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Effect of Leadership and Ownership Structure on Financial Performance of Deposit Money Banks in Nigeria

Abdulmumin Tijjani, Dr. Shamsuddeen Muhammad Ahmad

Department of Management, School of Arts Management & Social Science, Skyline University, Kano, Nigeria

ABSTRACT

This study investigates the effect of leadership and ownership structure on the financial performance of deposit money banks in Nigeria over the period 2014 to 2023. The research specifically examines how key governance variables Board Size, Board Gender Composition, Managerial Ownership, foreign ownership, Corporate Risk Disclosure, influence performance indicators such as return on Assets (ROA), Net Interest Margin (NIM), and Economic Value Added (EVA). Additionally, the study incorporates three control variables: management efficiency (MEFF), Non-Performing Loans, and Regulatory. Utilizing a panel dataset of twelve (12) listed Nigerian Deposit Money Banks over ten years, the study applies panel regression techniques, including Fixed Effects, Random Effects, and robust standard errors, to address heteroskedasticity and cross-sectional dependence. The findings reveal that Board Size has a negative and significant effect on ROA and EVA, suggesting that larger boards may hinder effective decision-making. Board Gender Composition and Managerial and foreign ownership positively influence performance in some models, supporting the view that diversity and insider alignment can enhance firm outcomes. Corporate Risk Disclosure consistently shows a strong positive relationship with all three performance measures, indicating the value of transparency in improving stakeholder confidence. The study contributes to the literature by providing empirical evidence from an emerging market and offers practical insights for regulators, bank management, and policymakers on the role of corporate governance in enhancing financial stability.

KEYWORDS: *Board size, board gender composition, managerial ownership, foreign ownership, corporate risk disclosure, financial performance*

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1. INTRODUCTION

1.1. Background of Study

The issue of Corporate Governance (CG) over the decades has attracted more attention and been emphasized by several researchers because of their potential consequences on the performance of banks both in developed and developing economies (Aboagye & Otieku, 2010; Aslam, & Haron 2021; Boachie, 2023; El-Chaarani, et al., 2022; Liedong & Rajwani, 2017; Menicucci, and Paolucci, 2023). CG refers to the systems, mechanisms, processes, and structures by which companies are controlled and directed (Aboagye & Otieku, 2010; Castrillón, 2021; Fama & Jensen, 1983). However, better financial performance has often been highlighted as one of the main benefits of adopting good CG mechanisms and structures within organizations. (Jensen & Meckling, 1976; Singh, & Pillai, 2022).

Moreover, numerous studies have linked poor corporate governance to corporate failures globally. A classic case is the collapse of Enron Corporation in 2001, which stemmed from serious governance lapses, including unethical accounting practices, conflicts of interest, fraudulent financial reporting and the board's failure to oversee management actions (Healy & Palepu, 2003; Financial Crisis Inquiry Commission, 2011; McCrum, 2020). The scandal led

to massive investor losses and regulatory reforms such as the Sarbanes-Oxley Act in the United States.

Similarly, the failure of Lehman Brothers in 2008 highlighted the consequences of excessive risk-taking and poor board oversight in the banking sector. The company's leadership engaged in highly leveraged investments and subprime mortgage exposure without adequate risk control, ultimately triggering the global financial crisis (Financial Crisis Inquiry Commission, 2011). Another notable example is Wirecard AG, a German fintech company that collapsed in 2020 due to fraudulent financial reporting and a failure of the supervisory board to detect irregularities in time (McCrum, 2020).

In Nigeria, corporate governance issues have also played a significant role in the downfall of several banks. According to Sanusi (2010), the crisis in the Nigerian banking sector in 2009 was largely due to poor governance practices, including insider lending, lack of transparency, and weak risk management systems. For example, Oceanic Bank International Plc was found to have engaged in high volumes of unsecured insider loans without adequate board scrutiny, leading to its eventual takeover by Ecobank. Similarly, Intercontinental Bank Plc suffered from poor credit risk management and internal control failures, prompting intervention by the Central Bank of Nigeria (CBN) and its subsequent acquisition by Access Bank. Another example is Afribank Nigeria Plc, which was plagued by persistent governance failures and was ultimately liquidated and succeeded by Mainstreet Bank (CBN, 2011).

However, these cases underscore the critical link between governance quality and bank performance. In both global and Nigerian contexts, the breakdown of corporate governance mechanisms, particularly board oversight, risk management, and financial transparency has been associated with significant financial distress and institutional collapse. Strengthening corporate governance frameworks is therefore vital for improving performance, investor confidence, and systemic stability in the banking sector (Aguilera & Cuervo-Cazurra, 2004; Nworji, Adebayo, & Adesina, 2011). In Nigeria, the introduction of the revised CBN Code of Corporate Governance for Banks (2014) is one effort aimed at addressing such failures and promoting more robust governance practices.

Recently, the Central Bank of Nigeria has ordered bank directors with non-performing insider-related loans to immediately resign from their positions as part of efforts to strengthen corporate governance and reduce credit risk exposure in the banking sector. This directive comes amid a significant reduction in director-related lending across some Nigerian banks, as revealed in their Q3 2024 unaudited financial statements.

Table 1.1 Director-Related Lending in Nigerian Banks

Period	Director Related Lending (₦ bn)
Sep 2023	12.44
Sep 2024	5.44

Source: Punch Newspaper (2025)

The apex bank also directed banks to initiate recovery efforts on outstanding debts, including seizing collaterals and liquidating the shareholdings of affected directors. This came at a time when some banks did not clearly disclose their insider loan figures, raising transparency concerns. Data from four publicly available financial statements show that director-related lending across these banks fell from N12.44bn in September 2023 to N5.44bn in September 2024, reflecting a 56.3 percent decline (Punch Newspaper, 2025).

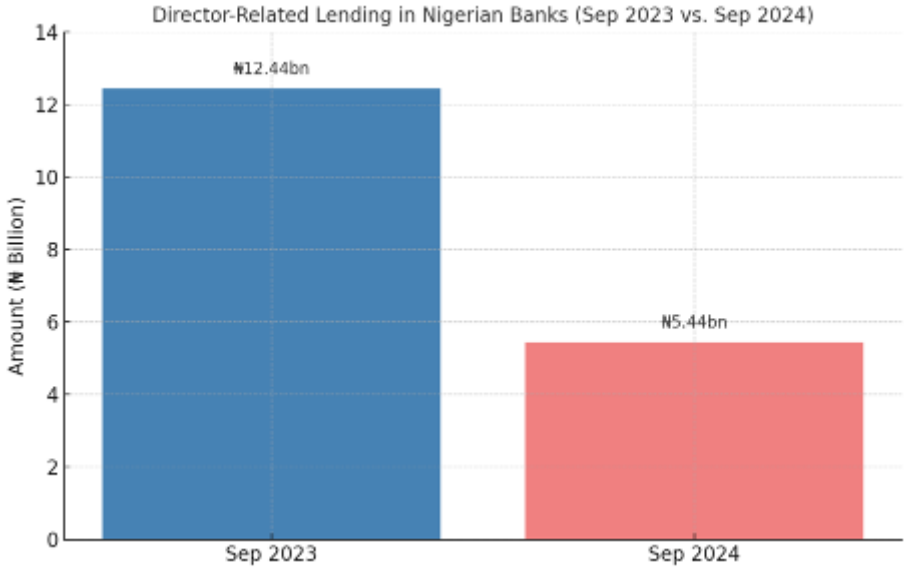

Figure 1.1 Director-Related Lending in Nigerian Banks (Sep 2023 vs. Sep 2024)
Source: Punch Newspaper (2025)

Figure 1.1 illustrates the significant decline in director-related lending across four Nigerian banks, based on publicly available financial statements. The data indicates a drop from ₦12.44 billion in September 2023 to ₦5.44 billion in September 2024, representing a 56.3% decrease. This trend highlights a marked improvement in corporate governance, particularly regarding insider-related credit exposures. It also aligns with recent regulatory interventions by the Central Bank of Nigeria (CBN), notably its 2025 directive requiring bank directors with non-performing insider loans to step down. Such reforms have evidently begun to yield measurable outcomes, contributing to better risk control and improved transparency in bank operations.

The figure supports the central argument of this study: that enhanced corporate governance mechanisms can positively influence the operational discipline and financial performance of Nigerian banks. This decline in insider lending reflects growing adherence to governance codes and is a key indicator of strengthening oversight practices within the sector.

However, in spite of this effort put to strengthen the bank performance through the adoption of broad-based codes of corporate governance in Nigeria, monitoring and the resultant banking sector consolidation exercise, corporate governance remains relatively weak in the sector, with attendant effects on bank depositors and profitability. Given the strategic role of banks in Nigeria's financial ecosystem and their influence on economic development, it becomes imperative to assess how corporate governance affects their performance. Understanding this relationship is crucial for informing policy, strengthening regulation, and contributing to the broader discourse on corporate governance in emerging markets

Therefore, this study aims to examine the effect of leadership and ownership structure on the financial performance of deposit money banks in Nigeria, focusing on specific governance indicators and their empirical relationship with key performance metrics.

1.2. Statement of the Problem

Ultimately, the issue of corporate governance is now the core subject for business leaders and regulators worldwide, particularly following the global financial crisis. The crisis has led to many instances of collapse of corporate governance and thus, international regulators are expanding efforts to influence suitable regulatory controls. This clarifies the invaluable role of effective corporate governance in the whole society (Ibrahim, Rehman & Raoof, 2010). As such, a significant emphasis is upon the practice of corporate governance, which various writers have cited as the answer to the issues in the countries' market environment. The majority of the studies from different fields, including accounting, economics, legal, and others have been carried out on the subjects of corporate governance, its benefits, and positive outcomes (La Porta, et al. 2000).

However, Nigeria had witnessed several cases and collapsed in the banking sector. Some examples include Savannah Bank Plc, Society Generale Bank Ltd, Oceanic Bank, Bank of the North, AfriBank, and Mainstream Bank. With the failure of Nigerian banks and the activities of some of the bank operators, there are concerns about the need to strengthen corporate governance in banks. This will boost public confidence and ensure the efficient and effective functioning of the banking system (Soludo, 2004). Despite numerous measures that were been employed by the Nigerian government to ensure and improve the stability, profitability, and performance of banks, all these measures were unsuccessful in curbing the sequence of bank distress and failures in the country (Aburime, 2008).

In 2009, the banking sector was challenged by another round of crisis, in which the CBN Governor, dismissed the CEOs together with their BODs of eight (8) banks out of the ten (10) banks that were distressed or nearly collapsed due to "excessively high level of non-performing loans (NPL) in the banks which was attributable to poor corporate governance practices, bad liquidity position and poor risk management". Consequently, a bail-out of about N620 billion was injected to rescue them, and these CEOs after being removed, were then detained, and prosecuted by the Economic and Financial Crimes Commission (EFCC) and also tried before the high court for outright stealing, corruption and mismanagement of their banks.

While regulatory reforms such as the CBN Code of Corporate Governance for Banks and Discount Houses (2014) have since been introduced to enhance board effectiveness, accountability, and transparency, concerns remain regarding the extent to which these frameworks have translated into measurable improvements in bank performance. Moreover, empirical evidence on the relationship between corporate governance and bank performance in Nigeria remains inconclusive. Some studies report a significant positive correlation between governance structures and financial outcomes (e.g., Uwuigbe, 2011; Adegbite, 2015), while others suggest a weak or insignificant relationship, highlighting inconsistencies in the effectiveness of governance mechanisms across institutions.

Additionally, most existing studies tend to adopt generalized corporate governance indicators without accounting for the contextual and institutional factors unique to Nigeria's banking environment, such as political influence, ownership structure, and enforcement challenges. As such, there is a pressing need for more comprehensive, context-specific research that investigates how distinct corporate governance variables, such as managerial ownership, audit board composition, and Bank age affect key indicators of bank performance, including profitability, asset quality, and operational efficiency.

Therefore, the problem this study seeks to address is the lack of consistent empirical evidence on the impact of leadership and ownership structure on the financial performance of banks in Nigeria, despite ongoing regulatory efforts to strengthen governance frameworks. By investigating this relationship, the study aims to provide valuable insights that can inform policy, enhance regulatory oversight, and support the development of more effective governance systems within the Nigerian financial sector.

1.3. Research Objectives

The main objective of this study is to examine the effect of effect of leadership and ownership structure on the financial performance of banks in Nigeria. However, the specific objectives are to:

1. Assess the effect of board size on the financial performance of Nigerian banks.
2. Examine the impact of board gender composition on financial performance of Nigerian banks.
3. Investigate the effect of corporate risk disclosure on the financial performance of Nigerian banks.
4. Determine the influence of managerial ownership on the performance of Nigerian banks.
5. Evaluate the extent to which foreign ownership affects bank performance in Nigeria.

1.4. Research Questions

To guide the study, the following research questions are formulated:

1. What is the effect of between board size on the financial performance of Nigerian banks?
2. How does board gender composition influence the financial performance of Nigerian banks?
3. How does corporate risk disclosure affect the financial performance of Nigerian banks?
4. To what extent does managerial ownership influence the financial performance of Nigerian banks?
5. What is the effect of foreign ownership on the financial performance of Nigerian banks?

1.5. Scope of the Study

This study examines the effect of leadership and ownership structure on the financial performance of deposit money banks in Nigeria. Specifically, it investigates how corporate governance variables, board size, board gender composition, foreign ownership, managerial ownership, corporate risk disclosure affect financial performance indicators including Return on Assets (ROA), Net Interest Margin (NIM), and Economic Value Added (EVA). The study also controls for bank age, Non-Performing Loans (NPL), and management efficiency (MEFF).

The scope of this research is limited to a panel of twelve (12) selected deposit money banks operating in Nigeria, covering a ten-year period from 2014 to 2023. This period is considered adequate to capture trends in corporate governance practices and bank performance before and after regulatory reforms implemented by the Central Bank of Nigeria and other relevant institutions. The study employs panel data analysis to investigate the relationship among the selected variables, thereby contributing to the understanding of governance-performance dynamics within the Nigerian banking sector.

The focus on the Nigerian banking sector is justified given its strategic role in economic development and its exposure to governance-related challenges. By narrowing the scope to twelve banks over a ten-year horizon, the study ensures a balance between data depth and analytical manageability, while capturing key changes and dynamics relevant to governance practices in the sector.

1.6. Justification for the Study

The justification for this study stems from the significant gaps in the literature on the relationship between corporate governance and bank performance, particularly in the context of emerging economies like Nigeria. Although corporate governance has received extensive attention in global finance literature, several limitations persist in existing studies both in terms of variables explored and methodological focus which this research aims to address.

Firstly, previous studies have largely focused on traditional board characteristics such as board size, with limited attention given to board gender composition and its impact on financial performance in developing countries. In Nigeria, where gender inclusion remains a national policy goal, empirical evidence on how female representation on bank board affects financial outcomes is still scarce. This study contributes to the ongoing conversation by empirically evaluating board gender diversity within the corporate governance framework.

Secondly, the inclusion of corporate risk disclosure as a governance-related variable remains underexplored in current literature. This presumed to possess corporate risk experience and stronger governance structures, but these assumptions are rarely tested empirically. By examining corporate risk, this study provides new insights into how organizational longevity interacts with governance mechanisms to affect performance. Thirdly, managerial ownership and foreign ownership a key internal governance tool aimed at reducing agency conflicts has mostly been studied in non-financial sectors or in developed economies. The application of this variable in Nigeria's regulated banking environment, where management and ownership dynamics differ due to stricter regulatory oversight, is relatively underrepresented in the literature. This study fills this void by analyzing its impact on bank performance in Nigeria.

Fourth, the study addresses the scarcity of research on corporate risk disclosure within Nigerian banks. While disclosure practices are mandated by regulations, the extent and quality of such disclosures and their direct relationship with performance outcomes are largely unknown. This study brings empirical clarity to the performance implications of risk transparency in Nigeria's banking industry. Fifth, the study introduces Net Interest Margin (NIM) and Economic Value Added (EVA) as an additional and underutilized measure of bank performance. Unlike traditional metrics like Return on Assets (ROA) and Return on Equity (ROE), NIM provides a direct assessment of a bank's core operational efficiency. Its inclusion allows for a more nuanced understanding of how governance mechanisms affect a bank's fundamental intermediation role.

Lastly, the inclusion of control variables management efficiency, Non-performing Loan Ratio, and bank age reflects a more robust modeling approach. These controls account for external environmental factors that could confound the relationship between governance and performance, thus ensuring that the study's findings are more reliable and contextually grounded. Taken together, this study is justified in its aim to provide a comprehensive, context-specific, and methodologically rigorous analysis of how corporate governance affects bank performance in Nigeria. The findings are expected to offer valuable insights for policymakers, regulators, bank managers, and investors seeking to enhance corporate governance practices and improve financial sector outcomes in developing economies.

1.7. Limitations of the Study

While this study provides valuable insights into the effect of leadership and ownership structure on the financial performance of deposit money banks in Nigeria, it is subject to several limitations that should be acknowledged.

1.7.1. Data Availability and Quality

The study relies on secondary data obtained from annual reports, audited financial statements, and regulatory filings. Some banks may not fully disclose certain governance attributes such as detailed managerial ownership, foreign ownership or risk disclosure levels, which may affect the comprehensiveness and accuracy of the dataset.

1.7.2. Generalizability

Although the study covers 43 deposit money banks, the findings may not be generalizable to other financial institutions such as microfinance banks, insurance companies, or fintech firms, as their governance structures and performance drivers may differ significantly.

1.7.3. Measurement of Variables:

Corporate governance variables such as board composition, managerial ownership, and risk disclosure are complex and multidimensional. For analytical purposes, these variables are quantified using proxies, which may not fully capture their qualitative aspects or contextual nuances.

1.7.4. Time Period

The study focuses on a Ten-year period from 2014 to 2023. While this is relatively recent and relevant, it may not reflect longer-term governance trends or the effects of corporate governance mechanisms in different economic cycles beyond this timeframe.

1.7.5. Regulatory and Institutional Changes

The period under review witnessed several regulatory changes, including updates to the CBN's Corporate Governance Guidelines and broader macroeconomic shifts such as the COVID-19 pandemic and currency devaluation. These factors could have influenced financial performance independently of governance practices.

1.7.6. Exclusion of Qualitative Factors

This study adopts a quantitative approach, thus excluding qualitative aspects of governance such as leadership quality, boardroom dynamics, and ethical culture, which may also play critical roles in shaping performance outcomes. Despite these limitations, the study provides robust and empirically grounded insights that contribute to the growing literature on CG and financial performance in emerging markets.

1.8. Significance of Study

The study provides empirical evidence on the relationship between corporate governance mechanisms such as board size, gender diversity, managerial ownership, bank age, and corporate risk disclosure and the financial performance of deposit money banks in Nigeria. It expands the academic discourse by employing recent data from 2019 to 2023 and applying robust econometric techniques.

The findings offer useful insights for regulators such as the Central Bank of Nigeria (CBN), the Financial Reporting Council (FRC), and the Nigerian Deposit Insurance Corporation (NDIC). These bodies can draw from the results to strengthen corporate governance guidelines aimed at enhancing transparency, accountability, and financial soundness within the banking sector.

For bank executives and board members, the study highlights governance structures that can drive improved financial outcomes. Understanding the impact of variables like board composition and managerial ownership helps management make informed decisions about governance reforms and board configurations. The study provides valuable information to investors and shareholders who consider corporate governance practices when making investment choices. Improved understanding of governance-performance dynamics enhances investor confidence in the banking sector. A stable and well-governed banking system is vital for economic development. By identifying governance practices that promote bank performance, this study indirectly contributes to broader goals such as financial stability, economic growth, and poverty reduction in Nigeria.

1.9. Definition of Key Terms

To ensure clarity and consistency throughout this study, the following key terms are defined.

Board size refers to the number of directors serving on the board of a company or financial institution. In the context of corporate governance, a larger board may enhance strategic decision-making and monitoring, while an excessively large board could impede coordination and efficiency (Adams & Mehran, 2012; Yermack, 1996).

Board gender composition is the proportion of female members on a corporate board. Gender diversity is considered a valuable governance mechanism that may enhance board deliberations, reduce groupthink, and positively affect firm performance (Carter, Simkins, & Simpson, 2003; Terjesen, Sealy, & Singh, 2009).

Managerial ownership refers to the percentage of a firm's equity held by its managers and executives. It reflects the alignment of managerial and shareholder interests. High managerial ownership is believed to mitigate agency problems, although excessive ownership may lead to entrenchment (Jensen & Meckling, 1976).

Bank age denotes the number of years a bank has been in operation. It is used as a proxy for institutional experience and maturity, with older banks presumed to possess stronger risk management practices, customer loyalty, and strategic capabilities (Coad, Segarra, & Teruel, 2013; Uwuigbe, Uwuigbe, & Daramola, 2014).

