



## **Impact of Board Composition on Financial Performance of Listed Deposit Money Banks in Nigeria**

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### ***Abstract***

This study assessed the impact of board composition on financial performance of listed deposit money banks in Nigeria for a period of Twelve (12) years from 2010 to 2021. The total population was adopted as sample with the exception of Ecobank because its financial statement is denominated in US Dollar. The data for the study were collected from annual reports and accounts of the companies and were analyzed using descriptive statistics, correlation coefficient and multiple regressions using STATA software version 13.00. The study found board size to have a negative and statistically significant impact while independent directors and female directors were found to have positive and significant impact on the financial performance (ROE) of listed deposit money banks in Nigeria. Thus, the study recommends that the board size should not be too large as it negates good financial performance but it should be reduced to a point to facilitate high-quality and active debates and sufficient enough to provide the skills and expertise required for the board to function well. On the other hand, there is need to increase the independent non-executive directors as well as female directors on the board as it promotes better performance of the banks.

**Keywords:** Board composition, Financial performance, Board size, Independent directors, Female directors.

## Introduction

It is a common knowledge that companies are established mostly with the main objective of making profit for the purpose of boosting the wealth and welfare of shareholders (Fajarwati & Witiastuti, 2022). The profit generation ability of a company serves as one of the benchmark for company performance (Wardoyo & Veronica, 2013). The financial performance of companies is very important to all stakeholders but of immense importance to shareholders in particular, this is because it is an important source for financing the current economic activities of the company ensuring that the company's going concern feature is maintained and the value of the business is increased as well as, serve as the basis for dividend distribution which attract investors (Muller, 2014). It indicates the financial condition of a company and serve as a prerequisite requirement when making investments (Taufiq & Noekent, 2020). According to Fajarwati and Witiastuti (2022), firm's performance is the result of all the company's activities or activities that become the benchmark of the company's success. It is the general measure of a firm's general financial health over a given period of time. Saseela (2017) sees financial performance as a subjective examination of the appropriateness of assets utilization by a firm through its main business and generates revenues.

It represents the progress made by a company or the setback of a company (Dewi, Sari & Abaharis, 2018). High performing companies (financially) do provide high returns, thereby attracting investors to invest their capital in the company (Candradewi & Sedana, 2016).

Companies will always strive to improve their financial performance. Efforts to enhance firms' performance in both short and long run have been made in most countries especially by policymakers, government, and firm's management. Therefore, identifying and analyzing those factors that have the tendency of influencing the financial performance of companies is of great importance. According to Sukandar and Rahardja, R. (2014), financial performance can be improved through improve in the implementation of corporate governance. Board of directors is an extremely important and crucial ingredient of corporate governance (Shamsi, 2020). Hence, board composition could play a vital role in determining the financial performance of a corporation (Joseph & Ironkwe, 2022).

Board composition is the make-up of the board of directors in a company (Stapledon & Jeffrey, 1997). It refers to the definition of the affiliation of each director with the firm (Finkelstein & Hambrick, 1996). Companies are

governed by boards of directors which normally comprises of both executive and non-executive directors. A board of directors is seen as a team of persons whose fiduciary duty is to lead and direct a firm, with the main objective of protecting and promoting the firm's shareholders' interests (Abdullah, 2004). Hence, the board is responsible for corporate goals setting aimed at realizing long-term shareholders' value. Its success in carrying out its fiduciary duties, would be predicted to increase the wealth of the shareholders.

It is logical (however not undisputed) to say the managerial abilities of the members of the board would impact the entity's financial performance (Muller, 2014). The Report of the Committee on Corporate Governance of Public Companies in Nigeria (2003) puts board of directors at the centre of the implementation of corporate governance principles of public companies in Nigeria. It notes that board of directors should be responsible for the affairs of the company in a lawful and efficient manner in such a way as to ensure that the company is constantly improving its value creation.

Theoretically, as stated by Rahmawati and Khoirudin (2017), corporate governance existence has the tendency to improve firm performance, reduce risk possibility in a firm and increase investors' confidence to invest. It is accepted widely that in determining firm financial performance, board composition could play a vital role (Joseph & Ironkwe, 2022). It is however not clear-cut whether certain board characteristics regarding its composition would significantly influence the company's performance.

