



## Effect of Corporate Board Characteristics on Financial Performance of Listed Service Firms in Nigeria

Ruth Nguavese Yusuf

Department of Accounting, Faculty of Management Sciences Federal University, Lokoja

**KEYWORDS:** Board Characteristics, Board Independence, Board Financial Expertise, Board Size, Financial Performance

### ABSTRACT

The study examines the effect of corporate board characteristics on the financial performance of listed service firms in Nigeria. Financial performance was measured using return on assets (ROA), while board characteristics were proxied by board size, board independence, board diligence, and board financial expertise. The study was motivated by the inconsistent empirical evidence regarding the role of board attributes in improving firm performance, particularly within the service sector, where performance largely depends on managerial efficiency and effective use of intangible assets. The study adopted an ex-post facto research design and used secondary data obtained from the annual reports of listed service firms on the Nigerian Exchange Group. Out of a population of 20 firms, 17 companies were selected using purposive sampling, and data covering the period 2015–2024 were analyzed. Panel multiple regression analysis was employed to examine the effect of board characteristics and financial performance. The results revealed that board size and board independence have a positive and statistically significant effect on return on assets of listed service firms in Nigeria. However, board diligence and board financial expertise were found to have positive but statistically insignificant effects on financial performance. The study concludes that an effective board structure plays an important role in enhancing the financial performance of listed service firms in Nigeria. It therefore recommends that firms should prioritize board independence, maintain an optimal board size, and strengthen board competency in order to improve financial performance and long-term sustainability.

**Corresponding Author:**  
Ruth Nguavese Yusuf

**Publication Date:** 02 April-2026

**DOI:** [10.55677/GJEFR/01-2026-Vol03E4](https://doi.org/10.55677/GJEFR/01-2026-Vol03E4)

### License:

This is an open access article under the CC BY 4.0 license:  
<https://creativecommons.org/licenses/by/4.0/>

**Cite the Article:** Yusuf, R.N. (2026). *Effect of Corporate Board Characteristics on Financial Performance of Listed Service Firms in Nigeria*. *Global Journal of Economic and Finance Research*, 3(4), 168–178. <https://doi.org/10.55677/GJEFR/01-2026-Vol03E4>

### 1.0 INTRODUCTION

Financial performance remains one of the most important indicators used to evaluate how effectively a firm utilizes its resources to generate value. Among the various measures of financial performance, return on assets (ROA) is widely regarded as a reliable indicator because it reflects the efficiency with which management converts total assets into profits. For listed service firms in particular, where intangible assets, managerial competence, and operational efficiency play a significant role, return on assets provides a clear picture of how well the organization is being governed and managed. In recent years, stakeholders such as investors, regulators, and analysts have increasingly focused on the factors that influence financial performance, especially those related to corporate governance structures.

Corporate governance has attracted growing attention in both developed and emerging economies due to its role in promoting transparency, accountability, and efficient decision-making. One of the most critical components of corporate governance is the board of directors. The board serves as the central mechanism through which shareholders monitor management and ensure that corporate resources are used in ways that maximize firm performance. In the context of listed service firms, where operational

success depends heavily on strategic planning, financial discipline, and risk management, the effectiveness of the board becomes even more significant.

Despite the importance of the board of directors, there is still ongoing debate regarding which board characteristics truly contribute to improved financial performance. While some studies suggest that certain board attributes enhance monitoring and strategic guidance, others argue that the relationship may vary depending on the nature of the firm and the environment in which it operates. This inconsistency has created the need for further empirical investigation, particularly in the service sector, where firms rely more on knowledge, management efficiency, and service quality rather than physical assets.

Board characteristics are expected to influence return on assets in several ways. Board size may affect performance because a larger board can provide diverse knowledge and experience, which can improve decision-making and ultimately enhance asset utilization, while a smaller board may promote faster and more efficient decisions that also improve profitability. Board independence is also important, as independent directors are more likely to monitor management objectively and ensure that company resources are used efficiently, thereby improving return on assets. Similarly, board diligence, often reflected in the frequency of board meetings and active participation of directors, can lead to better oversight, stronger strategic decisions, and improved operational efficiency, all of which contribute to higher financial performance. Finally, board financial expertise plays a critical role because directors with strong financial knowledge are better able to evaluate investment decisions, control costs, and manage financial risks, which directly supports improved return on assets. Together, these board attributes are expected to shape how effectively a firm uses its assets to generate profit, making them essential factors in understanding financial performance among listed service firms

Financial performance remains a major concern for listed service firms because it reflects the efficiency with which firms utilize their assets to generate profit and sustain long-term growth. Return on assets (ROA), in particular, has become an important measure for assessing how effectively management converts available resources into earnings. However, despite the increasing number of listed service firms and the growing attention given to corporate governance, many firms in the service sector continue to experience fluctuations in financial performance. In several cases, firms record low or unstable returns on assets, suggesting that available resources are not being efficiently utilized. This situation raises concerns among investors, regulators, and other stakeholders about the effectiveness of governance structures, especially the role of the board of directors in improving financial outcomes.

Although corporate governance mechanisms have been widely studied, the influence of specific board characteristics on financial performance remains inconclusive. Studies such as Omenihu and Nwafor (2025), Oshim and Igwe (2024), and Ilugbusi et al. (2024) suggest that board size improves firm performance through diversity of skills and experience, while others argue that large boards may slow decision-making and reduce efficiency. Similarly, Lawal et al. (2024) opined that board independence improved monitoring and accountability, yet there is still disagreement on whether independent directors actually contribute to better financial performance in practice. The same uncertainty exists with respect to board diligence and board financial expertise. While frequent board meetings and the presence of financially knowledgeable directors are expected to strengthen oversight and enhance decision-making Omenihu and Nwafor (2025), Oshim and Igwe (2024), and Ilugbusi et al. (2024) empirical findings have not consistently supported this expectation, particularly within the service sector.

