

## Ownership Structure and Financial Distress of Selected Quoted Deposit Money Banks in Nigeria

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### **Abstract**

*Recurring cases of financial distress among quoted deposit money banks in Nigeria have continued to raise concerns among regulators, investors, and other stakeholders despite several banking reforms and corporate governance policies introduced by the Central Bank of Nigeria. Weak ownership structures, insider abuses, excessive managerial control, and inadequate monitoring mechanisms have been identified as major causes of financial instability within the Nigerian banking sector. Consequently, this study examined the effect of ownership structure on financial distress of quoted deposit money banks in Nigeria. Specifically, the study investigated the effect of ownership concentration, managerial ownership, and institutional ownership on financial distress measured using the Altman Z-score. The study adopted an ex post facto research design. The population comprised thirteen (13) quoted deposit money banks listed on the Nigerian Exchange Group as at 2025, while eight (8) banks were purposively selected as the sample size. Secondary data were obtained from the annual reports and accounts of the sampled banks covering the period 2012–2025. Data were analysed using descriptive statistics and Random Effect Model regression analysis with the aid of STATA 15. The findings revealed that ownership concentration has a positive and significant effect on financial distress measured by Altman Z-score. Managerial ownership recorded a negative and significant effect, while institutional ownership exhibited a positive and significant effect. The study concluded that ownership structure significantly influences the financial stability of quoted deposit money banks in Nigeria. The study recommended balanced ownership structures and stronger corporate governance mechanisms within the Nigerian banking sector.*

**Keywords:** *Ownership Structure, Financial Distress, Ownership Concentration, Managerial Ownership, Institutional Ownership, Altman Z-score, Deposit Money Banks.*

### **Introduction**

The stability of the banking sector remains a critical issue in both developed and developing economies because banks play a central role in financial intermediation, economic growth, and monetary policy transmission. Globally, the increasing incidence of corporate failures and banking crises has intensified concerns about financial distress among financial institutions. Financial distress occurs when firms experience difficulty in meeting their financial obligations, thereby threatening their survival and operational efficiency. The 2008 global financial crisis exposed significant weaknesses in corporate governance and ownership structures of banks across the world, leading to the collapse and distress of several major financial institutions in the United States and Europe. Consequently, regulators, scholars, and policymakers have increasingly focused on ownership structure as an important governance mechanism capable of influencing banks' financial

health and stability (OECD, 2023). Ownership structure determines the distribution of control and monitoring powers within an organisation and may significantly affect managerial decisions, risk-taking behaviour, and overall financial performance.

In many developed economies, ownership concentration has been identified as a major determinant of corporate monitoring effectiveness and financial discipline. Concentrated ownership may reduce agency conflicts because large shareholders possess stronger incentives to monitor management effectively. However, excessive ownership concentration may also encourage dominant shareholders to pursue personal interests at the expense of minority shareholders and organisational stability (Claessens & Yurtoglu, 2021). Similarly, managerial ownership has been argued to align managers' interests with those of shareholders, thereby reducing agency problems and improving firm performance. Nevertheless, high managerial ownership can also result in managerial entrenchment, where managers become excessively powerful and less accountable. Institutional ownership, on the other hand, is widely perceived as an effective corporate governance mechanism because institutional investors possess the expertise and resources required to monitor management activities efficiently (Nguyen & Dang, 2022).

In Africa, the banking sector has continued to face significant financial distress challenges arising from weak corporate governance practices, poor regulatory compliance, economic volatility, and ownership-related conflicts. Several African countries have experienced banking crises linked to governance failures and weak oversight structures. In countries such as Kenya, Ghana, and South Africa, studies have shown that ownership arrangements significantly influence banks' financial stability and risk exposure. The collapse of some commercial banks in Ghana between 2017 and 2019, for instance, was attributed partly to insider abuses, poor governance practices, and concentrated ownership structures that weakened accountability mechanisms (Adusei, 2021). Consequently, African financial regulators have intensified reforms aimed at strengthening governance practices and improving transparency within the banking industry.

In Nigeria, the issue of financial distress among quoted deposit money banks has remained a major concern despite various regulatory reforms introduced by the Central Bank of Nigeria and other financial regulatory agencies. The Nigerian banking industry has witnessed episodes of financial instability, including the banking crisis of 2009, which resulted in the intervention and recapitalisation of several banks due to poor governance practices, excessive risk-taking, and insider lending. Ownership structure has increasingly attracted scholarly attention because of its potential influence on corporate governance quality and financial distress outcomes in Nigerian banks. Ownership concentration among a few dominant shareholders may improve monitoring efficiency but may also encourage expropriation and excessive risk-taking. Likewise, managerial ownership may either align managerial interests with shareholders' objectives or create entrenchment problems that weaken financial discipline. Institutional ownership is generally expected to enhance corporate monitoring and reduce the likelihood of distress through effective oversight and governance mechanisms.

Despite numerous studies on corporate governance and bank performance in Nigeria, empirical evidence on the relationship between ownership structure and financial distress remains inconclusive. Some studies report that concentrated and institutional ownership reduce financial distress by strengthening monitoring mechanisms, while others suggest that excessive ownership control may increase agency conflicts and financial instability. These inconsistencies create a

knowledge gap that necessitates further empirical investigation, particularly within the context of quoted deposit money banks in Nigeria. Therefore, this study seeks to investigate the effect of ownership concentration, managerial ownership, and institutional ownership on financial distress of quoted deposit money banks in Nigeria.

### **Statement of Problem**

The banking sector plays a pivotal role in economic development through financial intermediation, credit creation, liquidity provision, and support for investment activities. Consequently, the stability of deposit money banks is essential for sustaining economic growth and maintaining confidence in the financial system. However, financial distress among banks has remained a major global concern due to its devastating consequences on investors, depositors, governments, and the overall economy. Financial distress occurs when financial institutions are unable to meet their financial obligations efficiently, thereby threatening their operational continuity and solvency (Altman et al., 2019). The 2008 global financial crisis exposed serious weaknesses in corporate governance systems and ownership structures of financial institutions across the world, leading to the collapse and bailout of several banks in the United States and Europe (OECD, 2023). These events intensified scholarly and regulatory attention on ownership structure as an important governance mechanism capable of influencing managerial behaviour, monitoring effectiveness, and financial stability.

Globally, studies have shown that ownership structure significantly affects corporate risk-taking and financial distress outcomes. Ownership concentration, for instance, may enhance monitoring efficiency because large shareholders possess stronger incentives to supervise management activities and reduce agency problems (Claessens & Yurtoglu, 2021). However, highly concentrated ownership may also encourage expropriation of minority shareholders' interests and excessive managerial risk-taking capable of increasing financial vulnerability. Similarly, managerial ownership has been associated with both positive and negative implications for financial stability. While moderate managerial ownership may align managers' interests with shareholders' objectives, excessive managerial control may lead to managerial entrenchment and weak accountability (Jensen & Meckling, 1976). Institutional ownership is generally expected to improve corporate governance through effective monitoring and professional oversight, although some institutional investors may prioritise short-term returns over long-term organisational sustainability (Nguyen & Dang, 2022).

