board composition have negative influence on ROE, while gender diversity shows a positive relationship. Hypothetically, based on the SEM output as made clearer in Table 3, findings show that board size ($H1$; $\beta = -0.034$, $t = 0.443$, $p > 0.05$), and board composition ($H2$; $\beta = -0.060$, $t = 0.617$, $p > 0.05$) have non-significant negative influence on ROE, while audit

committee independence ($H3$; $\beta = -0.463$, $t = 2.945$, $p < 0.05$) has a significant negative influence. However, only gender diversity ($H4$; $\beta = 0.138$, $t = 2.199$, $p < .05$) has a significant positive relationship with ROE.

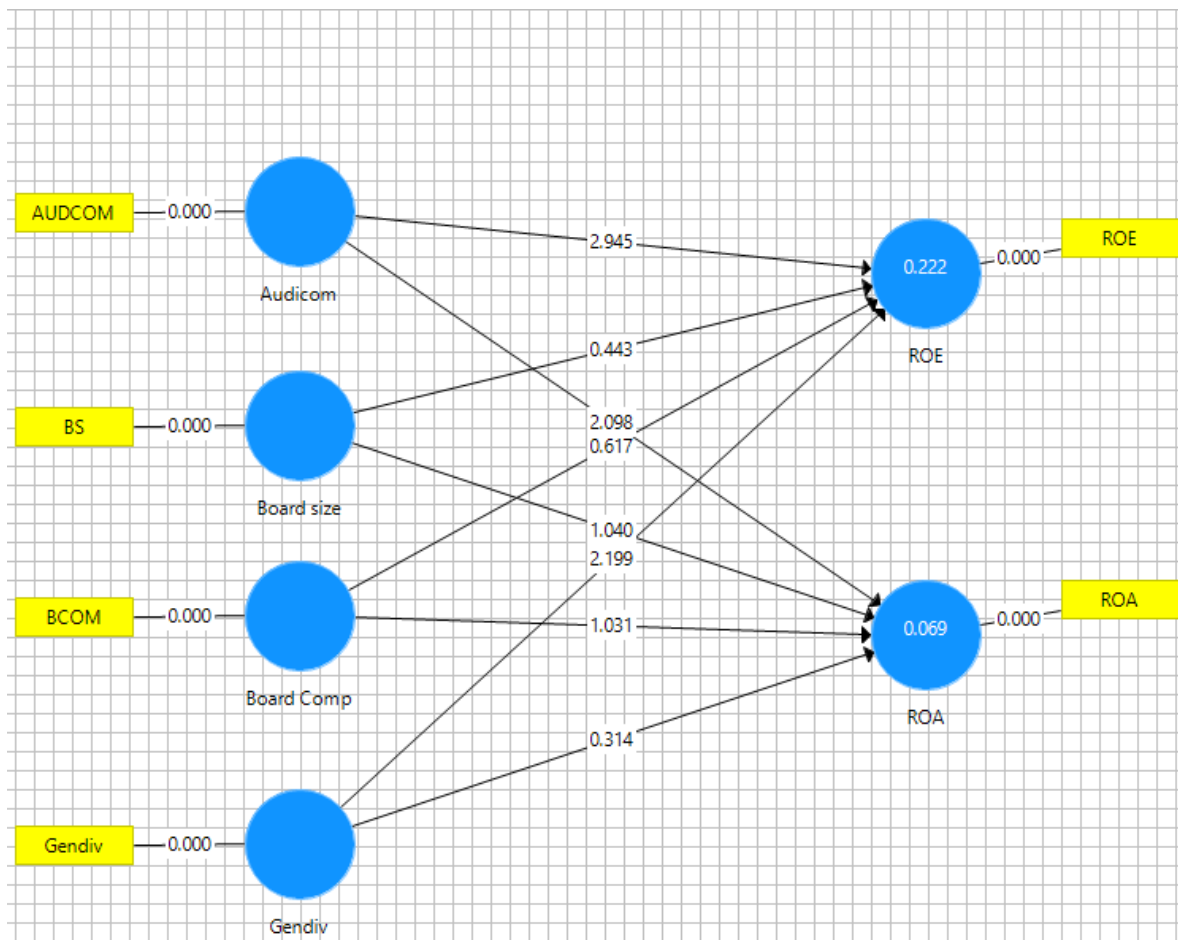


Figure 1. SMARTPLS Structural Model of the Study.

