Does Board Expertise Moderate the Relationship Between Corporate Attributes and Compliance with Prudential Guidelines: Study of Deposit Money Banks in Nigeria

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DOI: https://doi.org/10.47772/IJRISS.2026.101000671

Received: 28 October 2026; Accepted: 02 November 2026; Published: 15 November 2026

ABSTRACT

This study examined the moderating role of board expertise on the relationship between asset tangibility, revenue growth, ownership structure and audit type and compliance with the Central Bank of Nigeria (CBN) Prudential Guidelines among listed Deposit Money Banks (DMBs) in Nigeria. The study analyzed secondary data obtained from the annual financial statements of 13 listed DMBs on the Nigerian Exchange Group (NGX) After inclusion and exclusion criteria, the study covered 13 banks for the period of 10 years resulting in 130 and observations. The data was analyzed using descriptive statistics, correlation analysis, fixed and random effects. The findings indicate that asset tangibility and revenue growth have positive but statistically insignificant relationship with compliance with prudential guidelines. Ownership structure shows a negative and insignificant effect. Audit type shows a positive and significant relationship with compliance with prudential guidelines, indicating that banks audited by Big Four audit firms tend to record higher levels of compliance. Regarding the moderating role, board expertise does not significantly moderate the relationship between asset tangibility, revenue growth and ownership structure and compliance. However, board expertise significantly and negatively moderates the relationship between audit firm type and compliance with prudential guidelines. The study concludes that board expertise is more relevant in moderating the audit type compliance relationship, however, other variables are important factors associated with prudential guideline compliance. It recommends improving the regulatory financial competence of board members, strengthening external audit arrangements, and greater attention should also be given to internal controls, compliance procedures and regulatory monitoring.

Keywords: Asset Tangibility, Revenue Growth, Ownership Structure, Audit Type, Board Expertise, Prudential Guideline Compliance Index.

INTRODUCTION

Banking crises, mergers and distress have consistently generated concern among customers, investors, employees, and other stakeholders, irrespective of a country's level of development (Abba et al., 2025). Nigerian banking industry faces numerous of notable challenges that threaten its overall financial health and stability. These include among others, macroeconomic instability caused by large and sudden capital outflows, major issues related to corporate governance crises, a lack of investor and customer sophistication, inadequate financial disclosure and transparency about the financial position of banks, foreign exchange volatility, liquidity issues, a rise in non-performing loans, a worsening of corporate governance practices, and more competition from financial technology (Eyoma & Danjuma 2025).These huddles mentioned above, brought together banking customers, investors, employees, and other stakeholders to continue to ponder about how the banking regulatory authorities in Nigeria, led by the Central Bank of Nigeria (CBN) have been playing their regulatory cards to make financially healthy and stable banking industry, that can discharge function of

protecting financial wealth, facilitating financial transactions, and driving wealth creation through its core intermediating functions (Olota, 2025).

Central bank uses its statutory power to enforce the Prudential Guidelines on all Deposit Money Banks (DMBs) as a minimum regulatory framework requirement to achieve its four-pillar reform program. Which entails raising bank quality, establishing financial stability, facilitating healthy financial industry evolution, and ensuring the financial industry contributes to the real economy (Abdullahi & Adam, 2017). The growing incidence of earnings restatements, financial reporting manipulation, and high-profile corporate failures has heightened concerns about the reliability of financial information and the effectiveness of regulatory oversight (Ibrahim et al., 2023). Such developments reinforce the need for strict compliance with prudential guidelines. Deposit money banks play the financial role of being intermediaries in mobilization and channeling of funds from the surplus economic units to the deficit economic units (Ruggah et al., 2024). Also, many factors, brought in by the foreign exchange crisis, liquidity concerns, an upsurge in the prevalence of non-performing loans, declining corporate governance practices, and increasing competition from financial technology companies, among others, pushed for the review of the 2010 CBN Prudential Guidelines (CBN, 2019). Although it is stated in the NDIC/CBN joint supervision reports that the banking industry is characterized by several flaws, such as poor corporate governance, poor asset quality, inaccurate reporting and non-compliance with regulatory requirements, declining ethics and de-marketing of other banks in the industry, and gross insider abuses that resulted in non-performing insider-related credits (Salisu, 2011).

Board expertise represents an important governance mechanism that may influence how effectively banks interpret and respond to prudential requirements. In banking institutions, directors are expected to possess sufficient knowledge and experience to understand financial reporting, capital adequacy, risk management, internal controls, and the regulatory environment in which banks operate. The Basel Committee on Banking Supervision emphasizes that bank boards should collectively possess appropriate competence and experience in areas such as finance, accounting, risk management, regulation, auditing, and compliance to enable effective oversight and sound decision-making. Empirical evidence also indicates that financial expertise among bank directors can influence capital decisions and strengthen the board's understanding of bank risks and recapitalization needs (Gilani et al., 2021). Prior studies generally examine direct relationships, whereas this study examines whether Board Expertise changes the strength or direction of the corporate attribute compliance relationship. Moreover, these persistent banking challenges have inspired the thoughts of many authors and academics, as documented in the literature, who approached them from different angles, employed different methodologies, and arrived at different conclusions in line with their findings. Several studies such as Uddin (2020), and Salisu (2018) exist on various aspects of DMBs, interested in other aspects of the economy. Similarly, some focus on compliance with the International Financial Reporting Standard (IFRS), while others cover compliance with the Code of Corporate Governance. Some studies that examine compliance levels with the Banks and Other Financial Institutions Act (BOFIA), while others that work on the selected regulatory frameworks jointly. And some, specifically, focus on compliance with prudential guidelines while positioning their diverse recommendations (Abdulraheem, 2022).

