

## THE LINK BETWEEN CORPORATE BOARD AND FINANCIAL PERFORMANCE: EVIDENCE FROM MONEY DEPOSIT BANKS IN NIGERIA

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### Abstract

*This study investigates the effect of board structure on financial performance of listed DMBs in Nigeria, using a sample of ten (10) DMBs. The study covers a period of 10 years (2011-2020) and employed correlation research design. Random effect regression was adopted. The study found that gender diversity on board has a statistically significant positive effect on the financial performance of listed DMBs in Nigeria. The regression result shows that increasing the size of the board does not affect financial performance. The regression analysis also revealed that increasing the number of meetings held per year does not have significant effect on the profitability. Thus, increasing the number of meetings held in a year is not necessarily going to improve financial performance. It is recommended that listed DMBs should focus on expanding the quota of female directors serving on the board, as this will help to increase the companies' profitability potential.*

**Keywords:** Corporate board, financial performance, money deposit banks, Nigeria.

### INTRODUCTION

Firm value represents the past, present and future performance of a firm, as well as the long-term interest of shareholders and stakeholders (Bhullar & Bhatnagar, 2013). The effectiveness of firms is to guarantee the satisfaction of the needs of stakeholders whose main interest is that of maximizing the value of the resources they have invested in the firms (Dadashi et al, 2015). The dominant issue therefore is the effectiveness of corporate governance mechanisms which is to cater for the needs of the shareholders and other stakeholders whose main interest is that of maximizing the firm value (Fratini & Tettamanzi, 2015). This issue has become an important policy concern in Nigeria especially given a number of events that have raised the profile of corporate governance reforms. One of these events is the dwindling of the Nigerian equity market over the years and varieties of corporate scandals (ROSC, 2008).

In a Nigerian survey of disclosure practices commissioned by the World Bank (WB) and the International Finance Centre (IFC), reported that there is relatively high compliance with several governance principles. However, the report indicated that in practice a number of corporate governance problems that affect board performance, the execution of certain shareholders rights of listed firms on the Nigerian Stock Exchange Group (NGX). In addition to these issues, the report also highlighted that implementation of firms' audit committee is poor (ROSC, 2008). Moreover, the Nigerian market has been dominated by corruption and the accompanying weak regulations, conflicting requirements, and lack of human and financial

resources contributed to weak accounting standards (Aboud et al., 2023; Adegbite, 2015; Idris et al., 2019; Okpara, 2011). In 2020, the Central Bank of Nigeria (CBN) had to suspend the board of directors of First Bank of Nigeria for breach of good corporate governance practices.

Previous empirical studies (Aghila & George, 2019; Chemweno, 2016; Wafaa et al, 2019; Ilaboya & Obaretin, 2015; Hamidu & Aliyu, 2015; Georgeta et al, 2015; Babatunde & Folorunsho, 2020) have examined the relationship between board structure and financial performance however, reported mixed results. This necessitates the need for more studies in this area. Furthermore, common variables used by the prior studies are board size, board independence and board committee. In an attempt to fill this gap, the current study seeks to examine the effect of board structure component (board size, board independence, board gender diversity and board meeting ) on the financial performance of listed Deposit money banks in Nigeria using data from 2011-2020.

## THEORETICAL AND EMPIRICAL REVIEW OF LITERATURE

Earlier research has examined the variables influencing firm performance using a variety of theories. The agency theory and resource dependency theory are applied in this study to investigate the effects of governance variables on firm performance, specifically board size, board independence, board diversity, and board meetings.

According to the agency theory, managers and shareholders have a unique relationship that is defined in terms of interests between them as agents and principals being the owners (Jensen & Meckling, 1976). Nonetheless, there may be serious conflicts between managers and shareholders due to their opportunistic behaviour and focus on obtaining personal gains, which would raise the firms' agency costs (Salem et al., 2019). Moreover, agency conflicts occur when managers possess greater knowledge than shareholders and other stakeholders regarding upcoming internal information and company prospects. Therefore, when acting on behalf of the company, managers had a conflict of interest (Bryant & Davis, 2012).

This reveals the main idea of the agency theory, which holds that a manager acting in the capacity of an agency pursues his own goals and objectives, which, if they are not sufficiently monitored, diverge from those of the shareholders. Bryant and Davis (2012) opined that to address this issue is to actively monitor and oversee the board of directors activities.