Therefore, following the decision rule, the alternate hypotheses 1, 2, and 3 are rejected while their null hypotheses accepted. Thus, there is no positive and significant relationship between board size, board composition, audit committee independence, and ROE. We however reject the null hypothesis 4 and accept its alternative version that there is a positive and significant relationship between gender diversity and ROE. Specifically, findings indicate that for the period under review, gender diversity makes the most positive contribution to the performance of banks. Following this are board size and board composition with mild negative impact, and audit committee independence with high negative impact.

Further, results of Model 2 show that the proposed model explains only 6.9% variance in corporate performance measured with ROA, with an R^2 value of 0.069 in both SPSS and SEM analyses. This indicates that jointly, the independent variables could cause just 6.9% variation in the performance of the ten selected banks for the period 2010-2019. This implies a weak level and non-significant (see F-value = 1.757; p-value = 0.145 which is above Alpha, 0.05 as shown in the ANOVA section of SPSS output) impact on ROA. Taken separately, results of SPSS and SEM show that board size and audit committee independence have negative influence on ROA, while board composition and gender diversity show have positive relationship. Hypothetically, based on the SEM output as made clearer in Table 4.3, findings show that board size ($H5$; $\beta = -0.115$, $t = 1.040$, $p > 0.05$), has negative and non-significant relationship with ROA, and audit committee

composition ($H6$; $\beta = -0.104$, $t = 2.098$, $p < 0.05$) have significant negative influence. On the other hand, board composition ($H7$; $\beta = 0.104$, $t = 1.031$, $p > 0.05$) and gender diversity ($H8$; $\beta = 0.021$, $t = 0.314$, $p > 0.05$) have non-significant positive influence on ROA.

Therefore, following the decision rule, the alternate hypotheses 5,6, 7, and 8 are rejected while their null hypotheses accepted. Thus, there is no positive and significant relationship between board size, board composition, audit committee independence, gender diversity, and ROA. Specifically, findings indicate that for the period under review, board composition makes the most positive contribution to the performance of banks followed by gender diversity. Others are board size with mild negative impact, and audit committee independence with high negative impact.

In summary, a broader look at the results indicate that based on the two performance indicators examined, audit committee independence has the worst influence with an all-round significant negative influence on both ROE and ROA. Following it is board size with an all-round negative but non-significant influence on both ROE and ROA. On the other continuum are gender diversity which has the highest positive influence with an all-round positive (ROE significant) on the indicators, and board composition with a positive non-significant (ROA) outcome.

Table 4. Hypotheses test outputs.

Hypothesized relationships	Path Coefficients	Standard Errors	t-Values	Results
$H1$: BS $\rightarrow$ ROE	-0.034	0.076	0.443ns	Not supported
$H2$: BC $\rightarrow$ ROE	-0.060	0.098	0.617ns	Not supported
$H3$: AC $\rightarrow$ ROE	-0.463	0.157	2.945*	Not supported
$H4$: GD $\rightarrow$ ROE	0.138	0.063	2.199**	Supported
$H5$: BS $\rightarrow$ ROA	-0.115	0.110	1.040	Not supported
$H6$: BC $\rightarrow$ ROA	0.104	0.101	1.031ns	Not supported
$H7$: AC $\rightarrow$ ROA	-0.224	0.107	2.098*	Not supported
$H8$: GD $\rightarrow$ ROA	0.021	0.067	0.314ns	Not supported

Source: *SmartPLS SEM & SPSS 21.0.*

Note: $R^2 = 0.222$ (ROE) and 0.069 (ROA); * $p < 0.05$ but negative; ** $p < 0.05$ and positive; BS = board size, AC = audit committee independence, BC = board composition, GD = gender diversity.

4.3. Discussion of Findings

In line with previous studies, heavy debates have been on-going on the relationship between corporate governance indicators and bank performance. Previous research has shown mixed and polarized outcomes concerning the relationship between board size, board composition, audit committee independence, gender diversity, and bank performance (ROE & ROA). Following the findings of the present study, we show that board size is negatively but non-significantly related to corporate performance (both ROE and ROA). This lends support to previous studies (Ajola et al., 2012; Bawa&Lubbah, 2012; Jensen, 1993; Katburia& Dash, 1999), who reported that board size (especially boards with large number of members) will have adverse effect on corporate performance. The result refutes the findings of Adensi et al. (2013) and Sanda et al. (2008) who reported otherwise.