Despite the various measures such as monitoring systems and regulations, the banking industry continues to experience distress, crisis and failures. This suggests that the current methods of ensuring industry stability are insufficient. Although corporate attributes may influence prudential compliance, their effects are unlikely to operate independently of the governance capacity of the board. Bank directors are responsible for overseeing management, risk-taking, financial reporting, internal controls, and other activities that have direct implications for regulatory compliance. Effective oversight therefore requires directors who possess sufficient technical knowledge to understand complex financial and regulatory information. Despite this regulatory emphasis, relatively limited empirical attention has been given to whether board expertise changes the way bank-specific corporate attributes influence prudential compliance. The present study investigates whether these relationships are conditional on-board expertise and additionally incorporates audit firm type. Accordingly, the contribution lies specifically in testing the governance-contingency role of board expertise in prudential compliance rather than re-establishing the direct effects previously examined. The moderation results are further evaluated through appropriate robustness and marginal-effects analyses.

LITERATURE REVIEW

The Concept of Corporate and Governance Attributes

Corporate and governance attributes refer to the internal characteristics and governance mechanisms that influence how an organization is managed, controlled, and monitored. These attributes help explain how firms ensure accountability, transparency, and compliance with regulatory requirements (Abba et al., 2025). In corporate governance literature, they are considered important determinants of organizational performance and regulatory adherence. Corporate attributes describe measurable features of a firm such as assets tangibility, revenue growth, audit type, profitability, and ownership structure. These characteristics reflect the financial strength and operational capacity of a firm and can influence how organizations respond to regulatory obligations and maintain sound financial practices. Governance attributes relate to the structures and mechanisms that guide corporate decision-making and oversight. These include ownership structure, board composition, board independence, and audit committee effectiveness. Such mechanisms help reduce conflicts of interest between managers and shareholders and promote responsible management. In the banking sector, corporate and governance attributes are particularly important because banks operate in a highly regulated environment. These attributes influence how banks manage risks and comply with regulatory standards. For listed Deposit Money Banks in Nigeria, corporate and governance attributes play a significant role in determining their level of compliance with prudential guidelines and maintaining financial stability.

Assets Tangibility

Assets tangibility refers to the proportion of a firm's physical or tangible assets relative to its total assets. Tangible assets include items such as property, buildings, equipment, and other fixed assets that have a physical form and can be easily valued (Lei et al., 2017). In financial and corporate governance studies, assets tangibility is often used as an indicator of a firm's asset structure and financial stability. Firms with higher levels of tangible assets are generally perceived to have stronger collateral value and lower operational uncertainty. In the banking sector, assets tangibility reflects the extent to which banks maintain physical or fixed assets within their overall asset portfolio. Although banks primarily deal with financial assets, the level of tangible assets can still influence their operational capacity, risk management practices, and financial reporting behavior. Tangible assets may also enhance a bank's credibility and provide additional assurance to stakeholders regarding the bank's financial strength Charlie and Akpan (2020), Assets tangibility is also considered an important corporate attribute that can influence a firm's compliance with regulatory requirements. Organizations with a stronger tangible asset base may have better financial stability and internal control systems, which can support adherence to regulatory standards and prudential guidelines. Conversely, firms with lower tangible assets may rely more heavily on intangible or financial assets, which may require stronger monitoring and governance mechanisms to ensure regulatory compliance (Moshirian et al., 2017).

Revenue Growth

Revenue growth refers to the increase in a firm's income from its business operations overtime and is commonly used to measure organizational expansion and financial performance (Ekwe, 2013). In the banking sector, it reflects a bank's ability to grow its services, attract customers, and generate higher earnings from financial activities such as lending and investments. As a corporate attribute, revenue growth can influence a bank's capacity to meet regulatory requirements. Banks with consistent revenue growth are generally in a stronger financial position to maintain effective internal controls, manage risks, and comply with regulatory standards. In the context of listed Deposit Money Banks in Nigeria, strong revenue growth may enhance their ability to comply with prudential guidelines issued by the Central Bank of Nigeria and maintain financial stability.

Ownership Structure

Ownership structure refers to the distribution of shares and the pattern of ownership within a firm. It indicates the extent to which ownership is held by different categories of shareholders such as institutional investors, government, foreign investors, and individual shareholders (Yahaya and Lawal., 2018). Ownership structure

is considered an important governance attribute because it influences the level of control, monitoring, and decision-making within an organization. In corporate governance studies, ownership structure plays a significant role in shaping managerial behavior and ensuring accountability. A concentrated ownership structure allows dominant shareholders to exercise influence that is often expressed through active participation in corporate decision-making, board representation, and closer monitoring of management (Salim et al., 2025). When ownership is concentrated among large shareholders or institutional investors, monitoring of management tends to be stronger, which can improve transparency and compliance with regulatory requirements (Lynn & Mooney 2019). Conversely, highly dispersed ownership may weaken monitoring mechanisms and reduce the effectiveness of corporate oversight. In the banking sector, ownership structure is particularly important due to the sensitive and highly regulated nature of industry operations (Prorokowski and Prorokowski 2014). Different ownership patterns can influence the governance quality, risk management practices, and compliance behavior of banks. For example, institutional or foreign ownership may promote better governance practices and encourage stricter adherence to regulatory standards.

Audit Type

This refers to the external auditor that is auditing a DMB. Auditor type is a corporate attribute that refers to the classification or category of auditing firm responsible for reviewing and evaluating an entity's financial records and statements. Audit firms can be Big Four (4) External Auditors and the Non-Big Four (4) External Auditors. The four largest audit firms are the Big-4 Audit Firms, or PwC, KPMG, Earnest and Young (E&Y), and Deloitte. Theoretically, the Big-4 Auditors are thought to offer superior Financial Information than the NonBig-4 Auditors because of their reputation, expertise, and resources or brand name, more legal risk aversion, better industry experience, and higher audit charge (Awuye 2022; Jacob et al., 2019).

Board Expertise

Board expertise refers to the knowledge, skills, professional competence, and relevant experience possessed by members of the board of directors that enable them to understand and supervise the activities of an organization effectively. In banking institutions, such expertise is particularly important because directors are required to oversee complex financial activities, risk exposures, capital decisions, internal controls, regulatory obligations, and financial reporting processes. Board financial expertise may enhance the ability of directors to interpret financial information, identify regulatory risks, question management decisions, and evaluate whether internal systems adequately support compliance. Gilani et al. (2021) find that banks with a higher proportion of financially experienced independent directors maintain higher target capital ratios and adjust more rapidly when undercapitalized, suggesting that technical expertise improves directors' understanding of bank risks and capital-management decisions.