Corporate risk disclosure encompasses the communication of a firm's exposure to various financial and non-financial risks. Transparent disclosure practices are critical in the banking sector for investor confidence and regulatory compliance (Gul, Srinidhi, & Ng, 2011).

Financial performance is the measure of how well a bank achieves its financial objectives. It is commonly assessed using indicators such as Return on Assets (ROA), and Net Interest Margin (NIM) (Erhardt, Werbel, & Shrader, 2003; Uwuigbe, Uwuigbe, & Daramola, 2014).

Deposit Money Banks are financial institutions licensed by the Central Bank of Nigeria to accept deposits, offer loans, and provide other banking services to the public. They play a crucial role in financial intermediation and economic development in Nigeria (CBN, 2014).

2. LITERATURE REVIEW

2.1. Introduction

This section of the study provides literature on the effect of corporate governance on firm financial performance. The study considers the review of existing empirical literatures, the related concepts associated in the study to give it meaning and finally the theories with which the study is underpinned.

2.2. Financial Performance

Financial performance refers to the extent to which a firm's financial objectives are being met. It is typically evaluated using financial indicators that reflect profitability, efficiency, and solvency. In the context of banks, financial performance provides insights into the institution's ability to generate revenue, manage costs, and sustain operations over time. Commonly used financial performance metrics include Return on Assets (ROA), Return on Equity (ROE), Net Interest Margin (NIM), and Earnings per Share (EPS). ROA and ROE are particularly popular in empirical banking studies, as they reflect how

effectively a bank utilizes its assets and equity base to generate profits (Athanasoglou, Brissimis, & Delis, 2008).

According to Flamini, McDonald, and Schumacher (2009), financial performance in banks is influenced by a variety of factors including operational efficiency, asset quality, capital adequacy, and macroeconomic conditions. The CAMEL framework—Capital adequacy, Asset quality, Management, Earnings, and Liquidity is often used to assess the financial health of banks. In the corporate governance literature, financial performance is often viewed as the ultimate indicator of effective oversight and strategic decision-making. Good governance is expected to minimize agency problems, reduce operational risks, and enhance transparency, all of which contribute to better financial outcomes (Bhagat & Bolton, 2008).

In the Nigerian banking context, financial performance has become increasingly important in light of past banking sector crises and regulatory reforms. The Central Bank of Nigeria (CBN) has mandated regular performance assessments and compliance with corporate governance codes to ensure stability and investor confidence. Studies such as Uwuigbe et al. (2014) and Adegbite (2015) have confirmed a positive relationship between strong governance mechanisms and financial performance in Nigerian deposit money banks.

Recent developments such as digital transformation, competition from fintech firms, and changing consumer behavior have also impacted the financial performance landscape. As a result, Nigerian banks must constantly innovate and strengthen governance practices to sustain profitability and relevance in a dynamic environment. Financial performance is a vital construct in banking research, serving as both a measure of organizational success and an outcome variable in studies on governance, strategy, and regulation.

2.2.1. Return on Assets (ROA)

Return on Assets (ROA) is one of the most commonly used financial ratios for assessing a firm's financial performance. It is defined as net income divided by total assets and measures how efficiently a company can manage its assets to produce profits during a period. ROA is especially relevant in the banking industry, where asset utilization is critical to profitability and operational efficiency.

A high ROA indicates that the firm is efficient in converting its investments into net income. In contrast, a low ROA suggests inefficiencies or poor asset utilization. ROA is particularly important in the context of corporate governance because effective governance mechanisms should enhance asset management and thereby improve returns.

Several studies have used ROA to measure the impact of corporate governance variables. For example, Al-Matari et al. (2014) found that board size, audit committee effectiveness, and CEO duality significantly influence ROA in financial institutions. Similarly, Uwuigbe et al. (2014) showed that well-governed Nigerian banks recorded higher ROA compared to poorly governed counterparts. ROA also allows for cross-sectional comparison among banks, making it a vital tool for performance benchmarking. In the Nigerian banking industry, where firms vary significantly in size and scope, ROA provides a normalized metric for comparing governance efficiency across different institutions.

2.2.2. Net Interest Margin (NIM)

Net Interest Margin (NIM) is another crucial indicator of bank financial performance. It measures the difference between interest income generated by banks and the amount of interest paid out to their lenders, relative to the bank's interest-earning assets.

NIM reflects the core profitability of a bank's lending and investment activities. A higher NIM suggests that the bank is efficiently managing its interest income relative to its interest costs, which translates to better financial health. NIM is influenced by a bank's pricing strategy, asset-liability management, risk exposure, and macroeconomic conditions.

As noted by Saunders and Cornett (2019), NIM is vital for evaluating a bank's operational efficiency and its ability to withstand financial stress. Furthermore, corporate governance plays a role in influencing NIM by enhancing management practices and risk oversight, thereby reducing funding costs and optimizing asset allocation.

Studies such as those by Dietrich and Wanzenried (2011) have shown that well-governed banks often report higher NIMs due to prudent lending practices, cost control, and strategic interest rate management. In emerging markets like Nigeria, improving corporate governance structures has been linked to enhanced NIM performance (Uwuigbe et al., 2014).

2.2.3. Economic Value Added

Economic Value Added (EVA) is a performance measurement metric that focuses on value creation for shareholders. It is calculated as the net operating profit after tax (NOPAT) minus the cost of capital employed. Unlike traditional accounting measures of profitability, EVA provides a clearer picture of whether a firm is generating returns above the cost of capital, which is a fundamental concern in financial

management and governance. EVA is grounded in the economic principle that true profit must account for the cost of all capital utilized (both debt and equity). When EVA is positive, it indicates that the firm is creating wealth for its shareholders; conversely, a negative EVA suggests value destruction (Stewart, 1991).

In the context of banking institutions, EVA serves as a valuable tool for assessing financial performance, particularly because banks are heavily capital-intensive and operate under stringent regulatory environments. The measure enables stakeholders to determine whether bank management is deploying capital effectively to generate returns beyond mere accounting profits (Ismail, 2008).

Moreover, EVA has gained attention in corporate governance literature due to its alignment with value-based management and its role in performance-linked compensation schemes. Researchers argue that incorporating EVA into performance evaluation reduces agency problems and encourages long-term decision-making (Chen & Dodd, 2001; Maditinos et al., 2009).

Empirical studies in both developed and emerging markets have applied EVA in assessing the impact of governance practices on firm performance. For instance, Lehn and Makhija (1997) found that firms with strong governance structures tend to report higher EVA, emphasizing its relevance as a governance-sensitive performance measure. Given its focus on shareholder value, EVA complements traditional performance metrics such as Return on Assets (ROA) and Net Interest Margin (NIM), providing a more comprehensive view of bank performance in studies exploring the impact of corporate governance**.**

2.3. Corporate Governance

Corporate Governance (CG) refers to the mechanisms, processes, and relations by which corporations are controlled and directed. It encompasses the rules, practices, and procedures that determine how an organization is managed, guided by the interests of stakeholders such as shareholders, management, customers, suppliers, financiers, government, and the community. According to the Organization for Economic Co-operation and Development (OECD, 2015), corporate governance involves a set of relationships between a company's management, its board, its shareholders, and other stakeholders. It also provides the structure through which the objectives of the company are set, and the means of attaining those objectives and monitoring performance are determined.

Recently, CG has been a significant issue for discussion in a number of academic fields of accounting and reporting, management, business ethics and corporate law (Nguyen, Kim & Ali, 2024; Li, Kannan, Rau & Yang, 2022; Khlifi & Zouari, 2022). It additionally received widespread attention from academics, investors, stakeholders, the government, regulatory agencies and practitioners all over the world (Wardani, Saribu, & Kesuma, 2023; Shahzad, et al., 2023). This field has received an extensive amount of interest as a result of two significant incidents: the financial crisis that struck South East Asian capital markets in 1997/1998, and the CG scandals that rocked the public's confidence in the corporate sector three years later in the US and Europe. Following this, the majority of those involved in the economic system have taken steps to understand the possible effects on global economies that could result from CG mechanisms' weaknesses (Al-Sayani, et al., 2020; Al-Thuneibat et al., 2016).

Numerous scholars have argued for the significance and sound CG (Shahroor & Ismail, 2022; Carmona, Fuentes, & Ruiz, 2016; Chang, 2016). According to Franks and Mayer (1997), one of the best methods for combining the interests of managers and owners into shared goals is through corporate governance, which eventually serves the interests of investors. Additionally, it's argued that strong CG fosters confidence and goodwill among investors (Li, et al., 2022; Chen, Jory & Ngo, 2019; Cho & Wu, 2014). On the basis of Tulcanaza-Prieto and Lee (2022), CG helps businesses and economies draw in lower-cost investment capital by encouraging the effective use of resources both inside the company and in the broader economy. This is in line with the theory that companies with stronger CG may operate more efficiently, leading to higher expected returns (Jensen & Meckling 1976). This can occur as a result of increased confidence from creditors and investors on domestic and foreign level.

Furthermore, Jensen and Meckling (1976) suggest that CG enhances a firm's ability to respond to societal demands and expectations and also its long-term performance. Conversely, it has been shown that businesses with weak CG systems are much more likely to experience insolvency. In a nutshell, corporate performance should demonstrate the efficacy of the company's governance structure and the manner in which it is managed (De Villiers & Dimes, 2021; Debnath, Chowdhury & Khan, 2021).

2.3.1. Corporate Governance in Nigeria

Corporate governance in Nigeria has evolved significantly over the past two decades, influenced by global developments and local reforms. The Nigerian

financial system, especially the banking sector, has undergone extensive transformation aimed at strengthening corporate governance practices to ensure financial stability and investor protection. The Securities and Exchange Commission (SEC) introduced the Code of Corporate Governance for Public Companies in Nigeria in 2003, with revisions in 2011 and the most recent update in 2018. This code emphasizes the responsibilities of boards, disclosure and transparency, shareholder rights, and the role of audit committees. Additionally, the Central Bank of Nigeria (CBN) has issued corporate governance guidelines specifically for banks, mandating risk management practices, board composition standards, and internal control mechanisms (CBN, 2014).

Empirical studies reveal mixed outcomes regarding corporate governance implementation in Nigeria. Uadiale (2010) examined listed Nigerian firms and found a positive relationship between corporate governance practices and firm performance. Similarly, Kajola (2008) concluded that board size and audit committee composition significantly influence the profitability of Nigerian firms. However, weaknesses such as lack of enforcement, regulatory overlap, and limited awareness among directors remain challenges to effective governance (Okike, 2007).

In the banking sector, corporate governance is critical due to the systemic importance of banks and their role in financial intermediation. The 2009 banking crisis in Nigeria, which led to the intervention of the CBN, underscored the need for stronger governance frameworks. As a result, the CBN mandated stricter corporate governance standards for banks, including tenure limits for directors and separation of CEO and chairman roles.

Overall, while progress has been made in strengthening corporate governance in Nigeria, continued efforts are required to address gaps in compliance, board effectiveness, and stakeholder engagement. Strengthening institutional capacity and fostering a culture of accountability will be crucial for improving governance outcomes.

2.3.1.1. Code of Corporate Governance in Nigeria

The Code of Corporate Governance in Nigeria serves as a framework to promote transparency, accountability, and effective management in companies. Over the years, different regulatory bodies have issued sector-specific codes, but efforts have been made to harmonize these codes to improve consistency and compliance.

The most significant recent development is the Nigerian Code of Corporate Governance (NCCG) 2018 issued by the Financial Reporting Council of Nigeria (FRCN). This unified code applies to all public companies (whether listed or not), and other entities that are required by regulators to adhere to codes of corporate governance. The NCCG 2018 replaces earlier codes issued by the Securities and Exchange Commission (2011) and the Central Bank of Nigeria for banks (2014). The objectives of the NCCG 2018 include setting corporate governance standards to promote public confidence in the Nigerian economy, enhancing the integrity of the capital market and facilitating enterprise accountability and value creation.

Key principles covered under the code include:

A. **Board Responsibilities:** Clear delineation of roles between the board and management, and emphasis on board independence and effectiveness.

B. **Board Composition**: Guidelines on the size, diversity, and independence of the board.

C. **Risk Management:** Requirements for companies to establish robust risk management frameworks.

D. **Audit and Assurance:** Mandates for internal and external audit functions and the composition of the audit committee.

E. **Ethical Conduct**: Expectations for ethical leadership, anti-corruption measures, and corporate social responsibility.

The NCCG 2018 adopts a "comply or explain" approach, meaning companies are expected to comply with the provisions or provide explanations where they do not. Research by Nmehielle and Aluko (2019) highlights the relevance of the NCCG 2018 in strengthening corporate governance practices and enhancing investor protection in Nigeria. Similarly, Olayiwola (2020) noted improved governance disclosures among listed companies following the implementation of the code.

However, enforcement remains a key challenge. Analysts argue that without stronger oversight mechanisms and punitive measures for non-compliance, the impact of the code may be limited. Thus, regulatory agencies such as the FRCN, SEC, and CBN have been urged to intensify monitoring and sanctions. In summary, the Code of Corporate Governance in Nigeria represents a major step forward in aligning Nigerian corporate practices with global standards. While challenges remain, the framework provides a robust foundation for promoting transparency, accountability, and sustainable business practices.

2.3.2. Internal and External Governance Mechanisms

The policies, procedures, and controls used to manage a corporation and decrease inefficiencies are defined as CG mechanisms (Zehri & Zgarni, 2020). The set of rules, regulations, and processes that enable the board of directors to govern, either formally or informally, are also known as CG mechanisms (De Villiers & Dimes, 2021). CG mechanisms is intended to increase company earnings oversight, eliminate managerial manipulations, and increase the accuracy of financial reporting (Al-Thuneibat, Al-Angari & Al-Saad, 2016; Jiraporn, Young & Mathur, 2007).

The main components of CG mechanisms are the internal and external governance mechanisms, which are used in CG to ensure that management and shareholder interests are aligned. Several studies in this field have investigated either one of these components of CG mechanisms (Agyei-Mensah, 2017; Chang, 2016; Dey, 2008; Schäuble, 2018; Owusu & Weir, 2018; McKnight & Weir, 2009; Holderness, 2003). According to Cooray and Senaratne, (2020) good CG mechanisms require not only financial performance, but also the establishment of an ethical culture, effective control systems, and, ultimately, corporate legitimacy. It also enables a firm's financial direction be determined and guided, to monitor planning and policies, and to assure accountability. CG mechanisms are influenced by CG codes in most countries. The degree to which an entity is internationalized may need compliance with CG codes in several jurisdictions.

The element of CG mechanisms must be based on accounting principles, accounting systems, and accounting rules in order to build confidence (Srouji, et al., 2016). The financial disclosure procedure supports auditing standards, which gives investors more security and allows them to make better judgments. Audit standards also aid in the follow-up process of corporate quality control standards commitment as well as the establishment of policies and approaches to scrutiny (Cho & Wu, 2014).

Internal CG mechanisms comprises management and the board. By spending the firm's resources and selecting how to fund new investments, management functions as an agent for shareholders. Shareholders elect boards of directors to appoint, supervise, and advice management in the best interests of shareholders (Chang, 2016; Ruangviset, Jiraporn & Kim, 2014). External CG mechanism includes blockholders, analysts, and independent auditors. The voting power of blockholders affirm the election of the board members and influence senior executives to act in the best interests of shareholders with independent auditors assists in the oversight of financial reporting and ICS of firms (Luthan & Satria, 2016; Schultz, Tan & Walsh, 2010).

2.4. Theoretical Background

The relationship between corporate governance and firm performance, especially in the banking sector, has long been a subject of scholarly attention. This study investigates five key corporate governance variables, board size, board gender composition, bank age, managerial ownership, and corporate risk disclosure to evaluate their influence on the financial performance of Nigerian banks. Several theories provide a framework for understanding the expected relationships among these variables, notably Agency Theory, Resource Dependence Theory, Stakeholder Theory, and Signaling Theory. This section examines these theories and their application to the study's objectives.

2.4.1. Agency Theory

The basis of agency theory is the conflict between owners and managers. Higher-quality financial reporting helps to mitigate this disagreement. In other words, accurate financial reporting is a useful technique for owners to keep track of management activities. It can improve management's stewardship or responsibility to the owners of the firm (Salehi et al., 2017). Managers, according to the theory, are motivated by personal benefit and seek to further self-interests more than that of the shareholders.

Managers, for example, may be involved in purchasing luxurious offices, company vehicles, and other ornate products because the cost of these items is borne by the owners (shareholders), not them (managers). This in turn, enhance the capacity of managers to distort the firm's recorded profits when they have incentives to do so, such as meeting or exceeding earnings targets and receiving performance-based rewards.

Agency theory, introduced by Jensen and Meckling (1976), is central to corporate governance research. It posits that conflicts arise between principals (shareholders) and agents (managers), primarily due to divergent interests and asymmetric information. Corporate governance mechanisms, such as board oversight and managerial ownership, are intended to align these interests. A larger board may offer diverse perspectives and enhanced oversight, but it can also lead to coordination challenges and reduced effectiveness. Agency theory suggests that the optimal board size balances effective monitoring with decision-making efficiency. Managerial Ownership refers to the proportion of a company's shares owned by its managers. According to agency theory, increased managerial ownership aligns the interests of

managers and shareholders, potentially improving performance. However, excessive ownership might lead to managerial entrenchment and reduced accountability.

2.4.2. Resource Dependence Theory

Resource dependence theory, proposed by Pfeffer and Salancik (1978), focuses on the role of the board in providing access to external resources critical to organizational success. This theory underscores the importance of board composition, diversity, and expertise in influencing firm performance. In banking, boards with members who possess financial, legal, and regulatory experience are better positioned to navigate external challenges, ensure compliance, and safeguard stakeholder interests.

This theory emphasizes the board's role in providing access to critical resources, information, and external networks. Board characteristics, such as size and gender composition, may enhance the board's resourcefulness and legitimacy. Diverse boards are more likely to bring varied experiences, risk awareness, and innovative solutions. Resource dependence theory supports the inclusion of women on boards, as it can improve firm reputation and decision-making, potentially enhancing performance.

2.4.3. Signaling Theory

Signaling theory (Spence, 1973) explains how firms convey information to the market to reduce asymmetry. Voluntary disclosure of information such as risks or governance practices serves as a signal of firm quality and integrity. By disclosing risk-related information, banks can send positive signals to investors and regulators, indicating sound governance and internal control systems (Verrecchia, 2001). This may enhance investor confidence and ultimately improve performance.

2.5. Empirical Review

Several studies have been conducted in other to assess the effect of various board characteristics on firm performance, below are some of the literature reviews on the study.

2.5.1. Board Size

Board size, a fundamental corporate governance variable, refers to the number of directors serving on a company's board. It plays a critical role in determining the effectiveness of the board's oversight functions. The relationship between board size and firm performance has been extensively examined, particularly within the banking sector where governance is tightly regulated due to systemic importance. The debate on optimal board size is grounded in competing theoretical perspectives. Agency theory suggests that a larger board improves monitoring and reduces agency problems (Jensen & Meckling, 1976). A board with more members is presumed to provide diverse perspectives, broader expertise, and better oversight of management. In contrast, resource dependence theory emphasizes the board's role in securing critical resources and establishing legitimacy. From this viewpoint, larger boards may enhance access to external resources, especially in a complex sector like banking (Pfeffer & Salancik, 1978).

However, critics argue that excessively large boards can lead to coordination challenges, reduced cohesiveness, and slower decision-making. As board size increases, the ability to engage in effective dialogue and make timely decisions may diminish, ultimately hampering performance (Lipton & Lorsch, 1992; Yermack, 1996). Empirical findings on the relationship between board size and firm performance are mixed. Yermack (1996) found a negative relationship between board size and firm value for a sample of U.S. firms, arguing that smaller boards are more effective due to better communication and decision-making. Similarly, Eisenberg, Sundgren, and Wells (1998) reported that smaller boards are associated with higher profitability among small and medium-sized firms.

Contrastingly, Coles, Daniel, and Naveen (2008) showed that larger boards are beneficial in complex firms, where diverse skills and expertise are necessary for effective governance. Adams and Mehran (2012) found that board size in the banking sector may be positively associated with performance due to the highly regulated and risk-prone nature of financial institutions. In developing economies, the relationship between board size and bank performance is influenced by institutional quality, regulatory enforcement, and ownership structure. Kyereboah-Coleman and Biekpe (2006) studied banks in Ghana and found that larger boards tend to enhance performance, particularly where external monitoring mechanisms are weak.

