

Moderating Role of Tax Aggressiveness on Board Attributes and Financial Performance of Listed Deposit Money Banks in Nigeria

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ABSTRACT

This study is to assess the moderating role of tax aggressiveness on the relationship between corporate governance and financial performance of Nigerian deposit money banks in Nigeria. Specifically, the study assesses the effect of board size, board independence and board gender diversity on the financial performance of Nigerian deposit money banks, with tax aggressive as the moderating variable. The study employs an ex-post facto research design using secondary data obtained from the annual reports and financial statements of 13 listed deposit money banks in Nigeria for the period 2014 to 2025. The Feasible Generalized Least Squares (FGLS) was used for the panel regression analysis. This is to correct for potential heteroskedasticity and autocorrelation in the data. Findings show that Board size, board gender diversity, and tax aggressiveness are found to significantly influence financial performance, while board independence does not affect financial performance. In general, the moderating role of tax aggressiveness show a positive association with the financial performance. This implies that banks with larger boards with board gender diversity can be involved in aggressive tax planning with positive effect on financial performance. It is recommended that regulators and policymakers should establish guidelines that support large board and gender diversity. Bank management should establish dedicated board committees to oversee tax-related matters, ensuring continuous review of tax strategies, compliance, and risk management practices.

Key words: Board Attributes, Tax Aggressiveness and Financial Performance

INTRODUCTION

The banking sector plays a pivotal role in driving a nation's economic development by efficiently mobilizing and allocating financial resources for productive purposes (Ajumobi, 2025). Its core functions encompass promoting economic growth, facilitating financial intermediation, and providing credit. Banks serve as the primary source of funds for various sectors, supporting activities such as infrastructure development, agricultural projects, and other economic ventures (Aruofor & Ogbeide, 2024). In Nigeria, deposit money banks predominantly operate by accepting customer deposits, which they deploy to generate additional income. Acting as intermediaries, banks collect public savings and redirect them into investments, including loans for property, plant, equipment, factories, and infrastructure. In Nigeria, they also support the Central Bank's regulation of money supply, promote financial inclusion, and contribute to higher incomes, improved living standards, wealth creation, and sustainable development (Azebi, 2025).

A bank's financial performance going-concern status can be threatened if the governance structure is weak (Ohonba & Aruomoaghe, 2024). Despite the many corporate governance codes in Nigeria, governance failures persist. Banks have faced internal control and risk management challenges from excessive credit risk and non-performing insider loans, often undisclosed in financial statements. Such lapses highlight that personal interests must never override fiduciary duties and have forced regulators to provide costly bailouts. Weak governance undermines financial performance and threatens banks'

Corporate governance is fundamental in ensuring transparency, accountability, and effective management within financial institutions (Gardi, et al, 2023). The corporate financial scandals that rocked the Nigerian banking sector led to the codes and reforms of corporate governance. Since 2009, when the first financial crisis that rocked the corporate financial sector in Nigeria took place, there have been other corporate governance concerns. Despite reforms, corporate governance in Nigerian banks remains weak, with excessive power concentrated in the hands of MD/CEOs, conflicts of interest, and disorganized board oversight (Hazzaa, et al., 2022). Weak governance creates opportunities for fraudulent financial reporting, which erodes public trust in banks (Akanbi & Sunday 2022). This underlines the need for greater corporate governance (such as good board size, board independence and board gender diversity) and more equitable control systems.

Despite the establishment of governance codes and regulatory reforms, empirical evidence on the effectiveness of corporate governance in enhancing the financial performance of Nigerian deposit money banks remains mixed. For instance, Emeanua (2025) reported that board size and board independence positively influenced return on assets, whereas Olowofela, et al. (2025) found that larger board sizes and board independence negatively impacted bank performance. Similarly, Ogbeide, et al. (2022) observed a negative but statistically insignificant effect of board size on financial performance, while Orumwense and Orumwense (2023) reported a negative and significant impact of board size, along with a significant but negative effect of board independence. These inconsistent findings highlight the inconclusive nature of empirical evidence regarding the role of corporate governance in improving financial performance, emphasizing the need for further research to clarify the relationship between governance structures and banking performance.

In addition to corporate governance, tax aggressiveness has become a key strategy influencing banks' financial performance. It involves minimizing taxable income, often through legal but sometimes aggressive practices, driven largely by profit-maximization pressures. In Nigeria, deposit money banks use accounting strategies to reduce taxable income, lower effective tax rates, and defer income recognition. The recent 2023–2025 windfall tax on foreign exchange gains, prompted by Naira depreciation, allows banks to manage tax liabilities by timing gains or applying revaluation models to reduce taxable income.