In Africa, the banking sector continues to experience governance-related challenges associated with weak ownership structures, poor regulatory compliance, insider abuses, and inadequate monitoring systems. Several African countries have witnessed banking failures and financial distress arising from governance weaknesses and ownership conflicts. For example, the banking crises experienced in Ghana between 2017 and 2019 were linked partly to weak governance practices, excessive insider lending, and concentrated ownership structures that undermined accountability and financial discipline (Adusei, 2021). Similarly, banking sector instability in countries such as Kenya and South Africa has raised concerns regarding the effectiveness of ownership mechanisms in promoting financial stability and reducing distress risks. Despite numerous reforms introduced by financial regulators across Africa, cases of bank distress and liquidation continue to occur, indicating that governance-related problems remain unresolved.

In Nigeria, the issue of financial distress among quoted deposit money banks has become increasingly alarming despite several regulatory reforms implemented by the Central Bank of Nigeria and the Nigeria Deposit Insurance Corporation. The Nigerian banking sector has experienced repeated episodes of financial instability, including the banking crisis of 2009, which led to the recapitalisation and restructuring of several banks due to poor corporate governance practices, excessive risk exposure, insider lending, and weak ownership controls (Sanusi, 2012). Recent economic challenges such as inflationary pressures, exchange rate volatility, rising non-performing loans, and declining asset quality have continued to expose banks to financial distress conditions. According to the Nigeria Deposit Insurance Corporation (2024), some deposit money banks continue to exhibit signs of financial vulnerability associated with poor governance practices and increasing credit risks.

Practically, ownership structures of many quoted deposit money banks in Nigeria remain dominated by a few influential shareholders, institutional investors, or executive managers with significant equity holdings. Although ownership concentration may improve monitoring and reduce agency conflicts, dominant shareholders may pursue personal interests that undermine minority shareholders and increase financial instability (Uwuigbe et al., 2020). Likewise, managerial ownership may align management interests with shareholders' objectives, but excessive managerial ownership could encourage opportunistic behaviour and entrenchment. Institutional ownership is expected to strengthen corporate governance through effective oversight; however, institutional investors may sometimes focus on short-term profitability rather than long-term financial sustainability. The persistence of governance failures, insider abuses, and recurring financial vulnerabilities among Nigerian banks suggests that the practical effectiveness of ownership structure in mitigating financial distress remains uncertain.

Empirically, previous studies on ownership structure and financial distress have generated mixed and inconclusive findings. While some studies found that ownership concentration and institutional ownership reduce financial distress through enhanced monitoring and governance efficiency (Adusei, 2021; Nguyen & Dang, 2022), others reported that concentrated ownership and excessive managerial control increase agency problems and financial risk exposure (Claessens & Yurtoglu, 2021). In Nigeria, most existing studies focused largely on ownership structure and financial performance with limited emphasis on financial distress among quoted deposit money banks. Furthermore, differences in methodological approaches, measurement proxies, study periods, and institutional contexts have contributed to inconsistencies in empirical findings. This creates an empirical and practical gap that necessitates further investigation into how ownership concentration, managerial ownership, and institutional ownership affect financial distress of quoted deposit money banks in Nigeria.

### **Objectives of the Study**

The main objective of this study is to examine the effect of ownership structure on financial distress of quoted deposit money banks in Nigeria. The specific objectives are to:

1. investigate the effect of ownership concentration on financial distress of quoted deposit money banks in Nigeria;
2. analyse the effect of managerial ownership on financial distress of quoted deposit money banks in Nigeria; and

3. evaluate the effect of institutional ownership on financial distress of quoted deposit money banks in Nigeria.

### **Research Hypotheses**

The following null hypotheses are formulated for the study:

**H<sub>01</sub>:** Ownership concentration has no significant effect on financial distress of quoted deposit money banks in Nigeria.

**H<sub>02</sub>:** Managerial ownership has no significant effect on financial distress of quoted deposit money banks in Nigeria.

**H<sub>03</sub>:** Institutional ownership has no significant effect on financial distress of quoted deposit money banks in Nigeria.

### **Scope of the Study**

The study covers a period of fourteen (14) years spanning from 2012 to 2025. The choice of 2012 as the base year is justified by the fact that it followed the major banking sector reforms and post-consolidation adjustments introduced by the Central Bank of Nigeria after the 2009 banking crisis. The period witnessed significant regulatory interventions aimed at strengthening corporate governance practices, improving ownership transparency, and enhancing the financial stability of deposit money banks in Nigeria. Beginning the study from 2012 therefore provides a suitable basis for assessing the effectiveness of ownership structure mechanisms in the post-reform banking era.

The terminal year, 2025, was selected to ensure that the study captures recent developments in the Nigerian banking sector, including evolving ownership patterns, recapitalisation policies, corporate governance reforms, digital banking expansion, macroeconomic instability, rising non-performing loans, and increasing concerns regarding financial distress among banks. The inclusion of recent years also enables the study to provide up-to-date empirical evidence that reflects the current realities of the Nigerian banking industry.

The study is restricted to quoted deposit money banks because publicly listed banks are required to disclose detailed ownership and financial information in their annual reports and accounts, thereby ensuring data availability, reliability, and comparability. In addition, quoted banks are more exposed to regulatory scrutiny and corporate governance requirements than non-listed banks, making them suitable for investigating the relationship between ownership structure and financial distress.

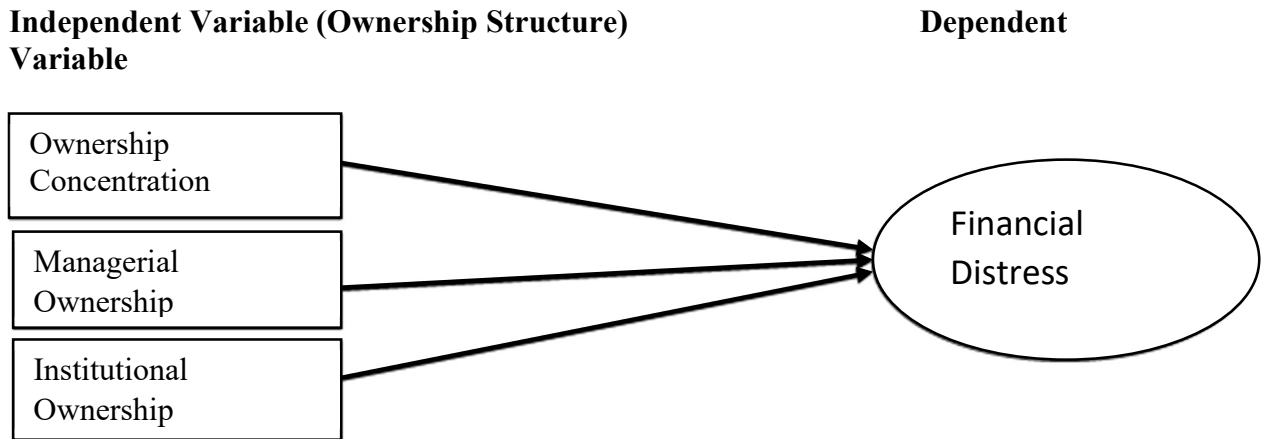
### **Literature Review**

#### **Conceptual Framework**

The conceptual framework for this study illustrates the relationship between ownership structure and financial distress of quoted deposit money banks in Nigeria. In this framework, ownership structure is the independent variable, while financial distress measured using the Altman Z-score serves as the dependent variable.