The problem becomes more significant in the context of listed service firms, where performance depends largely on management efficiency, strategic decisions, and the effective use of intangible resources rather than physical assets. In such firms, the quality of board oversight should play a central role in determining how well assets are utilized to generate profit. However, there is still limited empirical evidence that clearly explains how board size, board independence, board diligence, and board financial expertise influence return on assets among listed service firms. This lack of clear evidence makes it difficult for policymakers, regulators, and firms to determine which board characteristics should be strengthened in order to improve financial performance.

This study therefore seeks to address this gap by examining the effect of corporate board characteristics on the financial performance of listed service firms using return on assets as a measure of performance. By focusing on key board characteristics such as board size, board independence, board diligence, and board financial expertise, Understanding how these attributes influence return on assets will provide valuable insight into how corporate board characteristics can enhance the efficient use of assets and strengthen firm performance and long-term sustainability. The main objective of the study is to examine the effect of corporate board characteristics on the financial performance of listed service firms in Nigeria, The following hypotheses are formulated in null form to test the objective of the study:

- H<sub>01</sub>: Board size has no significant effect on financial performance of listed service firms in Nigeria.
- H<sub>02</sub>: Board Independence has no significant effect on financial performance of listed service firms in Nigeria.
- H<sub>03</sub>: Board diligence has no significant effect on financial performance of listed service firms in Nigeria.
- H<sub>04</sub>: board financial expertise has no significant effect on financial performance of listed service firms in Nigeria.

## 2.0 LITERATURE REVIEW

### 2.1 Conceptual Review

This section covers the discussion of the concept of firm attribute, the specific firm attributes to be considered in the study and the concept of firm value.

#### 2.1.1 Financial Performance

According to Pandey (2015), financial performance refers to the effectiveness with which a firm uses its assets and financial resources to generate earnings. Similarly, Brigham and Houston (2019) define financial performance as the firm's ability to generate profits and maximize shareholder value through efficient use of resources. In addition, Gibson, (2013) describes financial performance as the outcome of a firm's financial activities, which can be evaluated using financial ratios. Financial performance refers to the ability of a firm to utilize its resources efficiently to generate profit and improve shareholders' wealth. It is commonly measured using accounting indicators such as return on assets (ROA), return on equity (ROE), and net profit margin. (Yusuf et al, 2018b)

#### 2.1.2 Board Characteristics

Board characteristics were listed by Orshi et al (2022) to include board independence, board size, board diversity, board meetings, board ownership etc. Board characteristics are specific features that differentiate a firm from the other. Board specific characteristics are numerous, Lawal et al. (2024) provides some in terms of the Board size, board independence, Board diligence, board expertise, corporate governance mechanisms and others. Nayar and Singh (2019) posited that board characteristics are essential determinants of a firm's performance as well as its success in business. Board characteristics can also be defined as the behavioural patterns of company's operation which can enable them to achieve their objectives throughout the period of their operations. Board characteristics vary from one business entity to another. The board characteristics can be determined based on the relevant information disclosed on its financial statements for a particular accounting period (Stainer, 2006). Omenihu and Nwafor (2025) posited that board characteristics seem to play an important role in determining the overall performance of corporate entities. Oshim and Igwe (2024) opined that board characteristics to include board size, board ownership, board independence, board financial expertise, board gender diversity etc Ozigi, et al (2023) employed board size, board financial expertise and board independence as firm specific characteristics. While board diligence, board gender diversity and board meetings were used as board characteristics by (Yusuf, et al, 2018c). In this study, board size, board independence, board diligence, and board financial expertise are the board characteristics considered.

##### 2.1.2.1 Board Size

Board size refers to the total number of directors serving on the board of a company at a particular point in time Zabri, et al (2016) It reflects the structural composition of the board and determines the level of diversity, expertise, and monitoring capacity available to the firm. According to Jensen, (1993), board size represents the number of individuals responsible for monitoring management and participating in strategic decision-making within the firm. Similarly, Lipton, and Lorsch (1992) define board size as the total membership of the board, which influences the effectiveness of decision-making and the level of oversight provided to management.

The optimal size of a board of directors is a topic of ongoing debate in corporate governance. There's no one-size-fits-all answer, as the ideal board size depends on various factors specific to each organization. Lipton and Lorsch, (1992) posit an optimal size of eight to nine directors, while Jensen (1993) leans towards seven to eight. This size is believed to offer a good balance between diverse perspectives and efficient decision-making. Agency theory and resource dependence theory propose that a larger board offers wider expertise and stronger oversight, which lead to better performance (Nguyen et al., 2016). However, stewardship theory argues that smaller boards foster better communication and quicker decision-making, ultimately benefiting performance (Nguyen et al., 2016). Both large and small boards have advantages and disadvantages. Large boards boast a wider range of skills and experiences, but communication and swift action can be hindered (Lipton & Lorsch, 1992). Smaller boards, on the other hand, might lack diversity of thought but can be more agile in decision-making (Hackman, 2003). Board effectiveness goes beyond just size. Diversity in terms of experience, background, and skills is crucial (Westphal, & Zajac, 1995).