Although tax aggressiveness can enhance short-term profitability by reducing tax liabilities, it may also expose firms to regulatory sanctions, reputational damage, and challenges to long-term sustainability. There is paucity of studies paying attention to the nexus between corporate governance and financial performance with moderating role in tax aggressiveness in banking firms in Nigeria. Many studies on corporate governance and tax aggressiveness has been conducted These include Aourik and Boutbhirt (2026), Mahouat et al (2026), Balios et al (2025), Naz et al. (2025), Sasmita et al. (2025), Sapparila and Nur (2025), Muhmad et al. (2025), Erasashanti et al (2024), Elamer et al. (2024), Abdullah et al. (2022), Kyere and Ausloos (2021). Some previous research yielded contradictory results. Sasmita et al. (2025), Erasashanti et al. (2024), Omonitie and Obaretin (2021) discovered that there is no substantial correlation between the corporate governance, tax aggressiveness and financial performance. In contrast, Omonitie and Obaretin (2021) and Angwaomaodoko et al. (2024) discovered that corporate governance had a positive effect on its financial performance. The paucity of literature and conflicting findings from available extant literature on how the moderating role of tax aggressiveness will affect the relationship of corporate governance on the financial performance of listed deposit money banks in Nigeria necessitated the need to carry out this research.

This study is to assess the moderating role of tax aggressiveness on the relationship between corporate governance and financial performance of Nigerian deposit money banks in Nigeria. Specifically, the study assesses the effect of board size, board independence and board gender diversity on the financial performance of Nigerian deposit money banks, with tax aggressive as the moderating variable.

LITRATURE REVIEW AND HYPOTHESES DEVELOPMENT

Conceptual Review

The main issues in this study include corporate governance (proxied by board size, board independence and board gender diversity), tax aggressiveness and financial performance.

Board Attributes

Board attributes are the features of a company's board such as size, independence, diversity, expertise, meeting frequency, and committee structure that shape its ability to oversee management and guide decisions. These characteristics influence governance quality, transparency, and firm performance, with more independent and diverse boards typically enhancing oversight, while board size affects coordination and decision-making efficiency. According to Sasmita et al. (2025), corporate governance refers to the study of the relationships among directors, managers, employees, customers, and suppliers within an organization. Defining corporate governance in a universally accepted manner is challenging because interpretations differ across countries. Corporate Governance attributes include board size, board independence, board gender diversity, ownership concentration and board committees,

Corporate governance has remained an important concept that continues to attract significant public interest because of its economic and financial implications for the sustainability of organizations and the welfare of society at large (Solabomi & Uwuigbe, 2013; Uwuigbe, et al, 2014). Fundamentally, corporate governance ensures that shareholders, managers, and other stakeholders perform their responsibilities within a framework of transparency, accountability, and ethical conduct.

Board Size

According to Worokinasih and Imamah (2025), firm size can influence how effectively a company's management fulfills and regulates its operational and governance responsibilities. Board size, on the other hand, refers to the total number of directors serving on the board of a company (Onuorah, et al., 2016).

Board Independence

Board independence refers to the presence of directors who are not part of executive management and are therefore able to exercise objective judgment in monitoring and overseeing the affairs of the organization. Independent directors play a crucial supervisory role in corporate governance by overseeing the operations and management of a firm while safeguarding the interests of shareholders. It is typically measured as the proportion of non-executive or independent directors to the total number of directors on the board (Lartey et al., 2021; Chang, 2023); These measurement approaches highlight the importance of board composition in strengthening governance mechanisms and improving organizational outcomes. Baysinger and Butler (1985) argue that independent directors are more capable of reducing agency conflicts by ensuring that managerial decisions align with the interests of shareholders. Consistent with corporate governance practices in Nigeria, the Financial Reporting Council of Nigeria (FRCN, 2018) also highlights that an independent board structure promotes greater accountability, transparency, and long-term sustainability within organizations.

Board Gender Diversity

Gender diversity on corporate boards is increasingly recognized as an important element that strengthens corporate governance and enhances the quality of decision-making. A board that reflects gender balance is believed to promote more effective deliberation and improved oversight, which may ultimately contribute to higher financial reporting quality. This improvement is often linked to the ethical orientation and compliance tendencies frequently associated with female directors. Board gender diversity can positively affect financial performance (Chenab et al. 2025; Utami & Sudaryono, 2025).