Prudential Guidelines

Prudential guidelines are regulatory rules issued by financial authorities to ensure the safety, stability, and sound management of financial institutions. In Nigeria, these guidelines are established by the Central Bank of Nigeria to regulate the operations of banks and maintain stability within the financial system. The guidelines provide standards for risk management, loan classification, provisioning for bad and doubtful debts, capital adequacy, liquidity management, and financial reporting (Ehimare 2025). The primary objective of prudential guidelines is to promote transparency, accountability, and prudent banking practices. By setting clear regulatory standards, these guidelines help prevent excessive risk-taking and ensure that banks maintain adequate financial buffers to absorb potential losses (Sihotang 2021). They also enhance public confidence in the banking sector by ensuring that banks operate in a safe and responsible manner. For Deposit Money Banks, adherence to prudential guidelines is essential for maintaining financial discipline and safeguarding depositors' funds.

In the banking sector, compliance with prudential guidelines is critical for maintaining financial stability and minimizing systemic risks. Banks that comply with these regulations are better positioned to manage credit risk, maintain accurate financial reporting, and ensure operational transparency (Choudhary 2024). Conversely, non-compliance may expose banks to regulatory sanctions, financial instability, and reputational

damage. Within the context of listed Deposit Money Banks in Nigeria, prudential guideline compliance serves as an important indicator of regulatory discipline and effective corporate governance. It reflects how well banks follow regulatory provisions intended to promote financial stability and protect the interests of depositors and other stakeholders. Strong compliance with prudential guidelines therefore contributes to a more resilient and trustworthy banking system.

Review of Empirical Studies on Banking Regulatory Compliance

Several studies evaluate the relationship between corporate attribute and prudential guidelines within different sectors of the economy which include,

Felix and Osad (2025) examines the influence of prudential guidelines on the financial performance of Nigerian listed deposit money banks (DMBs) from 2010 to 2022. Prudential measures considered include capital adequacy, asset quality, management efficiency, earnings, liquidity, and sensitivity to market risk, while financial performance was assessed using return on equity (ROE), return on assets (ROA), and profit after tax (PAT). Data was sourced from the annual reports of thirteen listed DMBs and analyzed using descriptive statistics alongside panel data regression. Pearson correlation was employed to assess the relationships among variables, and the Hausman test determined the appropriate model, leading to the adoption of a random effects regression. Results show that capital adequacy, asset quality, and market risk sensitivity had no significant impact on financial performance, whereas management efficiency significantly influenced ROA and PAT, earnings positively affected ROA and PAT, and liquidity was significant for ROA but not for ROE or PAT. The study recommends that DMBs pursue long-term, strategic capital management practices aligned with regulatory requirements to improve performance while ensuring compliance with prudential guidelines.

Mwangi and Omagwa (2025) This study investigates the effect of prudential regulations on the profitability of commercial banks listed on the Nairobi Stock Exchange. Focusing on capital adequacy, liquidity, and credit risk, it examines whether bank size moderates these effects. Using panel data from 2013 to 2021 and guided by multiple financial and management theories, the study finds that stricter liquidity and credit risk regulations significantly reduce profitability, while capital adequacy has minimal impact. Bank size does not significantly alter these relationships. The study recommends that regulators and banks' balance financial stability with profitability by refining liquidity and credit risk policies and optimizing liquid assets and loan approval processes.

Thomas et al. (2023) The study investigates banks' compliance with Basel III disclosure requirements in the emerging economies of the United Arab Emirates (UAE) and India, examining how bank-specific factors size, profitability, and financial leverage affect the extent of regulatory reporting. Using panel data regression models, the analysis reveals that bank size is the most significant determinant of Basel III disclosure, followed by profitability and leverage.

The findings suggest that banks, regardless of scale, need to maintain strong capital positions to enhance resilience against economic shocks and prevent crises from escalating into systemic financial disruptions. The study highlights the importance of coordinated efforts among emerging-market banks to allocate adequate resources toward full regulatory compliance, highlighting its relevance for regulators, practitioners, and investors. Investors may view banks with higher Basel III adherence as more stable and safer investment options compared to those with lower compliance levels.

Alley et al. (2023) The study empirical evidence focused on the banking sector reforms implemented in Nigeria in 2004 and 2009 contributed to improvements in prudential performance and overall financial system stability. Studies examining the effectiveness of these reforms show that key indicators such as the capital-to-assets ratio increased, while the non-performing loan ratio declined, reflecting enhanced asset quality and resilience within the banking sector.

When accounting for trend effects, the capital-to-earning-assets ratio also improved, although profitability measures such as return on assets, return on equity, and return on earning assets experienced a decline,

suggesting that the reforms prioritized stability and risk absorption over short-term profitability. These findings provide valuable insights for understanding how regulatory reforms can strengthen the prudential soundness of banks, and they serve as a foundation for further empirical studies exploring regulatory compliance and stability in the Nigerian banking sector.

Soomiyol et al. (2023). investigates the impact of prudential guidelines on the financial performance of deposit money banks (DMBs) in Nigeria. Specifically, it examines the effects of capital adequacy regulation, liquidity regulation, and credit risk regulation on bank performance, using Return on Assets (ROA) and Return on Equity (ROE) as proxies for financial performance. Anchored on agency and liquidity preference theories, the study employs multivariate regression, correlation analysis, and descriptive statistics.

The findings indicate that capital adequacy regulation has a negative but insignificant effect on ROA, while positively and significantly influencing ROE. Liquidity regulation is negatively associated with financial performance, and credit risk regulation exerts a detrimental effect on both ROA and ROE. Based on these results, the study recommends periodic review of minimum capital requirements to ensure optimal levels, as well as enhancing capitalization to enable banks to access cheaper funding, improve profit margins, meet consumer credit demands, and safeguard depositors' funds, thereby strengthening public confidence in the banking sector.