The board of directors is the organization's most effective control mechanism and is in charge of making major decisions, according to Fama and Jensen (1983). Consequently, it is assumed that the firm will function more effectively and efficiently once the interests of both parties are aligned (Filatotchev, 2007). A company's performance rises if it is able to effectively reduce the agency problem.

Resource dependence theory emphasizes on the importance of diverse resources for a company's success. Pfeffer's (1972) work laid the groundwork for resource dependence theory by highlighting the significance of the power dynamics that exist within and between organisations. Resource dependence theory, as put forth by Pfeffer (1972), states that an organization's ability to maximise its control over specific resources necessary for efficient operations is a prerequisite for success. The board of directors' role in helping the company secure and acquire vital resources through their external connections to the business environment is the main focus of the resource-dependent theory.

By these connections, it brings in a variety of resources, including knowledge, expertise, and access to important stakeholders like suppliers of raw materials, purchasers of finished goods, public policymakers, and social groups, in addition to legitimacy (Hillman and Dalziel, 2003). Therefore, this theory states that the board of directors is the main source of various resources that raise the value of the company (Daily et al., 2003).

Johnson et al. (1996) highlighted the resource dependence theory's central tenet. They asserted that company will be able to obtain more desirable resources because they have independent directors on their boards. Resource Dependency Theory argues that boards involved in Resource Accessibility should have efficient skills. Salem et al. (2019) argued that board members typically exercise outside hyperlinks and are engaged in networks that could undoubtedly affect the enterprise improvement process in conjunction with its long-term potentialities. Therefore, the integration of corporate governance structure will ultimately result in the use of resources to attain their maximum output, hence the appreciation of the firm performance.

While resource dependence theory highlights board directors' additional role as resource providers, agency theory contends that boards are crucial for overseeing managerial operations. Moreover, Aguilera et al. (2008) contended that while other corporate governance theories address the limitations of the agency perspective, they fail to offer a more comprehensive understanding of the corporate governance that links it to a range of organisational contexts. Resource dependence theory has therefore extended into this field.

### **Board size and financial performance**

Hamidu and Aliyu (2015) examined the relationship between corporate attribute of board size and market value of Firms in the Nigerian Chemical and Paints Industry. A sample of six companies was used for the period of 2004 to 2012. The study uses board size as corporate governance attribute while market price of shares was used to proxy market value of equity. Correlation and multiple regression analysis was used to analyze the study. The results of the study shows that board size (BS) has insignificant and negative impact on market value of equity implying that increasing the number of directors on the board decreases the market value of equity.

Salem et al. (2019) compared the effect of board of directors' characteristics on the firm's value in Egypt as an emerging country and USA as a developed country from 2012-2017. The study sample is comprised of 84 Egyptian firms listed on the Egyptian stock exchange and 27 American firms listed on The Dow Jones Industrial Average (DJIA). GLS regression was used to test these hypotheses. The results of the research revealed that board of director's characteristics affects firm value almost in the same way in both Egypt and the USA. The results revealed that board size affected firm value in both the Egyptian and American contexts negatively and significantly.

Habib et al (2020) investigated the relationship between board composition, Board Size and Market Value of Listed Industrial Goods Companies in Nigeria. Ex-post factor research design

was used and data was collected from annual reports and account of the sampled companies for the period from 2010 to 2019. The ordinary least square, fixed and random effects regression techniques were applied on the panel data collated to estimate the models. The study documents significant positive effect of board size on the market value of the companies.

[Khosa \(2017\)](#) examined the relationship between board composition and firm value of group affiliated firms in India. The sample included 317 firms listed on BSE over a period of 2008-2012 and value relevance model and ordinary least square regression models were used in the study. The study found that board size has positive on firm performance.

Additionally, in context of Iraqi ([Jadah et al., 2016](#)) study the effect of board characteristics on performance of 20 commercial banks in Iraq over the period from 2005-2014. They reported a significant positive association between board size and Iraqi bank performance. [Ahmed and Hågen \(2023\)](#) explored the association between corporate governance and financial performance of Iraqi listed banks over period of five year from 2017-2021. The study utilized multiple linear regression on a secondary data and found that the relationship between board size and bank performance is positive and significant. On the same construct, [Talab \(2019\)](#) empirical investigation found positive and significant relationships between board size and firm performance over the period between 2012-2015 in Iraqi context. Also. [Ahmed and Hågen \(2023\)](#) reported that board size has a significant effect on financial performance in the Iraqi market.