Tax Aggressiveness

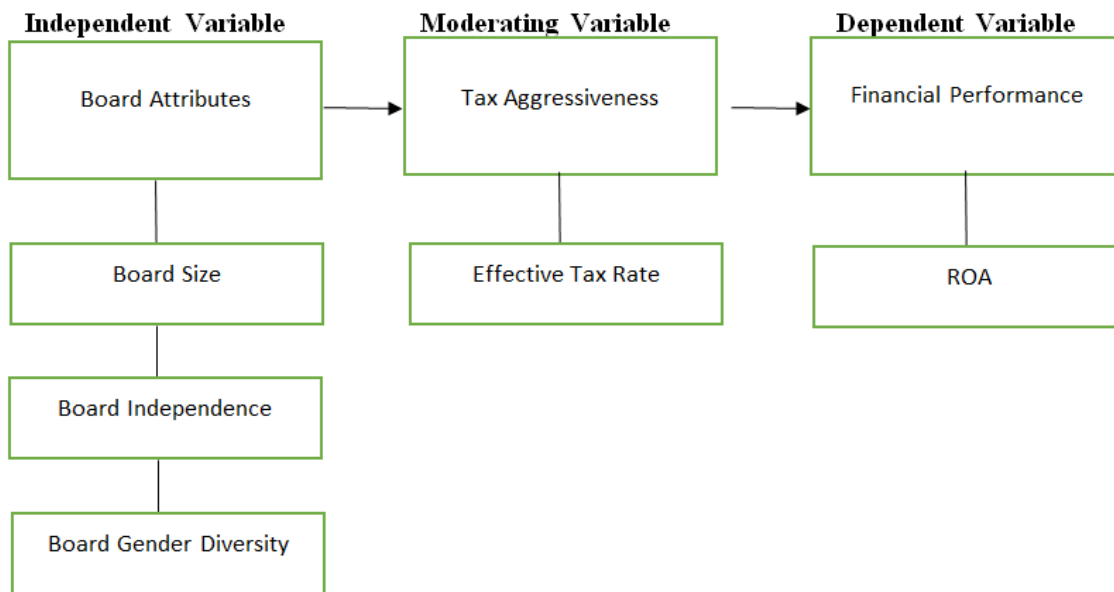
Tax aggressiveness has been defined in various ways. Onyali and Tochukwu (2018) describe it as a set of strategies, practices, and decisions implemented by corporate management to maximize after-tax income while fulfilling obligations to the state and other stakeholders. These strategies aim to reduce expenses and increase returns, signalling financial efficiency to potential investors. Similarly, Kayode et al. (2020) define tax aggressiveness as corporate actions intended to minimize taxable income through planning techniques, which can range from legally compliant strategies to more aggressive approaches that push regulatory boundaries. Tax

aggressiveness is usually measured using Effective Tax Rate (ETR). The Effective Tax Rate (ETR) is widely used as a proxy for tax aggressiveness because it provides a clear and quantifiable measure of a company’s actual tax burden relative to its pre-tax income. By comparing taxes paid to earnings generated, the ETR reflects the extent to which a firm engages in strategies to minimize its tax obligations.

Financial Performance

Financial performance reflects a firm’s profitability and value creation for shareholders and can be measured using accounting-based or market-based metrics. It measures are metrics used to evaluate how well a firm generates profits and creates value for shareholders. They are broadly classified into accounting based measures such as Return on Assets (ROA), Return on Equity (ROE), and Earnings Per Share (EPS), which reflect historical performance and market-based measures, like stock price and Tobin’s Q, which capture investor expectations about future performance (Igoniderigha, 2026). Accounting measures are backward-looking, influenced by accounting standards and practices (Kapopoulos & Lazaretou, 2007) and susceptible to manipulation or distortion (Chakravarthy, 1986). In contrast, market-based measures capture investor expectations and provide a forward-looking view of long-term performance. The accounting-bade metric was used in this study. Accounting measures are often preferred because they provide reliable historical records, while market-based measures focus on future expectations (Alajlani, 2019). Return on Assets (ROA) measures how efficiently a firm uses its assets to generate earnings, making it a key indicator of profitability and operational effectiveness. It reflects management’s ability to allocate resources and deploy capital efficiently, with higher ROA indicating stronger performance.

Figure 1: Conceptual Framework on moderating role of tax aggressiveness on the effect of corporate governance on the financial performance of deposit money banks in Nigeria.



Source: Researcher’s Conceptualization (2025)

Figure 1 shows the conceptual framework on the on moderating role of tax aggressiveness on the effect of corporate governance on the financial performance of deposit money banks in Nigeria. The independent variable is corporate governance with three proxies; Board Size (BS), Board Independence (BI) and Board Gender Diversity (BGD) while the independent variable is financial performance with proxy as Return on Assets (ROA). The moderating variable is Tax Aggressiveness (TA).