Liang et al. (2023) This study aims to examine whether financial institutions, as highly regulated entities, are subject to fewer sanctions and lower regulatory penalties when they demonstrate stronger corporate governance practices. The research utilizes corporate governance data validated by regulatory authorities, alongside records of sanctions imposed on financial institutions in Taiwan between 2014 and 2020.

It investigates the relationship between voluntary corporate governance performance and mandatory regulatory compliance, while also assessing the moderating effects of shareholder concentration, government ownership, and foreign institutional ownership. Results indicate a positive relationship between corporate governance quality and regulatory compliance. However, this association is weaker in institutions with higher shareholder concentration and stronger in those with greater government shareholding, highlighting the role of ownership structure in influencing compliance outcomes.

Becker and Buchkremer (2019) The study investigates whether compliance management within the risk management frameworks of financial institutions can be improved through the application of Process Mining techniques. The research develops and evaluates a procedure for implementing a selected Process Mining application at a financial institution in Germany.

Analysis using the Process Mining tool, Disco, demonstrates that the execution of business processes can be monitored in real time, allowing for the identification and detailed analysis of potential non-compliant activities and process durations. The study highlights that effective use of Process Mining depends on the availability and proper formatting of process data, as well as adherence to data privacy regulations, which are essential conditions for ensuring reliable compliance monitoring.

THEORETICAL REVIEW

Agency Theory

Agency Theory provides an important theoretical explanation for the moderating role of board expertise in the relationship between corporate attributes and prudential compliance. Jensen and Meckling (1976) describe the agency relationship as one in which principals delegate decision-making authority to agents, creating the possibility that managers may pursue interests that do not fully align with those of owners. Such divergence gives rise to agency costs and creates a need for monitoring and governance mechanisms capable of constraining managerial opportunism.

In banking institutions, agency problems may be particularly important because managers exercise substantial discretion over lending, investment, risk-taking, financial reporting, asset allocation, and compliance

decisions. The complexity and opacity of banking activities can increase information asymmetry between management and the board, making effective board monitoring especially important. Bank governance literature therefore recognizes boards as central monitoring mechanisms responsible for overseeing management and controlling risk-taking behaviour (Bhatia & Gulati, 2021).

Stakeholder Theory

The study is supported by stakeholder theory, which sees managers' relationships with all of the banking industry's stakeholders as dependent on managers' adherence to the statute (Prudential Guideline). A bank is made up of various stakeholders with various interests. The interests of stakeholders, including consumers, debenture holders, members of the public, bankers, suppliers, the government, regulatory agencies, and creditors, to name a few, should therefore be considered when decisions are being made in a bank. However, the interest of each part should be included as part and parcel of the goal of the firm.

According to the stakeholders' theory, banks should adhere to the law (prudential guideline) provisions more since the compliance shows their genuine identity or financial situation to their numerous stakeholders. On the other hand, the bank's directors are supposed to put the interests of all of the bank's stakeholders above their own when performing their obligations. As seen from the preceding, stakeholder theory holds that not just one stakeholder's interests should be taken into consideration but rather those of all stakeholders. This motivates the banks to abide by the law's requirements even more in order to give its users (stakeholders) of its financial report a truthful picture of its financial situation.

Compliance Theory is relevant to this study because it provides a useful explanation of how organizations respond to regulatory requirements and other forms of institutional authority. The theory emphasizes the relationship between the type of power exercised by an authority and the nature of participants' involvement within an organization. Etzioni (1961) explains that organizations may be classified according to the forms of power used to influence behaviour and the corresponding pattern of member involvement. Within the banking sector, this perspective is particularly applicable because regulatory institutions such as the Central Bank of Nigeria (CBN), the Nigeria Deposit Insurance Corporation (NDIC), and the Securities and Exchange Commission (SEC) possess formal authority to prescribe standards and enforce compliance. Deposit Money Banks are therefore expected to operate in accordance with prudential requirements, while breaches may attract sanctions, penalties, or other regulatory consequences.

In this context, compliance may arise from the desire to avoid punishment, from the economic benefits associated with continued regulatory approval, or from the internalization of accepted professional and institutional norms (Etzioni, 1961). Applied to Nigerian Deposit Money Banks, both approaches are relevant. Regulatory authorities may promote compliance through supervisory guidance, engagement, and regulatory support, while also applying sanctions or penalties where banks fail to comply with prudential requirements. Compliance Theory therefore provides an appropriate foundation for explaining why banks respond differently to regulatory expectations and how both cooperative and enforcement mechanisms may shape adherence to the CBN Prudential Guidelines

CONCEPTUAL FRAMEWORK

Figure 1 presents the conceptual framework of the study. Asset tangibility, revenue growth, ownership structure, and audit type constitute the independent variables, while compliance with the CBN Prudential Guidelines is the dependent variable.

Board Expertise serves as the moderating variable and is expected to influence the strength or direction of the relationships between each corporate attribute and prudential guideline compliance.