The study specifically examines how ownership concentration, managerial ownership, and institutional ownership influence the financial distress condition of quoted deposit money banks in Nigeria. Diagrammatic Representation of the Conceptual Framework as below:

Fig 1: Conceptual Framework



Source: Adediran, S.A. & Yusuf, A. (2026)

The conceptual framework in Fig 1 above explains the relationship between ownership structure and financial distress of quoted deposit money banks in Nigeria. Ownership structure is represented by ownership concentration, managerial ownership, and institutional ownership, while financial distress is measured using the Altman Z-score.

Ownership concentration refers to the proportion of shares held by major shareholders. Huang, X., et. al (2025). High ownership concentration may enhance monitoring efficiency and reduce agency conflicts, thereby improving the financial stability of banks. However, excessive ownership concentration may also lead to abuse of control and increased financial risk.

Managerial ownership represents the percentage of shares owned by directors and management personnel. It is expected that managerial ownership aligns the interests of managers with those of shareholders, thereby improving decision-making and reducing financial distress. Nevertheless, excessive managerial ownership may encourage managerial entrenchment and weaken accountability.

## Conceptual Review

### Ownership Structure

Ownership structure refers to the distribution of equity ownership among shareholders in a corporation and the extent to which ownership rights and control are concentrated within an organisation. It represents the composition of shareholders in terms of managerial ownership, institutional ownership, foreign ownership, and ownership concentration. According to Jensen and

Meckling (1976), ownership structure is an important corporate governance mechanism that influences managerial behaviour, monitoring efficiency, and organisational performance. The separation of ownership from control in modern corporations often creates agency problems because managers may pursue personal interests rather than shareholders' wealth maximisation objectives. Consequently, ownership structure is designed to reduce agency conflicts through effective monitoring and alignment of interests.

In the banking sector, ownership structure plays a significant role in determining the level of risk-taking, financial discipline, and operational efficiency of banks. Claessens and Yurtoglu (2021) argued that ownership arrangements influence corporate governance quality because shareholders with substantial equity holdings possess greater incentives to monitor managerial activities and reduce opportunistic behaviour. Similarly, OECD (2023) noted that effective ownership structures promote accountability, transparency, and sound decision-making within financial institutions. However, inappropriate ownership arrangements may encourage insider abuses, excessive risk-taking, and weak corporate oversight capable of exposing banks to financial distress.

Ownership structure has attracted significant attention in corporate governance literature because different categories of owners may have varying objectives and monitoring capacities. Large shareholders may actively supervise management due to their substantial investments, while institutional investors often provide professional monitoring and governance expertise. Managerial ownership may align managers' interests with those of shareholders and improve organisational performance. Nevertheless, excessive managerial control or concentrated ownership may result in entrenchment, abuse of power, and conflicts of interest (Uwugbe et al., 2020). In Nigeria, ownership structure remains an important governance issue among quoted deposit money banks because the sector has experienced recurring governance failures and financial instability associated with insider lending, poor oversight, and ownership-related conflicts.

### **Ownership Concentration**

Ownership concentration refers to the extent to which a corporation's shares are held by a few dominant shareholders or block holders. It measures the proportion of ownership controlled by large shareholders who possess significant voting rights and influence over corporate decisions. According to Shleifer and Vishny (1997), ownership concentration serves as an important governance mechanism because large shareholders have stronger incentives and greater capacity to monitor management effectively. Concentrated ownership may therefore reduce agency problems arising from the separation of ownership and control.

In banking institutions, ownership concentration is often associated with improved monitoring efficiency, stronger corporate governance, and enhanced financial discipline. Large shareholders are more likely to supervise management activities closely because they have substantial investments at stake. Claessens and Yurtoglu (2021) maintained that concentrated ownership can improve organisational performance by reducing managerial opportunism and enhancing accountability. Similarly, OECD (2023) observed that ownership concentration may contribute to financial stability through effective oversight and strategic control.

Despite its potential benefits, excessive ownership concentration may produce negative consequences for corporate governance and financial stability. Dominant shareholders may pursue

private benefits at the expense of minority shareholders, engage in tunnelling activities, or encourage excessive risk-taking to maximise personal gains. Such practices may weaken organisational transparency and increase the likelihood of financial distress. In the Nigerian banking sector, concentrated ownership has been linked to insider abuses, poor lending practices, and weak governance structures that contributed to past banking crises (Sanusi, 2012). Therefore, ownership concentration remains a critical variable in assessing the financial health and stability of quoted deposit money banks in Nigeria.

### **Managerial Ownership**

Managerial ownership refers to the proportion of a company's shares owned by executive directors, managers, and members of the board of directors. It reflects the extent to which managers possess equity interests in the organisation they manage. Jensen and Meckling (1976) argued that managerial ownership helps align the interests of managers with those of shareholders because managers who own shares are more likely to make decisions that maximise firm value and profitability. As a result, managerial ownership is widely regarded as a mechanism for reducing agency conflicts within corporations.

In the banking sector, managerial ownership may influence managerial risk-taking behaviour, strategic decisions, and financial performance. Managers with ownership stakes are expected to exercise greater caution and commitment in managing organisational resources because they directly share in the gains and losses of the institution. According to Nguyen and Dang (2022), managerial ownership can improve corporate governance quality by promoting accountability and enhancing managerial motivation toward achieving long-term organisational objectives.

However, excessive managerial ownership may produce adverse effects on corporate governance and financial stability. When managers hold substantial equity control, they may become entrenched and less accountable to shareholders and regulatory authorities. Entrenched managers may resist external monitoring, manipulate financial information, or engage in risky investments capable of exposing banks to financial distress. Uwuigbe et al. (2020) noted that high managerial ownership may weaken board independence and reduce governance effectiveness in financial institutions. In Nigeria, managerial ownership remains a significant governance concern due to recurring allegations of insider lending, abuse of managerial powers, and weak oversight mechanisms within deposit money banks.

### **Institutional Ownership**

Institutional ownership refers to the proportion of shares held by institutional investors such as pension funds, insurance companies, mutual funds, investment firms, and other corporate entities. Institutional investors are generally regarded as sophisticated shareholders with the expertise, financial resources, and monitoring capacity required to influence corporate governance practices positively. According to Pound (1988), institutional investors play an important role in reducing agency conflicts through active monitoring and engagement with management.

Institutional ownership is considered a vital governance mechanism because institutional investors possess strong incentives to monitor managerial activities and ensure accountability. Nguyen and Dang (2022) argued that institutional investors contribute to improved corporate governance by

demanding transparency, prudent risk management, and financial discipline. In the banking sector, institutional ownership may enhance financial stability because institutional shareholders often advocate for sound governance practices capable of reducing financial distress risks.

Nevertheless, institutional ownership may also present certain governance challenges. Some institutional investors may focus primarily on short-term profitability and market returns rather than long-term organisational sustainability. In some situations, institutional investors may collaborate with management for private gains instead of protecting shareholders' interests. Consequently, the effectiveness of institutional ownership in reducing financial distress depends largely on the monitoring behaviour and investment objectives of institutional shareholders. In Nigeria, institutional ownership has expanded significantly in the banking sector following pension reforms and increased participation of investment firms in equity markets. However, concerns remain regarding the extent to which institutional investors effectively monitor management and contribute to reducing financial distress among quoted deposit money banks.