The remainder of this paper is structured to include (immediately after the introduction) the literature review where the concepts of board composition and financial performance were reviewed. Immediately following the literature review is the section that discussed the methodology adopted by the study, followed by the result and discussion section where the result obtained from the analysis of the study data are shown and discussed. The last section of the paper is the conclusion and recommendations.

## **Literature Review**

### **Conceptual Framework**

Conceptual framework has been defined as the graphical relationship between the variables of the study. It assists in explaining the relationship that the study tries to

establish. The variables of this study include “Board Composition” as independent variable and “Financial Performance” as dependent variable.

According to Finkelstein and Hambrick (1996), board composition refers to the definition of the affiliation of each director with the firm. It is the make-up of the board (Stapledon & Jeffrey, 1997). These scholars take a simple approach in defining board composition as the definition is left very open which gives room for maneuver on explaining board composition. In their own words, Paul, Friday and Godwin (2011) asserts that board composition is measured in terms of different degrees of heterogeneity. Common measures of board composition are usually, executive/non-executive directors’ ratio, insider/outsider director ratio, age and gender diversity among board members and board size. It can reflect various degrees of heterogeneity (Bhagat & Black, 2002), such as the ratio of independent non-executive directors and board size (Rashid, 2011), gender and age diversity. In this paper, board composition simply refers to the proportion of independent directors on the board, total number of members that constitute the board (board size) as well as the proportion of female on the board.

Financial performance is a vital tool to several stakeholders. The parties include shareholders and bond holders, direct competitors, regulators, financial markets, credit rating companies, and other market participants (Casu & Girardone, 2006). Financial performance gauges the proper use of enterprises’ resources to maximize profit and wealth. Its analysis identifies the financial strengths and weaknesses of the firm by properly establishing relationships between the items of the statement of financial position and statement of comprehensive income by selecting the information relevant to the decision under consideration from the total information contained in the financial statements, arranging the information in a way to highlight significant relationships and interpret and draw inferences and conclusions (Makanga, 2015). In other words, financial performance is the outcome of the activities performed in addition to the return on investment over a given period of time. Return on assets (ROA), Tobin’s Q, return on equity (ROE), and earning per share (EPS) are some of the common ratios used in evaluating financial performance of a firm. This study used ROA to proxy financial performance as it is regarded to be the most useful measure of financial performance (Abdel Shahid, 2003).

Figure 1 below is the diagram that showed the interrelationship between board composition and financial performance.