[Huynh et al. \(2022\)](#) examined the non-financial sector of Pakistan, using a sample of 150 firms was selected from the Pakistani Stock Exchange during the period of 2011–2021. The results indicated board size has a positive and significant relationship with firm financial performance.

Conversely, [Al Muhaisen and Alobidyeen \(2022\)](#) examined the association between corporate governance and the performance of Jordanian banks and reported that an increase in the board size negatively affected the performance of banks over the period from 2012 – 2019. They found a negative significant association between board size and ROA. Similarly, ([Alabdullah et al., 2022](#)) this study review the link between corporate governance and companies' financial performance. Their findings showed that there is a negative relationship between board size and ROA as a performance proxy. Similarly, [Nizam et al. \(2022\)](#) investigated the impact of Corporate Governance on Firm Performance in Pakistan for the period from 2014 to 2019. Using ROA as a performance measurement it was found that board size is negatively related to financial performance. This result is similar to the finding of [Kumar and Singh \(2013\)](#) who examined the impact of corporate board size on firm value from India. They found board size to be inversely related with firm value. Similarly, [Abdullah \(2019\)](#) his empirical result also demonstrates that the association between board size and ROA is negatively significant when examines corporate governance practices in Iraq by the bank industry.

[Joseph et al. \(2014\)](#) used a sample of 222 US firms covering the period from 1981-2008 to investigate the relationship between board size and bank performance, and they concluded that the association is negative between them. They also observed that large board size does not

affect performance, hence it was only viable for small boards. In the same context, 236 public commercial banks were used as a sample over the period from 2005 to 2008 by [Grove et al. \(2011\)](#) and found a concave relationship between board size and ROA. Based on the above review we hypothesized that:

**H<sub>01</sub>:** Board size has a significant effect on the profitability of listed deposit money bank in Nigeria.

### **Board independence and financial performance**

[Georgeta and Stefan \(2013\)](#) explored the relationship between board independence, CEO duality and value of firms listed on the Bucharest Stock exchange from 2007-2011. Using all firms listed on Bucharest Stock exchange as the study sample. The research used secondary data and employed fixed effect regression estimation technique. The study results provide support for a lack of statistically significant relationship between the percentage of non-executive directors and firm value.

[Omoniyi and Abayomi \(2020\)](#) evaluated the effect of board characteristics and firm performance of listed nonfinancial firms in Nigeria from 2013-2018. The study employed secondary data which were obtained from the annual reports of selected firm. A sample of 20 firms was selected purposively out of the entire listed non-financial firm on the Nigerian Stock Exchange (NSE). Correlation and regression analysis was used to test the study hypotheses. The result revealed board independence has positive and statistically significant effect on firm's performance.

[Georgeta et al \(2015\)](#) investigated the effects of corporate board and CEO Characteristics on firm value of listed Companies on the Bucharest Stock Exchange. using a sample of companies listed on the Bucharest Stock Exchange from 2007 to 2011. The study findings revealed that board independence has curvilinear relationship. with firm value.

[Ullah and Kamal \(2022\)](#) examined the influence of corporate governance on firm financial performance of 150 non-financial listed firms in Pakistan between 2001 to 2014 and reported independent boards to have mixed effects on firm performance proxies. In another construct, [Sekhar et al. \(2022\)](#) studied the impact of corporate governance on Indian firm performance over the period and found a positive correlation between board independence and firm performance.

[Quaresma et al. \(2013\)](#) used an international sample of 69 banks from 3 countries comprising European, American, and Japanese stock markets for the period of 2006 through 2009 and found a positive association between board independence and bank performance measured by both ROA. Similarly, [Hagendorff et al. \(2010\)](#) in their study on 204 banks in the US and Europe between 1996-2004 reported that independent board has a significant and positive association with bank performance. They conclude that boards that are highly composed of independent directors inspire more confidence for investors in potential value-creating deals. It suggests that

the presence of independent directors could boost investors' confidence through better oversight of management and thereby ensure improved bank performance.