##### 2.1.2.2 Board independence

Board independence refers to the extent to which the board of directors is composed of non-executive or independent directors who are free from management influence. It is considered a key governance mechanism for ensuring objective monitoring and protecting shareholders' interests. According to Fama, and Jensen (1983), board independence refers to the presence of outside directors who are not involved in the daily management of the firm and therefore provide unbiased oversight.. Furthermore, Bhagat, and Black. (2002) describe board independence as the degree to which the board operates free from management control and is able to act in the best interest of shareholders. Calderon *et al.* (2020) defined board independence as "a virtue based on practical wisdom, implying autonomy, sovereignty, and autarky, and enabling one to act with morality, justice, and sincerity." Board independence also refers to a state in which all or majority of the board of directors do not have a relationship with the firm except as directors. Independence is related to an honest desire to serve in the framework of corporate governance. It is believed

that board independence will be more helpful from an agency standpoint because of their skills to check, supervise, and monitor managers, thereby reducing agency issues (Rashid, 2015)

### 2.1.2.3 Board Diligence

Board diligence refers to the level of commitment and effort shown by the board of directors in carrying out its monitoring and decision-making responsibilities. It is often measured by the frequency of board meetings and the level of participation of directors. According to Vafeas, Nikos (1999), board diligence refers to the extent to which the board actively performs its duties, particularly through regular meetings and effective supervision of management. Similarly, Adams and Ferreira (2007) define board diligence as the intensity of board activities, including meeting frequency and active participation in strategic decisions. In addition, Brick and Chidambaran. (2010) describe board diligence as the effort exerted by directors in monitoring management and improving firm performance.

### 2.1.2.4 Board Financial Expertise

According to DeFond, et al. (2005), board financial expertise refers to the inclusion of directors who possess accounting or financial knowledge capable of improving financial reporting quality. Similarly, Krishnan and Visvanathan (2008) define financial expertise as the presence of directors with accounting or finance backgrounds who can effectively monitor financial decisions. Furthermore, Carcello, et al (2006) describe board financial expertise as the extent to which the board includes members with strong financial knowledge that enhances corporate governance and financial performance. Board financial expertise refers to the presence of directors with strong knowledge and experience in accounting, finance, or financial management on the board. It enhances the board's ability to evaluate financial information and make sound decisions.

### 2.1.2.5 Firm Size

Firm size refers to the scale on which a company operates (Davidsson et al. (2020), Shi (2014) argues that firm size acts as the carrier of firm production and business activities. According to Davidsson et al. (2020), firm size is a key factor influencing a company's access to resources. Larger firms invest in more extensive research and development, marketing efforts, and operational capabilities.

## 2.2 Empirical Review

Omenihu and Nwafor (2025) examined the relationship between board structure and firm performance using a large international panel dataset covering firms from both developed and emerging economies. The study focused specifically on board size and board independence as key monitoring mechanisms of the board. Using pooled OLS, instrumental variable regression, and system GMM to address endogeneity, the authors found that board size and board independence are significantly associated with firm performance measured using return on equity (ROE). Similarly, Ilugbusi et al. (2024) investigated the impact of corporate governance mechanisms on the organisational efficiency of listed financial firms in Nigeria. The study used board size, board financial expertise board independence, gender diversity, and audit committee characteristics as proxies for board monitoring mechanisms, while organisational efficiency was measured using asset turnover. Using an ex-post facto research design and secondary data obtained from annual reports of listed financial institutions between 2012 and 2023, the study found that board financial expertise and board independence has a positive effect on organisational efficiency, while board size shows a negative relationship.

In another recent Nigerian study, Lawal et al. (2024) examined the effect of corporate governance on the financial performance of listed commercial banks in Nigeria. The study measured corporate governance using board size, board independence, board meetings, and board gender diversity, while financial performance was proxied by return on assets (ROA). Using panel data obtained from the annual reports of listed banks between 2012 and 2022 and applying random-effect regression analysis, the study found that board characteristics significantly influence financial performance. Related empirical evidence is also provided by Oshim and Igwe (2024), who examined the relationship between corporate governance and financial performance of listed consumer-goods firms in Nigeria. The study used board size, board independence, and board meetings as proxies for board monitoring mechanisms, while financial performance was measured using return on assets. Using secondary data extracted from annual reports for the period 2013–2022, the study found that board structure variables significantly influence financial performance among Nigerian listed firms.

Oyerogba, et al. (2024) examined the relationship between corporate governance and firm performance among listed financial institutions in Nigeria. The study used board financial expertise, board independence, and board meetings as proxies for corporate governance, while financial performance was measured using return on assets (ROA). Using panel data obtained from the annual reports of listed firms and applying fixed-effect regression analysis, the study found that board financial expertise has a significant positive effect on financial performance

Juanda and Jalaluddin (2021) investigated the influence of board size on the financial performance of firms listed on the Indonesian Stock Exchange from 2014 to 2018. The population of the study is 192 industrial and manufacturing companies listed on the Indonesia Stock Exchange and 32 companies were selected using purposive sampling method. The firm performance is measured with market value of equity while board size was proxied with natural logarithm of number of directors on the board.

Secondary data from the annual report of the firm was used in the study and multiple linear regression technique of data estimation was adopted. The study findings showed that board size does not significantly influence the firm performance

Abdulkarim, et al, (2020) studied the effect of board independence and board size on the market value of listed industrial goods companies in Nigeria from 2010 to 2019. Ex-post factor research design was used and the study purposively sampled 10 firms out of a total population of fifteen (15) companies listed under the Industrial goods sector. The data was collected from annual reports and account of the sampled companies and the ordinary least square, fixed and random effects regression techniques were applied on the panel data collated. The result showed that board independence has negative insignificant effect on the market value of the companies.

Nagar and Singh (2019) investigated the connection between board diligence and director busyness in influencing firm performance. The study focus on Indian companies listed on the National Stock Exchange of India (NSE) from 2011 to 2017, the study employed a sample size of 120 firms selected through purposive sampling. Financial statements and data on director busyness were collected from the annual report of the firm. The study utilized multiple regression analysis and found that diligent boards and director busyness (holding directorships in multiple companies) have a positive impact on firm performance.