Theoretical Framework

This study is grounded in Agency Theory, which explains the relationship between key actors in corporate governance and the disclosure of firm performance information. Jensen and Meckling (1976) define an agency relationship as one in which a principal delegates tasks to an agent. Since both parties often pursue their own

interests, conflicts can arise, leading to agency costs. To address these issues, principals are expected to limit opportunistic behavior by agents and reduce the underlying causes of such conflicts. The study argues that effective governance structures can help minimize these conflicts by ensuring transparent and comprehensive reporting of board performance. Agency theory highlights the importance of accurately reflecting governance practices in financial reports to enhance their credibility and provide stakeholders with reliable information for decision-making. From this viewpoint, tax aggressiveness can intensify conflicts between owners and managers. Managers, who make tax-related decisions, may act in their own interest by diverting resources for personal benefit.

However, aggressive tax planning also carries risks. Wang (2019) notes that it does not necessarily enhance shareholder value and may encourage opportunistic behaviour such as earnings manipulation or excessive executive compensation. If the costs of tax planning such as compliance and agency costs outweigh the benefits, firm value may decline.

Overall, Agency Theory provides a useful framework for analysing the interplay between corporate governance, tax aggressiveness, and financial performance in Nigerian banks. It helps explain how governance factors like board size and independence, alongside tax strategies, influence financial outcomes and sector stability.

Empirical Review

There are a number of empirical studies that dealt with tax aggressiveness, corporate governance and financial performance. These are reviewed as follows.

Board Size and Financial Performance

Empirical studies have been conducted on board size (BS) and the financial performance of companies in many countries. Mela, et al. (2026) examined the effect of board characteristics on the financial performance of listed banks in Nigeria and found that board size does not have a statistically significant impact on financial performance. Dibua and Adibe. (2025) suggest that board size has partial significant effect on financial performance in the Nigerian financial service firms. Mahouat et al. (2026) show that the larger board size significantly reduces tax-aggressive behavior among Moroccan listed firms.

Yahaya et al. (2023) shows that the size of the board of directors and board independence have an insignificant inverse influence on the Environmental Disclosure Index of the sampled companies. It was concluded that corporate governance affects environment disclosure. The findings from these studies has conflicting findings. These mixed findings show that the literature is inconclusive, hence the need to study the further studies. In their examination of non-financial firms in Nigeria.

Balarabe et al. (2025) analyze the relationship between board characteristics and financial performance, focusing on board independence, board size, gender diversity, and board meeting frequency. Financial performance is measured using return on assets (ROA), earnings per share (EPS), and market capitalization (MKCP). The results indicate that board size has a significant negative effect on ROA, implying that excessively large boards may impair firm performance.

The findings were mixed, therefore, there is the need to address the hypotheses using listed deposit money banks.

H01: Board size has no significant negative effect on financial performance of listed banks in Nigeria

Board Independence and Financial Performance

Madwe (2026) finds that board independence does not significantly affect firm performance in carbon-intensive companies in South Africa, highlighting the need for such firms to review remuneration policies so they better balance short-term financial outcomes with long-term sustainability goals. Chenab et al. (2025) examine how governance factors—including board size, independence, gender diversity, audit committee effectiveness, and institutional ownership—affect tax avoidance among 500 listed Chinese firms, with company size as a

moderating factor. Their results indicate that larger boards tend to encourage tax avoidance due to diluted accountability, while greater independence and female representation help curb this tendency.

Ebire et al. (2024) explore how board independence moderates the link between firm characteristics and tax aggressiveness, showing that firms with more independent directors are generally less aggressive in tax practices. Utami and Sudaryono (2025) analyze the relationship between sound corporate governance and financial performance in Indonesian rural banks, finding no effect of board structures on ROA but a negative effect on ROE; notably, their study focuses on a relatively underexplored segment of the banking sector. Supporting this line of evidence, Balarabe et al. (2025) report that board independence has no significant impact on firm performance, pointing to structural and contextual challenges within Nigeria's governance environment.

H02: Board Independence has no significant negative effect on financial performance of listed banks in Nigeria

Board Gender Diversity and Financial Performance

Chenab et al (2025) focuses on the impact of different corporate governance characteristics, such as board size, board independence, board gender diversity, audit committee effectiveness and institutional ownership on the tax avoidance of 500 publicly listed firms in China, while considering the moderating effect of company size. Findings show that larger boards lead to more tax avoidance. Utami and Sudaryono (2025) reveals that the inclusion of female directors significantly enhances ROA of rural banking Institutions in Indonesia. Jibrin et al (2025) revealed a positive and significant relationship between board gender diversity and financial performance of manufacturing firms. Ehada et al. (2023) found out that only female board membership-quality assurance disclosures negatively and significantly moderated the relationship between environmental disclosure and return on assets of the sampled firms. Balarabe et al. (2025) report that gender diversity has a positive but statistically insignificant relationship with financial performance, suggesting that while inclusivity may add value to corporate governance, its impact is not pronounced. Results of the studies are conflicting, thus, the following hypothesis will be tested.