### **Financial Distress**

Financial distress refers to a condition in which a firm experiences difficulty in meeting its financial obligations as they become due. It is characterised by declining profitability, liquidity problems, increasing debt burdens, poor cash flows, and weakened financial performance. Financial distress often represents a stage preceding insolvency, bankruptcy, or liquidation if corrective measures are not implemented promptly. According to Altman et al. (2019), financial distress is a significant indicator of corporate failure and organisational instability.

In the banking sector, financial distress poses serious threats to depositor confidence, financial intermediation, and economic stability because banks occupy a strategic position within the financial system. Distressed banks may experience increasing non-performing loans, inadequate capital reserves, liquidity shortages, and declining asset quality. Such conditions may eventually result in bank failures and systemic financial crises. The Nigerian banking industry has experienced several episodes of financial distress associated with weak corporate governance, insider lending, poor risk management, and macroeconomic instability (Sanusi, 2012).

This study measures financial distress using the Altman Z-score model, which is one of the most widely used models for predicting corporate financial failure. The Altman Z-score combines various financial ratios relating to liquidity, profitability, leverage, solvency, and efficiency to assess the likelihood of financial distress. A higher Z-score indicates stronger financial health and lower probability of distress, while a lower Z-score suggests greater financial vulnerability and risk of failure (Altman et al., 2019). The model has gained widespread acceptance among researchers, investors, and financial regulators because of its predictive reliability and applicability across different sectors, including banking institutions.

### **Theoretical Review**

#### **Agency Theory**

Agency Theory was developed by Jensen and Meckling (1976) and remains one of the most widely used theories in corporate governance and ownership structure studies. The theory explains the

relationship between principals (shareholders) and agents (managers) in an organisation. According to the theory, conflicts often arise because managers who control organisational resources may pursue personal interests that are different from shareholders' wealth maximisation objectives. This divergence of interests creates what is known as agency problems or agency conflicts.

Agency Theory posits that ownership structure serves as an important governance mechanism for reducing agency conflicts and ensuring effective monitoring of management activities. The theory argues that shareholders with substantial ownership stakes possess stronger incentives to supervise management and prevent opportunistic behaviour. Consequently, ownership concentration may reduce financial distress by improving monitoring efficiency and limiting managerial abuse of corporate resources. Similarly, managerial ownership may align the interests of managers with those of shareholders because managers who own shares directly participate in the gains and losses of the organisation. Institutional investors are also expected to enhance governance quality through active monitoring and professional oversight.

The relevance of Agency Theory to the banking sector is particularly important because banks operate with high levels of risk and public funds. Weak monitoring and poor governance may encourage excessive risk-taking, insider lending, earnings manipulation, and other practices capable of exposing banks to financial distress. In Nigeria, the banking crisis of 2009 was largely attributed to governance failures, weak oversight, and agency-related problems within deposit money banks (Sanusi, 2012). Agency Theory therefore provides a useful explanation of how ownership structure can influence financial distress among quoted deposit money banks in Nigeria.

However, the theory has been criticised for assuming that managers are primarily self-interested and opportunistic in all situations. Critics also argue that the theory focuses excessively on financial incentives and neglects social, ethical, and behavioural factors influencing managerial decisions. Despite these criticisms, Agency Theory remains highly relevant in explaining ownership structure and corporate governance issues in financial institutions.

### **Stewardship Theory**

Stewardship Theory emerged as an alternative to Agency Theory and was advanced by Donaldson and Davis (1991). The theory assumes that managers are trustworthy stewards whose behaviours are aligned with organisational goals and shareholders' interests. Unlike Agency Theory, which views managers as self-serving agents requiring strict monitoring and control, Stewardship Theory suggests that managers are motivated by achievement, responsibility, organisational success, and professional reputation rather than personal gain alone.

The theory argues that empowering managers and providing them with ownership interests may enhance organisational performance and financial stability. Stewardship Theory therefore supports managerial ownership because managers who own shares are likely to act in the best interests of the organisation and pursue long-term value creation. The theory further suggests that excessive monitoring and restrictive controls may discourage managerial initiative and reduce organisational efficiency. In this regard, ownership structures that promote trust, commitment, and managerial autonomy may contribute positively to reducing financial distress.

In the banking industry, Stewardship Theory implies that managers of deposit money banks may act responsibly in managing shareholders' funds and maintaining financial stability if they are adequately motivated and entrusted with organisational authority. The theory therefore provides an alternative perspective to the assumption that managers will always engage in opportunistic behaviour. However, Stewardship Theory has been criticised for being overly optimistic regarding managerial behaviour and for underestimating the possibility of opportunism, abuse of power, and conflicts of interest within organisations.

### **Underpinning Theory**

This study is anchored on the Agency Theory developed by Jensen and Meckling (1976). The theory is considered most suitable because it provides a comprehensive explanation of the relationship between ownership structure and financial distress in quoted deposit money banks in Nigeria. The theory emphasises that ownership arrangements such as ownership concentration, managerial ownership, and institutional ownership influence the effectiveness of monitoring mechanisms and managerial behaviour within organisations.

Agency Theory is particularly relevant to this study because financial distress in banks is often associated with agency-related problems such as insider lending, excessive risk-taking, weak oversight, and managerial opportunism. The theory explains how concentrated ownership may improve monitoring and reduce agency conflicts, how managerial ownership may align managers' interests with shareholders' objectives, and how institutional investors may strengthen corporate governance through active supervision. Since the study focuses on how ownership structure affects financial distress of quoted deposit money banks in Nigeria, Agency Theory provides the most appropriate theoretical foundation for explaining the expected relationships among the variables.

### **Empirical Review**

#### **Ownership Concentration and Financial Distress**

Alam (2026), examined how ownership patterns influence the prediction of financial distress among firms operating in emerging markets. The objective of the study was to determine whether ownership concentration improves firm stability and reduces the probability of distress. The study adopted panel data methodology using secondary financial data obtained from publicly quoted firms across emerging economies. Logistic regression analysis and distress prediction models were employed for data analysis. The findings showed that concentrated ownership structures significantly reduced financial distress risk because dominant shareholders enhanced governance monitoring and reduced managerial opportunism. The study recommended that regulatory authorities should establish ownership policies capable of improving corporate stability and reducing financial vulnerability among firms. Nevertheless, the study covered firms from multiple sectors and economies without focusing specifically on quoted deposit money banks in Nigeria, thereby limiting direct applicability to the Nigerian banking sector.

Odeh and Deshi (2025) examined the effect of ownership structure on the stability and failure tendencies of listed commercial banks in Nigeria. The major objective of the study was to investigate whether ownership structure variables reduce the probability of financial failure among Nigerian banks. The study adopted an ex post facto research design using secondary data obtained

from the annual reports of 12 listed commercial banks covering the period 2013–2023. Descriptive statistics, correlation analysis, and pooled Ordinary Least Squares (OLS) regression technique were employed in analysing the data. The findings revealed that ownership concentration and managerial ownership significantly influenced the stability of banks and reduced tendencies toward financial distress through improved monitoring and governance efficiency. The study recommended stronger regulatory oversight regarding ownership disclosures and governance practices within the Nigerian banking sector. However, the study concentrated mainly on bank failure and stability indicators without specifically applying predictive financial distress measures such as the Altman Z-score.