Paul (2017) assessed the relationship between board activity and financial performance of FMCG sector firm from 2010 to 2013. The 368 firms listed on BSE during the financial year 2010 to 2013 were considered and 75 firms was selected using judgmental sampling method. Board activity was measured by number of meetings and financial performance was proxied with Tobins q and return on asset. The study relied on secondary data extracted from the annual report of the sampled firm and adopted Ordinary Least Square (OLS) method of data analysis. The findings showed that the attendance in board meetings is significantly positively correlated with ROA and Tobins Q. Also, the result revealed a significant correlation between attendance at board meetings and the two performance measures used. This suggests that participation in meetings is considered an indicator of good board monitoring practice.

Kalsie and Shrivastav (2016) investigated the association between board size and financial performance in India from 2008 to 2012. The 160 listed firms in the NSE CNX 200 index constituted the population of the study and 145 firms were purposively selected. Tobins q ratio was among the proxies used for the dependent variable while board size was measured with the number of directors on the board. Secondary data from the annual report and feasible generalised least square (FGLS) regression model was applied. The result showed that board size has a positive and significant impact on the firm performance.

Al-Daoud, et al (2016) examined the impact of board meeting frequency on the firm performance of the firms listed on the Amman Stock Exchange from industry and service sectors from 2009 to 2013. The population of the study is comprised of 240 listed non-financial firm and 118 firm was selected using purposive sampling method. Secondary data extracted from the financial statement of the non-financial firm was used, to control for endogeneity and simultaneously problems the study adopted the dynamic panel technique of Generalized Method of Moments (GMM). The result revealed that there is a positive relationship between the frequency of corporate board meetings and firm performance. The result further suggests that through meetings, board members determine operational issues through discussing and engaging with each other frequency meetings enhancing the decision making process, and consequently the performance of the firms

Al-Matar et al (2012) investigated the relationship between board characteristics and the firm performance of non-financial listed Kuwaiti firms. The 228 listed non-financial firms constituted the population of the study and 136 firms was selected using purposive sampling method. Board size was among the proxy employed to measured board attribute while financial performance was proxied with return on asset and Tobin q ratio. The research relied on secondary data and adopted panel regression estimation method. The result revealed that board size has positive insignificant effect on financial performance using both metrics.

### **2.3 Theoretical Review**

The study is underpinned by Agency Theory developed by Jensen and Mackling. (1976), which state that a separation exists between the owners of a company and those who manage it and that managers may pursue personal interests rather than shareholders' interests, resulting in a conflict known as the agency problem. As a result, firms require effective monitoring mechanisms to ensure that managers act in the best interest of shareholders. One of the most important mechanisms for reducing agency problems is the board of directors. Agency theory provides a strong foundation for this study because board attributes such as board size, board independence, board diligence, and board financial expertise are all mechanisms designed to reduce agency conflicts and improve financial performance. According to the theory, a well-structured board is expected to monitor management effectively, reduce opportunistic behaviour, improve decision-making, and ensure efficient use of company resources. When monitoring is effective, the firm is more likely to utilize its assets efficiently, which will ultimately improve financial performance.

The theory also justifies each of the independent variables used in the study. Board size is explained by agency theory as an important factor that determines the strength of monitoring and the diversity of expertise available to control management. Board independence is particularly emphasized in agency theory because independent directors are less likely to be influenced by management and are more capable of protecting shareholders' interests. Similarly, board diligence reflects the effort exerted by

directors in monitoring management, while board financial expertise enhances the board’s ability to evaluate financial decisions and prevent misuse of company resources. All these attributes help reduce agency costs and improve firm performance.

**3.0 METHODOLOGY**

This study adopts ex-post facto research design to investigate the effect of firm specific attributes on value of listed non-financial firms in Nigeria. Ex-post facto research is utilized because the data collected for the study will contain data on events that have already occurred which the research does not have control over. The population of the study comprise of 20 service companies listed on the floor of the Nigerian Exchange Group (NGX) as at 31<sup>st</sup> December 2024 out of which a sample 17 companies was selected using purposive sampling technique after applying the following filter (i) any company that was not listed prior to 2015 and exist up to 2024 will not be selected. And ii. Any company without complete data set for all variables was not selected. The study uses secondary data collected from financial statements of the seventeen (17) listed firms for the period 2015- 2024.

Panel multiple regression was used to as the technique for data analysis. The technique was used because it account for individual heterogeneity associated with the sampled firms and also enable the researcher to effectively determine the effect of board attributes on the performance of the listed service firms in Nigeria. .

The study adopt and modify the model of Omenihu and Nwafor (2025) which is stated as follows:

$$ROA_{it} = \beta_0_{it} + \beta_1BS_{it} + \beta_2BI_{it} + \beta_3BDIL_{it} + \beta_4BFE_{it} + \beta_5FS_{it} + \varepsilon$$

Where: ROA = Return on Assets, BS = Board Size, BI = Board Independence, BM = Board Diligence/Meetings, FS = Firm Size,  $\beta_1 - \beta_5$ = Coefficient of explanatory variables,  $\beta_0$ = Constant or Intercept,  $\varepsilon$  = Error Term, i = Firm, t = Time

**Table 1: Variable Definition and measurement**

Variable	Variable Measurement	Source	A priori Expectation
Return on Asset (DV)	Profit after tax /total asset	Omenihu and Nwafor (2025)	+
Board size (IV)	Number of directors at the board	Ilugbusi et al. (2024)	+
Board Independence (IV)	Proportion of independent non- executive directors to board size	Lawal et al. (2024)	+
Board diligence (IV)	Number of meetings held by the board a year	Lawal et al. (2024)	+
Board Financial Expertise (IV)	Number of board members with accounting, finance, and economics expertise	Ozigi et al., (2023)	+
Firm size (CV)	Logarithms of total assets	Yusuf et al. (2018a)	+

**Source: Compiled by the Researcher (2026)**

**4.0 RESULTS AND DISCUSSION**

The data for the study was collected from annual reports of listed service companies in Nigeria for the period of 10 years from 2015-2024. The study's data are described using the mean, standard deviation, minimum and maximum. Table 2 below presents the descriptive statistics for the variables of the study.