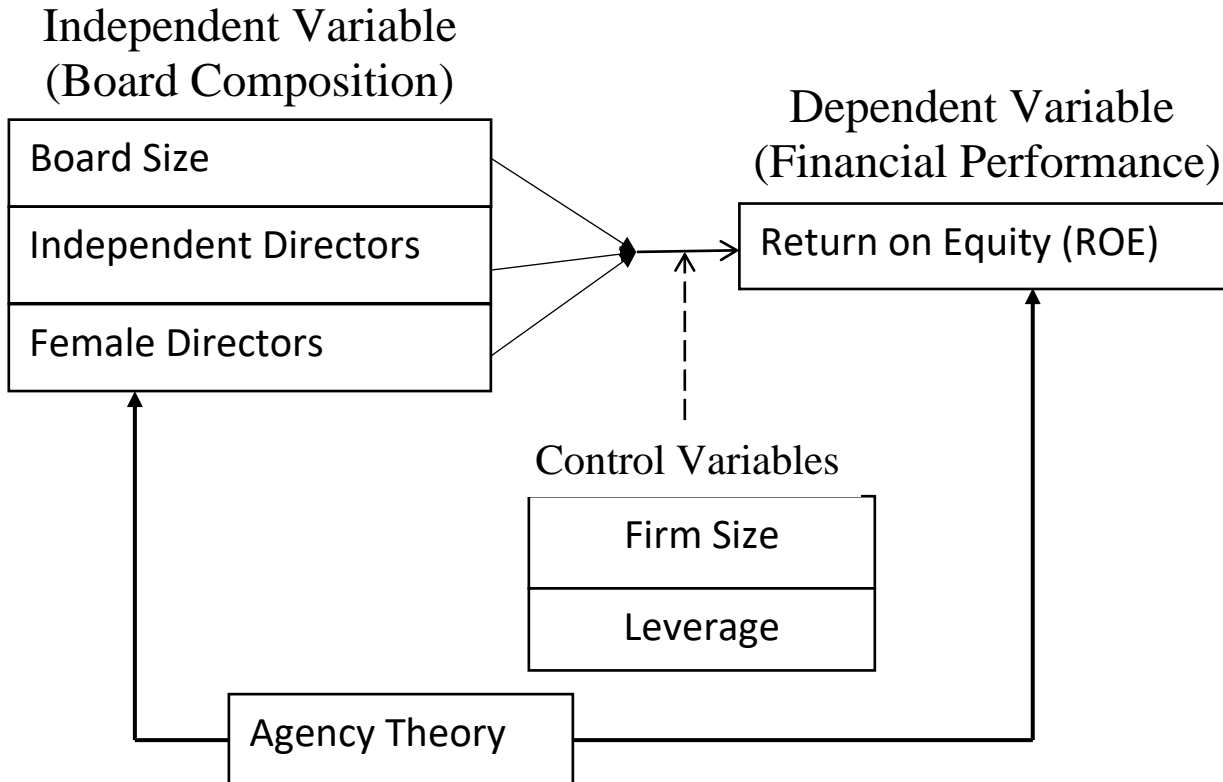


Figure 1: Conceptual framework of the relationship between board composition and financial performance.

From Figure 1, Board composition as explanatory variable is proxy by its attributes of board size, independent directors and female directors, while return on equity (ROE) is used to proxy the dependent variable (financial performance). It therefore shows that the way the board of directors is composed will influence the performance of firms either positively or negatively. The Figure also indicates that firm size and leverage serves as control variable in analysing the relationship between board composition and financial performance. As shown in Figure 1, agency theory provides the theoretical basis upon which the study is based.

### **Board Composition and Financial Performance**

Board composition is very vital in any organization as it can affect how the organization performs, it can have a huge bearing on the financial performance of

the organization (Karem et al., 2021). Therefore, the way the board of directors is composed may have an impact on the financial performance of a corporation. According to Zhang and Ding (2013), board composition has important implications for different aspects of firm performance. It is worth noting that the board are responsible for policy formulation and these policies will either help in ensuring better financial performance or poor financial performance. The composition of the board will also have the potential to entice investors to invest into the corporation which may make money available to take advantage of profitable ventures. This is as stated by Shamsi (2020) “effective mobility of funds enhances the probability of providing greater returns”. Thus board of directors plays a role that ensure that the fears of investors and other stakeholders are soothed and assurance is given that the organization is acting in the best interests of all the stakeholders (Karem et al., 2021).

Board effectiveness in discharging its role of corporate policies formulation as well as overseeing management’s activities is affected by several elements. The objectivity and independence of the directors can be affected by the number of members on the board, the number of internal directors in relation to external directors. In addition, the diversity of a board in relation to the number of women on the board can be an issue. These may affect the financial performance of the corporation. As human beings are different, so are our behavioural patterns. While the members that make up the board may come from different backgrounds and circumstances with different personality traits, different personality attributes are complementary to group strength, board members must be careful of their individual differences that may be injurious to the organizational goal and therefore, it is absolutely necessary for the them to suppress their peculiar beliefs so as to work in unity with the other board members for the overall interest and benefit of the organization (Herbert & Agwor, 2021).