H03: Board gender diversity has no significant negative effect on financial performance of listed banks in Nigeria

Tax Aggressiveness and Financial Performance

Mahouat et al (2026) reveals that tax-aggressive behavior by firms can undermine tax revenues, corporate transparency, and overall economic governance. Additionally, ownership concentration is associated with higher tax aggressiveness, reflected in lower effective tax rates, whereas board independence exhibits no significant association with tax aggressiveness. Overall, the findings suggest that robust corporate governance and high-quality audits effectively mitigate tax-aggressive practices among Moroccan listed firms. Omonitie and Obaretin (2021) shows a positive relationship between corporate governance mechanisms, tax aggressive and firm performance. and this was statistically significant when tested at a 5% level of significance. The study recommends that for most organizations to be successful in their tax aggressive strategy there is a need for strict adherence to improve financial performance. Hutauruk et al (2025) show that profitability and liquidity significantly affect tax aggressiveness, while capital intensity and structure do not. This study contributes to understanding the dynamics of tax strategies in Indonesia's food and beverage sector. It is concluded that profitability and liquidity significantly impact tax avoidance. However, the study was conducted in Indonesia country with a jurisdiction distinctively different from Nigeria. Balios et al (2025) discovered indicates a negative correlation between a high proportion of non-executive directors on the board and the level of tax aggressiveness.

Archibong and Solomon (2025) confirmed that all tax shield variables exert significant impacts on internal efficiency of manufacturing companies in Nigeria. It was however found that while allowable expenses tax shield and debt tax shield had significant negative effect, the effect of non-debt tax shield is positive. The findings from of the literature are mixed and inconclusive. Thus, thus, the following hypothesis will be tested.

H04: Tax aggressiveness has no significant negative effect on financial performance of listed banks in Nigeria

Moderating Role of Tax Aggressiveness

Mahouat et al (2026) confirmed that the separation of the CEO and chairman roles and larger board size significantly reduce tax-aggressive behavior. Moreover, audit quality strengthens the negative relationship between board size and tax aggressiveness, with higher-quality audits further constraining aggressive tax practices. Additionally, ownership concentration is associated with higher tax aggressiveness, reflected in lower effective tax rates.

Also, Pratiwi et al (2019) examined and analyze the effect of corporate governance and audit quality as solutions of tax aggressiveness, and the presence of family ownership as a moderating variable in the effect of corporate governance and audit quality on tax aggressiveness. The results of this study show that public companies in Indonesia specially manufacturing companies are proven to not doing the tax aggressiveness. It makes the corporate governance and audit quality on the company's sample to have no effect on tax aggressiveness. Furthermore, family ownership cannot moderate the effect of corporate governance on tax aggressiveness, but it can moderate the effect of audit quality on tax aggressiveness.

Agustinus and Wirawan (2025). carried out a study that aimed at ascertaining the effect of tax aggressiveness on financial performance moderated by bonded zone facilities. The results of the study showed that tax aggressiveness had a positive effect on the company's financial performance, which was reflected in the increase in ROA and ROE. Ebire et al (2024) concludes that larger banks tend to engage less in tax aggressive strategies than smaller banks. Also, boards with more independent directors tend to be less aggressive in tax activities. In addition, the study concludes that highly leveraged firms have a greater interest in minimising taxes to enhance cash flows available for debt service.

The findings indicate that board independence and board size have a significant positive effect on tax aggressiveness, suggesting that larger and more independent boards do not necessarily limit aggressive tax practices within the Nigerian setting. In contrast, board financial expertise shows no significant influence, indicating that specialized financial knowledge does not significantly shape tax behavior. Overall, the results point to weaknesses in corporate governance mechanisms in restraining opportunistic tax strategies. Edirin (2023) examined the moderating role of tax aggressiveness in the relationship between corporate governance and real earnings management using a sample of 47 randomly selected firms. The findings indicate that both tax aggressiveness and corporate governance exert a significant influence on real earnings management. These studies did not focus on the moderating role of tax aggressiveness has on the effect of corporate governance and financial performance of listed banks in Nigeria. Thus, the hypothesis stated below.

H05: Moderating Tax aggressiveness has no significant negative effect on financial performance of listed banks in Nigeria

METHODOLOGY

The study employs an ex-post facto research design using secondary data obtained from the annual reports and financial statements of listed deposit money banks in Nigeria for the period 2014 to 2025. The study comprises all 13 listed deposit money banks on the Nigerian Exchange Group (NGX) as of December 2025. The multiple regression model that captures the effects of firm attributes on tax aggressiveness in Nigeria is presented below:

$$ROA_{it} = a + \beta_1 BS_{it} + \beta_2 BI_{it} + \beta_3 BGD_{it} + \beta_4 TAG_{it} + \beta_5 TAG_{it} * BS_{it} + \beta_6 TAG_{it} * BI_{it} + \beta_7 TAG_{it} * BGD_{it} + e_{it}$$

Where,

ROA– Return on Assets is the dependent variables,

BS – Board Size is the independent variable.