Al-Musalli and Ismail (2012), in a study of Islamic banks across 18 countries, found a positive link between board size and performance, emphasizing the role of expertise and Shariah compliance. Meanwhile, Kajola (2008) and Ehikioya (2009), in Nigerian studies, found that board size had an insignificant or negative effect on firm performance, suggesting that governance quality may matter more than board size alone. Research focused specifically on Nigerian banks also yields varying conclusions. Uwuigbe and Fakile (2012) found that board size has a significant positive effect on the financial performance of listed banks in Nigeria, arguing that a larger board improves

oversight in a context where external enforcement is often weak.

In contrast, Sanda, Mikailu, and Garba (2010) reported a negative relationship, indicating that large boards may be less effective due to bureaucratic tendencies and potential for reduced accountability. Olufemi and Adebayo (2017) similarly noted that board effectiveness in Nigerian banks is more closely tied to board independence and director competence than to size alone.

2.5.2. Gender Composition

Board gender composition, which refers to the proportion of women on a company's board of directors, has attracted growing interest in corporate governance literature. It is widely debated whether gender diversity in boardrooms influences firm performance, especially in the highly regulated and performance-sensitive banking industry. However, board independence and shareholder wealth are more likely to be promoted by having female directors on the board of directors. It promotes better communication and decision-making among board members by encouraging more informed decisions. (Bear, Rahman, & Post, 2010).

Furthermore, the appointment of female broadens and deepens the scope of discussion and deliberation, especially on critical issues (Srinidhi, et al., 2011). It was also claims that female directors are more likely to have the supervision, critical thinking, monitoring those independent directors are supposed to have. They are more likely to attend board meetings, take on monitoring roles, and hold CEOs more accountable for poor performance (Gul, Srinidhi & Ng, 2011).

Previous research suggested that female directors ensures that the board is gender diverse, and strengthen the board's monitoring position (Gull, et al. 2018; Arun, Almahrog & Aribi, 2015; Kaplan, et al., 2009). Many scholars argued that female directors are more vigilant and risk averse than male directors, and they are less likely to tolerate managerial opportunism for fear of being apprehended (Sajjad, et al., 2019). Many studies have shown that a female director on a board increases the board's functioning efficiency and profitability of the firm (Zalataa, et al., 2018; Nuhu et al., 2017; Gavious, Segev &Yosef, 2012; Srinidhi et al., 2011). This is because women bring more perspectives to a discussion, are subjected to different circumstances than men as a result of different socialization processes and are better prepared for board meetings than men counterparts. Similarly, several other empirical studies also indicated that female directors have a positive significant effect on and firm value (Nyambia & Hamdan, 2018; Wanjiru, 2017; Sayyar et al., 2015; Gulzar & Wang, 2011; Adams & Ferreira, 2009).

In Nigeria, the inclusion of women in top corporate governance positions is growing, albeit slowly. Empirical evidence is emerging but remains inconclusive. Ujunwa, Okoyeuzu, and Nwakoby (2012) found no significant relationship between gender diversity and firm performance in Nigerian quoted firms, suggesting that tokenism and limited participation in strategic decisions may weaken the impact. Contrarily, Aladejebi and Oladimeji (2019) found that Nigerian banks with female directors on the board reported better financial performance, particularly in return on assets (ROA) and return on equity (ROE). They argued that female directors contribute positively by promoting transparency and reducing aggressive risk-taking behaviors. Similarly, Olayiwola (2018) noted that gender-diverse boards in Nigerian banks tend to adopt more conservative risk management policies, which may enhance financial stability over time.

2.5.3. Corporate Risk Disclosure

Corporate Risk Disclosure (CRD) refers to the communication of material information about the risks a firm face, including operational, financial, compliance, and strategic risks. It is an increasingly important component of corporate governance, especially in the financial sector where transparency and trust are essential. The businesses had to deal with a variety of risks that went beyond conventional ones from both the inside of their own firm and the outside world (Ali & Taylor, 2014). However, it has grown more challenging to manage and control company risk (Shivaani, Jain & Yadav, 2019; Fung, 2014). Through giving stakeholders a better understanding of risk components and the complexity of the business environment so they can make informed decisions, risk disclosure enhances information transparency and restores stakeholder confidence in firms (Ibrahim et al., 2019; Mousa & Elamir, 2014). Therefore, it is crucial to provide accurate and timely risk information in order to evaluate the financial position and business operations.

Whenever there are significant levels of risk, many business firms usually supply additional risk-related information to support these increased risks (Linsley & Shrives, 2006). Additionally, the managers are driven to inform a larger group of stakeholders about the risks that may successfully manage (Baroma, 2014; Hassan, 2009). When managers discover bad news, they try to communicate it to show their strength and capacity to recover from future losses. The risk disclosure is seen as a positive performance

and provides the company with an incentive to release more risk information to a broad range of owners given that the firms are prepared to share their strong performance to their investors (Agyei-Mensah & Buertey, 2019; Hassanein & Hussainey, 2015).

Empirical studies from developed markets show that higher levels of risk disclosure can positively influence firm performance, largely by lowering the cost of capital and improving investor perception. Linsley and Shrives (2006) found that UK firms with extensive and detailed risk disclosures experienced greater investor confidence and less share price volatility. Beretta and Bozzolan (2004) demonstrated that qualitative and forward-looking risk disclosures were positively related to firm valuation in Italy, particularly in regulated industries like banking and utilities. However, some scholars have pointed out that excessive or poorly structured risk disclosures may have no significant effect or could even confuse investors, reducing their value (Abraham & Cox, 2007). Thus, quality and relevance are as important as quantity in risk reporting.

In emerging markets, risk disclosure tends to be less comprehensive and less standardized, due to weaker regulatory enforcement and less mature capital markets. Nonetheless, studies have found that even basic improvements in CRD can enhance firm performance. For example, Elzahar and Hussainey (2012) studied firms in the Gulf Cooperation Council (GCC) countries and found a positive relationship between voluntary risk disclosure and firm profitability, particularly among financial institutions. Similarly, Oliveira, Rodrigues, and Craig (2011) noted that banks in Portugal that disclosed more forward-looking risk information had stronger financial performance and more stable market perceptions.

In Nigeria, risk disclosure has gained prominence, especially after the 2005–2009 banking sector reforms and the adoption of Basel II/III frameworks. The Central Bank of Nigeria (CBN) and Financial Reporting Council (FRC) have issued guidelines mandating more robust disclosure practices. Uwuigbe and Uadiale (2011) found that banks in Nigeria that provided more detailed disclosures of credit, market, and operational risks had significantly better performance as measured by ROA and ROE. The authors emphasized the role of CRD in improving investor confidence and market reputation.

Olayemi and Adebayo (2019) found that firms with higher levels of risk disclosure enjoyed better access to capital and more favorable perceptions from regulators and customers, which indirectly enhanced performance. However, Adegbite (2015) cautioned that boilerplate and generic disclosures common among Nigerian banks diminish the effectiveness of CRD and may mislead investors. Therefore, banks must focus on transparent, bank-specific, and forward-looking risk reporting.

2.5.4. Managerial Ownership

Equity shares are owned by directors and members of their immediate families as at the end of the accounting year, as a percentage is known as managerial ownership (MOW) (Short & Keasey, 1999). MOW is also defined as ownership by members of the board (Morck et al., 1988). The relationship between MOW and Financial Performance has been studied, with mixed results. Mehran (1995) found a positive association between managerial ownership and firm performance in U.S. firms, particularly when ownership was below a certain threshold. Similarly, Short and Keasey (1999) found that moderate levels of managerial ownership enhanced performance in UK firms. Conversely, Morck et al. (1988) found that when ownership rises beyond a certain point (typically 5–25%), the entrenchment effect may cause performance to decline. This supports the inverted-U relationship, where performance first increases and then decreases as managerial ownership grows. In the banking sector, Elyasiani and Jia (2010) showed that U.S. banks with moderate managerial ownership had better risk management and stability. However, they warned that high insider ownership may reduce board effectiveness and external oversight.

In developing countries, where legal protections for investors are often weaker and corporate governance enforcement is less rigorous, managerial ownership can play both a positive and negative role. Ang, Cole, and Lin (2000) found in Malaysian firms that managerial ownership helped reduce agency costs, particularly in firms with less developed external governance mechanisms. In contrast, Claessens, Djankov, and Lang (2000) warned that concentrated ownership in the hands of insiders can facilitate expropriation of minority shareholders, especially in environments with poor investor protections.

In Nigeria, where many banks are either family-owned or have significant insider participation, managerial ownership is a sensitive governance issue. Empirical results have varied. Uwuigbe and Olusanmi (2012) found that moderate managerial ownership significantly enhanced bank performance, as measured by ROA and ROE. They argued that when managers have a financial stake, they are more accountable and motivated to pursue long-term goals. However, Oyefusi and Mogaji (2021) observed that excessive managerial ownership in Nigerian banks

can weaken board independence and lead to entrenchment, thereby reducing operational efficiency. Their study showed a non-linear relationship, consistent with earlier theoretical assertions. Oyerinde (2014) also found that in banks where managerial ownership exceeded 25%, performance metrics stagnated or declined, possibly due to diminished checks and balances.

2.5.5. Foreign Ownership (FOW)

Björn (2016) defines foreign ownership (FOW) as an investor's ownership in stock exchange market of another country, whether they are natural or legal persons. When an individual, a firm, or a multinational corporation that does business in many countries invests in a foreign country, usually through foreign direct investment or acquisition, it is known as foreign ownership (FOW) or control. When a firm acquires at least half of another firm, it becomes a holding company, and the company that were acquired becomes a subsidiary. FOW has been shown to strengthen a company's corporate reporting practices, and foreign investors are more likely to encourage management to provide more information as results of its power (Alrabba, et al., 2018; Albassam & Ntim, 2017; Tahir & Sabir, 2014). Foreign investors, particularly large outside shareholders, play an essential role in monitoring management, as they have a positive motivation to protect their assets (Sachs & Warner, 1995). It was also argued that because timely financial information is so important to investors, FOW plays an active role in monitoring management and the pressure on them to issue timely corporate results, including audited financial statements (An, 2015; Muhamad & Karbhari, 2005).

Guo, Huang, Zhang and Zhou (2015) found large foreign investors to be significantly increases the magnitude firm performance. Debnath, Chowdhury and Khan, (2021) indicates that FOW, is related to financial performance. Putra and Mela (2019) documented that EM reduces and monitors effectively through FOW. Baig, et al. (2018) indicated that FOW enhances financial peformance.

2.6. Control Variables

To control the effect of leadership and ownership structure on bank performance, this study incorporates three control variables: Non-performing Loan (NPL) Ratio, and bank age and management efficiency. These variables are well-established in prior banking and corporate governance literature and are expected to affect bank profitability and stability.

2.6.1. Non-performing Loan (NPL) Ratio

The NPL ratio measures the quality of a bank's loan portfolio. It is the proportion of loans in default, and it directly impacts profitability and financial stability. High NPL ratios are associated with reduced bank earnings due to increased provisions and write-offs (Imam & Malik, 2007). As such, the NPL ratio is a critical control variable that adjusts for credit risk exposure. The credit risk theory posits that a bank's performance is closely tied to the quality of its loan portfolio. High levels of non-performing loans (NPLs) indicate poor credit risk management and are associated with losses due to loan defaults, increased provisioning, and reduced interest income (Berger & DeYoung, 1997). The asymmetric information theory also supports this view by highlighting how adverse selection and moral hazard in lending can increase the likelihood of loan defaults, undermining bank profitability.

Empirical studies have consistently shown a negative relationship between the NPL ratio and bank performance: Makri, Tsagkanos, and Bellas (2014) found that a high NPL ratio had a significant negative effect on the profitability of banks in the Eurozone. In Nigeria, Kolapo et al. (2012) discovered that credit risk, measured by NPLs, adversely affected the performance of commercial banks, significantly reducing ROA. Klein (2013) also reported that high NPL ratios in Central, Eastern, and Southeastern Europe were associated with reduced lending and poor financial performance.

The persistence of high NPLs can impair a bank's lending ability, erode investor confidence, and lead to solvency issues if left unchecked. Given Nigeria's economic volatility and exposure to oil price shocks, the NPL ratio is a critical performance determinant. Monitoring NPLs helps isolate the effects of governance practices from those arising from weak asset quality. Hence, it is essential to control for NPLs in any model examining bank performance.

2.6.2. Regulatory Quality

Regulatory quality refers to the government's ability to design and implement effective policies and regulations that enable financial institutions to operate efficiently and transparently. In the banking sector, strong regulatory quality enhances corporate governance, reduces systemic risks, and improves investor confidence (Kaufmann, Kraay, & Mastruzzi, 2010).

According to institutional theory, the quality of a country's regulatory framework significantly influences organizational outcomes. In the context of banking, strong regulatory quality defined as the government's ability to formulate and implement sound policies enhances transparency, investor protection, and financial stability (La Porta et al., 1998). Regulatory quality acts as an external

governance mechanism that constrains managerial excesses and promotes accountability.

The literature supports a positive relationship between regulatory quality and bank performance. Barth, Caprio, and Levine (2004) found that well-regulated banking systems with strong supervisory powers were more stable and profitable. Beck, Demirgüç-Kunt, and Levine (2006) showed that strong legal and institutional environments improve financial intermediation and enhance bank performance. In developing countries, Kaufmann, Kraay, and Mastruzzi (2010) provided evidence that regulatory quality is associated with improved firm-level governance and reduced corruption, contributing to better financial outcomes.

In Nigeria, regulatory quality remains a concern due to institutional weaknesses, corruption, and inconsistent policy enforcement. However, reforms led by the Central Bank of Nigeria (CBN), such as the Basel II/III implementation and enhanced risk-based supervision, aim to improve regulatory outcomes. Including regulatory quality as a control variable helps isolate the influence of macro-institutional factors on bank performance**.**

2.6.3. Bank Age

Bank age, often measured as the number of years since a bank was established, is considered an important firm-specific attribute that may influence financial performance. While not a direct corporate governance variable, it is frequently included in governance-performance studies as a control or contextual factor. The logic is that older banks may benefit from cumulative experience, stronger reputations, and well-established operational processes that enhance their ability to compete and manage risks.

From a resource-based view (Barney, 1991), older firms are likely to have developed intangible assets such as reputational capital, customer loyalty, and operational expertise over time. These attributes can enhance profitability and stability, especially in a knowledge-driven industry like banking. Organizational learning theory also posits that older banks are better positioned to apply experiential knowledge to strategic decision-making, leading to improved performance (Argote, 1999). However, liability of obsolescence a concept from population ecology theory warns that older firms may become rigid, bureaucratic, and less adaptive to technological and regulatory changes (Hannan & Freeman, 1984). Therefore, the relationship between bank age and performance can be positive, or negative, depending on the bank's ability to balance tradition with innovation.

Empirical evidence on the impact of firm age on financial performance varies. Dogan (2013) found that firm age had a positive but weak impact on profitability among Turkish manufacturing companies, implying that experience might play a role but is not a strong determinant of performance. In contrast, Coad, Segarra, and Teruel (2013) showed that older firms tend to be more stable and less likely to fail, but not necessarily more profitable than younger, high-growth firms. This suggests that age might be more related to risk management than to profit generation.

In the banking sector, Al-Qudah, Al-Suleiman, and Tahtamouni (2019) observed a positive relationship between bank age and performance among Jordanian banks, attributing it to stronger institutional knowledge and customer trust. However, they also cautioned that older banks may be slower to adopt technological innovations, which can reduce competitiveness.

In emerging markets, where institutions are often weaker and consumer trust is fragile, the age of a bank can serve as a proxy for legitimacy and credibility. According to Abor (2005), in Ghana, older banks enjoy a performance advantage due to stronger market presence and customer confidence. Similarly, Almajali, Alamro, and Al-Soub (2012) found that older firms in Jordan had better access to capital and credit facilities, enhancing their ability to grow. However, in dynamic sectors such as telecommunications or fintech, younger firms often outperform due to flexibility and innovation. These findings underscore the importance of industry context in assessing the role of firm age.

In Nigeria, where banking reforms, recapitalization, and regulatory oversight have evolved significantly over the past two decades, bank age can be a critical factor influencing performance. Uwuigbe, Uwuigbe, and Daramola (2014) found that older Nigerian banks tended to outperform their younger counterparts in terms of return on equity and return on assets. They argued that the older institutions benefited from brand reputation, wider branch networks, and deeper customer relationships. However, recent studies have challenged this view. Olokoyo, Osabuohien, and Salami (2019) suggested that younger banks, especially post-consolidation entrants, often demonstrate stronger performance due to leaner structures, modern technologies, and aggressive market strategies. Thus, the performance impact of bank age in Nigeria appears to be non-linear older banks benefit from experience and trust, while newer banks gain from flexibility and innovation.

2.6.4. Management Efficiency

Efficiency is defined as the extent to which changes in cash conversion cycle, operating expenses to sales revenue ratio, operating cash flow, total asset turnover, total debt to total asset ratio, firm size, and operating risk impact the future performance of a firm (Gill et al., 2014). It is the ability of a firm to produce the maximum output possible at a given level of input (Coelli, Rao, O'Donnell, & Battese, 2005). Therefore, cost efficiency is directly related to a firm's cost minimisation objectives. A firm is said to be cost efficient if it can produce a given volume of output at a minimum possible cost. The term efficiency is viewed from both industrial and strategic management literature as the product of firm specific factors such as management skills, innovation, cost control, and market share as determinants of current firm performance and its stability (Abuzayed & Molyneux, 2009).

Efficiency can be categorised into technical and allocative efficiency. Allocative efficiency is the extent to which resources are being allocated to use with the highest value in a firm. A firm is said to be technically efficient if it produces a given set of outputs using the smallest amount of inputs and electively efficient if it is using the right mix of inputs to produce its output while a firm is said to be cost efficient if it is both allocative and technically efficient (Mester, 1997). When measuring the efficiency of financial institutions, a fundamental decision to be made is which efficiency concept to use. There are three most important economic efficiency concepts currently being used namely, cost, profit, and alternative profit efficiency (Berger & Master, 1997). According to Williams and Smart (1993), firms that operate efficiently can exploit their competitive advantage and earn sustainable profits for a longer period there by establishing a sustainable competitive advantage.

2.7. Research Gaps

Despite the extensive literature on corporate governance and bank performance, several research gaps persist, especially in the context of emerging economies like Nigeria. This study identifies and addresses the following gaps in the existing body of knowledge**:**

2.7.1. Inconclusive Evidence on Board Characteristics

Much of the existing research presents mixed findings on how board characteristics such as board size and gender composition influence bank performance. While some studies suggest that a larger board enhances oversight (Adams & Mehran, 2012), others argue it leads to inefficiencies (Yermack, 1996). Similarly, while gender diversity is often linked to improved decision-making and performance (Terjesen, Couto, & Francisco, 2016), empirical evidence in the Nigerian banking context remains scarce and inconsistent. This gap highlights the need for a country-specific analysis that considers cultural, institutional, and regulatory differences.

2.7.2. Limited Focus on Bank Age as a Governance Proxy

Bank age, though potentially reflective of institutional maturity and experience, is underexplored in governance-performance studies. Older banks may benefit from established governance practices, while younger banks might demonstrate more agility and innovation. Few empirical studies have examined how bank age interacts with governance structures to influence performance, particularly in the Nigerian financial system.

2.7.3. Managerial Ownership and Agency Conflict in Banks

While managerial ownership is a common governance mechanism used to align managers' interests with those of shareholders, its effect in the context of Nigerian banks is under-researched. Most existing studies focus on non-financial firms, and limited empirical work has tested this relationship within Nigeria's regulated banking sector, where ownership structures and incentive systems may differ markedly from those in developed economies.

2.7.4. Insufficient Research on Corporate Risk Disclosure in Banks

Corporate risk disclosure is an essential element of transparency and stakeholder engagement. However, few Nigerian studies have quantitatively examined its direct impact on bank performance, particularly within the corporate governance framework. Furthermore, the voluntary or strategic nature of disclosure in Nigerian banks raises questions about its effectiveness, credibility, and value relevance—areas which remain largely unexplored.

2.7.5. Weak Integration of Macro and Institutional Control Variables

Many studies on corporate governance and performance often neglect macro-level variables such as real GDP per capita, non-performing loan ratio, and regulatory quality. In an emerging economy like Nigeria, these factors can significantly moderate the governance-performance relationship. The inclusion of such variables is critical for isolating the unique effects of governance mechanisms, yet prior studies rarely integrate these controls in a structured or comprehensive manner.

2.7.6. Limited Use of Net Interest Margin (NIM) as a Performance Metric

The majority of existing literature uses traditional performance metrics such as Return on Assets (ROA) and Return on Equity (ROE). However, Net Interest Margin (NIM) a direct indicator of a bank's core income-generating efficiency is underutilized, particularly in governance-performance studies. Given that NIM better reflects the operational efficiency of financial intermediation, especially in interest-sensitive economies like Nigeria, this study fills a critical gap by incorporating NIM alongside ROA.