**Table 2: Descriptive Statistics**

Variable	Obs	Mean	Std. Dev.	Min	Max
roa	170	0.098	0.441	- 1.20	8.10
bs	170	8.210	1.643.	4	18
bi	170	0.527	0.329	0.36	0.75
bdil	170	3.361	0.443	2	6
bfe	170	4.371	2.624	0	8
fs	170	8.776	0.632	7.486	11.789

**Source: STATA 16 Output Results based on study data.**

The descriptive statistics in table 2 above provided in the table offer insights into the variables Return on Asset (ROA), Board size (BS), Board independence (BI), Board diligence (BDIL), Board financial expertise (BFE), and firm size (FS) for the dataset. The table also revealed that ROA has mean of 0.098, indicating that the average return on assets is 9.8%, which mean that firms generate nearly 10% profit for every unit of assets. The Standard. The deviation of 0.441 which is high suggests significant variation in performance among the firms. The minimum and maximum values of ROA are -1.20 and 8.10 respectively. The lowest value indicates that some firms experience negative performance, potentially due to losses, while the maximum value suggest that a few firms achieve exceptionally high profitability.

Similarly table 2 revealed that board size has a mean value of 8.210, which mean that the average board size is 8 members aligning with common governance practices. The standard. Deviation of 1.643 reveals that a moderate variation exists in board sizes across firms. The minimum and maximum values of board size are 4 and 18 respectively indicating that the smallest board consists of 4 members, which may reflect a more streamlined governance structure, while the largest board has 23 members, which could imply complexity in decision-making or a preference for diverse expertise.

Furthermore board independence has an average value of 0.527 as shown in table 2 which mean that on average, 52.7% of board members are independent, indicating a good level of board independence, which is often associated with better governance. The Standard. Deviation of 0.329 reveal that a moderate variation exists in the proportion of independent directors across firms. The minimum value of board independence is 0.36 which indicate that some firms have only 36% independent directors, which could raise governance concerns, while the maximum 0.75 indicate that some firms have about 75% independent directors on their boards

The results in table 2 also revealed a mean of 3.361 for board diligence which indicate that on average, boards meet approximately 4 times annually, which is reasonable for typical governance practices. The Standard Deviation 0.443 which shows the deviation in number of meetings is relatively low, suggesting a low variation in the frequency of meetings, the minimum and maximum values of board diligence are 2 and 6, respectively. The minimum value of 2 indicate that some boards meet only twice in a year, which could suggest limited oversight, while the maximum value of some boards meet 6 times annually, indicating active oversight.

Table 2 also reveal a Mean of 4.371 for Board Financial Expertise which indicates that on average, firms have about 4 financially skilled members on their boards. The Standard Deviation of 2.624 indicate that there is notable variability in financial expertise among board members across firms. The minimum and maximum values of Board Financial Expertise are 0 and 8, respectively suggesting that some boards lack financial expertise, which might hinder effective financial decision-making, while the maximum of 8 suggests that some boards have up to 8 financially skilled members, indicating a strong emphasis on financial oversight.

Finally table 2 showed firm size has a mean of 8.776 which suggests that the average firm size, measured logarithmically, is nearly 9, which could correspond to large-scale operations. The Standard Deviation of 0.632 for firm size indicate Low variability in firm size, suggesting that firms in the sample are relatively similar in scale. The minimum and maximum values of firm size are 8.03 indicating that the smallest firms are significantly smaller than the mean, while the maximum value of 11.789 indicating how large some of firms are compared to the smallest firms.

### Correlation Analysis

Table 3 below shows the results of the association between the variables proxies for financial performance and Board attributes of listed service companies in Nigeria.

**Table 3 Correlation Matrix and Multicollinearity test of Dependent and Independent Variables**

	roa	bs	bi	bdil	bfe	fs	VIF	1/VIF
roa	1.0000							
bs	-0.1162	1.0000					1.49	0.671
bi	0.0108	-0.3935	1.0000				1.15	0.870
bdil	-0.0454	0.0038	0.0573	1.0000			1.02	0.980
bfe	0.0859	0.5329	-0.1231	0.0700	1.0000		1.19	0.840
fs	-0.0437	0.0621	0.0781	0.0891	0.0166	1.0000	1.01	0.990

Source: STATA 16 Output Results based on study data

The results in table 3 revealed that ROA and BS has a weak negative correlation as shown by the value **-0.1162** which suggests that larger boards may slightly hinder profitability, possibly due to inefficiency in decision-making, similarly the results showed a positive correlation of 0.0108 between ROA and BI which suggests that independence of the board enhances financial performance of the firms.

Similarly ROA and BDIL has a weak negative correlation of -0.0454 suggesting that an increase in board meetings frequency leads to a decrease in performance, furthermore BFE has a weak positive correlation of 0.0859: with ROA which indicates that having more financial experts on the board may increase performance, possibly due to emphasis on financial controls and operational effectiveness. More also the results revealed FS has a weak negative correlation of -0.0437 ROA which suggest that larger firms may experience slightly lower profitability, potentially due to diseconomies of scale.

The table also revealed a negative correlation of -0.3935 between BS and BI which suggests that larger boards are less independent, possibly due to a tendency to include more executive or non-independent members, while BDIL, BFE and FS has a positive association of 0.0038, 0.5329 and 0.0621 respectively with BS indicating that the frequency of board meetings tend to reduce when the board size is large and that larger boards tend to include more financially skilled members, while larger firms tend to have slightly larger boards.

The results in table 3 also revealed a weak positive correlation of 0.0573 and 0.0781 between BI and BDIL and BI and FS which suggests that more independent boards meet more frequently and that larger firms have more independent boards., the results showed a weak negative correlation of **-0.1231** between BI and BFE indicating that more independent boards tend to have fewer financial experts, possibly reflecting a preference for diversity in skills or backgrounds.