BI – Board Independence is the independent variable.

BGD – Board Gender Diversity is the independent variable.

TA – Tax Aggressiveness is the moderating variables.

α is constant or intercept, β_1 to β_7 are the coefficients of the independent or explanatory variables and e is the error term. i and t are indices for individuals (companies) and time (11 years: 2014-2024) respectively. The measurement for the dependents and independent variables is given in Table 3.1.

Table 3.1 Variables Description and Measurement

S/N	Dependent Variables	Proxy	Acronym	Measurement	Source
1.	Financial Performance	Return on Assets	ROA	Net Profit after tax/ Total Assets	Brigham & Houston, (2019), Otuya and Omoye (2021), Abubakar et al. (2023) Sani et al, (2025)
S/No	Independent Variables	Proxy	Acronym	Measurement	Source
1.	Corporate Governance	Board Size	BS	Board size is measured in terms of absolute number members of Board of Directors in the firm.	Hisham and Ramadan, (2022), Masud et al. (2018)
2.	Corporate Governance	Board Independence	BI	Proportion of independent Directors	Ifada, et al. (2023), Illaboya- and Obaretin, (2015)
3.	Corporate Governance	Board Gender Diversity	BGD	Ratio of female director on the board Annual reports	Marwa et al (2021)
S/No	Moderating Variable	Proxy	Acronym	Measurement	Source
1	Tax Aggressiveness	Effective Tax Rate	TA	(Tax paid /Profit before tax) i.e income tax expense of firms divided by pre-tax profits	Naz et al (2025), Omonitie & Obaretin (2021)

Source: Authors Compilation (2026)

RESULT AND DISCUSSION

Descriptive statistics

Table 4.1: Descriptive Statistics (ROA, ROE, BS, BI, BGD, TAG)

Variables	Mean	Std. Dev	Min	Max	Obs.
ROA	0.0201112	0.0194482	-0.01	0.1325	143
BS	12.6931	3.129214	6	20	143

BI	0.1847979	0.1172657	0	0.636	143
BGD	0.2320517	0.1210379	0	0.05	143
TAG	1.288966	13.21337	-0.4721	158.13	143

Source: Stata 17 output (2026)

Table 4.1 presents the descriptive statistics. ROA was 0.0201, signifying that, on average, sampled firms are profitable. This indicates a moderate degree of asset profitability among the examined enterprises. The standard deviation of 0.0194 indicates a moderate level of variability in profitability among the companies. organizations, suggesting diversity in operational performance and asset usage efficiency. The board size variable shows a mean value of 12.6931, indicating that, on average, the boards of the sampled banks had a moderate number of members. The standard deviation of 3.1292 suggests moderate variability in the board. The board independence variable shows a mean value of 0.1847, indicating that, on average, approximately 18% of board members across the sampled firms are independent directors. The standard deviation of 0.1172 suggests moderate variability in the proportion of independent directors. reflecting differences in corporate governance structures among the firms. The board gender diversity variable shows a mean value of 0.2320, indicating that, on average, approximately 23% of board members across the sampled firms are female board members, a similar measure of gender diversity. The standard deviation of 0.1172 suggests moderate variability in the proportion of female board members, reflecting differences in corporate governance structures among the firms. The average tax aggressiveness is 1.2889 representing 1.28% which is far below the 30% firm income tax in Nigeria. The standard deviation is 13.2133 suggests moderate variability on the banks engagement strategies to reduce tax payments which indicates lower as well as moderate effective tax rate.

Correlation Matrix

Table 4.2: Correlation Matrix

Var.	ROA	ROE	BS	BI	BGD	TAG
ROA	1.000					
BS	-0.1606	0.0921	1.000			
BI	0.0720	0.2879	-0.0165	1.000		
BGD	0.2340	0.0942	-0.1296	0.1077	1.000	
TAG	-0.0359	-0.0096	0.1726	0.0566	0.0173	1.000

Source: Stata 17 output (2024)

Table 4.2 presents the Pearson correlation analysis, which offers preliminary insight into the relationships between the dependent and explanatory variables, as well as an initial indication of potential multicollinearity. The results show that only BGD has moderate correlation coefficient of 0.23 with ROA. The correlation coefficient of BI, BGD and BS indicating a weak relationship with ROA. The correlation coefficient between the explanatory variables are also weak showing no strong evidence for multicollinearity. Correlation does not imply causation; therefore, a multivariate analysis is crucial in this context.