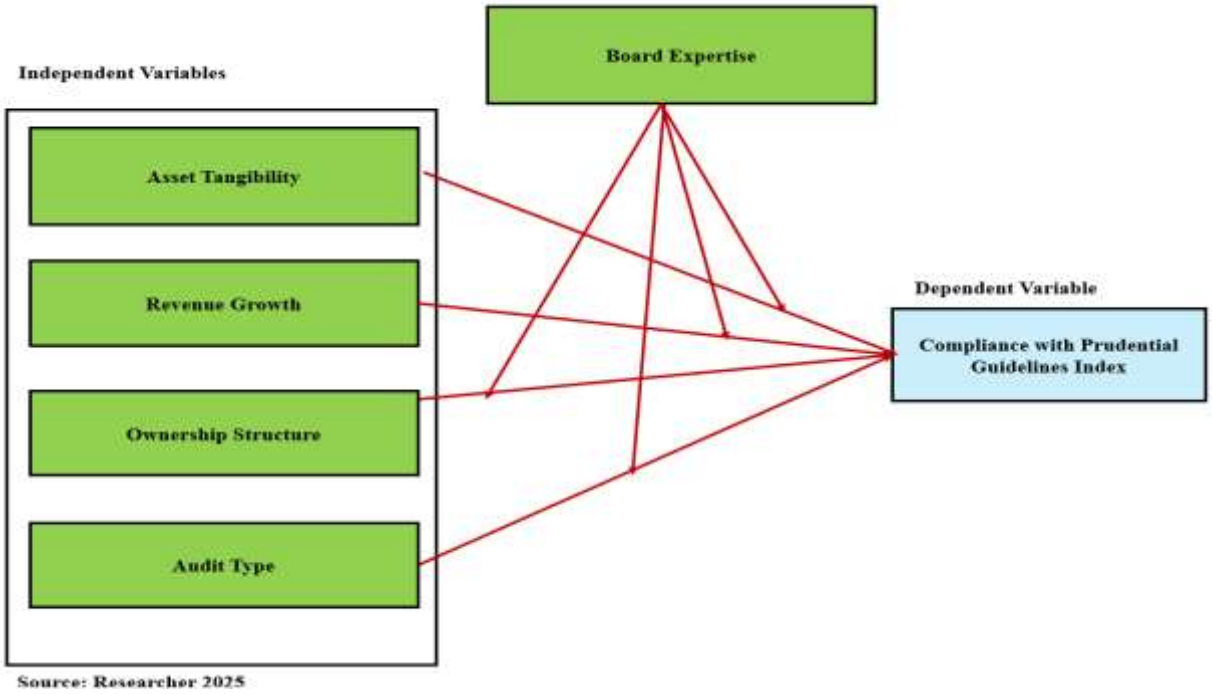

Figure 1: Conceptual Framework

Statement of Hypotheses

H1a: Asset tangibility has a significant relationship with compliance with prudential guidelines among listed Deposit Money Banks in Nigeria.

H1b: Board expertise positively moderates the relationship between asset tangibility and compliance with prudential guidelines.

H2a: Revenue growth has a significant relationship with compliance with prudential guidelines among listed Deposit Money Banks in Nigeria.

H2b: Board expertise positively moderates the relationship between revenue growth and compliance with prudential guidelines.

H3a: Ownership structure has a significant relationship with compliance with prudential guidelines among listed Deposit Money Banks in Nigeria.

H3b: Board expertise positively moderates the relationship between ownership structure and compliance with prudential guidelines.

H4a: Audit firm type has a significant relationship with compliance with prudential guidelines among listed Deposit Money Banks in Nigeria.

H4b: Board expertise significantly moderates the relationship between audit firm type and compliance with prudential guidelines.

METHODOLOGY

The study adopted a quantitative research design to examine the extent which board expertise moderates the relationship between asset tangibility, revenue growth, ownership structure and audit firm type with compliance with prudential guidelines, Secondary data were extracted from the annual reports and financial statements of the Deposit Money Banks and content analysis method based on the checklist extracted from the CBN Prudential Guidelines 2010. The study covered the period of 10 years from 2012 to 2021. The population of the study consist of all Deposit Money Banks listed in the Nigerian Exchange Group. After

inclusion and exclusion criteria the study comprised 13 Deposit Money Banks were considered, Jaiz bank was excluded because the bank was not listed at the beginning of the study period, resulting in 130 bank-year observations. The data were analyzed using descriptive statistics, Pearson correlation analysis, Variance Inflation Factor analysis, Fixed Effects regression, Random Effects regression, and the Hausman specification test. Descriptive statistics were used to summarize or explain the nature of sample distribution of the study variables, while correlation analysis was employed to examine the relationships among the variables of the study. The Fixed Effects and Random Effects models were subsequently estimated to examine the relationships among asset tangibility, revenue growth, ownership structure, audit type, board expertise, and prudential guideline compliance. The Hausman specification test was employed to determine whether the Fixed Effects or Random Effects estimator was more appropriate for the final interpretation of the results.

Measurement of Variables

Table 1 explains the relationship between moderation, explanatory and dependent variables.

Table 1: Measurement of Variables

Variables	Proxy
Compliance Index (CiX)	Number of Prudential Guidelines Complied with / Number of Prudential Guidelines expected to complied wth 1 * 100 (Ekwe,2013)
Assets Tangibility (AsT)	Tangible Asset/total Asset (Charlie & Akpan, 2020)
Ownership Structure (OwS)	Foreign/International shareholdings divide by total share of the DMB
Revenue Growth (RvG)	The difference in present and previous year revenue (Ekwe, 2013)
Auditor Type (AuT)	Big-4 Audit firm 1 and others audit firm 0 (Khalil,2021)
Board Expetise (BEXP)	Ratio total number of board of directors with accounting and related discipline to total number of board members

Source: Authors' 2025

Model Specification for the Study

The model for this study is specified, thus:

$$CIXit = \beta0 + \beta1ASTit + \beta2RVGit + \beta3OWSit + \beta4AUTit + \beta5BEXPit + \beta6(AST \times BEXP)it + \beta7(RVG \times BEXP)it + \beta8(OWS \times BEXP)it + \beta9(AUT \times BEXP)it + \mu i + \varepsilon it$$

CIX = lagged compliance index

AST = Asset Tangibility

RVG = Revenue Growth

OWS = Ownership Structure

AUT = Audit Type

B EXP = Board Expertise

AST × BEXP = interaction between asset tangibility and board expertise

RVG × BEXP = interaction between revenue growth and board expertise

OWS × BEXP = interaction between ownership structure and board expertise

AUT × BEXP = interaction between audit type and board expertise

ε_{it} = Error term

Data Presentation and Analysis

Descriptive Statistics

Table 2: Descriptive Statistics

Variable	Observations	Mean	Std. Deviation	Minimum	Maximum
CIX	130	0.7785385	0.0814892	0.4000	0.9000
AST	130	0.0276323	0.0185591	0.0001	0.1374
RVG	130	-0.7934238	5.498643	-45.0648	1.0000
OWS	130	0.2068454	0.3260840	0.0000	1.0000
AUT	130	0.9076923	0.2905796	0.0000	1.0000
BEXP	130	0.5340069	0.1466408	0.1875	0.9375

Source: STATA Version 14.0 Output

Table 2 presents the descriptive statistics which show compliance index has an average value of 0.7785, indicating that the sampled Deposit Money Banks complied with a substantial proportion of the prudential guideline requirements during the study period. However, the range between the minimum and maximum values indicates variation in compliance across banks and years. Asset tangibility indicates a relatively low mean value, showing that tangible assets constitute a small proportion of the banks' total assets. Revenue Growth shows considerable dispersion, with a negative mean and a wide range, indicating substantial differences in revenue changes across the bank-year observations. Ownership structure also varies considerably across the sample. Audit type has a high mean value, indicating that most observations fall within the audit category coded as one. Board expertise averages slightly above one-half, suggesting that, on average, slightly more than half of the board members possess the expertise captured by the study.