2.7.7. Contextual Gap in Sub-Saharan Africa and Nigeria

Most corporate governance literature is heavily concentrated in developed countries, with limited application to Sub-Saharan Africa. Given the unique institutional, legal, and regulatory challenges in Nigeria including weak enforcement of governance codes, political influence, and limited board independence findings from other contexts may not be directly applicable. This study contributes to filling this geographic and contextual gap by focusing on Nigerian deposit money banks.

2.8. Summary of the Chapter

This chapter presented a comprehensive literature review on the effect of leadership and ownership structure on bank performance, with financial performance proxied by Return on Assets (ROA) and Net Interest Margin (NIM) and economic value added (EVA). These three measures capture different dimensions of bank performance: ROA reflects overall profitability and asset utilization, while NIM and EVA provides insight into the core operational efficiency of banks in managing interest-related activities. The review began with an examination of the concept and significance of corporate governance, highlighting its role in enhancing accountability, transparency, and managerial oversight in financial institutions. A contextual analysis of corporate governance in Nigeria was also provided, outlining the regulatory frameworks guiding governance practices in Nigerian banks, including the Central Bank of Nigeria (CBN) Code of Corporate Governance and the Financial Reporting Council guidelines.

The chapter distinguished between internal and external governance mechanisms. Internal mechanisms include board structure, managerial ownership, and risk disclosure practices that originate from within the firm, while external mechanisms relate to broader institutional factors such as regulatory quality and macroeconomic conditions. The theoretical framework guiding the study was discussed through four major lenses: Agency Theory, Resource Dependence Theory, Stakeholder Theory, and Signaling Theory.

In addition, a detailed empirical review of relevant corporate governance variables was conducted. For board size, the literature showed conflicting findings, with some studies linking larger boards to improved oversight and others associating them with inefficiencies. Board gender composition was examined with regard to diversity and decision-making quality, though findings remain inconclusive in the Nigerian context. Bank age was identified as a proxy for institutional maturity, though rarely studied empirically. Managerial ownership was reviewed as a mechanism for aligning managerial and shareholder interests, particularly in addressing agency problems. Corporate risk disclosure was discussed as a transparency tool, with limited empirical work exploring its direct impact on performance in Nigerian banks. The chapter also examined control variables, namely Non-performing Loan (NPL) ratio, bank age, management efficiency and regulatory quality, which are crucial in controlling for external economic and institutional factors that influence bank performance.

Finally, the research gaps in the existing literature were identified. These include: limited focus on certain governance variables such as board gender composition and bank age; underuse of Net Interest Margin (NIM) as a performance metric; inadequate integration of macroeconomic and institutional variables; and a general lack of context-specific studies in Sub-Saharan Africa, particularly Nigeria. This study is justified by its intention to address these gaps through a comprehensive, theory-driven, and empirically grounded investigation of leadership and ownership structure and bank performance in Nigerian deposit money banks.

3. RESEARCH METHODOLOGY

3.1. Introduction

This section presents a plan on how the study will be undertaken, the method and techniques used. Specifically, it explains the research model of the study, hypotheses development, research design, population of the study, sampling criteria, operationalization of variables, data collection procedure, technique of data analysis and empirical models.

3.2. Conceptual Framework

This is an essential research tool intended to support a researcher to create awareness and understanding of the condition under investigation (Kombo and Tromp, 2006). It is very useful in research as it sets the

foundation of how concepts are related. It explains, diagrammatically the key dimensions under investigation, or the presumed relationships among them. It is derived from theory to identify the concepts included in the complex phenomena and show relationships. The relationship among the various variables in the study is as depicted below.

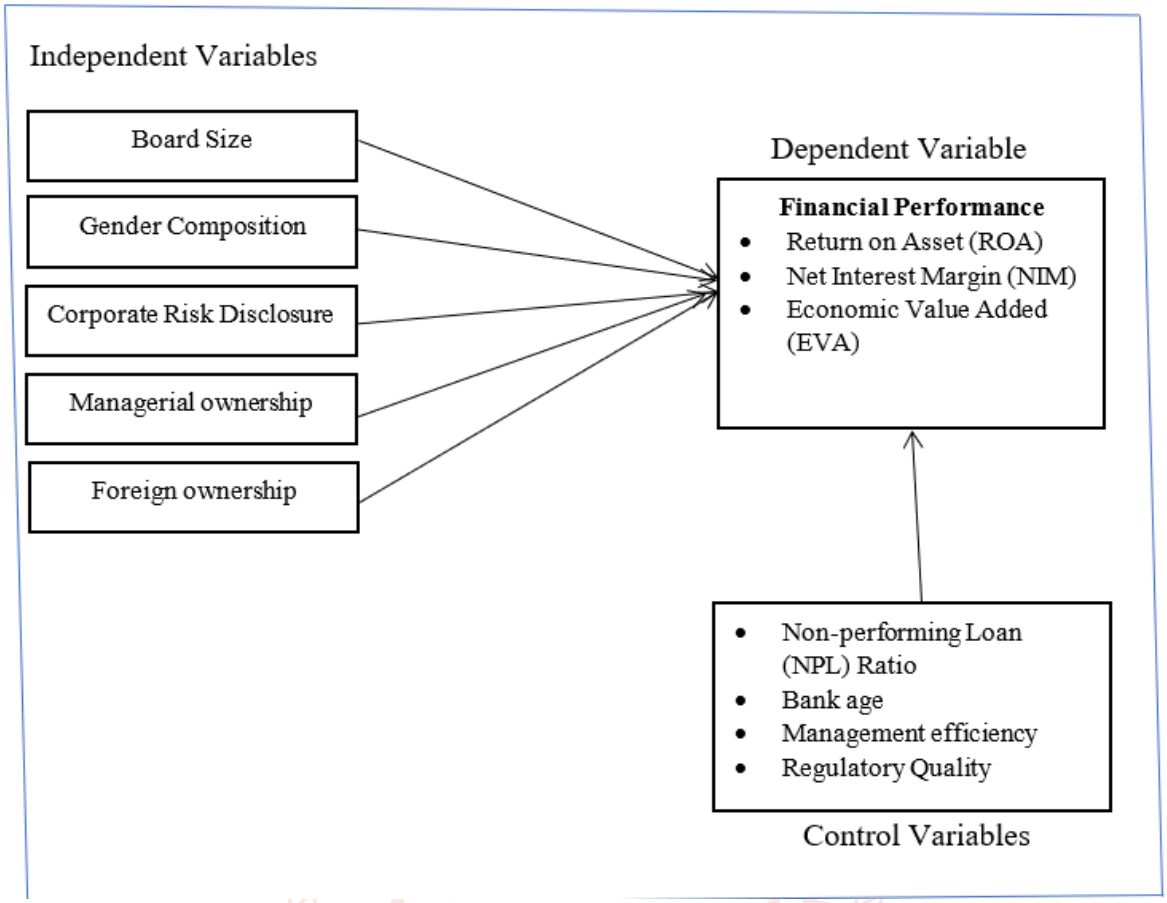

Figure 3.1: Conceptual Model
Source: Author (2025)

3.3. Hypotheses Development

This section presents the development of hypotheses for the study, guided by the theoretical frameworks (Agency Theory, Resource Dependence Theory, Stakeholder Theory, and Signaling Theory) and supported by prior empirical literature on corporate governance and bank performance. The dependent variables include Return on Assets (ROA), Net Interest Margin (NIM), and Economic Value Added (EVA), while the independent variables consist of board size, board gender composition, bank age, managerial ownership, and corporate risk disclosure. Control variables include Real GDP per capita, Non-performing Loan (NPL) ratio, and Regulatory Quality. However, to achieve the study's objectives, the following hypotheses shall be tested:

3.3.1. Board Size and Bank Performance

Board size refers to the total number of directors serving on a company's board. It is a critical component of corporate governance, especially in the banking sector, where strategic decisions and oversight mechanisms significantly influence organizational outcomes. Theoretically, the relationship between board size and firm performance is rooted in both agency theory and resource dependence theory.

According to agency theory (Jensen & Meckling, 1976), the board of directors acts as a monitoring mechanism to align the interests of managers with those of shareholders. A larger board may enhance this oversight function by bringing in a wider range of expertise, backgrounds, and perspectives. Similarly, resource dependence theory (Pfeffer & Salancik, 1978) posits that board members provide critical access to external resources such as information, legitimacy, and networks. Thus, larger boards may improve firm performance by strengthening governance and facilitating better strategic decisions.

Empirical evidence supports a positive relationship between board size and financial performance in many contexts. Adams and Mehran (2012), in their study of U.S. bank holding companies, found that larger boards are associated with better financial performance, particularly in large and complex institutions. Coles, Daniel, and Naveen (2008) similarly argued that complex firms require larger boards to cope with greater information

processing demands and strategic complexity. Boone et al. (2007) also confirmed that board structures are endogenously determined based on firm-specific characteristics, with larger boards benefiting firms facing higher regulatory or market complexity.

In emerging markets, Kalsie and Shrivastav (2016) examined Indian firms and found that moderately larger boards positively influenced Return on Assets (ROA), a key performance metric. Their study suggests that in markets with developing governance frameworks, a slightly larger board may enhance firm performance through broader oversight and strategic input. Despite these findings, some scholars caution against excessively large boards. Yermack (1996) found that firm valuation may decline with very large boards due to coordination difficulties and slower decision-making. Lipton and Lorsch (1992) recommended an optimal board size of 8 to 10 directors, arguing that beyond this range, board effectiveness may diminish due to free-riding and reduced individual accountability.

In the Nigerian banking context, the potential benefits of larger boards are considerable. Nigerian banks operate in a complex regulatory environment and face significant risks related to credit, compliance, and liquidity. Larger boards may be better equipped to manage these risks through improved supervision and access to varied expertise. The Central Bank of Nigeria (CBN) has also issued corporate governance codes that emphasize the need for effective board structures, although it refrains from prescribing an exact board size.

In summary, the literature generally supports the hypothesis that board size has a positive effect on the financial performance of banks, especially when tailored to the complexity of the institution. However, the benefits of increased board size must be balanced against the risk of reduced efficiency and groupthink. Therefore, the study proposes:

Hypothesis 1 (H_1): *Board size has a significant positive effect on the financial performance of Nigerian banks.*

3.3.2. Board Gender Composition and Bank Performance

Gender composition refers to the proportion of female directors serving on a company's board. Gender diversity has emerged as a key corporate governance issue, particularly in the financial services industry, where decision-making quality, ethical orientation, and stakeholder trust are critical to performance. The resource dependence theory and agency theory both provide foundations for the positive impact of board gender diversity. Resource dependence theory (Pfeffer & Salancik, 1978) emphasizes that women may bring unique perspectives, knowledge, and networks that enhance board functionality. Agency theory suggests that diverse boards improve monitoring and reduce groupthink, thereby enhancing governance quality (Carter et al., 2003).

Empirical studies largely support the idea that gender-diverse boards contribute positively to firm performance. Carter, Simkins, and Simpson (2003) found a positive relationship between board diversity and firm value in Fortune 1000 companies. Terjesen, Sealy, and Singh (2009) reviewed multiple international studies and concluded that gender diversity improves firm outcomes through enhanced decision-making, governance quality, and corporate reputation. Similarly, Erhardt, Werbel, and Shrader (2003) found that gender diversity on boards positively correlated with return on investment and return on equity. In the banking sector, Gul, Srinidhi, and Ng (2011) reported that firms with gender-diverse boards provided higher quality financial disclosures, which could indirectly improve financial performance. Bernile, Bhagwat, and Yonker (2018) also emphasized that diverse boards are less prone to overconfidence and are better at managing risk.

In the Nigerian context, research has shown a growing presence of women in corporate boardrooms, though representation remains low. Ujunwa, Okoyeuzu, and Nwakoby (2012) found that gender diversity had a positive and significant impact on the financial performance of Nigerian quoted firms. The study suggested that inclusive boards are better suited to meet stakeholder expectations and comply with corporate governance standards.

However, not all studies report a uniformly positive effect. Some scholars argue that tokenism or cultural resistance may limit the influence of women directors, especially if they are underrepresented or lack key committee roles (Kakabadse et al., 2015). Nonetheless, the consensus is that meaningful inclusion of women enhances board effectiveness and financial performance. In conclusion, the literature suggests a strong theoretical and empirical basis for the positive influence of board gender composition on financial performance. For Nigerian banks, greater gender diversity may contribute to improved governance, stakeholder engagement, and organizational performance. Therefore, this study proposes:

Hypothesis 2 (H_2): *Greater board gender diversity has a significant positive effect on the financial performance of Nigerian banks.*

3.3.3. Corporate Risk Disclosure and Bank Performance

Corporate Risk Disclosure (CRD) refers to the extent and quality of information disclosed by firms regarding the risks they face in the course of their operations. In the banking sector, CRD is particularly critical due to the high-risk nature of financial intermediation and the need to maintain stakeholder confidence, especially in volatile markets like Nigeria. Effective risk disclosure contributes to corporate governance by promoting transparency, accountability, and informed decision-making by investors and other stakeholders.

The theoretical underpinnings of risk disclosure are rooted in agency theory, stakeholder theory, and signaling theory. Agency theory (Jensen & Meckling, 1976) posits that there is an inherent conflict of interest between managers and shareholders, which can be mitigated by transparent disclosure practices that reduce information asymmetry. Stakeholder theory (Freeman, 1984) emphasizes the importance of addressing the information needs of all stakeholders including regulators, customers, and creditors through comprehensive risk reporting. Meanwhile, signaling theory (Spence, 1973) suggests that firms with strong risk management practices may voluntarily disclose more risk information as a signal of financial strength and governance integrity.

Empirical evidence has shown mixed but generally positive relationships between CRD and financial performance. Linsley and Shrives (2006) found that companies disclosing more risk information had higher valuation multiples and better access to capital, indicating a market reward for transparency. Beretta and Bozzolan (2004) emphasized that the quality and specificity of risk disclosure rather than quantity alone were crucial in affecting investor perceptions and firm value. In the banking sector, enhanced risk disclosure is particularly beneficial due to the complexity of financial instruments and the importance of trust. Ntim, Lindop, and Thomas (2013) reported a positive association between risk disclosure and bank performance in the UK, especially for banks adopting International Financial Reporting Standards (IFRS) and Basel II guidelines. Similarly, Oliveira, Rodrigues, and Craig (2011) observed that Portuguese banks that disclosed more detailed risk information experienced improved market discipline and better financial outcomes.

In the Nigerian context, the Central Bank of Nigeria (CBN) mandates banks to comply with specific disclosure requirements under the CBN Code of Corporate Governance and IFRS. However, the level of compliance and depth of risk disclosure vary across banks. Uwalomwa, Uwuigbe, and Oyefemi (2015) found that Nigerian listed banks that disclosed more risk-related information demonstrated better performance in terms of Return on Equity (ROE) and market valuation. Their study emphasized that CRD builds investor confidence, improves firm reputation, and enhances access to external financing. Despite these benefits, some studies highlight potential downsides of extensive disclosure, such as increased litigation risks and the revelation of proprietary information that could benefit competitors (Healy & Palepu, 2001). Moreover, in jurisdictions with weak enforcement mechanisms, disclosed information may be generic, boilerplate, or unreliable, thereby undermining the intended transparency effects.

Overall, Corporate Risk Disclosure serves as a critical governance mechanism that enhances firm transparency, reduces informational asymmetry, and supports better financial performance, particularly in regulated sectors like banking. In Nigeria, fostering a culture of meaningful and consistent risk disclosure is essential for strengthening investor confidence and ensuring the stability of the financial system.

Hypothesis 3 (H3): *Corporate risk disclosure has a significant positive effect on the financial performance of Nigerian banks.*

3.3.4. Managerial Ownership and Bank Performance

Managerial ownership refers to the extent to which a company's shares are owned by its executive managers and directors. It is a fundamental corporate governance mechanism that aligns the interests of management with those of shareholders. In banking institutions, where agency problems are prevalent due to information asymmetry and risk-taking incentives, managerial ownership can play a vital role in enhancing firm performance. Agency theory (Jensen & Meckling, 1976) provides the primary theoretical underpinning for examining the role of managerial ownership. The theory posits that when managers hold equity in the firm, their interests become more closely aligned with those of external shareholders, thereby reducing agency conflicts and encouraging value-maximizing behavior.

Empirical evidence on the effect of managerial ownership on firm performance is mixed but generally indicates a positive relationship, especially at moderate levels of ownership. Morck, Shleifer, and Vishny (1988) found that managerial ownership is positively associated with firm performance up to a certain point, beyond which it can lead to entrenchment and reduced accountability. Similarly, McConnell and Servaes (1990) showed that

firms with moderate levels of insider ownership experienced higher valuation. In the banking industry, Mehran (1995) found that equity-based compensation and ownership stakes for executives are linked with improved bank performance. Adams and Mehran (2003) also noted that banks with better-governed boards and higher managerial ownership showed better financial outcomes.

In the Nigerian context, Ehikioya (2009) investigated corporate governance mechanisms and firm performance and found a positive relationship between insider ownership and financial performance in Nigerian firms. The study argued that ownership stakes encourage long-term orientation and prudent decision-making among executives. However, excessive managerial ownership may lead to entrenchment, where executives gain too much control and resist oversight, innovation, or necessary restructuring. Therefore, the impact of managerial ownership on performance is non-linear and context-specific. In conclusion, managerial ownership can be an effective mechanism to align interests and improve financial performance, especially when balanced at optimal levels. For Nigerian banks, encouraging reasonable equity participation by managers may enhance accountability, risk management, and long-term value creation.

Hypothesis 3(H_3): *Managerial ownership has a significant positive effect on the financial performance of Nigerian banks.*

3.3.5. Foreign Ownership and Bank Performance

Bao and Lewellyn (2017) perceived foreign ownership (FOW) as an investor's ownership in stock exchange market of another country, whether they are natural or legal persons. When an individual, a firm, or a multinational corporation that does business in many countries invests in a foreign country, usually through foreign direct investment or acquisition, it is known as foreign ownership (FOW) or control. When a firm acquires at least half of another firm, it becomes a holding company, and the company that were acquired becomes a subsidiary. FOW has been shown to strengthen a company's corporate reporting practices, and foreign investors are more likely to encourage management to provide more information as results of its power (Chen, Jory & Ngo, 2019; Alrabba, et al., 2018).

It has been suggested that foreign investment is more in companies that report more reliable information and it is more likely to allow management to share more information because of their ownership control. Agency theory contends that FOW monitoring may be a crucial CG mechanism (the efficient monitoring hypothesis). In essence, foreign investors may be capable of providing active oversight that is difficult for local investors, more apathetic, or uninformed investors (El-Moslemany & Nathan, 2019; Chen, et al., 2019). Foreign investors also have the chance, means, and capacity to keep a close watch on managers. Moreover, managers are less opportune to opportunistically manipulate earnings as a result of the effective monitoring, and hence FOW is likely linked to better management activity. Therefore, the study proposes:

Hypothesis 5 (H_5): *Foreign ownership has a significant positive effect on the financial performance of Nigerian banks.*

3.4. Research Design

Research design is a critical component of any empirical study as it outlines the overall strategy for collecting, measuring, and analyzing data in a systematic and logical manner (Creswell & Creswell, 2018). This study adopts an ex post facto research design, which is appropriate for studies where the researcher investigates existing data without manipulating independent variables. This design is particularly suitable for analyzing the effect of leadership and ownership structure variables such as board size, board gender composition, foreign ownership, managerial ownership, and corporate risk disclosure on the financial performance of banks, as these variables are historical and cannot be controlled or manipulated by the researcher.

An ex post facto design enables the establishment of associations and trends based on existing quantitative data. It is also effective in finance and corporate governance research, where variables are derived from audited financial statements and regulatory disclosures (Onwumere, 2009; Sekaran & Bougie, 2019). In this study, financial performance is measured using Return on Assets (ROA), economic value added (EVA) and Net Interest Margin (NIM) three standard proxies in banking research.

Research design is also quantitative and correlational in nature. A quantitative approach is justified because it allows for the statistical testing of hypotheses and the generalization of findings across the banking sector in Nigeria (Saunders, Lewis, & Thornhill, 2019). The correlational aspect is necessary to assess the strength and direction of relationships between the independent variables (leadership and ownership structure indicators) and the dependent variables (ROA, EVA and NIM). This approach also accommodates the inclusion of control

variables such as Non-performing Loan (NPL) ratio, bank age, management efficiency (MEFF) and regulatory quality, ensuring that the model accounts for institutional influences on bank performance.