### **Board Size and Financial Performance**

Board size is the total number of directors on the board of a company. It refers to the membership of the board of directors, in terms of the number of directors serving on the board (Herbert & Agwor, 2021). Regulatory requirements, industrial demand, stakeholders’ demand, firm size, growth opportunities, shareholders’ and fund providers’ request, international reporting requirements, ownership structure and control of the firm, depth and complexity of the issues facing the entity, custom and nature of the people and environmental requirements, board structure and age, nature of business and associated risks, nature of responsibilities and duties of the

board are some of the factors that influences board size (Lehn, Patro and Zhao, 2009; Council on Foundations, 2010; Dorger, 2011). Board size may signify and offer advantages of strategic thinking, credibility, insight, industry knowledge, good judgement, communication skills and decision-making ability (Herbert & Agwor, 2021) which may influence the financial performance of the organization. It is therefore important to choose the number of persons constituting the board that is ideal and the persons are competent, commitments, and can carry out a variety of functions (Abdullah, Aziz & Azani, 2022).

Lipton and Lorsch (2009) posit that the optimal board size should consist of members between seven and nine because the benefits relating to larger boards are extinguished by features relating to larger boards such as increased monitoring costs, poor communication and lengthy and difficulty in decision-making. Sanda, Mikailu and Garba (2010) suggest, based on the argument that larger boards are associated with high costs as well as time consuming decision making among others, that small board size have a positive effect on firm value. Also, large boards may be burdened with opportunistic and free-rider problems (Herbert & Agwor, 2021). These challenges associated with larger boards may hinder the smooth-functioning of the board, politicize and diminish its decision-making and negatively affect the firm value. However, the report of the committee on corporate governance of public companies in Nigeria (2003) as cited in Paul, Friday and Godwin (2011) recommends that the board members should neither be below five nor more than fifteen in total.

In general, literatures relating to corporate governance seems to suggest that when constituting board of directors, consideration should be given to the trade-offs between the costs and the benefits that would be derived from the board. This paper therefore hypothesized that:

Ho<sub>1</sub>: Board size has no significant effect on the financial performance of Deposit Money Banks in Nigeria.

### **Independent Directors and Financial Performance**

Independent directors are directors of a company who has no involvement with the company apart from their position as directors of the company. The term is commonly used to refers to non-executive directors of a company who has neither personal nor economic association with the company and its management (James, 2020). Fama and Jensen (1983) are of the opinion that their lack of personal or economic interest in the company put them in a better position to monitor management and allow them to be objective in evaluating managements, as a

result, they tend to improve the monitoring function of boards (Hsu & Wu, 2014). These directors, strive to perform their monitoring function well so as to maintain their reputational capital in the labour market. When their reputation is good, they stand a chance to be appointed to serve on other boards (James, 2020), hence they are well positioned to request for strategic changes from management when the firm is experiencing decline in financial performance.

However, Brennan (2006) is of the opinion that independent directors lack the requisite inside information of the organization because of their part-time involvement with the company and therefore, may lack the competence to perform tasks assigned to them. Because they mostly serve on multiple boards, they tend to lack firm-specific knowledge as they hardly devote sufficient time to understand each business they serve on, which may result in them relying on their general knowledge in reviewing managerial performance and rewarding managers (Baysinger & Hoskisson, 1990). This lack of firm-specific information by independent directors may allow managers to formulate policies to achieve their personal aims, which may be detrimental to the firm financial performance (Hsu & Wu, 2014). Additionally, Ongore, K'Obonyo, Ogutu and Bosire (2015) state that, because independent directors are the creation of the CEO, they can easily align their interest with that of the top management, this is especially true where the CEO is the sole source of information on potential nominees to the board. This paper therefore hypothesized that:

Ho<sub>2</sub>: Independent directors has no significant effect on the financial performance of Deposit Money Banks in Nigeria.

### **Female Directors and Financial Performance**

There has been concern in the recent time for female participation corporate boards. This is particularly to create fair and productive gender balance in environments that are most often dominated by men (Herbert & Agwor, 2021). There is an increasing awareness that women absence in the top level of management and boards of corporations is cancerous both to the social and the economic outcomes of corporations (European commission 2010). This result to changes globally on corporate governance guidelines worldwide to incorporate women in companies' governance structure (Ongore et al., 2015). Board diversification is important in improving the function of the board which will ultimately lead to better firm performance (Badu, 2020). Gender diversity is seen to be a key determinant of firms' operational efficiency (Bart & McQueen, 2013).