Again, we show that board composition has mixed (non-significant negative and non-significant positive) impact on corporate performance (ROE and ROA respectively). The mixed finding is well supported in the literature (see Jensen, 1993; Kojala, 2008). Specifically, the negative finding corroborates the results of Liang and Li (1999) and Kojala (2008). The findings do not align with the study of Sanda et al. (2008) and Benard et al. (2004) who found a significant positive interaction.

Our findings show that audit committee has an all-round negative influence on corporate performance, and this aligns with the results of Kutubi (2011) and Jensen (1993). The



results are not in support of the assertions of Kojala (2008) which revealed positive relationship between audit committee and firm performance.

Concerning gender diversity, the present study strengthens extant positive assertions on the relationship between this construct and corporate performance. We found a positive (ROE significant and ROA non-significant) relationship between gender diversity and bank performance. These tallies with the findings of Geyman et al. (2018), Rose (2007), and Muguez- Vera (2008). It does not lend support to some previous studies (Boubakar et al., 2014; Ahem & Dittermer, 2012).

5. Summary, Conclusion, and Recommendations

5.1. Summary of Findings

The following major findings were made in this study:

- 1) That board size has an all-round non-significant negative impact on bank corporate performance measured with ROE and ROA.
- 2) That board composition has mixed (non-significant negative and non-significant positive) impact on ROE and ROA respectively of banks.
- 3) The study also shows that audit committee independence has significant negative impact on all-round corporate performance of banks for the period. It also makes the worst impact on corporate performance for the period under review when compared with the four corporate governance constructs investigated.
- 4) Findings of this study demonstrate that gender diversity is positively related with corporate performance. While it has significant impact on ROE, it has non-significant impact on ROA. Compared with other constructs investigated in this study, gender diversity makes the highest positive contribution to corporate performance.

5.2. Conclusion from the findings

To mitigate poor financial performance which has largely affected most financial institutions in Nigeria, and to ensure adequate growth post-Covid-19 pandemic, banks tinker their corporate governance practices periodically following established guidelines. Bank witnessed untold financial distress in which banks that were considered healthy by investors happened to be the most distressed in Nigeria few years ago. The banking sector crises remained a subject of concern because of its role in facilitating and stimulating economic development.

Being an area of critical importance to banks post-Covid, this study examines how key corporate governance indicators (board size, board composition, audit committee independence, and gender diversity) influence financial performance of banks (ROE and ROA).

We conclude, following the findings, that these indicators have significant influence on ROE and non-significant influence on ROA. Specifically, gender diversity has positive influence, board composition has mixed influence, board size has mild negative influence, while audit committee independence has high negative influence on corporate performance of the ten banks under study (taken together).

Generally, the study proposes that banks that will be successful are those that are gender sensitive in their board membership (gender diversified with women included), composed of few outside board members, have low board size, possibly around 10 or a little above it, and with lower number of independent audit committee.

5.3. Recommendations

In line with the findings of this study, we recommend that:



- 1) Deposit money banks that wish to enhance their financial performance, especially post covid-19, should try to reduce their board size to plus or minus ten, but with strict adherence to the regulatory guideline. This will ensure that the yearly huge expense on this is reduced and efficiency is guaranteed. This will have more positive influence on corporate performance.
- 2) A follow-up to number one above is the need to also reduce the number of outside (external or non-executive) board members, but with compliance to the regulatory guideline.
- 3) Although audit committee independence have some useful role to play in banks which also can influence their performance, it is recommended that this class of auditors be kept to minimum to reduce high cost of servicing them. The present study shows that the number existing in the banks is high enough to have negative influence on performance. Reducing the number is recommended here for improved performance.
- 4) Gender diversity should be encouraged given its positive role on corporate performance. Female board members should be allowed in the banking sector as their presence in the boards of the various banks shows positive contributions to financial performance. For banks without female board members, this recommendation is timely.

5.4. Contributions to Knowledge

It is obvious that a number of empirical works have been published on corporate governance and corporate performance. However, this study seems unique since it is among the few reporting the issues around gender diversity and corporate performance. It is also unique as it uses two modern techniques for triangulation of result outcomes. More specifically, the study contributes a unique SMARTPLS SEM-based model on the relationship between corporate governance indicators (board size, board composition, audit independence, and gender diversity) and corporate financial performance indicators (ROE and ROA) of ten selected deposit money banks in Nigeria for the period 2010-2019. The model is shown as Figure 1.

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