Diagnostics Tests (Pre and Post Estimation Test)

To avoid spurious regression analysis, the regression result was subjected to multicollinearity (to see if the independent variables were suffering from multicollinearity and heteroscedasticity tests).

VIF (Multicollinearity) Test

Table 4.3: Multicollinearity Test

Variable	VIF	1/VIF
BS	1.05	0.952482
TAG	1.04	0.965517
BGD	1.03	0.970921
BI	1.01	0.985249
Mean VIF	1.03	

Source: Stata 17 Output (2026)

The results presented in Table 4.3 indicate that there is no evidence of multicollinearity among the independent variables. This is supported by the minimum tolerance value (TV) of 0.952482 and the maximum variance inflation factor (VIF) of 1.05, both of which fall well within acceptable thresholds of 0.10. A VIF value below 10 and a tolerance value above 0.10 suggest that multicollinearity is not a concern (Hair et al. (2019).

Normality of Residual

An assumption of classical ordinary least square regression is normality of the residual. Table 4.4 is the Jacque Bera test conducted. This shows a p-value of 0.000 is less than 5%, indicating that the residual is not normally distributed.

Table 4.4 Normality test of data

MODEL	Variables	Obs	Pr(Skewness)	Pr(Kurtosis)	adj chi2(2)	Prob>chi2
ROA	Residual	143	0.000	0.000	60.29	0.000

Source: Skewness/Kurtosis (Jacque Bera) test for Normality result using STATA 17

Heteroskedasticity

The Breusch-Pagan/Cook-Weisberg test yielded a chi-squared value of 79.27 with a p-value of 0.000, indicating a statistically significant result and thus the presence of heteroskedasticity. The Jacque Bera normality test with Prob>chi2 of 0,000 indicates non normality of the data set. Thus, a more robust model, the Feasible Generalized Least Squares (FGLS), was used to correct for potential heteroskedasticity and autocorrelation in the data.

Regression Result

Table 4.4: Regression result using FGLSs

Variables	Coefficients	Std. Err	Z	P-value
Constant	0.0301	0.0088	3.40	0.001
BS	-0.0011	0.0006	-1.96	0.050
BI	-0.0157	0.0273	-0.58	0.565

BGD	0.5227	0.0157	3.33	0.001
TAG	-0.0718	0.0330	-2.17	0.030
TAGBS	0.0031	0.0024	1.29	0.196
TAGBI	0.1781	0.1429	1.25	0.213
TAGBGD	-0.1352	0.0646	-2.09	0.037
F-Stat.				20.01
P-sig.				0.000

Source: Stata 17 output (2026)

As is familiar with FGLS estimations, the standard coefficient of determination (R^2) is not reported because the transformation of variables required for FGLS alters the model scale, making R^2 values from regression inappropriate or misleading. Instead, model fit and overall significance were evaluated using the F-statistic and associated p-values. Model Fit: The overall model is statistically significant, as indicated by the F-statistic of 20.01 and a p-value of 0.005, affirming that the explanatory variables collectively influence firm performance. The strong F-statistic and significance suggest that the model is robust in explaining ROA variation.

The results shows that Board Size (BS) has a negative but minimal coefficient (-0.0011). It is statistically significant ($p = 0.050$), suggesting that even slight improvements in board size are associated with marginal decreases in ROA. This indicates a moderate and negative relationship between board size and return on assets among the sampled deposit money banks in Nigeria, these findings show that higher levels of board size are marginally associated with decreased financial performance. However, the strength of this association is minimal.

Board Independence (BI) demonstrates a negative relationship with ROA (coefficient = -0.0157), and the result is not significant ($p = 0.565$). This indicates that firms with more independent directors tend to achieve less superior accounting performance. Independent board members do not likely enhance corporate oversight.

Board Gender Diversity (BGD) demonstrates a strong positive relationship with ROA (coefficient = 0.5227), and the result is highly significant ($p = 0.001$). This indicates that firms with more female directors tend to achieve superior accounting performance. More Female board members in the board likely enhance corporate oversight, reduce agency costs, and facilitate more objective and strategic decision-making, leading to better resource utilization and improved profitability.

Tax Aggressiveness (TAG) demonstrates a negative relationship with ROA (coefficient = -0.0718), and the result is significant ($p = 0.030$). This indicates that tax aggressiveness is typically negative effect return on assets. This implies that an increase in tax aggressiveness results to decrease in return on assets.