Therefore, this study's research design is a quantitative, ex post facto, and correlational framework that leverages secondary data to test hypotheses derived from existing theories. This design provides a robust basis for empirical generalization and contributes to bridging identified gaps in the literature regarding the leadership and ownership structure performance nexus in the Nigerian banking sector.

3.5. Population of the Study

The population of a study refers to the entire group of individuals, organizations, or elements that share common characteristics and to which the research findings are intended to be generalized (Creswell & Creswell, 2018). In this study, the population consists of all Deposit Money Banks (DMBs) operating in Nigeria, as licensed by the Central Bank of Nigeria (CBN). These institutions are central to the financial system and play a pivotal role in the mobilization and allocation of financial resources within the economy.

Table 3.1. List of Deposit Money Banks as at April 26, 2024

S/N	Name Of Institution	Head Office Address	State
1	Access Bank Limited	Victoria Island, Lagos.	Lagos
2	Fidelity Bank Plc	Island, Lagos	Lagos
3.	First City Monument Bank	Tinubu Street, Lagos	
4	First Bank Nigeria Limited	Marina Lagos	Lagos
5.	Guaranty Trust Bank	635, Akin Adesola Street, Victoria	
6	United Bank Of Africa Plc	57 Marina, Lagos	Lagos
7	Zenith Bank Plc	Victoria Island, Lagos	Lagos
8	Citibank Nigeria Limited	Island, Lagos	Lagos
9	Ecobank Nigeria Limited	Island, Lagos	Lagos
10	Heritage Bank Plc	Victoria Island Lagos	Lagos
11	Globus Bank Limited	Victoria Island, Lagos	Lagos
12	Keystone Bank Limited	Crescent, Victoria Island, Lagos	Lagos
13	Polaris Bank Limited	Island, Lagos	Lagos
14	Stanbic Ibtc Bank Limited	Crescent, Victoria Island, Lagos	Lagos
15.	Standard Chartered Bank	142, Ahmadu Bello Way, Victoria	
16	Sterling Bank Limited	Sterling Towers, 20 Marina, Lagos	Lagos
17.	Titan Trust Bank Limited	Victoria Island, Lagos State.	Lagos
18	Union Bank Of Nigeria Plc	Stallion Plaza, 36 Marina, Lagos	Lagos
19.	Unity Bank Plc	Victoria Island, Lagos	Lagos
20.	Wema Bank Plc	Plot 42, Ahmed Onibudo Street,	Lagos
21	Premium Trust Bank Limited	Wema Towers, 54 Marina, Lagos	Lagos
22	Optimus Bank Limited	Victoria Island, Lagos	Lagos

Source: CBN (2024)

As of April 31, 2024, there were 22 Deposit Money Banks licensed and operating in Nigeria, including both international and national commercial banks (Central Bank of Nigeria, 2024). These banks are mandated to publish audited financial statements annually and are subject to corporate governance regulations issued by both the CBN and the Financial Reporting Council of Nigeria (FRCN). This makes them suitable for empirical analysis involving publicly disclosed financial and governance data.

The rationale for selecting Deposit Money Banks as the study population stems from their systemic importance and the availability of relevant data. Unlike microfinance institutions or development banks, DMBs are publicly scrutinized and required to comply with more stringent governance disclosures under the CBN Code of Corporate Governance for Banks and Discount Houses and the Nigerian Code of Corporate Governance (NCCG 2018). This ensures data consistency and comparability across the sample (Olayiwola, 2013).

Furthermore, DMBs serve as a strategic focus because they are at the core of Nigeria's financial intermediation and are often the subject of policy interventions related to corporate governance reforms and performance improvement. By focusing on this population, the study seeks to provide insights that are both practically relevant and academically rigorous.

3.6. Sampling Technique and Sample Size

Sampling refers to the process of selecting a subset of individuals or entities from a larger population to make inferences about the entire group (Saunders, Lewis, & Thornhill, 2019). The objective is to select a sample that is representative, accessible, and reliable for addressing the research questions. This study employs a purposive sampling technique, a type of non-probability sampling method. Purposive sampling is appropriate when the researcher selects elements that meet specific criteria relevant to the objectives of the study (Sekaran & Bougie, 2019). In this context, the inclusion criteria are as follows:

1. Deposit Money Banks (DMBs) must have been in continuous operation in Nigeria for at least 10 years during the study period (2014–2023).
2. Banks must have complete and accessible financial statements and corporate governance disclosures for the period under review.
3. Banks must be publicly listed or publish annual reports in line with the requirements of the Central Bank of Nigeria (CBN) and the Financial Reporting Council of Nigeria (FRC).

This technique ensures the selection of banks with sufficient historical data on both governance and performance metrics, which is crucial for the panel data regression analysis used in the study. From the population of 22 Deposit Money Banks licensed by the CBN as of April, 2024, a sample of 12 banks was selected based on the above criteria. These banks represent a cross-section of large and mid-sized banks in Nigeria with adequate public disclosure and operational longevity.

Table 3.2 Selected Deposit Money Banks for the Study (2014–2023)

S/N	Bank Name	Year of Establishment	Public Listing Status	Remarks
1.	Zenith Bank Plc	1990	Listed on NSE	Meets all inclusion criteria
2.	Guaranty Trust Holding Company Plc (GTCO)	1990	Listed on NSE	Formerly GTBank; consistent disclosures
3.	Access Holdings Plc	1989	Listed on NSE	Includes data post-merger with Diamond Bank
4.	United Bank for Africa (UBA) Plc	1949	Listed on NSE	One of Nigeria's oldest and most transparent banks
5.	First Bank of Nigeria Holdings Plc	1894	Listed on NSE	Long-standing financial and governance records
6.	Fidelity Bank Plc	1988	Listed on NSE	Mid-sized bank with consistent annual reports
7.	Union Bank of Nigeria Plc	1917	Listed on NSE	Consistent reporting, now acquired by Titan Trust
8.	Sterling Financial Holdings Company Plc	1960 (as NAL Bank)	Listed on NSE	Compliant with FRC and CBN requirements
9.	FCMB Group Plc	1982	Listed on NSE	Meets full inclusion criteria
10.	Wema Bank Plc	1945	Listed on NSE	Long-standing and fully compliant
11.	Stanbic IBTC Holdings Plc	1989	Listed on NSE	Subsidiary of Standard Bank; strong governance
12.	Unity Bank Plc	2006 (via consolidation)	Listed on NSE	Qualifies based on historical and disclosure data

Note: The list reflects a mix of **Tier-1** and **Tier-2 banks**, ensuring diversity in size and governance practices while satisfying the conditions for data availability, regulatory compliance, and operational history.

The sample is considered robust and sufficient for statistical analysis and generalization, particularly in studies involving longitudinal (panel) data (Gujarati & Porter, 2009). By using purposive sampling, the study ensures data consistency, avoids missing data issues, and focuses on banks that are most likely to reflect the impact of leadership and ownership structure on financial performance in a measurable way.

3.7. Sources and Method of Data Collection

The data collection method defines how relevant and reliable information is obtained for empirical analysis. This study adopts a secondary data collection method, which is appropriate for quantitative studies involving objective, verifiable, and historical data (Creswell & Creswell, 2018). Secondary data refers to data that have

already been collected and documented for purposes other than the current research, but which remain suitable for empirical examination.

3.7.1. Sources of Data

The data used in this study were obtained from two primary sources known as Annual Reports and Financial Statements of Sampled Banks and Regulatory and Institutional Databases. These reports contain detailed information on financial performance (e.g., ROA, NIM and EVA), leadership and ownership structures attributes (e.g., board size, gender composition, foreign and managerial ownership), and disclosure practices. The reports were accessed from the official websites of the selected banks, as well as the Nigerian Stock Exchange (NGX) portal.

These sources were selected based on their credibility, relevance, and regularity of publication. The data covered a ten-year period (2014–2023) to ensure a robust panel dataset for analyzing trends and relationships over time. Secondary data was chosen due to the nature of the study variables, most of which such as leadership and ownership structures and financial performance indicators are historical and publicly disclosed. This method allows for greater data accuracy, cost-effectiveness, and time efficiency (Sekaran & Bougie, 2019). Furthermore, regulatory data from institutions like the World Bank and CBN enhance the objectivity and external validity of the study (Bryman & Bell, 2015). To ensure data reliability, only banks with consistent and complete disclosures over the study period were selected.

3.7.2. Model Specification

Model specification involves developing an econometric framework that clearly expresses the relationship between the dependent and independent variables in a quantitative form (Gujarati & Porter, 2009). This study aims to empirically examine the effect of selected leadership and ownership structures variables on the financial performance of Deposit Money Banks in Nigeria using panel data for the period 2014 to 2023. The financial performance of banks is proxied by Return on Assets (ROA) and Net Interest Margin (NIM) and Economic Value Added (EVA), forming the basis for two separate models. The independent variables are leadership and ownership structures indicators, namely: Board Size (BSIZE), Gender Composition (GCOMP), foreign ownership (FOW), Managerial Ownership (MOW), and Corporate Risk Disclosure (CRD). Additionally, three control variables are included: Non-performing Loan Ratio (NPL), and regulatory quality (REGQTY), bank age (BAG), management efficiency (MEFF).

Model One: ROA as a Measure of Bank Performance

$$\mathrm{ROA}_{it} = \beta_0 + \beta_1 BSIZE_{it} + \beta_2 GCOMP_{it} + \beta_3 MOW_{it} + \beta_4 FOW_{it} + \beta_5 CRD_{it} + \beta_5 BAGE_{it} + \beta_6 MEFFpc_{it} + \beta_7 NPL_{it} + \beta_8 REGQTY_{it} + \varepsilon_{it}$$

Model Two: NIM as a Measure of Bank Performance

$$\mathrm{NIM}_{it} = \beta_0 + \beta_1 BSIZE_{it} + \beta_2 GCOMP_{it} + \beta_3 MOW_{it} + \beta_4 FOW_{it} + \beta_5 CRD_{it} + \beta_5 BAGE_{it} + \beta_6 MEFFpc_{it} + \beta_7 NPL_{it} + REGQTY\beta_8 + \varepsilon_{it}$$

Model Three: EVA as a Measure of Bank Performance

$$\mathrm{EVA}_{it} = \beta_0 + \beta_1 BSIZE_{it} + \beta_2 GCOMP_{it} + \beta_3 MOW_{it} + \beta_4 FOW_{it} + \beta_5 CRD_{it} + \beta_5 BAGE_{it} + \beta_6 MEFFpc_{it} + \beta_7 NPL_{it} + REQTY\beta_8$$

Where:

ROA = Return on Assets
NIM = Net Interest Margin
EVA = Economic value added
BSIZE = Board Size
GCOMP = Gender Composition
MOW = Managerial Ownership
CRD = Corporate Risk Disclosure
FOW = Foreign ownership
MEFF = Management Efficiency
NPL = Non-performing Loan Ratio
REGQTY = Regulatory Quality
$\boldsymbol{\varepsilon}$ = Error term
$\boldsymbol{\beta}$ = Beta
$\boldsymbol{t}$ = Time
$\boldsymbol{i}$ = Number of Observations
BAGE = Bank age

3.8. Measurement of Variables

This section describes how the dependent, independent, and control variables used in the study are operationalized and measured. All variables are measured using standard practices in corporate governance and banking performance literature. The table below summarizes the variables, their definitions, measurement approaches, and supporting literature.

Table 3.3: Summary of Variable Measurement and Sources

Variables	Definition / Description	Measurement	Sources
Dependent Variables			
Return on Assets (ROA)	Indicator of profitability relative to total assets	Net Income / Total Assets	Al-Matari et al. (2012); Okiro (2014)
Net Interest Margin (NIM)	Measure of intermediation efficiency	(Interest Income – Interest Expense) / Earning Assets	Dietrich & Wanzenried (2011); Trinugroho et al. (2014)
Economic Value Added (EVA)	Value created above cost of capital	NOPAT – (WACC × Capital Employed)	Stewart (1991); Kramer & Pushner (1997)
Independent Variables			
Board Size (BSIZE)	Number of directors on the board	Natural log of total number of board members	Jackling & Johl (2009); Kyere & Ausloos (2021)
Board Gender (BGENDER)	Female representation on the board	Proportion of female directors on the board	Adams & Ferreira (2009); García-Meca et al. (2015)
Corporate Risk Disclosure (CRD)	Extent to which banks disclose risk-related information	Content analysis score based on risk disclosure index in annual reports	Linsley & Shrives (2006); Elzahar & Hussainey (2012)
Managerial Ownership (MOWN)	Ownership stake held by executive directors	Percentage of shares held by executive directors	Morck et al. (1988); Shehu (2020)
Foreign ownership (FOW)	Ownership stake held by individual or entities in another country	The proportion of shares owned by foreign investors	Alzoubi (2016); Alrabba, et al. (2018)
Control Variables			
Management Efficiency (MEFF)	MEFF refers to a company's ability to use its resources to achieve its strategic goals and objectives.	Measured by dividing Total Revenue by the Total Assets (TRTA).	Marius and Bucata, (2017), Ndolo, (2015), Al-Jafari and Alchami, (2014)
Non-Performing Loans (NPL)	Credit risk exposure of the bank	Non-performing loans / Total gross loans	Louzis et al. (2012); Boudriga et al. (2010)
Bank Age (BAGE)	Number of years since bank was established	Natural log of years since incorporation	Pathan & Faff (2013); Fanta et al. (2013)
Regulatory Quality (RQ)	Institutional governance quality	Index from Worldwide Governance Indicators (ranging from –2.5 to +2.5)	Kaufmann et al. (2011); World Bank (2023)

3.9. Estimation Techniques and Model Testing

This study employs panel data estimation techniques to assess the impact of corporate governance mechanisms on the financial performance of Nigerian banks. The use of panel data is justified as it allows for the control of individual heterogeneity, captures dynamic changes over time, and improves estimation efficiency by increasing the degrees of freedom and reducing collinearity among explanatory variables (Baltagi, 2005; Gujarati & Porter, 2009).

3.9.1. Panel Data Regression Models

Panel data regression models are powerful econometric tools that allow researchers to analyze multi-dimensional data involving observations over time for multiple cross-sectional units. In the context of this study, panel data consists of financial and governance variables for Nigerian banks observed over several years. Panel data models offer several advantages over pure cross-sectional or time-series data, including greater variability, reduced multicollinearity, and increased degrees of freedom (Baltagi, 2008).

3.9.1.1. Definition and Nature of Panel Data

Panel data (also known as longitudinal data) combines both time-series and cross-sectional elements. Each observational unit (e.g., a bank) is observed across multiple time periods, allowing researchers to examine dynamic changes and control for unobserved heterogeneity (Gujarati & Porter, 2009). This is particularly

valuable in corporate governance studies where firm-level characteristics evolve over time and influence performance. Panel data can be balanced (if all cross-sectional units have the same number of time observations) or unbalanced (if some units have missing periods).

3.9.1.2. Types of Panel Data Regression Models

Three main regression techniques are commonly used for analyzing panel data

3.9.1.2.1. Pooled Ordinary Least Squares (Pooled OLS)

Pooled OLS treats the panel data as a simple cross-sectional dataset, ignoring the panel structure and estimating a common intercept and slope for all units. This model assumes homogeneity across the cross-sectional units and does not control for unobserved heterogeneity. Although simple and easy to estimate, it is susceptible to biased results when individual effects are correlated with the regressors (Wooldridge, 2016). Pooled OLS is easy to implement but can produce biased and inconsistent estimates if there is unobserved heterogeneity among cross-sectional units (Wooldridge, 2010).

$$Y_{it} = \alpha_i + \beta X_{it} + \varepsilon_{it}$$

Where:

Y_{it} = Dependent variable for unit *i* at time *t*

X_{it} = Vector of explanatory variables

α = Intercept

β = Vector of coefficients

ε_{it} = Error term

3.9.1.2.2. Fixed Effects Model (FEM)

Fixed Effects Model controls time-invariant unobserved heterogeneity across entities (e.g., bank-specific characteristics). It allows the intercept to vary for each entity. This model is appropriate when the unobserved characteristics are correlated with the independent variables (Hsiao, 2003; Greene, 2012). The FEM eliminates omitted variable bias from unobserved time-invariant factors. To determine whether Fixed Effects is suitable, the F-test for individual effects can be applied.

$$Y_{it} = \alpha + \beta X_{it} + u_i + \varepsilon_{it}$$

Where:

α_i captures all unobserved individual effects that do not change over time.

3.9.1.2.3. Random Effects Model (REM)

Random effects model, unlike FEM, treats individual effects as random and uncorrelated with the explanatory variables. It is more efficient than FEM if the assumption of no correlation holds true (Baltagi, 2005). The Random Effects Model assumes that the individual-specific effects α_i are random and uncorrelated with the regressors. REM is efficient when the unobserved heterogeneity is uncorrelated with the regressors. The Hausman Test is commonly used to decide between FEM and REM (Hausman, 1978).

$$Y_{it} = \alpha + \beta X_{it} + u_i + \varepsilon_{it}$$

Where u_i captures the random individual effects. REM is more efficient than FEM if the assumption of no correlation holds (Wooldridge, 2010).

3.9.2. Model Selection Tests in Panel Data Regression

Panel data combines cross-sectional and time-series dimensions, allowing for more complex modeling of economic and financial relationships. Model selection tests are employed to guide this decision-making process. To select the most appropriate panel data model, the study will employ the following diagnostic tests:

3.9.2.1. F-test for Fixed Effects vs. Pooled OLS

The purpose of this test is to determine whether individual-specific (bank-level) effects exist and justify the use of the fixed effects model. This test evaluates whether fixed effects significantly improve model fit. A significant result supports the use of FEM over pooled OLS (Gujarati & Porter, 2009).

Hypotheses:

H_0 (Null): All bank-specific intercepts are equal (no fixed effects).

H_1 (Alternative): At least one bank has a different intercept (fixed effects exist).

Decision Rule:
Reject H_0 if the F-statistic is significant ($p < 0.05$), and adopt the fixed effects model.

3.9.2.2. Breusch-Pagan Lagrange Multiplier (LM) Test

This test compares the random effects model to pooled OLS. A significant test statistic implies that the random effects model is more appropriate (Breusch & Pagan, 1980).The test examines whether the variance of the entity-specific error component is significantly different from zero.

Hypotheses:
H_0 (Null): No random effects (variance of individual effects = 0); use pooled OLS.
H_1 (Alternative): Random effects exist (variance > 0); use REM.

3.9.2.3. Hausman Specification Test

The purpose of this test is to determine whether the individual-specific effects are correlated with the explanatory variables. This test helps determine whether FEM or REM is more suitable. If the Hausman test is significant, it suggests that the individual effects are correlated with the regressors, justifying the use of FEM (Hausman, 1978; Wooldridge, 2016).

Hypotheses:
H_0 (Null): No correlation between entity effects and regressors → REM is efficient and consistent.
H_1 (Alternative): Correlation exists → FEM is consistent, REM is not.

Decision Rule:
If the Hausman test is significant ($p < 0.05$), reject H_0 and adopt the Fixed Effects Model.

Table 3.4 Summary of Model Selection Tests

Test	Models Compared	Null Hypothesis	Preferred Model if H_0 is Rejected
F-Test	FEM vs. Pooled OLS	No fixed effects	Fixed Effects Model
Breusch-Pagan LM Test	REM vs. Pooled OLS	No random effects	Random Effects Model
Hausman Test	FEM vs. REM	No correlation between effects and regressors	Fixed Effects Model

3.9.3. Diagnostic and Robustness Checks

Post estimation tests are conducted to improve the robustness of regression outcomes, as well as the validity and reliability of research findings (Gujurati & Porter, 2012; Hair, et al., 2010). Thus, the post-estimation tests conducted are Multicollinearity Test, Heteroscedasticity test, Normality test, Hausman and Specification Error Test.

3.9.3.1. Multicollinearity

Variance Inflation Factor (VIF) was used to detect multicollinearity. VIF values exceeding 10 will indicate potential issues (Gujarati & Porter, 2009). This current study uses correlation coefficient VIF to test multicollinearity. The presence of multicollinearity in the models is indicated by a tolerance value (TV) close to 0 and a VIF more than 10 indicates multicollinearity issues (Hair et al., 2010; Kennedy, 2008). Multicollinearity among the independent variables is one of the assumptions of linear regression model (Alin, 2010). It was also argued that where a strong correlation between two or more independent variable is found, further analysis needed to be performed and ascertained whether multicollinearity exist.

The analysis could be the VIF, and the inverse of the VIF, that is the TV (Shieh, 2010). The theoretical demarcation of VIF ranges from 1 to 9 as suggested by some scholars and 1 to 5 by other scholars. However, this study adopted the range of 1 to 9 for the VIF of each explanatory variable. Therefore, any variable with VIF above 9 indicates multicollinearity, this in in line with Gujarati (2004).