El-chaarani (2014) in his study of 40 Lebanese banking sector over the period of 2006 to 2010 examined the impact of board independence on banks performance and found a positive relationship. In the same context, a study by Chahine and Safieddine (2011) found a quadratic relationship between board independence and bank performance. Kao et al. (2013) in a study conducted in Taiwan over the period from 1997-2008 found a significant positive association of board independence on firm financial performance. Therefore, the finding suggested that independent directors' monitoring value tends to be significantly strengthened in markets that have weaker mechanisms of corporate governance.

Nizam et al. (2022) investigate the impact of Corporate Governance on Firm Performance in Pakistan for the period from 2014 to 2019. Using ROA as a performance measurement it was found that board independence is negatively related to financial performance. Likewise, Ahmed and Hågen (2023) explore the association between corporate governance and financial performance of Iraqi listed banks over period of five year from 2017-2021. The study utilized multiple linear regression on a secondary data obtained and found that the relationship between board independence and bank performance is negative and significant. In line with the extant literature, we predict that

**H<sub>02</sub>:** Board independence has significant effect on the profitability of listed Deposit money bank in Nigeria.

### **Board Gender Diversity and financial performance**

AladeJebi (2021) examined the relationship between gender diversity and quoted deposit money banks' performance in Nigeria. The study found that trend analysis of each bank's percentage of female board members between 2015 and 2019 shows an unstable trend. The rate at which the female Gender occupies the board in the banks does not appear to have a specific pattern to make inferences. It also lacks a strong relationship between the number of female board members and banks' performance. Furthermore, there is a weak negative relationship between earnings per share and female board members' percentage. The study concluded that the inclusion of women on the board of a company does not necessarily translate into an improvement in a company's financial performance.

Augustine et al (2012) investigated the impact of corporate board diversity on the financial performance of Nigerian quoted firms using a panel data of 122 quoted Nigerian firms. Board diversity was measured with board nationality, board gender and board ethnicity. The Fixed Effect generalized Least Square Regression was used to examine the impact of board diversity on firm performance for the Period 1991-2008. The results showed that gender diversity was negatively linked with firm performance

Gbarato (2020) examined the relationship between corporate board diversity and financial

performance of insurance companies in Nigeria for the period 2014 to 2018. Secondary data from Cornerstone Insurance Plc. and Lasaco Assurance Plc. were employed in the study. Using the Panel least Square regression technique, the study results revealed that gender diversity, board size and board composition exert insignificant influence on profit before tax as the measure of financial performance. While gender diversity exerts negative influence on profit before tax of insurance companies.

Conversely, [Low et al. \(2015\)](#) assessed the influence of board gender diversity on firm performance. This study utilized data from a sample of Asian firms specifically in Malaysia, Hong Kong, Singapore and South Korea. The study utilized ROE as the measure of performance and did a comparative analysis of the four nations. The study utilized panel data of 2011-2014. The study established that the proportion of female members in the board was positively related with improved firm performance. The result is in agreement with [Solakoglu and Demir \(2016\)](#) that analysed the effect of gender diversity on firm performance in Turkey. Using a sample of largest publicly traded firms in Borsa Istanbul for a period of 2002 and 2006 and two stages least square was used in the study. The study concluded that women add to the strategic value of the firm. In a recent study, [Mustapha et al \(2024\)](#) tested the influence of board gender diversity on corporate performance. The sample of the study consists of 15 consumer goods companies on Nigerian Exchange Group (NGX) from 2012 to 2021. The study uses fixed effects regression to estimate the model. The evidence indicates that gender diversity 'proxied' by female directors on the boards has a positive outcome and significantly affects corporate performance. This finding of [Sani et al. \(2019\)](#) and [Ogunsanwo \(2019\)](#) that reported positive and significant correlation female directors firm performance. From these reviews we hypothesized that

**H<sub>03</sub>:** Board gender diversity has significant effect on the profitability of listed deposit money bank in Nigeria.

### **Board Meeting and financial performance**

[Mishra and Kapil \(2018\)](#) explored the relationship between board characteristics and firm performance for Indian companies. The sample was collected from 391 companies listed on NSE for a period of 2010-2014. Panel data regression model concluded that board meetings have positive effect on firm performance. Along this line, [Arora and Sharma \(2016\)](#) examined the impact of corporate governance on firm's performance for a large representative sample of Indian manufacturing industry. The sample included 1922 firms listed on BSE. They used panel fixed effect estimator and concluded that board meetings were found to have positive impact on firm performance.