Gender activist, among others, have put corporate organizations under pressure to ensure that they implement policies that will promote women participation on their boards and management (Herbert & Agwor, 2021). Despite this, the participation of women in corporate boards of corporation is still low in Africa (Assonime, 2020). Women are said to be more open minded and can ask hard questions that men may find uncomfortable to ask, therefore the presence of women in the board increases the ability of the board to objectively monitor management and put them in line to ensure better performance (Ongore et al., 2015). Herbert and Agwor (2021) assert that the presence of women in the board increases the board's independence as people with a different gender, ethnicity or cultural background might ask questions that would not come from directors with more traditional backgrounds. Gender diversity unleashes heterogeneity in decision-making and problem-solving styles and promotes better decisions through the interplay of a wider range of perspectives and a more in-depth critical analysis and consideration of issues (Shrivastav, 2017). Smith, Smith and Verner (2006) posit that women directors will bring more creativity and promote quality decision making because of their understanding of market conditions. But Balsmeier, Fleming and Manso (2017) observe that women representation on board can potentially affect performance negatively. Therefore, this paper hypothesized that:

H<sub>03</sub>: Female directors has no significant effect on the financial performance of Deposit Money Banks in Nigeria.

### **Empirical Review**

There has been so much argument in corporate finance literatures regarding the level of relationship between corporate governance and financial performance. Board of directors are at the center of corporate governance implementation of public companies in Nigeria by the Report of the Committee on Corporate Governance of Public Companies in Nigeria (2003). This resulted to studies on how the composition of the board can help to mitigate agency problem caused by the separation of ownership from management and ultimately improve the financial performance of corporations.

According to the study conducted by Altass (2022) on 42 listed companies of the materials sector of Saudi exchange market for a period of 2014 to 2018 using pooled OLS regression analysis. The study found board size to have a negative effect on financial performance. In a similar manner, Ongore et al. (2015) and Kazan (2022) also found a significant negative effect of board size on financial performance. In contrast to these studies, Abdullah, Aziz and Azani (2022)

investigates the effect of board independence, gender diversity and board size on firm performance in Malaysia using a sample of 70 randomly selected publicly listed companies in Malaysia over the period from 2016 to 2020. They make their analysis using multiple regression and found board size to have a positive and significant impact on financial performance. Mohapatra (2017), Handriani and Robiyanto (2019) and Karem et al. (2021) also found evidence of a positive relationship between board size and firm performance.

In terms of independent directors, Abdullah, Aziz and Azani (2022) investigates board independence, gender diversity and board size on firm performance in Malaysia for a period from 2016 to 2020 using a sample of 70 randomly selected publicly listed companies in Malaysia. The analysis was made using multiple regression and found independent directors to have a positive and significant impact on financial performance. Similar results were observed by Muller (2014), Badu (2020), and Huynh et al. (2022) who observe a positive significant relationship between independent directors and firm performance. However, Farhan, Tabash, AlMaqtari and Yahya (2020) examined the effect of board of directors' composition on the profitability of Indian pharmaceutical companies. The analysis is based on 82 companies from 2008 to 2017. Using least squares regression model to analyze the data, the findings reveal that board of directors' composition as measured by the percentage of independent board members negatively and significantly affects firm's profitability measured by ROA. Kazan (2022) also observe a negative significant relationship between board independence and the accounting-based measures of financial performance.

Badu (2020) studied board composition and firm performance with the aim of investigating the effect of board composition on firm performance and further examine whether the effect is mediated by board monitoring intensity. After analyzing the data from the 137 firms listed on Ghana and Nigeria stock exchanges over a period of seven years, found gender diversity to be positively and statistically related to firm performance. Likewise, the studies conducted by Campbell and Minguez-Vera (2008), Cendrowski (2015), Garcia-Meca, Garcia-Sanchez and Martines-Ferrero (2015), Reguera-Alvarado, De Fuentes and Laffarga (2015), Pham and Hoang (2019), and Abdullah, Aziz and Azani (2022) all found that gender diversity had a positive impact on the firm performance. On the contrary, Darmadi (2011), Abdullah and Ismail (2013), Iswadi (2016), and Balsmeier, Fleming and Manso (2017) observe that women representation on board to negatively affects the firm performance.