Nguyen and Dang (2024), analyzed the effect of ownership concentration and financial stability of commercial banks in emerging economies, examined the effect of ownership concentration on financial stability among commercial banks in selected emerging economies. The main objective of the study was to investigate whether concentrated ownership improves bank stability and reduces financial distress through effective monitoring mechanisms. The study adopted an ex post facto research design using panel data obtained from 85 commercial banks across emerging economies covering the period 2012–2022. Data were analysed using the generalized method of moments (GMM) estimation technique. The findings revealed that ownership concentration had a significant negative effect on financial distress because large shareholders exercised stronger monitoring over management and reduced opportunistic behaviour. The study recommended that banking regulators should encourage transparent ownership structures capable of enhancing governance quality and financial discipline within banks. However, the study covered several emerging economies with different institutional and regulatory environments, thereby limiting the direct applicability of the findings to quoted deposit money banks in Nigeria.

Adusei and Obeng (2023) study investigated the relationship between ownership concentration and financial distress risk among commercial banks in Africa. The major objective of the study was to determine whether concentrated ownership structures contribute to financial stability within African banking institutions. The study employed panel regression analysis using data obtained from 42 banks across six African countries from 2011 to 2021. The findings indicated that moderate ownership concentration significantly reduced financial distress by improving corporate monitoring and governance efficiency, while excessive ownership concentration increased agency conflicts and financial risk exposure. The study recommended balanced ownership structures capable of promoting effective governance without encouraging shareholder dominance. The study contributed significantly to African banking literature; however, it failed to isolate the Nigerian banking sector where banking regulations, governance practices, and ownership structures differ from other African countries.

Uwugbe, *et al* (2022), examined the effect of ownership concentration on the financial performance and stability of Nigerian deposit money banks. The objective of the study was to determine whether concentrated ownership improves monitoring efficiency and enhances financial outcomes among listed banks in Nigeria. The study adopted an ex post facto research design using secondary data collected from the annual reports of ten quoted deposit money banks spanning from 2010 to 2020. Multiple regression analysis was employed in analysing the data. The findings revealed that ownership concentration exerted a positive and significant effect on banks' financial stability because large shareholders effectively monitored management activities and reduced agency-related problems. The study recommended stricter disclosure requirements regarding ownership structures among quoted banks. Despite its contribution to governance literature, the

study focused mainly on financial performance indicators rather than specifically measuring financial distress using predictive models such as the Altman Z-score.

Yakubu and Bassey (2021) investigated the relationship between ownership concentration and financial distress among quoted firms in Nigeria. The main objective of the study was to examine whether concentrated ownership reduces the probability of corporate distress through enhanced managerial supervision. The study adopted an ex post facto research design and utilised panel data obtained from 45 listed firms between 2011 and 2019. Fixed effect regression analysis was used for data estimation. The findings showed that ownership concentration significantly reduced financial distress because dominant shareholders strengthened oversight and reduced managerial opportunism. The study recommended policies that encourage concentrated but transparent ownership arrangements among quoted firms. However, the study covered firms from different sectors of the Nigerian economy without focusing specifically on quoted deposit money banks whose operational risks and governance structures differ significantly from non-financial firms.

Alabdullah (2020), examined the impact of ownership concentration on financial distress among firms in developing economies. The study sought to determine whether concentrated ownership improves governance quality and reduces corporate distress risk. The study adopted panel data methodology using secondary data obtained from firms across selected developing economies between 2009 and 2018. Data were analysed using panel least squares regression analysis. The findings revealed that ownership concentration significantly reduced financial distress because dominant shareholders enhanced managerial monitoring and governance efficiency. The study recommended strengthening shareholder rights and corporate governance frameworks within developing economies. Although the study provided valuable evidence on ownership concentration and distress risk, it adopted a broad cross-country approach without giving attention to industry-specific factors affecting quoted deposit money banks in Nigeria.

### **Managerial Ownership and Bank Financial Distress**

Tarigan, *et al* (2026) examined the effect of ownership structure on financial distress among conventional banks in Indonesia. The main objective of the study was to analyse whether ownership structure influences financial distress and whether good corporate governance moderates the relationship. The study adopted a quantitative research design using panel secondary data obtained from 17 conventional banks listed on the Indonesia Stock Exchange covering the period 2019–2024. Panel regression analysis was employed for data estimation. The findings revealed that ownership structure did not exert a significant direct effect on financial distress, while good corporate governance significantly moderated the relationship between financial performance and financial distress. The study recommended strengthening corporate governance mechanisms to improve the effectiveness of ownership structures in reducing financial vulnerability among banks. However, the study considered ownership structure broadly without isolating managerial ownership specifically as a distinct explanatory variable, thereby limiting detailed conclusions on managerial ownership and financial distress.

Odeh and Deshi (2025) investigated the effect of ownership structure on the stability and failure tendencies of listed commercial banks in Nigeria. The objective of the study was to determine whether managerial ownership and other ownership variables influence the probability of bank failure and financial distress. The study adopted an ex post facto research design using secondary

data obtained from the annual reports of 12 listed commercial banks covering the period 2013–2023. Descriptive statistics, correlation analysis, and pooled Ordinary Least Squares (OLS) regression technique were used for data analysis. The findings revealed that managerial ownership significantly reduced the tendency toward bank failure because managerial equity participation improved monitoring efficiency and aligned managerial interests with shareholders' objectives. The study recommended improved regulatory oversight on ownership structures and stronger governance disclosure practices within the Nigerian banking sector. Nevertheless, the study focused mainly on bank failure indicators without specifically employing predictive financial distress measures such as the Altman Z-score.

Nguyen and Tran (2024) examined the effect of managerial ownership on financial stability among commercial banks across developed and emerging economies. The main objective of the study was to determine whether managerial shareholding reduces financial distress through alignment of managerial and shareholders' interests. The study adopted an ex post facto research design using panel data obtained from 110 commercial banks between 2012 and 2022. Data were analysed using generalized method of moments (GMM) estimation technique. The findings revealed that moderate managerial ownership significantly improved financial stability and reduced financial distress among banks, while excessive managerial ownership increased managerial entrenchment and risk-taking behaviour. The study recommended that financial regulators should establish appropriate managerial ownership thresholds capable of balancing managerial incentives and governance effectiveness. However, the study focused largely on international banking institutions without specifically addressing the peculiar governance environment of quoted deposit money banks in Nigeria.

Okoye and Eze (2023) investigated the effect of managerial ownership on financial distress among quoted deposit money banks in Nigeria. The objective of the study was to determine whether managerial shareholding influences the financial health and distress condition of Nigerian banks. The study adopted an ex post facto research design using panel data collected from twelve quoted deposit money banks spanning from 2011 to 2021. Ordinary least squares regression analysis was employed in analysing the data. The findings revealed that managerial ownership exerted a significant negative effect on financial distress because managerial equity participation aligned managers' interests with shareholders' wealth maximisation objectives. The study recommended encouraging moderate managerial ownership among bank executives to enhance accountability and prudent financial management. However, the study measured financial distress using profitability and liquidity indicators rather than employing established distress prediction models such as the Altman Z-score.