Nevertheless, [Palaniappan \(2017\)](#) explored the impact of board meetings on financial performance of manufacturing firms in India. The sample includes 275 firms listed at NSE over the period of 2011-2015. The study found a negative relationship between board meetings and firm's performance. However, [Bhatt and Bhattacharya \(2015\)](#) from Indian market did not find a significant association between board meeting and performance while investigating the Indian IT sector from 2006 to 2011. Based on these findings, our study hypothesized that:

**H<sub>04</sub>:** Board meeting has significant effect on the profitability of listed deposit money bank in Nigeria.

## METHODOLOGY

The judgmental sampling technique was used based on availability of complete financial reports for the periods under study, technical suspension from been listed and Non-existence of trend records were used as filters on the population. Applying these filters, 10 banks emerge out of the total listed banks as at 31<sup>st</sup> December, 2020.

The data of the selected ten (10) deposit money banks for the period of ten (10) years from (2011-2020) is used in this study, and the data were collected from secondary sources as contained in the published annual reports of the firms and the Nigeria Stock Exchange Fact Book. The data collected from the financial reports of the selected companies. The below table provides the details of the variables used in the study.

**Table 1. Variable definition and measurement**

| Dependent Variable          | Measurement  |
|-----------------------------|--|
| Financial performance (FPR) | Profit after tax divided by total shareholders' equity               |
| independent Variables       | Measurement  |
| Board Size (BS)             | Number of directors on the board of the firm                         |
| Board Independence (BID)    | Number of independent directors divided by total number of directors |
| Board Gender (BGD)          | Proportion of female directors to total number of directors          |
| Board Meeting (BM)          | Number of time the board of directors had meeting in a year          |
| Control Variables           | Measurement  |
| Size (SZ)                   | Natural Log of total asset   |
| Age (AG)                    | Date of incorporation to each year of the study.                     |

## Model specification

This research is based on panel data as it contains the data of ten (10) different deposit money banks in Nigeria at different period of time to test the effect of board diversity on firm value. The relationship between the dependent and independent variables will be analyzed using the below model:

$$FPR_{it} = \alpha_0 + \beta_1 BS_{it} + \beta_2 BID_{it} + \beta_3 BGD_{it} + \beta_4 BM_{it} + \beta_5 SZ_{it} + \beta_6 AG_{it} + e_{it}$$



Where;

FPR<sub>it</sub>= Profitability of firm i at time period t

BS<sub>it</sub>= Board size of firm i at time period t,,

BID<sub>it</sub>= Board independence of firm i at time period t,,

BGD<sub>it</sub>= Board gender diversity of firm i at time period t,,

BM<sub>it</sub>= Board meeting of firm i at time period t,

AG<sub>it</sub>=Age of firm i at time period t.

SZ<sub>it</sub>= Size of firm i at time period t.

$e_i$  = error term

## RESULTS AND DISCUSSION

This section presents descriptive statistics, correlation matrix, diagnostic test, multicollinearity, heteroscedasticity test, and regression result, discussion of the findings and implication of findings.

### Descriptive Statistics

The descriptive statistics are presented in Table 2 where the mean, minimum, maximum values and standard derivation of the variable used in the study are shown. Financial performance (FPR) has a mean value of 0.0902 and a standard deviation of 0.4133 with a minimum and maximum of values -3.9432 to 0.3204 respectively.

**Table 2. Descriptive Statistics**

| Variables | OBS | Mean    | Std. Dev | Min     | Max     |
|-----------|-----|---------|----------|---------|---------|
| FPR       | 100 | 0.0902  | 0.4133   | -3.9432 | 0.3204  |
| BS        | 100 | 14.16   | 2.8594   | 6       | 20      |
| BID       | 100 | 0.1681  | 0.0792   | 0       | 0.50    |
| BGD       | 100 | 0.2181  | 0.1029   | 0       | 0.5556  |
| BM        | 100 | 6.23    | 2.4365   | 1       | 7       |
| LSIZE     | 100 | 21.4677 | 0.8549   | 19.3196 | 23.1856 |
| LAGE      | 100 | 3.2571  | 0.5760   | 2.0794  | 3.9703  |

FPR= Financial performance, BS=Board size, BID=Board independence, BGD=Board gender diversity, BM=Board meeting, LSIZE=Firm Size, LAGE=Firm Age.