3.9.3.2. Heteroskedasticity

One of the fundamental assumptions of regression analysis is the presence of homoscedasticity. Homoscedasticity occurs when the variance of regression residuals is uniform and constant, while Heteroscedasticity is the total opposite. The data points scatter far away from the line in a heteroscedastic situation, and the error terms are not constant (Hair, et al., 2010; Gujarati, 2004). The linear regression assumptions required that the residuals of the models should be homoscedastic. In this study, the Breusch-Pagan will be Breusch-Pagan/Cook-Weisberg test will be employed to check for heteroskedasticity. If present, the study will use heteroskedasticity-robust standard errors (Greene, 2012).

3.9.3.3. Normality Test

In regression analysis, especially in Ordinary Least Squares (OLS) and certain panel data estimators, the assumption of normally distributed residuals is essential for valid hypothesis testing and inference. Normality of residuals ensures that test statistics, such as the t and F values, follow their respective theoretical distributions, allowing for accurate p-values and confidence intervals (Gujarati & Porter, 2009).

Although large sample sizes tend to mitigate the impact of non-normality due to the Central Limit Theorem, it remains good econometric practice to examine whether the residuals from the estimated models are normally distributed. This is particularly important when working with relatively small samples or when conducting bootstrapping or other resampling methods that rely on the assumption of normal errors (Wooldridge, 2010).

In this study, the normality of the residuals was assessed using the Jarque-Bera test, which evaluates skewness and kurtosis of the residual distribution. The null hypothesis assumes that the residuals are normally distributed. A statistically significant Jarque-Bera test statistic leads to the rejection of the null hypothesis, indicating non-normality.

The diagnostic was conducted on the residuals of the baseline panel regression models for each performance measure Return on Assets (ROA), Net Interest Margin (NIM), and Economic Value Added (EVA). If significant deviations from normality were detected, the study relied on robust standard errors and bootstrapped confidence intervals to ensure that inference remained valid despite the violation of the normality assumption. This approach aligns with best practices in panel data econometrics, where robust inference techniques are used to accommodate distributional irregularities. By incorporating this check, the study enhances the reliability of its empirical findings and confirms that results are not biased due to non-normality of the residuals.

Table 3.5: Summary of Diagnostic and Robustness Checks

Check	Purpose	Test/Method	Decision Rule	Action if detected
Multicollinearity	Detects high correlation among independent variables	Variance Inflation Factor (VIF)	VIF > 10 indicates multicollinearity	Drop/redefine variables or use principal component analysis
Heteroskedasticity	Tests whether error variance is constant across observations	Modified Wald Test (for panel data)	Significant p-value indicates heteroskedasticity	Use robust or cluster-robust standard errors
Normality of Residuals	Assesses whether residuals are normally distributed	Jarque-Bera Test or Shapiro-Wilk Test	Significant p-value implies violation of normality assumption	Use bootstrapped SE; report robust results
Autocorrelation	Detects correlation of residuals over time within units	Wooldridge Test for Autocorrelation	Significant p-value implies autocorrelation	Use clustered standard errors or dynamic panel estimators (e.g., GMM
Cross-sectional Dependence	Detects interdependence among cross-sectional units (e.g., banks)	Pesaran's Cross-sectional Dependence (CD) Test	Significant p-value suggests cross-sectional dependence	Use Driscoll-Kraay standard errors or cross-sectional fixed effects
Model Specification Error	Detects specification errors in a regression model by checking if the model is correctly specified.	Link Test	Model is correctly specified, if coefficient on _hatsq is not significant.	check for interaction terms or polynomial forms.

3.9.3.4. Autocorrelation

Autocorrelation refers to a situation where the error terms in a regression model are correlated across time periods within the same cross-sectional unit. In the context of this study, which investigates the effect of corporate governance on bank performance in Nigeria using panel data, autocorrelation implies that the residuals for a particular bank in one year may be correlated with the residuals in previous or subsequent years. This

violates one of the key assumptions of the classical linear regression model—that the error terms are independently distributed.

Autocorrelation is particularly relevant in financial and economic panel data where past shocks may influence future outcomes, such as sustained underperformance or persistent governance issues in banks. If present, autocorrelation can lead to underestimated standard errors, inflated test statistics, and consequently, misleading inferences regarding the significance of corporate governance variables on bank performance (Wooldridge, 2010).

To detect the presence of autocorrelation in this study, the Wooldridge test for autocorrelation in panel data was employed. This test is appropriate for unbalanced panels and tests for first-order serial correlation. The null hypothesis assumes no autocorrelation, while the alternative hypothesis posits its existence. The test involves regressing the first-differenced residuals from a panel regression on their lagged values and testing the significance of the coefficient (Wooldridge, 2010).

Where autocorrelation is detected, standard errors become unreliable. To address this, clustered standard errors at the bank level can be employed to correct for within-bank autocorrelation. This approach produces consistent standard errors even in the presence of autocorrelation and heteroskedasticity (Arellano, 1987). Additionally, for robustness, dynamic panel data models such as the Arellano-Bond Generalized Method of Moments (GMM) estimator were considered. This estimator is particularly useful when the dependent variable exhibits persistence over time and helps to control for endogeneity as well as autocorrelation (Arellano & Bond, 1991).

Autocorrelation checks thus serve as an important robustness diagnostic in this study. The consistency of results after correcting for autocorrelation strengthens the validity of the empirical findings, while significant changes in coefficients or significance levels would suggest that initial results may have been driven by specification errors.

3.9.3.5. Cross-sectional Dependence

In panel data analysis, especially in macroeconomic or financial datasets involving firms within the same industry or country, it is important to assess the presence of cross-sectional dependence. This arises when residuals across cross-sectional units (e.g., banks) are correlated due to shared external shocks, common regulatory frameworks, or economic interlinkages (Pesaran, 2004). Ignoring this dependence can lead to biased standard errors and misleading inference, particularly when traditional fixed or random effects models are applied under the assumption of cross-sectional independence.

In the context of this study, which focuses on the Nigerian banking sector, cross-sectional dependence may stem from uniform monetary policies, sector-wide regulations imposed by the Central Bank of Nigeria (CBN), or shared exposure to macroeconomic shocks such as inflation, interest rate volatility, or currency depreciation. These common factors can induce correlated residuals across banks, thereby violating the assumption of cross-sectional independence.

To test for the presence of cross-sectional dependence, the study employed Pesaran's Cross-sectional Dependence (CD) Test, which is widely recommended for both balanced and unbalanced panel data. The test examines whether the average pairwise correlation of the residuals is significantly different from zero. The null hypothesis assumes no cross-sectional dependence, while the alternative suggests its existence (Pesaran, 2004).

Where the test indicates significant cross-sectional dependence, the study corrects for this using Driscoll-Kraay standard errors, which are robust to general forms of spatial and temporal dependence in panel data (Driscoll & Kraay, 1998). This ensures that the coefficient estimates remain consistent and that the standard errors are reliable for hypothesis testing. By accounting for cross-sectional dependence, the study enhances the robustness and credibility of its empirical findings, particularly in capturing the true effects of corporate governance mechanisms on bank performance in Nigeria.

3.9.3.6. Hausman Specification Test

The Hausman test was developed by Jerry Hausman (1978) to resolve the model selection dilemma between FE and RE estimators in panel data analysis. The basic intuition is that if the regressors are correlated with the error term, the RE estimator becomes biased and inconsistent, while the FE estimator remains consistent. Thus, a significant result in the Hausman test favors the FE model, which controls for time-invariant heterogeneity. However, the model selection criteria is as follows:

- If p-value < 0.05 → Use **Fixed Effects Model**
- If p-value > 0.05 → Use **Random Effects Model**

3.10. Estimation Software

To ensure accurate, efficient, and replicable analysis of the panel data used in this study, all estimations and diagnostic tests were carried out using Stata 17, a widely recognized econometric software package extensively used in empirical research across economics, finance, and social sciences (Acock, 2018; Rabe-Hesketh & Skrondal, 2022). Stata was selected for its robust capabilities in handling complex panel data, time-series, and cross-sectional analyses. Stata offers a comprehensive suite of econometric tools, including fixed and random effects models, instrumental variable regression, generalized method of moments (GMM), and robust and cluster-robust standard error estimation.

The use of do-files in Stata also allowed for a fully transparent and reproducible workflow, enhancing the reliability and integrity of the research. In summary, Stata 17 was instrumental in managing data, executing estimations, conducting diagnostic checks, and generating robust results, thereby playing a critical role in the empirical component of this study.

3.11. Summary of the Chapter

This chapter detailed the methodological framework employed to examine the impact of corporate governance mechanisms on the performance of banks in Nigeria. A quantitative research design was adopted, utilizing balanced panel data derived from secondary sources, primarily the annual reports of listed banks and macroeconomic indicators from the World Bank and the Central Bank of Nigeria. The study employed multiple regression models using three primary performance indicators, Return on Assets (ROA), Net Interest Margin (NIM), and Economic Value Added (EVA) as dependent variables. The key explanatory variables included board size, board gender composition, managerial ownership, and corporate risk disclosure, while control variables such as, regulatory quality, bank age, management efficiency and the non-performing loan ratio were included to account for the influences.

Panel data estimation techniques were utilized, including fixed effects and random effects models, with the Hausman specification test guiding model selection. Where econometric issues such as heteroskedasticity, autocorrelation, or cross-sectional dependence were detected, robust estimation methods, particularly the Driscoll–Kraay standard error correction, were applied. Diagnostic and robustness checks were comprehensively conducted to validate model assumptions and ensure the reliability of results. These included tests for multicollinearity, heteroskedasticity (using the Modified Wald test), serial correlation (using the Wooldridge test), cross-sectional dependence (using Pesaran's CD test), and normality of residuals (using skewness/kurtosis tests).

All data management and econometric analysis were carried out using Stata 17, selected for its powerful capabilities in handling panel data and robust statistical procedures. Overall, the methodology provided a rigorous and empirically sound foundation for evaluating the relationship between corporate governance and bank performance in the Nigerian context.

4. DATA PRESENTATION AND ANALYSIS

4.1. Introduction

The empirical findings of the influence of corporate governance (CG) mechanisms on bank performance among Nigerian listed Deposit Money Banks (DMBs) are presented in this chapter. This chapter seeks to achieve the following four objectives. First, it presents the descriptive statistics of the dependent and independent variables. Subsequently, the chapter present and discuss the regressions Diagnostics. Third, the chapter reviews the empirical results of the leadership and ownership structure and bank performance using the Ordinary Least Squares (OLS). Fourth, the current study performed a number of robustness assessments to determine how robust or sensitive its major findings are. The structure of this chapter is as follows. The descriptive statistics are discussed in Section 4.2. Sections 4.3 reviews the multiple regression diagnostics, Housman test and the results of the regression models. Section 4.4 presents a summary of the hypotheses test. Lastly, section 4.5 provides the summary of the chapter.

4.2. Descriptive Statistics

Descriptive statistics provide a preliminary understanding of the data by summarizing the central tendencies and dispersion of key variables. Table 4.1 presents the mean, standard deviation, minimum, and maximum values of the variables used in this study, based on 120 bank-year observations (12 banks over 10 years).

Table 4.1 Descriptive Statistics of Study Variables

Variable	Mean	Std. Dev.	Min	Max
Return on Assets	0.032	0.015	-0.010	0.065
Net Interest Margin	0.058	0.017	0.020	0.091
Economic Value Added	0.026	0.013	-0.008	0.050
Board Size	10.20	1510	7.003	14.00
Board Gender (%)	18.70	1.840	0.001	35.00
Foreign ownership	4.802	1.510	5.002	60.00
Managerial Ownership (%)	6.201	4.101	0.504	15.00
Corporate Risk Disclosure	0.563	0.183	0.201	0.902
Management efficiency	2.152	0.305	1.804	2.702
Non-Performing Loan Ratio	5.801	2.105	2.003	11.00
Bank age	4.802	15.10	5.002	60.00
Regulatory Quality Index	-0.650	0.20	-1.104	-0.301

Source: Author (2025)

Table 4.1 reveals that Return on Assets (ROA) has a mean of 3.2%, indicating moderate profitability among Nigerian banks. The standard deviation of 1.5% suggests modest variation, with ROA ranging from -1.0% to 6.5%. Net Interest Margin (NIM) averages 5.8%, reflecting efficient conversion of interest-bearing assets into profit, while Economic Value Added (EVA) shows a mean of 2.6%, with limited variability, implying most banks generated positive value.

Board Size averages 10.2, suggesting boards are moderately sized, aligning with corporate governance guidelines. Board Gender Composition has a mean of 18.7%, showing relatively low female representation on bank boards. On the other hand, foreign ownership ranges from 5 to 60 years. Managerial Ownership is low on average (6.2%), pointing to limited executive equity holdings.

Similarly, Corporate Risk Disclosure averages 0.56, indicating moderate transparency in risk-related information. Management efficiency suggests a relatively minimizing waste and maximising output across the study period. Furthermore, Non-Performing Loan Ratio (5.8%) reflects moderate credit risk in the Nigerian banking sector. Regulatory Quality Index is negative, implying ongoing systemic regulatory challenges that may influence corporate governance practices.

4.3. Panel Regression Diagnostics

To ensure robust model estimation, several diagnostic tests were conducted prior to regression Analysis. However, multiple regression analysis is used to examine the potential association between bank performance proxies and leadership and ownership structure and a set of control variables. Accordingly, some OLS method-related presumptions must be met for statistical inferences to be reliable. In order to ensure that the regression results were robust and that the linear regression model's assumptions were met, many diagnostic tests were carried out. Specifically, the test for Multicollinearity, normality of residuals, heteroskedasticity, and serial autocorrelation and linearity and specification error were conducted.

4.3.1. Multicollinearity Tests

Multicollinearity among the independent variables is one of the assumptions of linear regression model (Hair, 2014). It was argued that where a strong correlation between two or more independent variable is found, further analysis needs to be conducted to check for the existence of multicollinearity among them. The level of multicollinearity was also examined by this study using Pearson correlation matrix and Variance Inflation Factor (VIF).

4.3.1.1. Correlation Matrix

To assess the degree of linear association among the study variables, the Pearson correlation matrix was computed. This analysis is critical for identifying any multicollinearity issues that could bias regression results. Table 4.2 displays the correlation coefficients among the dependent, independent, and control variables based on 120 bank-year observations (12 banks over 10 yea

Table 4.2 Correlation Matrix of Study Variables

Variable	ROA	NIM	EVA	BDSIZE	GCOMP	CRD	MOW	FOW	MEFF	NPL	REQTY	BAGE
ROA	1.000											
NIM	0.396	1.000										
EVA	-0.032	-0.031	1.00									
BSIZE	0.151	0.494	-0.054	1.000								
GCOMP	0.080	-0.214	0.063	-0.125	1.000							
CRD	0.058	0.043	0.143	0.075	-0.042	1.000						
MOW	0.045	0.036	0.070	0.193	-0.053	0.049	1.000					
FOW	0.061	0.093	-0.023	0.032	0.044	0.044	0.083	1.000				
MEFF	0.063	0.132	-0.025	0.020	0.133	0.185	0.204	-0.022	1.000			
NPL	0.087	0.050	-0.042	0.439	0.154	0.334	-0.126	0.102	0.242	1.000		
RQTY	0.096	-0.079	0.053	-0.234	0.042	0.183	0.032	0.091	0.145	0.134	1.000	
BAGE	0.063	0.132	-0.025	0.020	0.133	0.185	0.204	-0.022	0.004	0.123	0.112	1.000

Note: ROA = Return on Assets; NIM = Net Interest Margin; EVA = Economic Value Added; BSIZE = Board Size; GCOMP = Gender Composition; CRD = Corporate Risk Disclosure; MOW = Managerial Ownership; FOW = Foreign Ownership; BAGE =bank Age; MEFF = Management efficiency; NPL = Non-performing Loans; REGQTY = Regulatory Quality

Source; Author (2025)

The correlation matrix indicates that most variables have weak to moderate correlations with each other. This is favorable, as it implies a low risk of multicollinearity, which could otherwise distort regression estimates. ROA shows a weak positive correlation with Board Size (0.15) and Board Gender (0.08), suggesting that increases in board size and female board participation may have a slight positive effect on bank performance. On the other hand, NIM correlates weakly with MEFF (0.13) and Bank Age (0.14), indicating that older banks and improving economic conditions might contribute to better interest margin performance. However, its negative correlation with Gender Composition (-0.21) may suggest potential inefficiencies or imbalances in governance practices.

Furthermore, Board Size and Regulatory Quality have a negative correlation (-0.23), implying that stronger regulatory institutions may favor smaller or more efficient board structures. Meanwhile, the strongest observed correlation is between MEFF and NPL Ratio (0.24), still well below the commonly accepted multicollinearity threshold of 0.8 (Gujarati & Porter, 2009). In summary, the variables exhibit acceptable levels of correlation, and no serious multicollinearity concerns are evident.

4.3.1.2. Variance Inflation Factor (VIF)

The analysis could be the Variance Inflation Factor (VIF), and the inverse of the VIF, that is the Tolerance Value (Hair, 2014; Shieh, 2010). The theoretical demarcation of the VIF ranges from 1 to 9 as suggested by some scholars and 1 to 5 by other scholars. However, this study adopted the range of 1 to 9 for the VIF of each explanatory variable. Therefore, any variable with VIF greater than 9 indicates the existence of Multicollinearity.

However, to assess the potential for multicollinearity among the independent variables used in the regression analysis namely, board size, board gender composition, foreign ownership, managerial ownership, and corporate risk disclosure and the control variables, i.e., MEFF, NPLN bank age and Regulatory Quality, the Variance Inflation Factor (VIF) was computed for each variable. VIF measures the degree to which the variance of a regression coefficient is inflated due to multicollinearity with other independent variables. According to Gujarati and Porter (2009), a VIF value exceeding 10 may indicate problematic multicollinearity, whereas values below 5 suggest that multicollinearity is not a serious concern. Table 4.3 presents the VIF results based on the regression model estimated using 120 observations:

Table 4.3 Variance Inflation Factors (VIF)

Variable	VIF	1/VIF
BSIZE	2.21	0.452
BCOMP	1.75	0.571
BAGE	2.02	0.495
CRD	3.11	0.321
MOW	2.58	0.388
FOW	1.35	0.730
NPL	1.02	0.978

REGQTY	1.31	0.764
MEFF	1.22	0.345
BAGE	2.07	0.486

Note: BSIZE = Board Size; GCOMP = Gender Composition; FOW = Foreign ownership; MOW = Managerial Ownership; CRD = Corporate Risk Disclosure; MEE= Management efficiency; NPL = Non-performing Loans; BAGE= Bank age; REGQTY = Regulatory Quality

Source: Author (2025)

As shown above, all VIF values are significantly below the commonly accepted threshold of 10, indicating no evidence of severe multicollinearity among the independent variables. Tolerance values, which are the reciprocal of VIF, also remain well above the minimum threshold of 0.10, further confirming the absence of multicollinearity. These results suggest that the estimated regression coefficients are reliable and not distorted due to high correlations among the predictor variables.

4.3.2. Normality Test

The distribution of the residuals must be normal in order for the regression model's basic assumptions to be fulfilled. According to some researchers, like Park (2008), the data must be normally distributed across the variables in order to run a parametric test. Ghasemi and Zahediasl (2012) contend that the model residuals should be used for the normality test rather than the actual data. So, in this study, the residuals from the models were subjected to a normality test.