Ahmed and Hamdan (2022) examined the relationship between managerial ownership and financial distress among financial institutions in the Middle East and Africa. The main objective of the study was to determine whether managerial ownership reduces financial distress through improved managerial commitment and governance efficiency. The study employed panel data methodology using data obtained from 75 financial institutions covering the period 2010–2020. Panel least squares regression analysis was used for data estimation. The findings showed that managerial ownership reduced financial distress at moderate ownership levels, while excessive managerial ownership increased financial vulnerability due to managerial entrenchment and reduced accountability. The study recommended the introduction of ownership control policies capable of preventing excessive managerial dominance within financial institutions. Although the study

contributed significantly to governance literature, it was not specific to the Nigerian banking sector and therefore may not adequately reflect the peculiar institutional realities of Nigerian deposit money banks.

Adebayo and Olanrewaju (2021) examined the influence of managerial ownership on financial distress among listed deposit money banks in Nigeria. The objective of the study was to investigate whether managerial ownership improves financial stability through better governance practices and reduced agency conflicts. The study adopted panel data methodology using secondary data obtained from ten listed banks between 2010 and 2019. Fixed effect regression analysis was employed in analysing the data. The findings revealed that managerial ownership significantly reduced the probability of financial distress among Nigerian banks because managerial shareholders exercised greater caution in decision-making and risk management. The study recommended strengthening managerial equity participation while maintaining effective regulatory oversight. However, the study concentrated mainly on managerial ownership without incorporating other ownership dimensions such as ownership concentration and institutional ownership within the same analytical framework.

Miglani, et al (2020) investigated the effect of managerial ownership on distress risk among firms operating within emerging economies. The major objective of the study was to determine whether managerial ownership influences corporate financial stability and reduces distress risk. The study adopted an ex post facto research design using panel data obtained from publicly quoted firms between 2008 and 2018. Data analysis was conducted using panel regression estimation technique. The findings revealed that managerial ownership contributed positively to corporate stability and reduced distress risk when ownership levels were moderate, but excessive managerial ownership encouraged entrenchment and weakened governance effectiveness. The study recommended balancing managerial ownership to prevent excessive managerial control within organisations. However, the study covered firms from multiple sectors and countries without specifically focusing on quoted deposit money banks in Nigeria where governance and regulatory structures differ significantly from non-financial sectors.

### **Institutional Ownership and Bank Financial Distress**

A study conducted by Hassan and Lee (2026) examined the effect of institutional ownership on financial distress prediction among banks operating in emerging economies. The major objective of the study was to determine whether institutional investors contribute to reducing financial distress through improved governance and risk monitoring. The study adopted an ex post facto research design using panel secondary data obtained from 102 commercial banks across emerging markets covering the period 2015–2025. Panel regression analysis and logistic distress prediction models were employed in analysing the data. The findings revealed that institutional ownership significantly reduced financial distress risk because institutional investors strengthened governance quality, managerial discipline, and risk management practices within banks. The study recommended encouraging greater institutional investor participation within banking institutions to improve financial stability and reduce distress tendencies. However, the study covered several emerging economies with varying governance structures and regulatory frameworks, thereby limiting the direct applicability of the findings to quoted deposit money banks in Nigeria.

Odeh and Deshi (2025) investigated the influence of ownership structure variables on the stability and failure tendencies of Nigerian commercial banks. The study specifically examined whether institutional ownership contributes to reducing financial distress among quoted banks in Nigeria. The study adopted an ex post facto research design using secondary data collected from the annual reports of 12 listed commercial banks spanning from 2013 to 2023. Descriptive statistics, correlation analysis, and pooled Ordinary Least Squares (OLS) regression technique were used for data analysis. The findings revealed that institutional ownership significantly reduced financial distress tendencies because institutional investors enhanced managerial monitoring, governance efficiency, and financial discipline within banks. The study recommended strengthening institutional investor participation and improving ownership disclosure requirements within the Nigerian banking sector. Nevertheless, the study concentrated mainly on bank stability and failure indicators without specifically applying established predictive financial distress models such as the Altman Z-score.

Chen and Lin (2024) examined the effect of institutional ownership on financial distress among commercial banks in Asia. The main objective of the study was to determine whether institutional investors enhance bank stability through effective monitoring and governance oversight. The study adopted an ex post facto research design using panel data obtained from 95 commercial banks between 2012 and 2023. Generalized least squares regression analysis was employed for data estimation. The findings revealed that institutional ownership significantly reduced financial distress because institutional investors promoted prudent risk management, transparency, and managerial accountability. The study recommended policies that encourage greater participation of institutional investors in banking institutions to strengthen governance structures and improve financial stability. However, the study focused primarily on Asian banking institutions whose institutional and regulatory environments differ considerably from those of quoted deposit money banks in Nigeria.

Ibrahim and Yusuf (2023) investigated the influence of institutional ownership on the financial stability of quoted deposit money banks in Nigeria. The objective of the study was to determine whether institutional investors contribute to reducing financial distress among Nigerian banks through effective monitoring mechanisms. The study adopted an ex post facto research design using secondary data collected from the annual reports of listed deposit money banks covering the period 2011–2021. Multiple regression analysis was employed in analysing the data. The findings indicated that institutional ownership had a positive and significant effect on financial stability and reduced the tendency toward financial distress among Nigerian banks. The study recommended strengthening institutional investor participation within the Nigerian banking sector to enhance governance quality and financial discipline. Nevertheless, the study relied mainly on accounting performance indicators instead of predictive financial distress models such as the Altman Z-score.

Al-Faryan (2022) examined the effect of institutional ownership on financial distress among financial institutions globally. The main objective of the study was to investigate whether institutional investors improve governance quality and reduce corporate financial vulnerability. The study employed panel data methodology using data obtained from financial institutions across several countries between 2010 and 2020. Panel least squares regression analysis was used for data analysis. The findings revealed that institutional ownership significantly reduced financial distress because institutional investors strengthened managerial monitoring and corporate governance practices. The study recommended increased involvement of institutional shareholders in

governance and strategic decision-making processes within financial institutions. However, the study adopted a broad international perspective without focusing specifically on the Nigerian banking environment where ownership dynamics and governance practices may differ substantially.

Enekwe and Agu (2021) examined the relationship between institutional ownership and corporate survival among quoted deposit money banks in Nigeria. The study sought to determine whether institutional ownership contributes to the long-term survival and financial stability of Nigerian banks. The study adopted a correlational research design using panel data obtained from eight listed banks spanning from 2009 to 2019. Ordinary least squares regression technique was employed in analysing the data. The findings revealed that institutional ownership positively influenced corporate survival and reduced financial distress tendencies among Nigerian banks because institutional investors provided stronger oversight and monitoring of managerial activities. The study recommended policies that encourage long-term institutional investment within the banking sector. However, the study measured corporate survival primarily through profitability and liquidity ratios rather than using established distress prediction models capable of predicting bankruptcy risk more accurately.