The mean value of BS of the DMBs examined were 14.16 indicating that the sampled firms

maintain large board. It also shows that the BS has a standard deviation of 2.8594 with minimum of 6 and a maximum of 20 members. The mean of board independence mean is 0.1680 with a minimum and maximum of 0 and 0.5 respectively. The board meeting (BM) has an average value of 6.2. The standard deviation is 2.4364 and a minimum value of 1 with a maximum of 7 meetings.

The results of gender diversity shows that the sample banks have a mean of 0.21811 with a minimum value of 0 and maximum of 0.5556. This means that women are not participating much in the board of the DMBs. This issue could be attributed to the gender inequality on board. consequently, the mean value of LSIZE and LAGE are 21.46 and 3.257 respectively.

### Correlation Matrix

Table 3 below displays the correlation value between the dependent and the independent variables as well as the relationship between the independent variable themselves.

**Table 3. Correlation Result**

|          | 1       | 2       | 3       | 4      | 5      | 6       | 7      |
|----------|---------|---------|---------|--------|--------|---------|--------|
| FPR(1)   | 1.0000  |         |         |        |        |         |        |
| BS(2)    | 0.0402  | 1.0000  |         |        |        |         |        |
|          | 0.6916  |         |         |        |        |         |        |
| BID(3)   | 0.0682  | -0.2668 | 1.0000  |        |        |         |        |
|          | 0.5001  | 0.0073  |         |        |        |         |        |
| BGD(4)   | 0.1346  | 0.0737  | 0.0567  | 1.0000 |        |         |        |
|          | 0.1819  | 0.4660  | 0.5755  |        |        |         |        |
| BM(5)    | 0.0136  | 0.2788  | -0.0078 | 0.0833 | 1.0000 |         |        |
|          | 0.8934  | 0.0050  | 0.9384  | 0.4101 |        |         |        |
| LSIZE(6) | 0.3296  | 0.1267  | 0.4394  | 0.0531 | 0.2822 | 1.0000  |        |
|          | 0.0008  | 0.2089  | 0.0000  | 0.6001 | 0.0044 |         |        |
| LAGE(7)  | -0.1126 | 0.1902  | -0.0147 | 0.3657 | 0.1210 | -0.0262 | 1.0000 |
|          | 0.2646  | 0.0580  | 0.8845  | 0.0002 | 0.2306 | 0.7957  |        |

FPR= Financial performance, BS=Board size, BID=Board independence, BGD=Board gender diversity, BM=Board meeting, LSIZE=Firm Size, LAGE=Firm Age.

The result in the Table 3 shows that there is a positive relationship between board size and financial performance from the correlation coefficient of 0.0402 which is insignificant at 5%. The correlation result from the Table 3 indicates that there is a negative relationship between

board meeting(BM) and financial performance from correlation coefficient of 0.0136 which is insignificant at 5% level of significant. Board independence (BI) is having a negative correlation with financial performance (FPR), and insignificant at 5% respectively. Furthermore, there is a positive relationship between gender diversity on board (BGD) and financial performance (FPR) with correlation coefficient of 0.1346 insignificant at 5% level of significance. Regarding the control variables, a positive relationship between firm size (LSIZE) and financial performance exists with a coefficient of 0.0.3296. Firm age (LAGE) is having negative relationship with financial performance.

### Regression Results

The regression Table 4 shows the result of multicollinearity test. The results revealed that showed that the highest VIF is 1.46 which is below the upper limit of 10 (Gujarati, 2003). Based on this result there is no threat of multicollinearity which will undermine the findings of the study.