DISCUSSION OF THE FINDINGS

Board Size (BS) has a statistically significant and negative influence on Return on Assets (ROA): This indicates that firms with higher levels of board size will lead to decrease in financial performance. This finding aligns with the notion that larger boards may not bring diverse expertise, resources, and monitoring capabilities, which reflects may not increase investor confidence can contribute to enhanced financial performance. This finding aligns with the results of, Rodriguez (2025); Mbonu and Okoye (2023); Oladejo and Okedun (2026) who found that corporate governance has significant effect on financial performance. On the contrary, Hasan, et al. (2023) establish a negative relationship between corporate governance and financial performance, while Yahaya, et al. (2023) found an insignificant positive effect.

This finding aligns with the Agency Theory, which offers valuable insights into the interplay of corporate governance and financial performance within Nigerian banks. As Nigerian banks navigate these dynamics, a balanced approach to board size can contribute to fostering more reliable financial performance, thus bolstering investor confidence. These objectives align with the principles of agency theory, which posits that corporate governance practices help mitigate agency problems and conflicts of interest between managers and shareholders, ultimately improving organizational performance and accountability.

Board Independence (BI) has no significantly affects Return on Assets (ROA): This suggests that firms with a higher proportion of independent directors are not likely to attract financial performance due to lack of improved governance, enhanced oversight, and reduced managerial opportunism. The findings implies that independent directors may not improve firms' performance. This finding was supported by Ebire et al (2024), and Yahaya, et al. (2023) indicated that board independent has an insignificant relationship with financial performance whereas contradict the findings of Ogunsola et al. (2024) and Mbonu and Okoye (2023), Odoemelum and Okafor (2018) who revealed a positive significant effect of board independent on financial performance.

Board Gender Diversity (BGD) significantly and positively affects Return on Assets (ROA): This suggests that firms with a higher proportion of female directors are likely to attract financial performance due to improved governance, enhanced more female oversight, and reduced managerial opportunism. Board gender diversity has a positive and significant effect on return on assets. The findings implies that female board directors can improve firms' performance. This finding was supported by Chenab et al (2025), Utami and Sudaryono (2025), Mbonu and Okoye (2023), Omonitie and Obaretin (2021) indicated that corporate governance has a significant relationship with financial performance whereas contradict the findings of Giannopoulos (2025), who revealed an insignificant effect of corporate governance on financial performance. This is not in tandem with Kyere and Ausloos (2021) revealed a negative significant effect on performance.

Tax Aggressiveness (TAG) significantly and negatively affects Return on Assets (ROA). This infers that an increase in TAG results has influence on financial performance. This implies that the TAG of listed deposit money banks in Nigeria decreases as ROA increases. The findings imply that increase in tax aggressiveness can negatively affect firms' performance. This finding was supported by Naz et al. (2025) and Kyere and Ausloos (2021) indicated that tax aggressiveness has a significant and negative relationship with financial performance whereas contradict the findings of Giannopoulos (2025), who revealed an insignificant effect of tax aggressiveness on performance. While Hasan, et al. (2023), Mahouat et al (2026), Hutauruk et al (2025), revealed a significant effect on performance.

CONCLUSION AND RECOMMENDATIONS

Based on the foregoing findings, several conclusions can be drawn. Board size, board gender diversity, and tax aggressiveness are found to significantly influence financial performance, while board independence has no effect on financial performance. In general, the moderating role of tax aggressiveness show a positive association with the financial performance of listed deposit money banks in Nigeria. This implies that larger boards, with a broader mix of expertise and resources, tend to strengthen monitoring and oversight, thereby improving performance. However, a higher proportion of independent directors does not necessarily translate into enhanced performance outcomes.

The positive and highly significant effect of board gender diversity indicates that more diverse boards bring varied perspectives, experiences, and skills, which enhance decision-making, monitoring effectiveness, and overall financial performance.

Tax aggressiveness also has a significant impact on financial performance. Given the highly regulated nature of the banking sector, aggressive tax strategies may expose banks to legal, regulatory, and reputational risks, potentially weakening stakeholder confidence and long-term sustainability. Although tax aggressiveness shows significance, its combined effect with corporate governance may not immediately improve performance, highlighting the complex and often delayed benefits associated with such strategies.

In light of these findings, it is recommended that banks maintain an optimal board size that balances diversity, expertise, and effective oversight. Regulators and policymakers should establish guidelines that encourage appropriate board composition to support strong decision-making and monitoring. Banks should also promote gender diversity through deliberate recruitment, leadership development, and inclusive organizational practices, while regulators may consider setting benchmarks to enhance female representation in leadership roles.

Furthermore, bank management should establish dedicated board committees to oversee tax-related matters, ensuring continuous review of tax strategies, compliance, and risk management practices. Strengthening corporate governance through the inclusion of directors with expertise in taxation, finance, and risk management is also essential for improving financial performance.

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