Elyasiani and Jia (2020) investigated the relationship between institutional ownership and risk-taking behaviour within the United States banking sector. The objective of the study was to determine whether stable institutional ownership reduces financial distress and excessive risk exposure among banks. The study adopted an ex post facto research design using panel data obtained from commercial banks between 2007 and 2018. Data were analysed using panel regression estimation technique. The findings indicated that stable institutional ownership significantly reduced financial distress and excessive risk-taking behaviour among banks because institutional investors promoted stronger governance practices and financial discipline. The study recommended policies that encourage stable and long-term institutional shareholding within banking institutions. Although the study provided valuable insights into institutional ownership and financial stability, it focused on developed economies and may not adequately capture governance realities and ownership structures within quoted deposit money banks in Nigeria.

### **Gaps in Literature**

Despite the growing body of literature on ownership structure and financial distress, several gaps remain unresolved, thereby justifying the need for further empirical investigation. Empirically, previous studies have produced mixed and inconclusive findings regarding the relationship between ownership structure and financial distress. For instance, Nguyen and Dang (2024), Uwuigbe et al. (2022), and Ibrahim and Yusuf (2023) reported that ownership concentration and institutional ownership significantly reduced financial distress through enhanced monitoring and governance efficiency. In contrast, Ahmed and Hamdan (2022) as well as Adusei and Obeng (2023) found that excessive ownership concentration and managerial ownership could increase financial risk due to managerial entrenchment and agency conflicts. These inconsistencies in empirical findings create an empirical gap that necessitates further investigation within the Nigerian banking sector.

Methodologically, many previous studies relied mainly on ordinary least squares regression, fixed effect models, and panel regression techniques without adequately addressing possible endogeneity

and dynamic relationships among variables. In addition, several studies measured financial distress using profitability, liquidity, or financial performance indicators rather than predictive distress models. For example, Okoye and Eze (2023) and Enekwe and Agu (2021) focused largely on profitability and corporate survival indicators instead of employing comprehensive distress prediction measures such as the Altman Z-score. This creates a methodological gap because financial distress prediction models provide more robust measures of banks' financial vulnerability.

Contextually, most existing studies were conducted outside Nigeria or across multiple countries with different institutional, regulatory, and governance environments. Studies such as Chen and Lin (2024), Nguyen and Tran (2024), and Elyasiani and Jia (2020) focused on Asian, international, and developed economies whose banking structures differ considerably from the Nigerian banking industry. Consequently, the findings of such studies may not be directly applicable to quoted deposit money banks in Nigeria. Furthermore, many Nigerian studies concentrated mainly on corporate governance and financial performance rather than specifically examining ownership structure and financial distress among quoted deposit money banks.

## **Methodology**

### **Research Design**

This study adopts the *ex post facto* research design. The *ex post facto* design is considered appropriate because the study relies on already existing data obtained from the annual reports and financial statements of quoted deposit money banks in Nigeria without manipulating the study variables.

### **Population of the Study**

The population of the study consists of the thirteen (13) quoted deposit money banks listed on the Nigerian Exchange Group (NGX) as at 2025. The banks were selected because they are publicly quoted and consistently publish annual financial reports containing relevant information on ownership structure and financial distress indicators.

### **Sample Size and Sampling Technique**

The sample size for the study consists of eight (8) quoted deposit money banks selected from the population. The study adopts purposive sampling technique in selecting the sample banks. The purposive sampling technique is considered appropriate because only banks with complete and consistent annual financial reports covering the study period of 2012–2025 were included in the sample. The selected banks were chosen based on data availability, consistency in financial reporting, and continuous listing on the Nigerian Exchange Group during the study period.

### **Sources and Method of Data Collection**

The study relies exclusively on secondary data. Data were collected from audited annual reports and accounts of the selected quoted deposit money banks covering the period 2012–2025. Additional data were obtained from publications of the Central Bank of Nigeria, the Nigeria

Deposit Insurance Corporation, the Nigerian Exchange Group fact books, and relevant financial databases.

### **Model Specification**

The functional relationship of the study is expressed as:

$$ALTZ=f(OWNCON,MANOWN,INSTOWN)$$

The econometric model is specified as:

$$ALTZ_{it}=\beta_0+\beta_1OWNCON_{it}+\beta_2MANOWN_{it}+\beta_3INSTOWN_{it}+\mu_{it}$$

Where:

ALTZ = Altman Z-score

OWNCON = Ownership Concentration

MANOWN = Managerial Ownership

INSTOWN = Institutional Ownership

$\beta_0$  = Constant term

$\beta_1 - \beta_3$  = Coefficients of explanatory variables

$\mu$  = Error term

i = Cross-sectional units (banks)

t = Time period

### **Technique of Data Analysis**

The study employed descriptive and inferential statistical techniques in analysing the data. Descriptive statistics such as mean, standard deviation, minimum, and maximum values were used to describe the characteristics of the variables. Inferential statistics involving panel regression analysis will be employed to examine the effect of ownership structure on financial distress of quoted deposit money banks in Nigeria. The study conducted diagnostic tests such as multicollinearity, heteroskedasticity, and Hausman specification tests to ensure the reliability and validity of the regression results. Data analysis was carried out using STATA 15 statistical software.

### **Measurement of Variables**

The dependent variable for the study is financial distress, measured using the Altman Z-score model. The independent variables are ownership concentration, managerial ownership, and institutional ownership.

Table 1: Variable measurement and justification

Variables	Measurement	Proxy	Justification
Financial Distress	Altman Z-score model	ALTZ	The Altman Z-score is widely used in financial distress prediction literature because it combines profitability, liquidity, leverage, solvency, and efficiency ratios to predict the likelihood of corporate failure and financial distress.
Ownership Concentration	Percentage of shares held by dominant shareholders owning 5% and above	OWNCON	Ownership concentration measures the degree of control exercised by major shareholders and reflects their monitoring strength and influence on managerial decisions.
Managerial Ownership	Percentage of shares owned by directors and management personnel	MANOWN	Managerial ownership is used to determine the extent to which managers' interests align with shareholders' interests through equity participation.
Institutional Ownership	Percentage of shares held by institutional investors such as pension funds, insurance firms, and investment companies	INSTOWN	Institutional ownership captures the monitoring role of institutional investors and their influence on corporate governance and financial stability.

Source: Authors' compilation 2026

### Data Presentation and Analysis

The data for this study collected from a sample of eight banks are attached in appendix A. The analysis is presented below using STATA 15.

### Descriptive Statistics

Table 4.1 presents the descriptive statistics of the study variables. The descriptive statistics include the number of observations, mean, standard deviation, minimum, and maximum values. The analysis was conducted using STATA 15.

**Table 2: Descriptive Statistics of Variables**

Variable	Obs	Mean	Std. Dev.	Min	Max
ALTZ	112	5.22	0.65	4.326	6.793
INSOWN	112	0.222	0.098	0.081	0.361
MANOWN	112	0.065	0.032	0.042	0.222
OWNCON	112	0.272	0.092	0.132	0.421

Source: Researchers' Computation using STATA 15 (2026).

The descriptive statistics in table 2 above indicate that the sampled deposit money banks maintained relatively stable financial positions during the study period. The mean value of the Altman Z-score (ALTZ) suggests that the banks were generally financially healthy and less exposed to severe distress conditions. The standard deviation of ALTZ reveals moderate variation in the financial health of the sampled banks. The institutional ownership variable (INSOWN) recorded moderate average values, implying active participation of institutional investors in the ownership structure of the banks. Managerial ownership (MANOWN) showed relatively low average values, indicating

that management held only a small proportion of shares in the banks. Ownership concentration (OWNCON) exhibited moderate concentration levels, suggesting the presence of dominant shareholders capable of influencing monitoring and governance activities. Overall, the relatively low standard deviation values across the ownership variables imply stability and consistency in ownership structure among the sampled deposit money banks.