**Table 4. Regression and VIF Results**

| Variables              | Coefficient | P-value | VIF  |
|------------------------|-------------|---------|------|
| BS                     | 0.0003      | 0.983   | -    |
| BID                    | -0.6149     | 0.3012  | 1.27 |
| BGD                    | 0.7512      | 0.067   | 1.18 |
| BM                     | -0.0161     | 0.355   | 1.16 |
| LSIZE                  | 0.1904      | 0.001   | 1.44 |
| LAGE                   | -0.1158     | 0.122   | 1.46 |
| CONST                  | -3.5845     | 0.001   | 1.21 |
| R <sup>2</sup> Overall | 0.1639      |         |      |
| Model fitness          |             |         |      |
| Wald Chi2              | 18.23       |         |      |
| Prob>Chi2              | 0.0057      |         |      |
| Hausman                |             |         |      |
| Chi2                   | 4.96        |         |      |
| Prob>Chi2              | 0.5494      |         |      |

FPR= Financial performance, BS=Board size, BID=Board independence, BGD=Board gender diversity, BM=Board meeting, LSIZE=Firm Size, LAGE=Firm Age.

Also, Table 4 reported the model fitness, Hausman test statistic, coefficients and associated p-

values for the variables. The Wald chi square value is 18.23 with its accompanying probability of 0.0057. Since the probability is significant, it indicates that the model is fit and can be relied upon.

Additionally, based on panel data guidelines, the study run both random and fixed effect regressions. After that run the Hausman test in order to select the appropriate model. The result of Hausman from [Table 4](#), shows that the chi square has a value of 4.96 with a probability of 0.5494 indicating that the random effect model is the most appropriate model to be used in discussing the results of the study.

From [Table 4](#) financial performance is found to be positively associated with board size and statistically insignificant, indicating that board size does not significantly influence financial performance of listed DMBs in Nigeria as shown by the coefficient of 0.0003 and P-value of 0.983. Hence, provides an evidence of rejecting the hypothesis that board size has a significant influence on financial performance of DMBs. This results corroborates the findings of prior evidence ([Joseph et al. 2014](#)) who also failed to find a significant relationship between board size and financial performance.

Firm performance is found to be statistically insignificant and negatively associated with board independence indicating that board independence does significantly influence profitability of listed DMBs in Nigeria as shown by the coefficient of -0.0161 and p-value of 0.355. Therefore, this provides an evidence of rejecting the hypothesis two of the study. The result is contrary to finding of the prior studies ([Ullah & Kamal,2022](#); [Sekhar et al. 2022](#)) among others that documented a significant association between performance and board independence. Bust supported the result of [Gbarato \(2020\)](#).

[Table 4](#) documents the result of gender diversity on board. The results shows that gender diversity and financial performance are positively and significantly related. Indicating that gender diversity on board significantly influence profitability of listed DMBs in Nigeria as shown the coefficient of 0.7512 and p-value of 0.067. Hence, the result provides an evidence of accepting the hypothesis three of the study. This finding corroborates the exiting literature ([Ogunsanwo 2019](#); [Mustapha et al 2024](#); [Sani et al. \(2019\)](#)) on the association between gender and performance. Suggesting that having more women on board will enhance the performance of companies.

Lastly, performance is found to be negatively associated with board meeting but statistically insignificant indicating that board meeting insignificantly influences profitability of listed DMBs in Nigeria as shown by the coefficient of -0.0161 and p-value of 0.355. The result, therefore, provides an evidence of rejecting hypothesis four of the study and tallies with the result of [Palaniappan, \(2017\)](#) and [Bhatt and Bhattacharya \(2015\)](#) who did not find a significant association between board meeting and performance.

## CONCLUSION AND RECOMMENDATIONS

This study examines the relationship between board structure (size, independence, gender diversity, meeting) and financial performance of listed DMBs. The data were extracted from the annual reports of listed DMBs from 2011 to 2020.

The results of the study indicate that not all the board structure variables significantly influence the profitability of listed DMBs in Nigeria. Specifically, the study found that out of the four

variables used in the only board gender is found to be significantly related to financial performance of listed DMBs in Nigeria.

Based on the findings of the study recommends, the regulatory body should provide an incentive for banks that continue to higher female directors on their boards. This is because the female directors positively impact on the financial performance of the DMBs. Also, the shareholders of the sample banks should ensure that only competent directors are to be hired. Doing this will enhance the performance of the banks.

Lastly, corporate boards should be structured in terms of size, independency and meetings in such a way that it will enhance the shareholder values. This will entice potential investors in the banking sector of the NGX to invest and therefore, will boost the economy.

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