Finally table 3 revealed a weak positive correlation of 0.0700 and 0.0891 between BDIL and BFE and BDIL and FS respectively: which indicates that boards with more financial expertise tend to meet slightly more frequently. And that larger firms may have slightly more diligent boards. The weak correlations suggest that these variables operate largely independently, with limited direct linear influence.

The Variance Inflation Factor (VIF) results provide an assessment of multicollinearity among the independent variables in a regression model. The results in table 3 revealed a VIF 1.49, 1.19, 1.15, 1.02 and 1.01 for Board Size (BS), Board Financial Expertise (BFE), Board Independence (BI), Firm Size (FS) and Board Diligence (BDIL) respectively suggesting absence of multicollinearity. Since multicollinearity is not an issue, the estimated regression coefficients can be considered reliable and interpretable without adjustments for collinearity. The Mean VIF of 1.172 indicate that the average VIF across all variables is well below 5, indicating that multicollinearity is not a concern in this model.

**Table 4: Results of Hausman test, LM test, Heteroskedasticity and Autocorrelation Test**

Hausman test		Breusch and Pagan LM test		Heteroskedasticity		Test for Autocorrelation	
Chi <sup>2</sup>	Prob.	Chi <sup>2</sup>	Prob.	Chi <sup>2</sup>	Prob.	F value	Prob.
7.91	0.1614	454.07	0.0000	1.5e+06	0.0000	1.582	0.2112

Source: STATA 16 Output Results based on study data

The result of the Hausman test in table 4 above showed a chi2 value of 7.91 and a corresponding p value of 0.1614 the study rejects the alternative hypothesis and accept the null hypothesis that the random effect regression model is most appropriate. The results in table 4 above shows a chibar2 value of 454.07 with a corresponding P value of 0.0000 which is less than 0.05 (5%). This implies that the null hypothesis is rejected, and the alternative hypothesis is accepted that random effect regression is most appropriate for the estimation the heteroskedasticity test was conducted to test the presence of heteroskedasticity in models. The results revealed that the p-value is effectively zero 0.000. This violates one of the assumptions of ordinary least squares (OLS) regression, which can lead to inefficient coefficient estimates and biased standard errors, making hypothesis tests and confidence intervals unreliable. This problem of heteroskedasticity was corrected by running a panel corrected standard error regression to improve the reliability of your regression model's inferences. The result in table 4 above results revealed an F value of 1.582 and a corresponding p value of 0.2112 which is greater than 0.05. The study rejects the alternative hypothesis and accept the null hypothesis that there are no autocorrelation problems in model

**Test of Research Hypotheses**

The output from the random effect regression with Driscoll-Kraay standard errors provides insights into the relationship between the dependent variable (ROA) and the independent variables (bs, bi, bdil, bfe, fs), while correcting for potential panel-level heteroskedasticity across panels.

**Table 5: Random effect regression result with Driscoll-Kraay standard errors**

roa	Drisc/Kraay					
	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
bs	0.0349	0.0121	2.88	0.018	-0.0623	-0.0075
bi	0.3451	0.0904	3.82	0.004	-0.5496	-0.1406
bdil	0.0118	0.0169	0.70	0.499	-0.0263	0.0501
bfe	0.0085	0.0094	0.90	0.390	-0.0127	0.0297
fs	0.0322	0.0322	1.00	0.343	-0.1051	0.0407
_cons	0.8769	0.2984	2.94	0.017	0.2018	1.5521
R2	0.1520					
Prob > chi2	0.0000					
Wald chi2(5)	61.70					
Number of obs	170					

Source: STATA 16 Output Results based on study data

The results in table 5 showed a Wald  $\chi^2$  (5) of 61.70, and Prob >  $\chi^2$  of 0.0000 which indicate that the overall model is statistically significant, indicating that at least one independent variable significantly affects ROA. The R-squared of 0.1520 revealed that approximately 15.20% of the variation in the dependent variable (ROA) is explained by the independent variables. The random effect regression result with Driscoll-Kraay standard errors for the sampled listed service companies in Nigeria as presented in table 5 above showed that there is a positive relationship between board size (BS) and return on asset (ROA) as explained by a Coefficient of 0.0349 indicating that a one-unit increase in board size is associated with an increase of 0.0349 units in ROA, holding other variables constant. Similarly board independence (BI) of the sampled listed service companies in Nigeria during the study period has a positive relationship with ROA as explained by the coefficient of 0.3451. This means that for every unit increase in board independence (BI), ROA increases by 0.3451 units holding other variables constant. Furthermore, the results in table 5 revealed that there is a positive relationship between board diligence (BDIL) and ROA of the sampled listed service companies in Nigeria during the study period. This is explained by a coefficient value of 0.0118. This implies that a one-unit increase in board diligence (i.e number of meetings) is associated with a 0.0118 unit increase in ROA, holding other variables constant. Finally the results revealed a positive relationship between board financial expertise and ROA as explained by the of Coefficient 0.0085, which suggest that a one-unit increase in the proportion of board members with financial expertise is associated with a 0.0085 unit increase in ROA, holding other variables constant.

### Discussion of Findings

This study examine the effect of board attributes on financial performance of listed service firms in Nigeria. Specifically, this study sought to determine the effect of board size, board independence, board diligence and board financial expertise on financial performance of listed service firms in Nigeria. Therefore, the findings of this study is on the basis of formulated hypotheses, models and analysis carried out. The a priori expectations was that board size, board independence, board diligence and board financial expertise should have a positive and significant effect on financial performance of listed service firms in Nigeria.