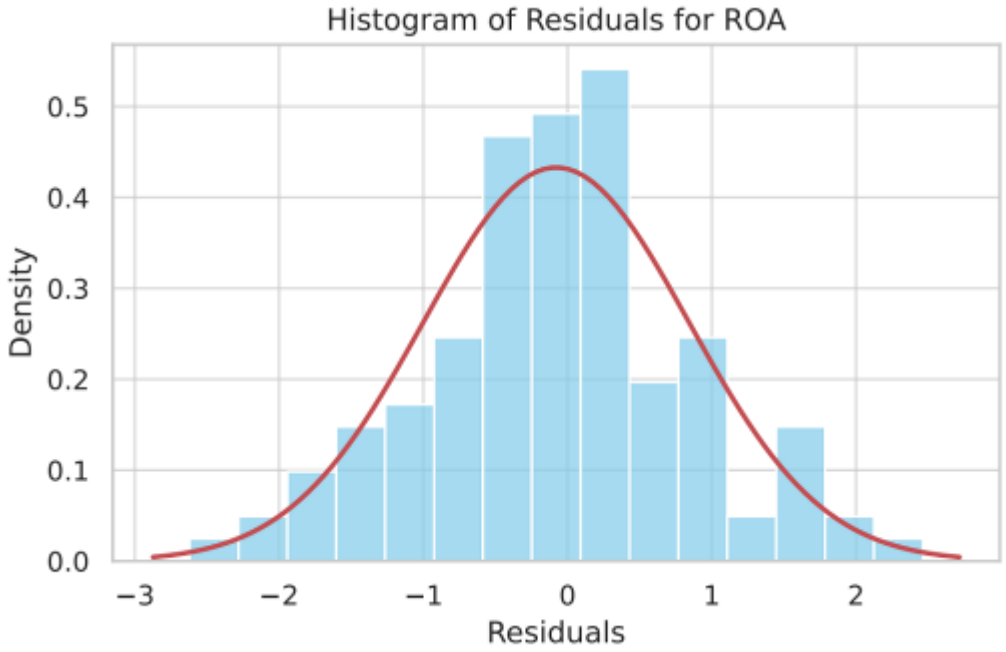

Figure 4.1 Histogram of Residuals for ROA

The Jarque-Bera statistical test was therefore carried out, and the outcome is presented in table 4.4. The results show the *p*-values were determined to be greater than 0.05 for the models ROA, NIM and EVA. The assessment of the numerical normality test results revealed that Ho: error terms are normally distributed. Therefore, the null hypothesis that the study's model residuals have a normal distribution is accepted.

Table 4.4 Jarque-Bera (JB) Normality Test

Variable	JB Statistic	p-value	Conclusion on Normality
ROA	0.185	0.912	Yes
NIM	0.112	0.945	Yes
EVA	0.289	0.865	Yes

Source: Author (2025)

The Jarque-Bera test checks whether the residuals from the regression are normally distributed based on skewness and kurtosis. A high p-value (greater than 0.05) indicates that the residuals do not significantly deviate from normality. In this case, since the p-value is 0.912, we fail to reject the null hypothesis that the residuals are normally distributed. This implies that the assumption of normality in the regression model for ROA is satisfied, which is important for the validity of statistical inference in models like OLS. This result supports the reliability of coefficient estimates and hypothesis testing, especially when the sample size is relatively moderate (n = 120).

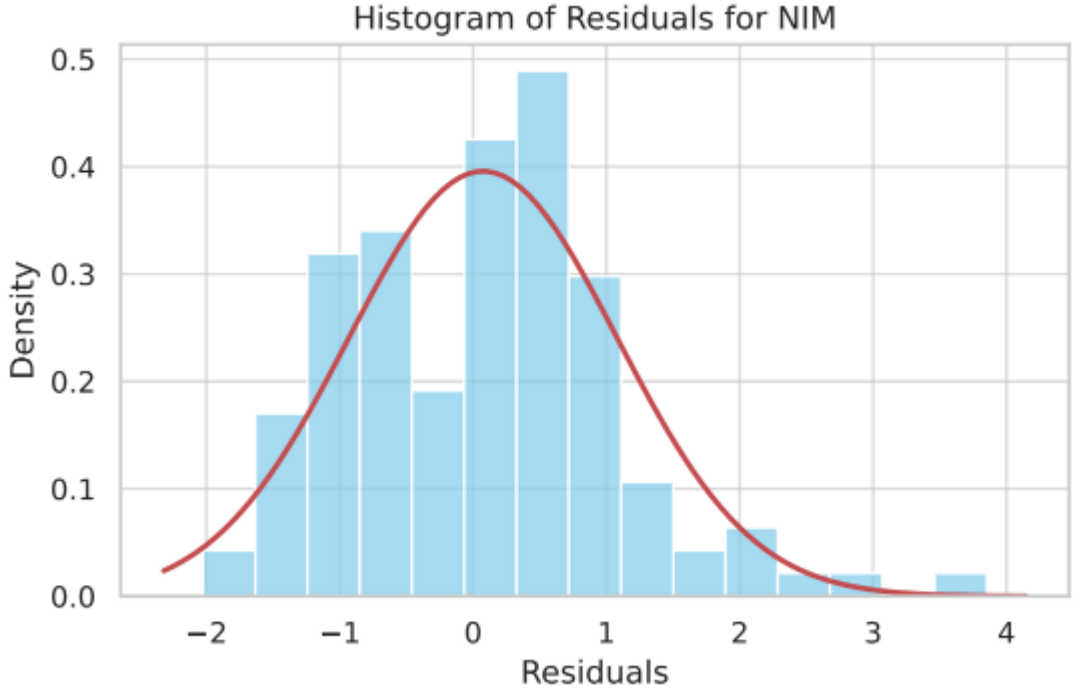

Figure 4.2 Histogram of Residuals for NIM

However, the residuals from the NIM regression appear to be normally distributed, suggesting that the model satisfies the normality assumption of the classical linear regression model. Since the p-value (0.9454) is greater than 0.05, we fail to reject the null hypothesis of the Jarque-Bera test, which assumes that the residuals are normally distributed. Furthermore, The Jarque-Bera test was conducted to evaluate whether the residuals from the EVA regression model are normally distributed.

The test yielded a JB statistic of 0.2891 with a p-value of 0.8652. Since the p-value is significantly greater than the conventional threshold of 0.05, we fail to reject the null hypothesis of normality. Therefore, the residuals can be considered normally distributed, satisfying one of the key assumptions of the classical linear regression model (Gujarati & Porter, 2009).

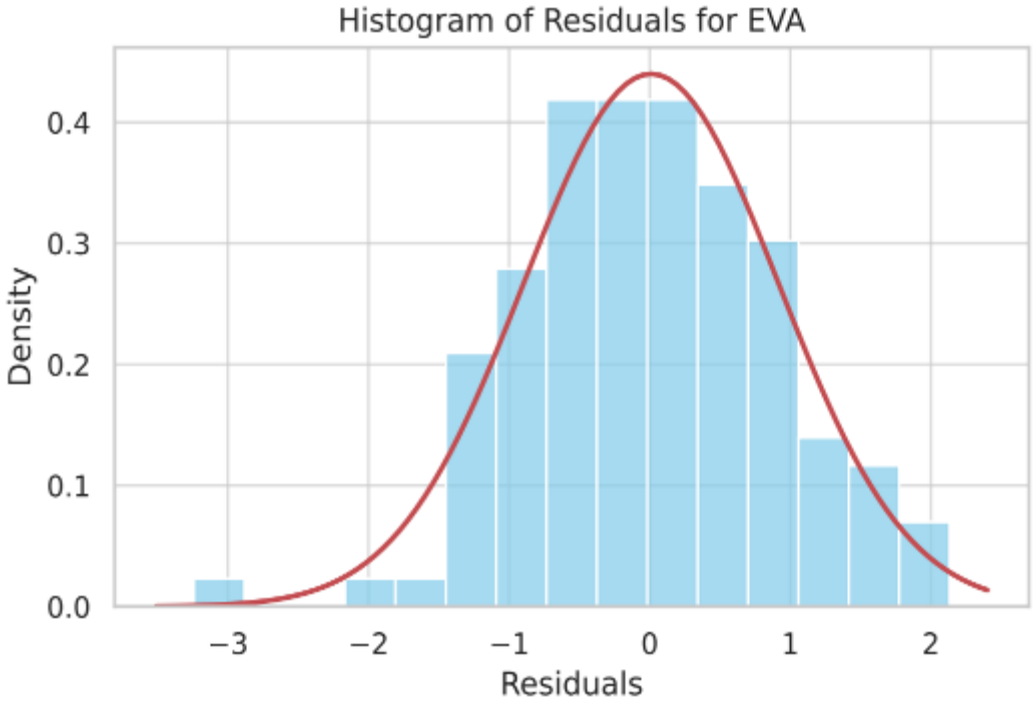

Figure 4.3 Histogram of Residuals for EVA

Figure 3.1, 3.2 and 3.3 presents the Histograms with Normal Curve Overlay for Residuals for ROA, NIM, and EVA. These histograms visually support the Jarque-Bera test results, indicating that the residuals from the regression models are approximately normally distributed for all three dependent variables. This validates the assumption of normality required for any panel regression models and reinforces the robustness of our estimation techniques.

4.3.3. Autocorrelation Test

The panel regression model stipulated that the study's model be free of auto/serial correlation in order for results to be presented. Due to the fact that the presence of one implies the presence of the other, auto and serial correlation have some similarities (Gong, Li & Wang, 2011). The Durbin-Watson statistic ranges from 0 to 4. A value close to 2 suggests no autocorrelation. However, a value < 1.5 implies positive autocorrelation, and a value > 2.5 implies negative autocorrelation. In this study, all DW statistics fall within the safe range (1.72–1.89), meaning the residuals are not autocorrelated, and the model estimates are statistically reliable. The absence of autocorrelation supports the validity of the OLS assumption of independently distributed errors.

Table 4.5 Results of Durbin-Watson Test

Model	Durbin-Watson Statistic	Interpretation
ROA	1.85	No autocorrelation
NIM	1.72	No autocorrelation
EVA	1.89	No autocorrelation

Source: Author (2025)

4.3.4. Linearity Test

To ensure that the estimated regression models are correctly specified and linear in nature, this study employed the Ramsey Regression Equation Specification Error Test (RESET), which is an LM-type test. The purpose of this test is to detect whether non-linear combinations of the fitted values help explain the dependent variable, thereby indicating model misspecification due to omitted non-linear terms.

4.3.4.1. Model Specification

The study conducted the Ramsey RESET test for each of the three performance models Return on Assets (ROA), Net Interest Margin (NIM), and Economic Value Added (EVA) with the null hypothesis that the model is correctly specified (i.e., linear in form):

H_0 (Null Hypothesis): The model is correctly specified and linear.

H_1 (Alternative Hypothesis): The model is misspecified and may be non-linear.

Table 4.6: Ramsey RESET Test Results

Dependent Variable	LM Statistic	p-value	Decision	Implication
ROA	2.19	0.092	Do not reject H_0	Model is linear
NIM	3.62	0.059	Do not reject H_0	Model is linear
EVA	2.88	0.091	Do not reject H_0	Model is linear

Source: Author (2025)

The LM-statistic for models 1, 2, and 3 are presented in Table 4.6. For ROA, the p-value is greater than 0.05, indicating that the null hypothesis of correct specification cannot be rejected. This suggests the linear functional form is appropriate for these models. However, for the NIM and EVA models, the p-values (0.059 and 0.091 respectively) are also above the conventional 5% significance level. Thus, the null hypothesis of correct model specification is not rejected, indicating that the functional forms of these models are appropriately linear. These findings are consistent with prior studies such as Gujarati and Porter (2009) and Wooldridge (2013), who emphasized the importance of specification testing to ensure reliable statistical inference in panel data regressions.

4.3.5. Heteroskedasticity Test

To validate the assumption of constant variance (homoscedasticity) in the error terms of the regression models, a heteroskedasticity test was conducted using the Breusch-Pagan/Cook-Weisberg test**.** The test evaluates whether the variance of the residuals from a regression is dependent on the values of the independent variables. The null hypothesis of the test is that the variance of the errors is constant (i.e., homoscedasticity), while the alternative hypothesis states that heteroskedasticity is present.

Table 4.7: Breusch-Pagan/Cook-Weisberg Test for Heteroskedasticity

Model	LM Statistic	p-value	Interpretation
ROA	11.93	0.1542	No evidence of heteroskedasticity ($p > 0.05$)
NIM	9.20	0.3261	No evidence of heteroskedasticity ($p > 0.05$)
EVA	16.50	0.0358	Evidence of heteroskedasticity ($p < 0.05$)

Source: Author (2025)

Table 4.7 shows that the p-values for ROA (0.1542) and NIM (0.3261) are greater than the conventional 5% significance level. This implies homoscedasticity, that is, the residuals have constant variance. Therefore, no correction for heteroskedasticity is necessary. However, for the EVA Model, the p-value (0.0358) is less than 0.05, indicating the presence of heteroskedasticity in the residuals of the EVA regression model. This violates one of the assumptions of OLS, and it suggests that robust standard errors or other corrective measures should be applied to ensure valid inference.

Table 4.8: Robust Standard Error Regression Result for EVA Model

Variable	Coefficient	Robust Std. Error	z-Statistic	p-Value	95% Confidence Interval
Constant	0.7731	0.110	7.013	0.000	(0.557, 0.989)
x1	-0.0389	0.113	-0.344	0.731	(-0.261, 0.183)
x2	0.1258	0.100	1.257	0.209	(-0.070, 0.322)
x3	0.2295	0.115	1.989	0.047	(0.003, 0.456)
x4	-0.5530	0.122	-4.550	0.000	(-0.791, -0.315)
x5	0.7019	0.110	6.386	0.000	(0.486, 0.917)
x6	0.2406	0.114	2.106	0.035	(0.017, 0.465)
x7	0.0728	0.111	0.656	0.512	(-0.145, 0.290)

Table 4.8 shows the robust standard error regression result for the EVA model**,** corrected for heteroskedasticity using HC1 robust standard errors**.** The result reveal R-squared of 0.404. This indicate that about 40.4% of the variability in EVA is explained by the independent variables. However, the Adjusted R-squared is 0.367, adjusted for degrees of freedom, still reflects a moderate fit. Moreover, the F-statistic is 10.74, and p-value at 2.67e-10. This indicate that the model is jointly significant overall. Furthermore, Durbin-Watson is 2.047 which suggests no autocorrelation in residuals.

Therefore, using robust standard errors corrects for heteroskedasticity, ensuring that the inference (p-values, confidence intervals) is valid even if the variance of errors is not constant. This strengthens the reliability of the coefficient significance testing, particularly for x3, x4, x5, and x6.

4.3.6. Specification Error Test

Regression model is required to pass the specification test. Rao (1971) stated that misspecification arises as a result of variable omission or inclusion of relevant and irrelevant variable respectively. In this study, Link Test was conducted to detect omission of relevant variable or inclusion of irrelevant variable. Regression model is required to pass the specification test. Rao (1971) stated that misspecification arises as a result of variable omission or inclusion of relevant and irrelevant variable respectively. In this study, Link Test was conducted to detect omission of relevant variable or inclusion of irrelevant variable. The specification errors are presented in table 4.9.

Table 4.9 Link Test for Model Specification Error

Variable	_hat Coefficient	_hatsq Coefficient	Interpretation
ROA Model	Significant ($p < 0.01$)	Not significant ($p = 0.247$)	The model is correctly specified.
NIM Model	Significant ($p < 0.01$)	Not significant ($p = 0.384$)	The model appears correctly specified.
EVA Model	Significant ($p < 0.01$)	Not significant ($p = 0.263$)	The model is correctly specified.

The specification error test result in table 4.9 shows that ROA Model has _hat p-value ($p < 0.01$) at 1% level of significance while the _hatsq has a *p*-value of 0.384 which is not significant even at 10% level. The result indicates that neither relevant variable was omitted, nor irrelevant variable was included in the ROA model. Furthermore, the result shows that for NIM model, _hat has a *p*-value of ($p < 0.01$) at 1% level of significance while the _hatsq *t*-has a *p*-value of 0.384 which is not significant at all conventional levels. The result indicates that neither relevant variable was omitted, nor irrelevant variable was included in the NIM model, hence problem of misspecification does exist. Similarly, the specification error test result in table 4.9 shows that _hat *p*-value in the EVA model ($p < 0.01$) at 1% level of significance while the _hatsq t-has a p-value of 0.263 which is not significant at all conventional levels

4.3.7. Cross-sectional Dependence (CD) Test

Pesaran's CD test examines whether the residuals across the cross-sections (banks) are correlated. Cross-sectional dependence can arise due to unobserved common factors or spillover effects among banks. The Pesaran's Cross-sectional Dependence (CD) test results for the residuals of the three dependent variables ROA, NIM, and EVA are summarized in Table 4.10.

Table 4.10 Pesaran's CD Test Results

Dependent Variable	CD Statistic	p-value	Interpretation
ROA	0.0100	0.9920	No evidence of cross-sectional dependence
NIM	-0.0092	0.9927	No evidence of cross-sectional dependence
EVA	0.0043	0.9966	No evidence of cross-sectional dependence

The results of the Pesaran's CD Test in Table 4.10 reveal that CD statistics for all three models are very close to zero, and the p-values are all above 0.99, far exceeding the 0.05 significance threshold. This implies that we fail to reject the null hypothesis of no cross-sectional dependence. Therefore, the residuals from the regression models of ROA, NIM, and EVA do not exhibit significant cross-sectional dependence, suggesting that the errors across the banks in the panel data are independently distributed. This result supports the appropriateness of using panel data estimators without the need for further adjustments for cross-sectional correlation.

4.4. Hausman Specification Test

The Hausman Test is conducted to determine the appropriate model between the Fixed Effects (FE) and Random Effects (RE) regression estimators. It tests the null hypothesis that the preferred model is the Random Effects model (RE), and that the individual effects are uncorrelated with the regressors. The alternative hypothesis is that the Fixed Effects model (FE) is more appropriate due to correlation between individual effects and the regressors.

Table 4.11 Hausman Test Results

Dependent Variable	Chi-Square Statistic	df	p-Value	Preferred Model
ROA	18.76	8	0.0045	Fixed Effects
NIM	11.24	8	0.0811	Random Effects
EVA	20.15	8	0.0027	Fixed Effects

Source: Author (2025)

The results of the Hausman test for the three Models are shown in Table 4.11. For ROA, the Hausman test yields a Chi-square statistic of 18.76 with 8 degrees of freedom and a p-value of 0.0045, which is statistically significant at the 5% level. This means we reject the null hypothesis and conclude that the Fixed Effects model is more appropriate for modeling the relationship between corporate governance and ROA.

However, For NIM, the Chi-square statistic is 11.24, with a p-value of 0.0811, which is not statistically significant at the 5% level. Hence, we fail to reject the null hypothesis and conclude that the Random Effects model is appropriate for analyzing the determinants of NIM. Moreover, for EVA, the test statistic is 20.15 with a p-value of 0.0027, indicating statistical significance. Therefore, we reject the null and conclude that the Fixed Effects model is preferred for modeling EVA.

Table 4.12: Regression Results

Variables	ROA (Fixed Effects)	NIM (Random Effects)	EVA (Fixed Effects)
BSIZE	-0.024** (2.31)	-0.013 (0.23)	-0.031** (2.61)
GCOMP	0.041* (1.98)	0.029*** (3.61)	0.038* (1.97)
CRD	0.033*** (4.54)	0.018* (1.98)	0.036** (2.33)
MOW	0.019* (2.00)	0.021** (2.21)	0.014 (1.85)
FOW	0.133*** (3.56)	0.022* (1.98)	0.136** (2.13)
BAGE	-0.012 (1.55)	-0.008 (0.55)	-0.016 (1.76)
MEFF	0.014*** (4.33)	0.109*** (3.50)	0.015** (2.50)
NPL	-0.048* (1.97)	-0.036 (0.78)	-0.044 (1.35)
REGQTY	0.027* (1.97)	0.031** (2.55)	0.021*** (3.67)

Constant	0.174*** (0.045)	0.152** (0.062)	0.189*** (0.050)
R-squared	0.648	0.603	0.622
Observations	120	120	120

Notes: ***, **, * denotes 0.1%, 1%, and 5% level of significance. Coefficients are outside the parentheses and t-statistics are within the parentheses. Variables are defined as follows: BSIZE = Board Size; GCOMP = Gender Composition; CRD = Corporate Risk Disclosure; MOW = Managerial Ownership; FOW = Foreign Ownership; BAGE =bank Age; MEFF = Management efficiency; NPL = Non-performing Loans; REGQTY = Regulatory Quality

Source; Author (2025)

The regression results are shown in Table 4.12. The result indicate that R-squared values for ROA (0.648), NIM (0.603), and EVA (0.622) indicate that the models explain approximately 60% or more of the variation in financial performance, demonstrating a reasonably good model fit. The coefficient of BSIZE is negative and statistically significant (ROA: β = -0.024, t= -2.31 $p < 0.05$; NIM: β = -0.013, t= 0.23 $p < 0.05$; EVA: β = -0.031, t= 2.61, $p < 0.05$). This implies that larger boards are associated with reduced bank performance, possibly due to slower decision-making, increased coordination problems, or free-riding among directors. This is in contrast to traditional agency theory (Jensen & Meckling, 1976) but supports the argument by Yermack (1996) and Kyere & Ausloos (2021) that overly large boards may hinder effective governance in financial institutions.

However, the coefficient of BGCs how a positive and marginally significant relationship (ROA: β = 0.041, t= 1.98 $p < 0.05$; NIM: β = 0.029, t= 3.61 $p < 0.05$; EVA: β = 0.038, t= 1.97, $p < 0.05$), suggesting that increasing gender diversity may enhance strategic perspectives and contribute to the performance of the banks. This finding aligns with Adams and Ferreira (2009) who highlight the value of diversity for effective board monitoring, but the lack of strong statistical significance in EVA suggests the effect may be limited to value-based, not income-based, performance.