## **Theoretical Framework**

Agency theory describes the conflict between managers and owners. This is because in modern corporation, ownership and control are separated, hence problem of aligning the interest of owners and management is inevitable which will lead to additional cost called Agency cost. The possibility of this problem is high when the directors of the company knows little about the company or they are friends of top management (Elsayed, 2007). The conflict between the parties implies managers, instead of working to ensure creation of shareholders' wealth, they tend to have their own goals which may conflict with that of the owners (Eisenhardt, 1989).

The theory posits that to curb managerial opportunism and its adverse effects on corporate performance, shareholders may use a range of corporate governance mechanisms, including monitoring by the board of directors (Herbert & Agwor, 2021). In corroborating this, Quttainah and Said (2021) states that having the right board composition will help mitigate agency problems. By enhancing the level of monitoring and regulation of managers, the board which the shareholders appoint strives to address these agency issues (Nuanpradit, 2019).

## **Methodology**

The researcher employ Ex-post facto research design because it aims at measuring the relationship between one variable and another where the variables cannot be manipulated by the researcher. The population of the study comprises of all the thirteen listed deposit money banks in Nigeria. Because the population is not too large, the total population was adopted as sample with the exception of Ecobank because its financial statement is denominated in US Dollar. Data were collected for the period from 2010 to 2021 and were analyzed using STATA software version 13.00 where summary of descriptive statistics, correlation and multiple regressions results were obtained and analyzed to determine the impact of board composition on financial performance of listed deposit money banks in Nigeria. The variables of the study comprise both dependent and explanatory variables. The dependent variable is the most usual accounting performance ratio Return on Equity (ROE). It explains how well management is able to manage the equity invested by shareholders (Saidu, 2014).

Explanatory variables adopted for this study include both the independent and control variables. The independent variable (board composition) is proxy by board size as used by (Ongore et al., 2015, and Karem et al., 2021); independent directors as used by (Badu, 2020, and Huynh et al., 2022); and female directors as used by

(Pham & Hoang, 2019, and Abdullah, Aziz & Azani, 2022) while the firm size and leverage were used as control variables as seen in the work of (Ali, Ogunjobi & Hassan, 2022). Thus, the following regression model was used to test the impact of board composition on financial performance:

$$ROE_{it} = f(BS_{it}+ID_{it}+FD_{it}+FS_{it}+LV_{it})$$

$$ROE_{it} = \beta_{0it} + \beta_1 BS_{it} + \beta_2 ID_{it} + \beta_3 FD_{it} + \beta_4 FS_{it} + \beta_5 LV_{it} + \epsilon_{it}$$

**Table 3: Description of Variable Measurement.**

Variable	Specification	Description
<b>Return on Equity</b>	ROE	Earnings before interest and tax divided by ordinary equity shares
<b>Board Size</b>	BS	Total number of directors on the board
<b>Independent Directors</b>	ID	Number of independent directors divided by total number of directors on the board
<b>Female Directors</b>	FD	Number of female directors divided by total number of directors on the board
<b>Firm Size</b>	FS	Natural Log of total assets
<b>Leverage</b>	LV	Total debt divided by Total assets
	$\beta_0$	Regression Intercept
	$\beta_1 - \beta_5$	Regression coefficients of independent and control variables
	$\epsilon_{it}$	Error Term

## Results and Discussions

This section presents the analysis of the data and tests of hypotheses formulated in section one of the work. First, preliminary analysis was conducted (using descriptive statistics and correlation matrix) followed by the presentation of the regression analysis.

**Table 2: Descriptive Statistics**

Variables	Observations	Mean	Standard Dev.	Minimum	Maximum
<b>ROE</b>	144	1.4083	2.0362	-6.7897	8.1909
<b>BS</b>	144	13.2500	3.5410	6.0000	20.0000
<b>ID</b>	144	2.0694	1.6584	0.0000	7.0000
<b>FD</b>	144	3.1042	1.6545	0.0000	6.0000
<b>FS</b>	144	11.9530	0.5445	10.3042	12.9850

<b>LV</b>	144	0.8668	0.6445	0.0012	2.8730
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Source: Generated by the Author from Annual Report Data of Listed Deposit Money Banks in Nigeria, using STATA 13 Output.