Correlation Analysis

Table 3: presents the Pearson correlation coefficients and associated p-values.

Variable	CIX	AST	RVG	OWS	AUT	BEXP
CIX	1.0000					
AST	-0.1446 (0.1007)	1.0000				
RVG	-0.0518 (0.5582)	0.1185 (0.1793)	1.0000			
OWS	-0.1527 (0.0829)	0.2286 (0.0089)	0.1023 (0.2467)	1.0000		
AUT	0.2169 (0.0132)	-0.4811 (<0.001)	-0.0461 (0.6022)	0.2030 (0.0205)	1.0000	
BEXP	0.2579 (0.0031)	-0.0575 (0.5160)	0.0516 (0.5598)	-0.1308 (0.1380)	0.0256 (0.7721)	1.0000

Source: STATA Version 14.0 Output

Table 3 presents the correlation results which show asset tangibility and revenue growth have weak negative relationships with CIX, while ownership structure also indicates a weak negative relationship with compliance. Audit type has a positive and significant correlation with CIX, indicating that the audit-type classification is associated with differences in prudential compliance. Board Expertise also has a positive and significant relationship with CIX, suggesting that banks with higher levels of expertise tend to record higher compliance levels before controlling for the other explanatory variables.

Multicollinearity Test

Variance Inflation Factor analysis was conducted to assess multicollinearity among the explanatory variables

Table 4: Multicollinearity Test

Variable	VIF	1/VIF
AST	1.53	0.654002
AUT	1.51	0.663481
OWS	1.25	0.800412
RVG	1.03	0.974898
BEXP	1.03	0.975253
Mean VIF	1.27	

Source: STATA Version 14.0 Output

Table 4 presents the multicollinearity result, the Variance Inflation Factor (VIF) results provide further

evidence that multicollinearity is not a serious concern in the model. The individual VIF values indicate a minimum and maximum value 1.03 to 1.53, with a mean VIF of 1.27. The outcome indicates a relatively low value this indicates the explanatory variables do not appear to contain problematic levels of linear dependence. The variables can be used for the regression model without evidence of serious multicollinearity.

Fixed Effects Moderation Result

Table 5: Fixed Effects Moderation Result

Variable	Coefficient	Std. Error	t-Statistic	p-value
AST	0.511782	2.461783	0.21	0.836
RVG	-0.000345	0.008672	-0.04	0.968
OWS	-0.038630	0.119104	-0.32	0.746
AUT	0.332886	0.118300	2.81	0.006
BEXP	0.484782	0.274356	1.77	0.080
AST × BEXP	-0.199023	4.546765	-0.04	0.965
RVG × BEXP	-0.000110	0.018697	-0.01	0.995
OWS × BEXP	0.022940	0.137743	0.17	0.868
AUT × BEXP	-0.450589	0.214173	-2.10	0.038
Constant	0.430447	0.150329	2.86	0.005

Source: STATA Version 14.0 Output

Model Statistic	Value
Number of observations	130
Number of banks	13
Within R-squared	0.1382
Between R-squared	0.1494
Overall R-squared	0.1408
F-statistic	1.92
Prob. > F	0.0559
F-test that all bank effects = 0	2.48
Prob. > F for bank effects	0.0066
Rho	0.227475

Source: STATA Version 14.0 Output

Table 5 presents the result of fixed effect on examining the extent which board expertise moderates the relationship between asset tangibility, revenue growth, ownership structure and audit type with compliance with prudential guidelines. The fixed effects results show that asset tangibility, revenue growth and ownership structure are not statistically significantly associated with prudential guideline compliance. However, audit type has a positive and significant relationship with compliance with prudential guidelines, while board expertise has a positive and significant relationship with compliance with prudential guidelines at 10% level of significant.

Regarding the moderating effects, the interactions asset tangibility, revenue growth and ownership structure are statistically insignificant. The Fixed Effects results therefore provide no evidence that board expertise moderates the relationships between these three corporate attributes and prudential guideline compliance. However, board expertise moderating audit type shows negative and statistically significant. This indicates that the relationship between Audit Type and compliance varies according to the level of board expertise. The negative interaction coefficient means that the positive relationship associated with audit type becomes smaller as board expertise increases. The test of bank-specific effects is statistically significant, indicating that unobserved differences across the sampled banks are relevant to variations in prudential guideline compliance.