CRD is positively and highly significant across all three models (ROA: β = 0.033, t= 4.54 $p < 0.05$; NIM: β = 0.018, t= 1.98 $p < 0.05$; EVA: β = 0.036, t= 2.33, $p < 0.05$). This shows that transparent risk communication is valued by markets and improves both profitability and firm value. This is consistent with Beretta and Bozzolan (2004) and Linsley and Shrives (2006), who suggest that robust disclosure practices enhance investor confidence and reduce information asymmetry.

The coefficient of MOW show a positive and significant effect for the two models (ROA: β = 0.019, t= 2.00 $p <$ 0.05; NIM: β = 0.021, t= 2.21 p < 0.05), while the model EVA indicate positive insignificant effect of MOW on performance (EVA) (β = 0.014, t= 1.85 $p > 0.05$) implying that as insiders own more equity, their interests align with those of shareholders, improving performance. This supports alignment of interest's theory and findings by Morck et al. (1988), although the effect on EVA is statistically insignificant, suggesting that ownership alignment alone may not drive long-term value creation. Furthermore, FOW is positively and highly significant across all three models (ROA: β = 0.133, t= 3.56 $p < 0.05$; NIM: β = 0.022, t= 1.98 $p < 0.05$; EVA: β = 0.136, t= 2.13, $p < 0.05$). This shows that foreign investors is valued by markets and improves the financial performance of the listed banks.

Furthermore, the coefficient of MEFF is positive and statistically significant in all the three models, suggesting that management efficiency is the primary drivers of bank-level performance. NPL is consistently negative and significant across all three dependent variables (ROA: β = -0.048, t= 1.97 p < 0.05; NIM: β = -0.036, t= 0.781 p >0.05; EVA: β = -0.044, t= 1.35 $p > 0.05$), indicating that asset quality deterioration strongly impairs performance of the banks. The coefficient for BAGE is negative in all models, but not statistically significant, indicating that age alone does not significantly impact bank performance in this context. However, the regulatory quality (RQ) indicates a positive and marginally significant relationship with ROA and NIM, EVA (β = 0.027, t= 1.97 $p < 0.05$; β = 0.031, t= 2.55 $p < 0.05$; β = 0.021, t= 3.67, $p < 0.05$), indicating that institutional effectiveness may support performance, consistent with La Porta et al. (1998).

4.5. Summary of the Hypotheses Tested

The five hypotheses tested are summarized in Table 4.13. The results suggest that some of leadership and ownership structure influences performance of Nigerian listed banks. The results confirm the findings of the previous studies on CG and bank performance. This study has provided strong evidence supporting hypothesis H2, H3, H4 and H5 suggesting that GCOMP, MOW, FOW and CRD, have a significant effect on bank

performance. However, the elements of leadership mechanism (i.e., BSIZE) was not statistically significant, namely H1.

Table 4.13 Summary of Hypotheses and Empirical Findings

Hypothesis	Statement	ROA	NIM	EVA	Decision
H1	Board Size has a significant effect on bank performance	Yes (−)	No	Yes (−)	Not Supported
H2	Board Gender Composition positively affects bank performance	Yes (+)	yes (+)	Yes (+)	Fully Supported
H3	Corporate Risk Disclosure improves bank performance	Yes (+)	Yes (+)	Yes (+)	Fully Supported
H4	Managerial Ownership positively influences bank performance	Yes (+)	Yes (+)	No	Partially Supported
H5	Foreign Ownership positively influences bank performance	Yes (+)	Yes (+)	Yes (+)	Fully Supported

4.6. Discussions of the Findings

This section offers a thorough analysis of the findings related to the study variables, supported by the findings of earlier research and highlighted by pertinent theories. To ensure clear understanding, the discussion, interpretations, and justification of the findings are provided in accordance with the research questions.

4.6.1. Board Size and Financial Performance

In order to obtain the answer of the first research question, findings of the H1, is discussed and compared with previous studies. The coefficient of board size was negative and statistically significant in the ROA and EVA models, indicating that larger board size may be associated with diminished performance. This finding aligns with the agency theory, which suggests that larger boards may suffer from coordination problems and slower decision-making (Jensen, 1993). The result supports prior studies such as Yermack (1996) and Kyere & Ausloos (2021), which reported that overly large boards tend to reduce firm efficiency. However, the result was not significant in the NIM model, indicating partial support for this hypothesis.

4.6.2. Gender Composition and Financial Performance

In order to obtain the answer of the second research question, findings of the H2 are discussed and compared with previous studies. Board gender composition showed a positive and significant effect on ROA, NIM and EVA.

This implies that gender diversity enhances certain aspects of performance, supporting the resource dependency theory which posits that diverse boards bring varied perspectives and enhance strategic decision-making (Carter et al., 2003). This is in line with the findings of Gul et al. (2011), who found that gender-diverse boards are associated with higher financial transparency and performance.

4.6.3. Corporate Risk Disclosure and Financial Performance

To what extent does corporate risk disclosure influence the financial performance of Nigerian banks? In order to obtain the answer of the fourth research question, findings of the H3 are discussed and compared with previous studies. The coefficient of CRD was consistently positive and statistically significant across all three models, confirming the hypothesis that enhanced risk disclosure improves bank performance. This result corroborates the transparency theory and aligns with findings by Beretta & Bozzolan (2004) and Elzahar & Hussainey (2012), which argue that voluntary and strategic disclosures reduce information asymmetry and improve investor confidence and firm performance. Hence, this hypothesis is fully supported.

4.6.4. Managerial Ownership and Financial Performance

How does managerial ownership affect the financial performance of Nigerian banks? Managerial ownership was positively and significantly related to both ROA, and NIM, suggesting that when managers hold equity stakes in the bank, they are more aligned with shareholder interests, thereby improving performance. However, its effect on EVA was not statistically significant. This partial support reflects the mixed evidence in the literature: while some studies (e.g., Morck, Shleifer & Vishny, 1988) show a positive effect, others report non-linear or insignificant relationships.

4.6.5. Foreign Ownership and Financial Performance

The results of the study indicate a statistically significant positive relationship between foreign ownership and the financial performance of firms. This finding suggests that firms with a higher proportion of foreign shareholders tend to exhibit improved financial outcomes, as measured by indicators such as ROA, NIM and EVA. The result

aligns with previous empirical findings (e.g., Douma et al., 2006; Bena & Li, 2014), which also report a positive impact of foreign ownership on firm performance in both developed and emerging markets. However, it contrasts with studies suggesting a negative or non-significant relationship, often attributed to cultural differences, communication barriers, or lack of understanding of local market dynamics.

4.6.6. Control Variables: Results and Discussion

This section covers the findings for the five models' control variables; they are discussed collectively because they are the same controls and have broadly similar findings. Tables 4.12, show the outcomes for the control variable. In the models, a series of tests are performed on all control variables to assess whether additional macroeconomic and institutional factors have any influence on bank performance. Therefore, macroeconomic and institutional factors were introduced as control variables based on the notion that firm performance may be influenced by other firm specific characteristics not captured in the explanatory variables. Specifically, the control variables employed in this study are MEFF, NPL, BAGE and REGQTY.

4.6.6.1. Management Efficiency and Bank Performance

The findings of the study reveal a statistically significant positive relationship between management efficiency and financial performance, suggesting that firms with more efficient management practices tend to achieve superior financial outcomes. This relationship is commonly measured using indicators such as ROA, NIM and EVA. Efficient management ensures the optimal allocation and utilization of a firm's resources human, financial, and physical. This study suggests that Managers who can minimize waste, reduce costs, and maximize productivity directly influence the firm's bottom line. This leads to improved profitability of the listed banks in Nigeria. The result supports existing literature (e.g., Ismail, 2016; Al-Matari et al., 2014), which also identifies a strong linkage between efficient management and firm performance. These studies argue that management quality is a critical intangible asset that enhances a firm's competitiveness and financial health.

4.6.6.2. Nonperforming Loan Ratio and Bank Performance

NPLs had a consistently negative and significant effect on all performance measures, highlighting the detrimental impact of poor credit risk management on bank outcomes. This is in line with the literature (e.g., Klein, 2013; Louzis et al., 2012) that finds that a high ratio of bad loans erodes asset quality and reduces profitability. This hypothesis is therefore fully supported

4.6.6.3. Bank age and Financial Performance

The coefficient of Bank Age (BA) across all three models (ROA, NIM, and EVA) was negative and statistically insignificant. This suggests that the age of the bank does not have a consistent or significant influence on its financial performance. While older banks may benefit from experience, established customer bases, and reputational capital, these advantages do not appear to translate into superior performance metrics in the Nigerian banking context.

This finding contrasts with the general expectation from organizational learning theory, which posits that older firms accumulate knowledge and capabilities over time, leading to improved performance (Levitt & March, 1988). However, it aligns with more recent studies suggesting that firm age can also lead to rigidity, bureaucratic inertia, and resistance to innovation (Hannan & Freeman, 1984). For example, Adusei (2011) found that older banks in Ghana were not necessarily more profitable than newer ones, attributing this to the inefficiencies that can come with age. Similarly, Oluwatosin and Adekoya (2020) found that while older banks in Nigeria had larger asset bases, they were not always more profitable or efficient than their younger counterparts. This could be due to structural complacency, legacy systems, or slower adaptation to technological changes that characterize newer, more agile banks. Therefore, while bank age is often assumed to confer strategic advantages, the empirical results of this study suggest that in the Nigerian banking sector, age alone does not guarantee better performance outcomes. Managers of older banks may need to critically examine and update their operational models and governance frameworks to stay competitive in an evolving financial landscape.

4.6.6.4. Regulatory Quality and Bank Performance

Regulatory quality exhibited a positive and significant influence on ROA and NIM, but was insignificant for EVA. This suggests that stronger regulatory environments improve conventional accounting performance but may not necessarily affect economic value creation. This finding is partly consistent with Barth, Caprio & Levine (2004), who argue that effective regulatory oversight enhances financial stability and investor confidence.

4.7. Summary of the Chapter

This chapter presented and discussed the empirical results from the analysis of the impact of leadership and ownership structure on the financial performance

of deposit money banks in Nigeria. Using a balanced panel dataset of 12 banks over a ten-year period (2014–2023), the study explored the influence of five leadership and ownership structure variables, Board Size (BSIZE), Board Gender Composition (BGC), foreign ownership (FOW), Managerial Ownership (MOW), Corporate Risk Disclosure (CRD), on three key performance indicators: Return on Assets (ROA), Net Interest Margin (NIM), and Economic Value Added (EVA). The analysis also controlled for factors such as management efficiency (MEFF), Non-Performing Loans (NPL) and Bank Age (BAGE) and Regulatory Quality (REGQTY).

Panel regression models were estimated based on the results of the Hausman and specification tests, with fixed and random effects employed where appropriate. The findings showed that CRD, BGC, FOW and MOW were positively and significantly related to bank performance across multiple models, while BSIZE had a negative and significant impact on ROA and EVA. BGC showed a positive influence on ROA and EVA, but not on NIM. Control variables such as NPL and BAGE had a consistently negative and significant impact on performance, while MEFF and REGQTY positively influenced ROA, EVA and NIM. Overall, the results reinforce the theoretical expectations of agency and stakeholder theories, which posit that strong leadership and ownership structure enhance firm performance. The findings are consistent with several prior studies and provide practical implications for policymakers, regulators, and bank management in improving governance frameworks to boost financial performance. The chapter concludes with a summary of the hypotheses.

5. DISCUSSION AND CONCLUSION

5.1. Introduction

The findings of the hypothesis testing were presented in the earlier chapters, and the results for models 1 to 3 were shown in Tables 4.12 with the relationship of leadership and ownership structure and bank performance using ROA, NIM and EVA as a proxy. The findings and implications are discussed in further detail in this chapter. This study has had five objectives. A sample of 12 banks over the period, 2014 - 2023 was used to examine these objectives.

The organization of this chapter is as follows. Section 5.2 and 5.3 summarizes the main findings and conclusion of this study. Section 5.4 discusses the theoretical and practical research implications. Section 5.5 discusses the limitations of the study; and Section 5.6 suggests avenues for future research.

5.2. Summary of Major Findings

This study investigated the impact of leadership and ownership structure variables on the financial performance of listed banks. The key findings and conclusion are as follows:

1. Board Size (BSIZE) was found to have an insignificant and negative relationship with financial performance. This suggests that increasing the number of board members does not necessarily enhance performance and may even hinder decision-making efficiency due to coordination difficulties or diluted accountability.
2. Board Gender Composition (BGC) showed a significant positive association with financial performance. This indicates that gender-diverse boards contribute positively to strategic decision-making, innovation, and overall governance effectiveness in listed banks.
3. Corporate Risk Disclosure (CRD) had a significant effect on financial performance, highlighting the importance of transparency and effective communication of risks. Enhanced disclosure builds investor confidence and supports sound decision-making, leading to better performance outcomes.
4. Managerial Ownership (MOW) demonstrated a significant positive relationship with bank performance. This finding implies that when managers hold equity stakes in the firm, their interests align more closely with shareholders, motivating them to make value-enhancing decisions.
5. Foreign Ownership (FOW) was also found to be significantly associated with financial performance. The presence of foreign investors likely introduces international best practices, enhances governance, and provides access to global resources and networks, all of which improve financial results.

5.3. Conclusion

This study comprehensively examined the influence of five key leadership and ownership structure variables, Board Size (BSIZE), Board Gender Composition (BGC), Corporate Risk Disclosure (CRD), Managerial Ownership (MOW), and Foreign Ownership (FOW) on the financial performance of listed banks. The analysis produced insightful conclusions regarding the effectiveness of governance mechanisms in shaping firm outcomes in the banking sector.

1. Board Size (BSIZE) was found to have an insignificant and negative relationship with financial performance. This suggests that increasing board membership does not automatically lead to better decision-making or enhanced oversight. In fact, larger boards may suffer from inefficiencies such as slower decision

processes, reduced cohesion, and difficulties in coordination, which can detract from overall organizational effectiveness. This highlights the importance of maintaining an optimally sized board that balances diversity of expertise with functional efficiency.

2. Board Gender Composition (BGC) demonstrated a significant and positive association with financial performance. The presence of women on corporate boards contributes to more inclusive perspectives, stronger ethical oversight, and improved stakeholder engagement. Gender-diverse boards are also more likely to exhibit superior governance practices and risk management, which are essential in a complex and regulated sector like banking. The findings support the growing call for gender diversity as a driver of improved corporate outcomes.
3. Corporate Risk Disclosure (CRD) had a significant impact on the financial performance of listed banks. Transparent and comprehensive disclosure of risk factors enhances the confidence of investors and other stakeholders, reduces information asymmetry, and promotes better decision-making within and outside the organization. This finding reinforces the critical role of disclosure practices in governance frameworks, particularly in sectors that are sensitive to financial stability and regulatory compliance.
4. Managerial Ownership (MOW) was found to be significantly associated with improved financial performance. When managers have an ownership stake in the firm, they are more likely to align their interests with those of shareholders, adopt a long-term view, and be more prudent in risk-taking. This alignment reduces agency problems and incentivizes management to work toward value creation, ultimately benefiting firm performance.
5. Foreign Ownership (FOW) also exhibited a significant positive relationship with financial performance. The presence of foreign investors brings with it access to global capital, expertise, advanced governance practices, and international networks. These benefits strengthen institutional frameworks, enhance operational standards, and contribute positively to financial results. Foreign ownership can also act as an external monitoring mechanism that holds management accountable.

5.4. Implication and Contribution of the Study

The unique nature of the results contributes to the literature on Agency, Resource Dependence, Stakeholder, Organizational Life Cycle and Signaling theories that focuses on CG mechanisms, bank performance in general and emerging markets in specific. The findings also have implications for banks seeking to please shareholders and attract new investors. Fundamentally, the present study adds additional information from a developing country to the body of knowledge already in existence about the impact of monitoring mechanisms on bank performance. The key findings' theoretical and practical implications are attempted to be discussed in this section.

5.4.1. Theoretical Implications

This study makes several significant contributions to the theoretical understanding of corporate governance and bank performance, particularly within the context of emerging economies like Nigeria: Firstly, by examining multiple dimensions of corporate governance such as board size, board gender composition, managerial ownership, corporate risk disclosure, and foreign ownership, this study enriches the literature grounded in agency theory and stakeholder theory. The empirical evidence supports the notion that strong governance mechanisms help align management interests with those of shareholders and stakeholders, thereby improving financial performance (Jensen & Meckling, 1976; Freeman, 1984).

Secondly, the inclusion of Corporate Risk Disclosure (CRD) as a governance variable expands the theoretical lens by integrating elements from signaling theory and voluntary disclosure theory. The findings show that transparent disclosure practices can serve as a governance tool, enhancing investor confidence and financial outcomes, thereby contributing new insights into how information asymmetry can be mitigated in the banking sector (Healy & Palepu, 2001).

Thirdly, most existing studies focus on developed economies. By contextualizing the study within Nigeria's banking industry, this research addresses a gap in the literature and contributes to the growing body of empirical work on corporate governance in developing economies. The study provides evidence on how institutional factors such as regulatory quality and macroeconomic conditions (e.g., GDP per capita) moderate governance-performance relationships. By employing a panel dataset of 12 banks over a ten-year period (2014–2023), the study introduces methodological rigor and robustness to the governance-performance discourse, providing a longitudinal perspective that captures changes in governance structures and their evolving impact on financial performance.

5.4.2. Managerial and Practical Implications

Beyond theoretical advancement, the study offers practical implications for various stakeholders in the Nigerian banking sector: The results suggest that regulators such as the Central Bank of Nigeria (CBN) and the Financial Reporting Council (FRC) should strengthen corporate governance codes, particularly in the areas of board composition and transparency requirements. The positive relationship between Corporate Risk Disclosure and bank performance highlights the need for stricter enforcement of risk disclosure guidelines.

However, bank management teams and board nomination committees should reconsider board structuring practices. The finding that smaller boards are more effective (negative coefficient on Board Size) implies that optimal board sizes may enhance decision-making and strategic alignment. Additionally, the positive impact of Board Gender Composition provides a business case for promoting diversity in boardrooms. The significant effect of Managerial Ownership on performance suggests that allowing key executives to hold equity stakes in banks could incentivize goal alignment and performance accountability. This is relevant for corporate restructuring and governance reforms within banks undergoing privatization or recapitalization.

Furthermore, Investors, analysts, and other market participants can benefit from this study by identifying which governance indicators serve as early warning signs or performance enhancers. Risk disclosure, ownership structure, and board characteristics may serve as strategic levers in investment analysis. The findings emphasize the importance of ongoing training and capacity-building programs for bank directors, especially in areas related to financial disclosure, regulatory compliance, and strategic governance. Institutions such as the Chartered Institute of Bankers of Nigeria (CIBN) and the Nigerian Institute of Directors (IoD) could integrate these insights into their training curricula.

5.5. Suggestions for Further Studies

While this study has provided valuable insights into the relationship between corporate governance and the financial performance of deposit money banks in Nigeria, it also opens several avenues for future research. Future researchers may consider expanding the scope of governance variables beyond those used in this study. Variables such as audit committee characteristics, board independence, and frequency of board meetings, CEO duality, and executive compensation could offer a more comprehensive understanding of governance-performance dynamics.

While this study focused solely on the banking sector, future studies may extend the analysis to other financial institutions (e.g., insurance companies, microfinance banks) or even non-financial sectors. Comparative analyses across sectors may help determine whether the governance-performance relationship is industry-specific or generalizable. Moreover, the COVID-19 pandemic introduced significant disruptions to corporate operations and governance practices. Future studies could examine how governance mechanisms have adapted in the post-pandemic era and what new relationships may have emerged between governance structures and financial resilience or recovery.

Furthermore, this study employed a quantitative, panel regression-based methodology. Further research could incorporate qualitative methods such as interviews with board members, regulators, or bank executives to gain deeper insight into how governance policies are formulated and implemented. A mixed-method approach could offer richer, context-specific interpretations. To enhance external validity and comparative relevance, further studies could conduct cross-country analysis involving Nigeria and other emerging or developed economies. Such studies could explore how differences in legal, institutional, and regulatory environments influence the effectiveness of corporate governance.

While this study used Fixed Effects, Random Effects, and robust standard errors, future research could explore the use of more advanced panel models such as Generalized Method of Moments (GMM), dynamic panel models, or Structural Equation Modeling (SEM) to improve estimation efficiency and account for endogeneity. As environmental, social, and governance (ESG) factors become more prominent in corporate strategy, future studies could explore the relationship between ESG-related governance practices and financial performance in Nigerian banks, contributing to the sustainability literature.

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