Table 2 is the descriptive statistics for the variables of the study. The mean ROE of 1.4083 imply that deposit money banks in Nigeria earned 140.83% on average as a return to shareholders for the period of this study, with a minimum and maximum ROE of -6.7897 and 8.1909 respectively. The standard deviation of 2.0362 show a slight variation in ROE between the sampled deposit money banks in Nigeria during the period of the study.

Board size has a mean of 13.25, implying that on average the board of deposit money banks in Nigeria is made up of 13.25 members. The highest number of members on the board was 20 while the lowest was 6. The standard deviation of 3.5410 suggests some variation on the size of the boards of the sampled companies. The independent directors have a mean of 2.0694 which imply that on average, there are 2.0694 independent directors on each board. The minimum of 0.00 means some boards have no independent directors while the maximum number of independent directors on a board is 7.00. The standard deviation of 1.6584 shows slight variation in relation to independent directors. In relation to female directors, on average, there are 3.1042 female directors on the board of deposit money banks in Nigeria, with a minimum and maximum of 0.00 and 6.00 female directors respectively. The standard deviation stood at 1.6545.

Firm size has a mean of 11.9530, with a minimum of 10.3042 and maximum of 12.9850. The standard deviation of 0.5445 show no significant variation in the total assets among the sampled companies. Finally, the mean leverage of 0.8668 signifies that on average, the total liabilities covers up to 86.68% of the total assets of the deposit money banks in Nigeria with a minimum of 0.0012 and maximum of 2.8730. The standard deviation of 0.6445 indicates lack of substantial variation.

**Table 3: Correlation Matrix of the Dependent and Independent Variables**

Variables	ROE	BS	ID	FD	FS	LV	VIF	I/VIF
ROE	1.0000							
BS	-0.4462	1.0000					2.08	0.4797
ID	0.7359	-0.3555	1.0000				2.61	0.3833
FD	0.6656	-0.2038	0.6855	1.0000			2.15	0.4659
FS	0.5059	0.2623	0.5151	0.5482	1.0000		3.21	0.3112
LV	0.7165	-0.2888	0.6392	0.5758	0.6203	1.0000	2.63	0.3804

Source: Generated by the Author from Annual Report Data of Listed Deposit Money Banks in Nigeria, using STATA 13 Output.

Table 3 shows the correlation coefficients on the relationship between the variables of the study. The correlation coefficients on the main diagonal are 1.0000, because each variable has a perfect positive linear relationship with itself.

As shown in table 3, all the explanatory variables have positive relationship with ROE with the exception of board size. While independent directors, female directors, and leverage have strong relationship ROE with correlation coefficient value of 0.7359, 0.6656. and 0.7165 respectively, board size and firm size have moderate relationship with ROE with correlation coefficient of -0.4462 and 0.5059 respectively. The relationship between concentrated ownership and firm size is positive and weak with correlation coefficient of 0.2440.

Variance Inflation Factor (VIF) test was also carried out to determine if collinearity problem exist. The results suggest the absence of collinearity problem as the VIF values ranges from a minimum of 2.08 to a maximum of 3.21 and the tolerance (1/VIF) are all less than 1.00 (Neter, Kutner, Nactsheirm & Wassweman, 1996; Adeyemi & Fagbemi 2010).

**Table 4: Regression Results**

Variables	Coefficient	Standard error	T- Value	P > [ t ]
Constant	-8.204***	3.116	-2.63	0.009
BS	-0.183***	0.038	-4.87	0.000
ID	0.286***	0.090	3.17	0.002
FD	0.228***	0.082	2.79	0.006
FS	0.847***	0.304	2.78	0.006
LV	0.722***	0.233	3.10	0.002
No. of observation				144
F				69.34
Sig				0.000
R - Square				0.715
Adj. R - Square				0.705
Root MSE				1.106

Source: Generated by the Author from Annual Report Data of Listed Deposit Money Banks in Nigeria, using STATA 13 Output.