Random Effects Moderation Results

Table 6: Random Effects Moderation Results

Variable	Coefficient	Std. Error	z-Statistic	p-value
AST	0.676506	2.362935	0.29	0.775
RVG	0.000193	0.008550	0.02	0.982
OWS	-0.057053	0.078045	-0.73	0.465
AUT	0.317507	0.115066	2.76	0.006
BEXP	0.520503	0.266068	1.96	0.050
AST × BEXP	-0.701977	4.322179	-0.16	0.871
RVG × BEXP	-0.001311	0.018443	-0.07	0.943
OWS × BEXP	0.013484	0.131614	0.10	0.918
AUT × BEXP	-0.441457	0.210112	-2.10	0.036
Constant	0.428449	0.145300	2.95	0.003

Source: STATA Version 14.0 Output

Model Statistic	Value
Number of observations	130
Number of banks	13
Within R-squared	0.1340

Between R-squared	0.2761
Overall R-squared	0.1688
Wald chi-square (9)	20.94
Prob. > chi-square	0.0129
Rho	0.154555

Source: STATA Version 14.0 Output

Table 6 presents the random effects specification, the outcome indicates asset tangibility and revenue growth have positive coefficients, while ownership structure has a negative coefficient; however, none of these relationships is statistically significant. However, audit type remains positive and statistically significant. Board expertise is also positive. As with the fixed effects results, the presence of interaction terms means that these main coefficients are conditional on the values of the variables involved in the interactions. The moderation results show that asset tangibility, revenue growth and ownership structure are statistically insignificant. Consequently, the result of the random effects model provides no statistical evidence that board expertise moderates the relationships of asset tangibility, revenue growth and ownership structure with prudential guideline compliance. However, the moderation of audit type has a negative and significant relationship, this provides evidence that board expertise moderates the relationship between audit type and prudential guideline compliance. The negative interaction indicates that the positive relationship between audit type and compliance reduces as board expertise increases.

Hausman Specification Test

Table 7: Hausman Specification Test

Test	**Chi-square**	**df**	**p-value**	**Preferred Model**
Hausman Test	5.61	9	0.7779	Random Effects

Source: STATA Version 14.0 Output

The Hausman specification test does not reject the null hypothesis that the differences between the fixed effects and random effects coefficients are systematic. Accordingly, the random effects model is preferred for the final interpretation of the findings. The substantive conclusion is therefore that Board Expertise does not significantly moderate the asset tangibility, revenue growth and ownership structure relationships, whereas it significantly moderates the relationship between audit type and prudential guideline compliance.

DISCUSSION OF THE FINDINGS

The findings indicate that asset tangibility, revenue growth and ownership structure are not statistically significant in explaining prudential guideline compliance under the random effects model. This suggests that variations in these corporate attributes. The insignificant result for asset tangibility indicates that the proportion of tangible assets does not translate into stronger regulatory compliance. Similarly, revenue growth indicates an insignificant relationship with compliance, this justified higher or lower revenue changes are not necessarily associated with better adherence to prudential requirements. Ownership structure also remains statistically insignificant, indicating that differences in ownership arrangements do not independently explain compliance outcomes in the sampled banks. Audit type, however, has a positive and statistically significant relationship with prudential guideline compliance. This indicates that the audit classification used in the study is associated with differences in compliance levels. Board Expertise is also positive and lies at the conventional

significance threshold, suggesting that greater board expertise may be associated with higher compliance, although this result should be interpreted cautiously because Board Expertise also enters the model through interaction terms.

Regarding the moderating role of board expertise, the interaction terms involving asset tangibility, revenue growth and ownership structure are statistically insignificant. Therefore, there is cogent evidence that board expertise moderates the relationships between these asset tangibility, revenue growth and ownership structure prudential guideline compliance. However, the interaction between audit type and board expertise is negative and statistically significant. This indicates that board expertise moderates the relationship between audit type and compliance.

CONCLUSION

The study concludes that the corporate attributes examined in this study do not have consistent relationship with compliance with the Central Bank of Nigeria (CBN) Prudential Guidelines. Asset tangibility, revenue growth and ownership structure are not statistically significant using the selected random effects model, while audit type shows a positive and significant relationship with compliance. Board expertise also shows a positive association at the conventional significance threshold. The moderation results further show that board expertise does not significantly moderate the relationships of asset tangibility, revenue growth, or ownership structure with prudential guideline compliance. However, board expertise significantly moderates the relationship between audit type and compliance. The findings therefore suggest that the relevance of board expertise is more evident in its interaction with the external audit arrangement than in altering the effects of the other corporate attributes examined.

Recommendations

Deposit money banks should continue to strengthen the quality of their external audit arrangements, given the positive relationship between audit type and compliance with prudential guidelines. Banks should also ensure that board members possess relevant regulatory knowledge, financial, and risk-management, and so that they can effectively support oversight and compliance responsibilities. Since board expertise has a significant moderating relationship with audit type and compliance, banks should encourage effective coordination between knowledgeable boards and external auditors rather than treating these governance mechanisms as separate compliance structures. The insignificant relationship between asset tangibility, revenue growth and ownership structure indicates that regulators and management should place emphasis on the quality of compliance procedures, internal controls, board oversight, , and regulatory monitoring.

REFERENCES

1. Abba, D., Yahaya, D., Bala, S. P., & Abubakar, D. (2025). Corporate Attributes and Prudential Guideline Compliance Among Nigeria Banks. INTERNATIONAL JOURNAL OF RESEARCH, 9, 191-217.
2. Abdullahi, S. R., & Adam, U.A. (2017). Assessment of compliance with International Financial Reporting Standard 4 by Listed Insurance Companies in Nigeria. Bayero International Journal of Accounting Research. 11(1).
3. Abdulraheem, A. (2022). Performance Indices of Deposit Money Banks: A Post Consolidation Trend Analysis (Quarterly 38(2)). Research, Policy, and International Relations Department, Nigeria Deposit Insurance Corporation (NDIC).
4. Adeleye, N., Osabuohien, E., & Bowale, E. (2017). The role of institutions in the finance-inequality nexus in Sub-Saharan Africa. Journal of Contextual Economics, 137(1-2), 173-192.
5. Alley, I., Hassan, H., Wali, A. and Suleiman, F. (2023), "Banking sector reforms in Nigeria: an empirical appraisal", Journal of Financial Regulation and Compliance, Vol. 31 No. 3, pp. 351-378.
6. Awuye, I. S. (2022). The impact of audit quality on earnings management: Evidence from France. Journal of Accounting and Taxation, 14, 52-63
7. Becker, M., & Buchkremer, R. (2019). A practical process mining approach for compliance management. Journal of Financial Regulation and Compliance, 27(4), 464-478.