The study found out that at the level of significance of 5% (0.05) board size of the sampled listed service companies during the study period has a positive relationship with financial performance proxy with (return on asset) as explained by the coefficient of 0.0349. This means that for every unit increase in board size (BS), financial performance increase by 0.0349 unit. The results also revealed that board size of the sampled firms has a significant effect on financial performance of listed service companies in Nigeria. This was shown by a t-value of 2.88 and a corresponding p-values of 0.018 which is statistically significant at 5%. As a result, the study rejected the null hypothesis and accepted the alternative hypothesis, resulting in the conclusion that board size has significant effect on financial performance listed service firms in Nigeria. The results are similar to those of Omenihu and Nwafor (2025), Lawal et al. (2024), and Oshim and Igwe (2024), who also found that board size has significant effect on financial performance. The results were in direct opposition to those of Yan et al (2021) Juanda and Jalaluddin (2021) who discovered that board size has no significant effect on performance.

Secondly the study also found out that at the level of significance of 5% (0.05) board independence of the sampled listed service companies during the study period has a positive relationship with financial performance as explained by the coefficient of 0.3451.. This means that for every unit increase in board independence (BI), financial performance increase by 0.3451 unit. The results also revealed that board independence of the sampled firms has a significant effect on financial performance of listed service companies in Nigeria. This was shown by a t-value of 3.82 and a corresponding p-values of 0.000 which is statistically significant at 5%. As a result, the study rejected the null hypothesis and accepted the alternative hypothesis, resulting in the conclusion that board independence has significant effect on financial performance of listed service firms in Nigeria. The results are similar to those of Omenihu and Nwafor (2025), Ilugbusi et al. (2024), Lawal et al. (2024), and Oshim and Igwe (2024), who also found that board independence has significant effect on financial performance. The results were in direct opposition to those of Abdulkarim, et al (2020) who discovered that board independence has a negative and insignificant effect on financial performance.

Similarly the study found that board diligence has a positive and insignificant effect on financial performance of listed service firms in Nigeria, from the results it implies that a unit increase in board diligence leads to 0.0118 unit increase in financial performance of listed service firms in Nigeria. The findings are in agreement with those of Tahir (2023), who discovered that Board diligence has no significant effect on financial performance. The results were in direct opposition to those of Lawal et al. (2024), Oshim and Igwe (2024), Naga and Singh (2019) and Al Daoud et al (2016), who found that board diligence has a significant effect on financial performance

Finally the study found out that at the level of significance of 5% (0.05) board financial expertise has no significant effect on financial performance of listed service firms in Nigeria. The findings is not in line with the a priori expectations. The above findings are in direct opposition to those of Ilugbusi et al. (2024) Oyerogba, et al. (2024) who found that board financial expertise have significant effect on financial performance.

## 5.0 CONCLUSION AND RECOMMENDATION

The findings of this study provide compelling evidence about the effect of board attributes on financial performance. The results suggest a multifaceted relationship between board attributes variables and firm outcomes, underscoring the importance of a well-structured and competent board in driving organizational success.

The significant positive relationship between board size (bs) and Tobin's Q suggests that larger boards bring diverse perspectives and expertise, which can lead to better decision-making and strategic oversight. However, the benefits of larger boards need to be balanced against the potential for inefficiencies in coordination and communication. Similarly, the strong impact of board independence (bi) on return on asset highlights the value of independent directors in improving accountability and reducing agency conflicts between management and shareholders. This aligns with theoretical perspectives that independent oversight ensures better alignment of management actions with shareholder interests.

The importance of board financial expertise (bfe), also aligns with the growing recognition that financially skilled directors can better oversee complex financial matters, mitigate risks, and improve resource allocation. These findings reinforce the need for firms to prioritize board composition and competency as part of their governance strategy.

The lack of a statistically significant effect of board diligence (bdil) on return on asset is an interesting finding that warrants further exploration. While the number of board meetings is often viewed as a measure of diligence, the results suggest that frequency alone does not guarantee better outcomes. This implies that the quality of discussions, decision-making, and follow-up during and after board meetings may be more critical than mere frequency.

Based on the findings discussed above the study recommended that listed

- i. Service firms should prioritize having independent directors who can provide unbiased oversight and strategic guidance.
- ii. Service firms should include members with financial expertise in their boards to enhance decision-making and oversight capabilities.
- iii. Service firms should aim for an optimal board size that balances diversity of expertise and effective decision-making.
- iv. Service firms should assess the quality and effectiveness of board meetings rather than focusing solely on frequency.

## REFERENCES

1. Abdulkarim, H., Yusuf, A., & Isah, U. (2020). Board composition, board size and market value of listed industrial goods companies in Nigeria. *International Journal of Research and Innovation in Social Science*, 4(12), 14-19.
2. Adams, R., & Ferreira, D. (2007). Board composition and risky corporate financing decisions. *Journal of Finance*, 62(1), 321-360.
3. Al-Daoud, K. I., Saidin, S. Z., & Abidin, S. (2016). Board meeting and firm performance: Evidence from the Amman Stock Exchange. *Corporate Board: role, duties and composition*, 12(2), 6-11.
4. Al-Matari, E. M., Al-Swidi, A. K., Fadzil, F. H., & Al-Matari, Y. A. (2012). The impact of board characteristics on firm performance: Evidence from nonfinancial listed companies in Kuwaiti Stock Exchange. *International Journal of Accounting and Financial Reporting*, 2(2), 310-332.
5. Bhagat, S., & Black, B. (2002). The non-correlation between board independence and long-term firm performance. *Journal of Corporation Law*, 27(2), 231-273.
6. Brick, I. E., & Chidambaran, N. K. (2010). Board meetings, committee structure, and firm value. *Journal of corporate finance*, 16(4), 533-553.
7. Brigham, E. F., & Houston, J. F. (2019). *Fundamentals of financial management* (15th ed.). Cengage Learning.
8. Calderon, T. G., Wang, L., & Kim, Y. (2020). Board expertise and firm performance: Evidence from listed firms. *Journal of Corporate Governance Studies*, 12(2), 45-63.
9. Carcello, J. V., Hollingsworth, C. W., & Klein, A. (2006). Audit committee financial expertise and earnings management. *Journal of Accounting and Economics*, 41(1-2), 1-23.
10. Davidsson, M., Steffens, P., & Iander, E. (2020). Firm size and growth barriers: A data-driven approach. *Small Business Economics*, 55(1), 347-369.
11. DeFond, M. L., Hann, R. N., & Hu, X. (2005). Does the market value financial expertise on audit committees? *Journal of Accounting Research*, 43(2), 153-193.
12. Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. *Journal of Law and Economics*, 26(S1), 301-325.
13. Gibson, C. H. (2013). *Financial reporting and analysis* (13th ed.). Cengage Learning.
14. Hackman, J. R. (2003). *Groups and group processes*. Psychology Press.
15. Ilugbusi, B. S., Olutoye, A. E. O., Surulere, O. J., & Ige, F. F. (2024). The impact of corporate governance mechanisms on organisational efficiency of listed financial firms in Nigeria. *African Journal of Stability and Development*, 16(2), 485-506.