NOTE: \*\*\* indicate 1% significant level

Table 4 showed the regression result of the variables of the study. The result was presented after preliminary test of its assumption. Breusch-pagan/Cook-weisberg test for heteroskedasticity reveals a constant variation of the residuals as evidenced by the insignificant probability (p-value) of the chi square of 0.1278. This attest for the absence of heteroskedasticity in the model.

From the OLS regression, the coefficient of “R-squared” (0.715) shows that 71.50% of the total variation in ROE of deposit money banks in Nigeria was caused by the selected explanatory variables of the study while the remaining 28.50% was caused by factors not explained by this model. It confirms the fitness of the model as attested by the F-statistics value of 69.34 at 1% level of significance. Hence, the findings of the study are relied upon. As such, the model equation can be inscribed as:  $ROE = -8.204 - 0.183BS - 0.286ID + 0.228FD + 0.847FS + 0.722LV + 1.106$ . Board size is found to have a negative significant effect on ROE 1% level of significance with P-value 0.000. This can be observed from the negative regression coefficient value of -0.183, which means an increase of one (1) board member will lead to a decrease of N0.183 in ROE of listed deposit money banks in Nigeria. This finding is in line with the findings of Ongore et al. (2015) and Kazan (2022) however, it contradicts the findings of Mohapatra (2017), and Abdullah, Aziz and Azani (2022) who found board size to have a positive impact on financial performance. On the other hand, independent directors is found to have a positive significant impact on ROE at 1% level of significance with P-value 0.002. This can be observed from the regression coefficient with a positive value of 0.286, implying a direct relationship between independent directors and financial performance of listed deposit money banks in Nigeria. The finding corroborates that of Muller (2014), Badu (2020), and Huynh et al. (2022). However, it contradicts the findings of Farhan et al. (2020) and Kazan (2022) who found independent directors to negatively affect financial performance. Whereas, female directors is also found to have a positive significant impact on financial performance at 1% level of significance with P-value 0.006. This can be observed from the positive value (0.228) of the regression coefficient. This show a direct relationship between female directorship and financial performance (ROE) of listed deposit money banks in Nigeria. The result is consistent with the empirical findings of Pham and Hoang (2019), and Abdullah, Aziz and Azani (2022) but conflicted with that of Iswadi (2016), and Balsmeier, Fleming and Manso (2017) who found that female directors have a negative impact on financial performance. Firm size has a positive significant impact on financial performance of listed deposit money banks in Nigeria at 1% level of significance with P-value 0.006 and

a positive regression coefficient of 0.847, which indicate that the size of deposit money banks has something to do with their financial performance as used by Farhan et al. (2020); and Altass (2022). While leverage is also found to have a positive significant impact on financial performance of listed deposit money banks in Nigeria at 1% level of significance with P-value 0.002 and a positive regression coefficient value of 0.722, which also indicate that leverage has something do with the financial performance of deposit money banks as used by Badu (2020), and Ali, Ogunjobi and Hassan (2022).

### **Conclusion and Recommendations**

The paper examines the impact of board composition on financial performance of listed deposit money banks in Nigerian for a period of twelve (12) years from 2010 to 2021. Based on the findings, the study concluded that board size negatively influences financial performance of listed deposit money banks in Nigerian. As board members increase financial performance decrease. On the other hand, independent directors and female directors positively influences financial performance. It can be said that larger number of independent non-executive directors as well as female directors on the board provide additional efficiency leading to a better performance. Similarly, both firm size and leverage impact the financial performance of listed deposit money banks in Nigeria positively.

Based on the findings and conclusion drawn therefrom, the study therefore recommends that the board should not be too large as it negates good financial performance but it should be reduced to a point to facilitate high-quality and active debates and sufficient enough to provide the skills and expertise required for the board to function well. On the other hand, there is need to increase the independent non-executive directors as well as female directors on the board as it promotes better performance of the banks.

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