8. Bhatia, M., & Gulati, R. (2021). Board governance and bank performance: A meta-analysis. Research in International Business and Finance, 58, 101425.
9. Charlie, S. S. & Akpan, S. S. (2020). Tangible and Intangible Asset Ratio and Performance of Deposit Money Banks in Nigeria. Management Science Review, 11(1)
10. Choudhary, P. (2024). Prudential regulation of banks a critical review. International Journal of Research in Finance and Management.
11. Ehimare, U. (2025). Macroprudential policy and credit risk management in Nigerian banks: An empirical analysis. International Journal of Science and Research Archive.
12. Ekwe, M. C. (2013). The Relationship between Intellectual Capitals and Growth in Revenue of Deposit Money Banks in Nigeria. Research Journal of Finance and Accounting, 4(12).
13. Eseoghene, O., & Oghenevwogaga, O. (2021). Does Audit Committee Characteristics Drive Financial Performance? A Case of Nigeria Service Firms. Gusau International Journal of Management and Social Sciences, 4(1).
14. Etzioni, A. (1961). A comparative analysis of complex organizations: On power, involvement, and their correlates. Free Press
15. Eyoma, O. B. A. K. A., & Danjuma, J. (2025). ethical challenges and financial performance in the nigeria banking sector. Abuja Journal of Business and Management, 3(2).
16. Felix, I. A., & Osad, O. I. (2025). Prudential Guidelines and Financial Performance of Quoted Deposit Money Banks in Nigeria. Nigerian Journal of Business Administration, 23(1).
17. Gilani, U., Keasey, K., & Vallascas, F. (2021). Board financial expertise and the capital decisions of US banks. Journal of Corporate Finance, 71, 102091.
18. Ibrahima, U. S., Haruna, H. A., Rugga, H. H., Aliyu, A., & Musa, A. (2023). Impact of audit quality on earnings management of listed cement companies in Nigeria. Northwest Journal of Social and Management Sciences, 163.
19. Jacob, J., Desai, N., & Agarwalla, S. K. (2019). An examination of factors driving big 4 audit fee premiums: Evidence from India's audit market. Accounting Horizons, 33(2), 43-58.
20. Jensen, M., & Meckling, W. (1976). Theory of the Firm: Managerial Behaviour, Agency Costs and Ownership Structure. Journal of Financial Economics, 39(3), 305-360.
21. Khalil, U.F., (2021). Auditor choice and its impact on financial reporting quality: A case of banking industry of Pakistan. Asia Pacific Management Review, 27(4), 292-302
22. Kirimi, P. N., Kariuki, S. N., & Ocharo, K. N. (2021). Ownership structure and financial performance: Evidence from Kenyan commercial banks. PLoS ONE, 17(5).
23. Lei, J. Qiu, J. & Wan, C. (2017) Asset tangibility, cash holdings, and financial development, Journal of Corporate Finance, 50(1),223-242.
24. Liang, S.-H., Lin, H.-C., & Hsiao, H.-Y. (2023). Compliance and governance: Evidence from financial institutions in Taiwan. Journal of Financial Regulation and Compliance, 31(3), 298-315.
25. Lynn, T. & Mooney, J. G. (2019), Disrupting Finance. FinTech and Strategy in the 21st Century. Palgrave Studies in Digital Business & Enabling Technologie.
26. Modibbo, J. & Tijjani, I. (2020). Corporate ownership structure and investors' confidence of listed deposit money banks in Nigeria. Gusau Journal of Accounting and Finance, 1(1).
27. Molokwu B. C (1994), Crisis in the Financial System: Genesis, Causes, Features, and Consequences. Restructuring the Nigeria Financial System for Stability and Development. Financial Institutions Training Centre, Lagos, pp. 43-55.
28. Moshirian, F., Nanda, V., Vadilyev, A., & Zhang, B. (2017). What drives investment–cash flow sensitivity around the World? An asset tangibility Perspective. Journal of Banking & Finance, 77(C), 1-17. https://doi.org/10.1016/j.jbankfin.2016.12.012
29. Mwangi, L. N., & Omagwa, J. (2025). Impact of Prudential Regulations on the Profitability of Commercial Banks Listed at the Nairobi Securities Exchange in Kenya. Asian Journal of Economics, Finance and Management, 7(1), 62-73.
30. Olota, O. O. (2025). Regulatory Framework of Fintech Ecosystem for Mobile Money Operator Performance in Nigeria. Journal of Techno-Social, 17(2), 55-67.
31. Prorokowski, L & Prorokowski, H. (2014), Organisation of compliance across financial institutions, Journal of Investment Compliance, 15(1), pp. 65-76.

32. Ruggah, H. H., Ibrahim, U. S., Haruna, H. A., Abba, B., Shehu Isa, F., & Yusuf, A. (2024). Effect of capital adequacy on the financial performance of Nigerian deposit money banks. FULafia International Journal of Business and Allied Studies, 2(3), 197-211.
33. Salim, U. I., Abba, B., Madaki, J., Idris, S., Mikail, B. U., & Ibrahim, Z. R. (2025). Effect of Board Size and Institutional Ownership on Corporate Tax Avoidance of Listed Money Banks in Nigeria. UMYU Journal of Accounting and Finance Research, 8(1), 50-62.
34. Sihotang, E. (2021). Implementation of good corporate governance and prudential principles prudential banking regulations in banking. Journal Equity of Law and Governance
35. Soomiyol, M., Bwuese, B., & Yua, H. (2023). Effect of prudential guidelines on the financial performance of deposit money banks in Nigeria. Journal of Global Accounting, 9(4), 118-146.
36. Thomas, S.S., Bansal, M. and Ahmed, I.E. (2023), Investigating the disclosure compliance of Basel III in emerging markets: a comparative study between UAE and Indian banks, Journal of Financial Regulation and Compliance, 31(3), pp. 281-297.
37. Yahaya, K. & Lawal, R. (2018). Effect of ownership structure on financial performance of deposit money banks in Nigeria. Journal of accounting and management, 8(2).
38. Uddin, G. (2020) prudential guidelines and financial system stability in Nigeria. Munich Personal RePEc Archive (MPRA). https://mpra.ub.uni-muenchen.de/104964/