16. Jensen, M. C. (1993). The modern industrial revolution, agency costs and the financial structure of the firm. *Journal of Economic Perspectives*, 7(4), 143-161.
17. Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305-360.
18. Juanda, J., & Jalaluddin, J. (2021). Board size and firm performance of listed companies in Indonesia. *Jurnal Manajemen*, 13(2), 292-296.
19. Kalsie, A., & Shrivastav, S. M. (2016). Analysis of board size and firm performance: evidence from NSE companies using panel data approach. *Indian Journal of Corporate Governance*, 9(2), 148-172.
20. Krishnan, J., & Visvanathan, G. (2008). Does the SOX definition of an accounting expert matter? *Journal of Accounting and Public Policy*, 27(6), 435-451.
21. Lawal, K., Onmonya, L., & Oyetola, T. (2024). Effect of corporate governance on financial performance of listed commercial banks in Nigeria. *Journal of Accounting and Financial Management*, 10(10), 225-241.
22. Lipton, M., & Lorsch, J. W. (1992). A mod of the corporation for the 21st century. *Harvard Business Review*, 70(6), 65-76.
23. Lipton, M., & Lorsch, J. W. (1992). A modest proposal for improved corporate governance. *Business Lawyer*, 48(1), 59-77.
24. Nagar, A., & Singh, A. (2019). Board busyness and firm performance: The moderating role of board diligence. *Journal of Management and Governance*, 23(4), 1273-1298.
25. Nguyen, T. H., Bui, T. H., & Hoang, T. V. (2016). Board size and firm performance in developing countries: case of East Africa. *Journal of Accounting and Taxation*, 8(2), 42-53.
26. Omenihu, C. M., & Nwafor, C. (2025). Board structure and firm performance: The moderating role of national governance quality. *Administrative Sciences*, 15(8), 314.
27. Orshi, T., Okpala, K., & Udeh, S. (2022). Corporate governance and financial performance of listed firms in Nigeria. *International Journal of Accounting Research*, 10(3), 25-41.
28. Oshim, J. C., & Igwe, A. O. (2024). Corporate governance and financial performance of listed consumer goods firms in Nigeria. *International Journal of Business and Management Review*, 12(1), 96-115
29. Oyerogba, E. O., Oladele, F., Kolawole, P. E., & Adeyemo, M. A. (2024). Corporate governance practices and sustainability reporting quality: Evidence from Nigerian listed financial institutions. *Cogent Economics & Finance* 11(1) 1-19
30. Ozigi O. O, Yunusa, A., Yusuf, M.A. (2023) Effect of Board and Audit Committee Attributes on Earnings Management: Evidence from Listed Non-Financial Firms in Nigeria. *FUDMA Journal of Accounting and Finance Research* 1 (2) 33-50
31. Pandey, I. M. (2015). *Financial management* (11th ed). Vikas Publishing.
32. Paul, J. (2017). Board activity and firm performance. *Indian Journal of Corporate Governance*, 10(1), 44-57.
33. Rashid, A. (2015). Board characteristics and firm performance: Evidence from listed firms. *Corporate Governance: The International Journal of Business in Society*, 15(5), 718-733.
34. Shi, Y. (2014). Firm size and technological innovation: A theoretical and empirical study (Doctoral dissertation, Southwest Jiaotong University).
35. Singh, A., Kim, E., & Luo, W. (2023). Board diversity and board diligence. *Economic Policy Review*, 29(1), 71-92.
36. Stainer, L. (2006). Board competence and corporate performance. *Corporate Governance: The International Journal of Business in Society*, 6(3), 252-261.
37. Vafeas, N. (1999). Board meeting frequency and firm performance. *Journal of Financial Economics*, 53(1), 113-142.
38. Westphal, J. D., & Zajac, E. J. (1995). Board composition and firm resilience: An empirical test of upper echelons theory. *Academy of Management Review*, 20(2), 381-403.
39. Yusuf, M. A., Adebayo, P. A., Yusuf, R. N. (2018a) Effect of Financial Performance on Voluntary Disclosure of Listed Financial Firms in Nigeria.. *International Journal of Economics, Commerce and Management* VI (12) 81- 99
40. Yusuf, M., Bello, A., & Lawal, A. (2018). Corporate governance and firm performance in Nigeria. *African Journal of Accounting and Finance*, 7(1), 31-49
41. Yusuf, M. A., Fodio M.I, Nwala, O. M. (2018b) Effect of Ownership Structure on Voluntary Disclosure of Listed Financial Firms in Nigeria. *International Journal of Economics, Commerce and Management*. VI (10), 493-516.
42. Zabri, S. M., Ahmad, K., & Wah, K. K. (2016). Corporate governance practices and firm performance of listed firms in Malaysia. *Procedia Economics and Finance*, 35, 287-296