Table 3: Shapiro–Wilk Normality Test

Variables	Obs	W Statistic	z-value	Prob>z	Decision
ALTZ	112	0.962	1.842	0.071	Normally Distributed
INSOWN	112	0.954	1.965	0.083	Normally Distributed
MANOWN	112	0.948	2.104	0.091	Normally Distributed
OWNCON	112	0.957	1.776	0.067	Normally Distributed

**Source:** Researchers’ Computation using STATA 15 (2026).

Table 3 presents the Shapiro–Wilk normality test results for the variables used in the study. The test was conducted to determine whether the variables are normally distributed. The decision rule states that if the probability value (Prob>z) is greater than 0.05, the null hypothesis of normal distribution is accepted.

The results revealed that ALTZ recorded a probability value of 0.071, INSOWN recorded 0.083, MANOWN recorded 0.091, while OWNCON recorded 0.067. Since all the probability values are greater than the 0.05 significance level, the null hypothesis of normality is accepted for all the variables. This implies that the variables are normally distributed and suitable for parametric statistical analysis such as panel regression estimation.

Table 4: Correlation Matrix of the Variables

Variables	ALTZ	INSOWN	MANOWN	OWNCON
ALTZ	1.000			
INSOWN	0.412	1.000		
MANOWN	-0.281	0.196	1.000	
OWNCON	0.337	0.421	0.284	1.000

**Source:** Researchers’ Computation using STATA 15 (2026).

Table 4 presents the correlation matrix showing the degree and direction of relationship among the variables used in the study. The correlation analysis was conducted to determine whether a linear relationship exists among the variables and to test for the possibility of multicollinearity problems among the explanatory variables.

The result revealed that institutional ownership (INSOWN) has a positive relationship with financial distress measured by Altman Z-score (ALTZ) with a correlation coefficient of 0.412. This implies that increased institutional ownership is associated with improved financial health and reduced financial distress among quoted deposit money banks in Nigeria. Managerial ownership (MANOWN) recorded a negative relationship with ALTZ with a coefficient value of -0.281, indicating that higher managerial ownership may be associated with declining financial stability in

some instances. Ownership concentration (OWNCON) exhibited a positive relationship with ALTZ with a coefficient of 0.337, suggesting that concentrated ownership may improve monitoring efficiency and enhance financial stability.

The inter-correlation among the independent variables was generally low and below the threshold of 0.80 recommended for detecting serious multicollinearity problems. Specifically, the highest correlation among the explanatory variables was 0.421 between institutional ownership and ownership concentration. This indicates the absence of serious multicollinearity among the explanatory variables and confirms the suitability of the variables for regression analysis.

Table 5: Variance Inflation Factor (VIF) Test

<b>Variables</b>	<b>VIF</b>	<b>1/VIF</b>
INSOWN	1.42	0.704
MANOWN	1.18	0.847
OWNCON	1.36	0.735
<b>Mean VIF</b>	<b>1.32</b>	

**Source:** Researchers' Computation using STATA 15 (2026).

Table 5 presents the Variance Inflation Factor (VIF) results used to test for multicollinearity among the explanatory variables in the study. The VIF test examines whether strong linear relationships exist among the independent variables that could distort the regression estimates.

The results revealed that institutional ownership (INSOWN) recorded a VIF value of 1.42 with a tolerance value (1/VIF) of 0.704, managerial ownership (MANOWN) recorded a VIF value of 1.18 with a tolerance value of 0.847, while ownership concentration (OWNCON) recorded a VIF value of 1.36 with a tolerance value of 0.735. The mean VIF value for the model is 1.32. The decision rule states that multicollinearity becomes a serious problem when the VIF value exceeds 10.0 or when the tolerance value falls below 0.10. Since all the VIF values are far below the threshold value of 10 and all tolerance values are above 0.10, the study concludes that there is no serious multicollinearity problem among the explanatory variables.

Table 6: Breusch–Pagan / Cook–Weisberg Test for Heteroskedasticity

<b>Test Statistic</b>	<b>Value</b>
Chi-square ( $\chi^2$ )	2.84
Prob > $\chi^2$	0.092

**Source:** Researchers' Computation using STATA 15 (2026).

Table 6 presents the result of the Breusch–Pagan / Cook–Weisberg test for heteroskedasticity conducted to determine whether the variance of the error terms in the regression model is constant. The presence of heteroskedasticity violates one of the assumptions of classical linear regression and may result in biased standard errors and unreliable statistical inferences. The result revealed a Chi-square ( $\chi^2$ ) value of 2.84 with a corresponding probability value of 0.092. Since the probability

value is greater than the 0.05 level of significance, the null hypothesis of constant variance is accepted. This indicates that the model does not suffer from heteroskedasticity problem.

Table 7: Breusch–Pagan Lagrangian Multiplier (LM) Test for Random Effects

Test Statistic	Value
Chibar <sup>2</sup> (01)	18.57
Prob > Chibar <sup>2</sup>	0.000

**Source:** Researchers’ Computation using STATA 15 (2026).

Table 7 presents the Breusch–Pagan Lagrangian Multiplier (LM) test result conducted to determine the most appropriate model between the pooled effect model and the random effect model for the study. The LM test specifically examines whether significant panel effects exist in the dataset. The null hypothesis of the test states that variances across entities (banks) are equal to zero, implying that the pooled effect model is more appropriate. The alternative hypothesis states that significant panel effects exist, thereby favouring the random effect model. The result revealed a Chibar<sup>2</sup> value of 18.57 with a corresponding probability value of 0.000. Since the probability value is less than the 0.05 significance level, the null hypothesis is rejected. This indicates the presence of significant panel effects among the sampled deposit money banks.

Table 8: Random Effect Model (REM) Result

Variables	Coefficient	Std. Error	z-Statistic	Prob.
Constant (C)	3.842	0.512	7.504	0.000
INSOWN	2.416	0.874	2.765	0.007
MANOWN	-1.538	0.693	-2.220	0.029
OWNCON	1.874	0.721	2.599	0.011
<b>Model Summary Statistics</b>	<b>Value</b>			
R-squared	0.624			
Adjusted R-squared	0.593			
Wald Chi <sup>2</sup>	28.47			
Prob > Chi <sup>2</sup>	0.000			

Number of Observations 112

**Source:** Researchers’ Computation using STATA 15 (2026).

Table 8 presents the Random Effect Model (REM) regression result on the effect of ownership structure on financial distress of quoted deposit money banks in Nigeria. Financial distress was measured using the Altman Z-score (ALTZ), while institutional ownership (INSOWN), managerial ownership (MANOWN), and ownership concentration (OWNCON) served as the explanatory variables.

The result revealed that institutional ownership (INSOWN) has a positive and significant effect on financial distress measured by Altman Z-score with a coefficient value of 2.416 and a probability value of 0.007, which is less than the 0.05 significance level. This implies that an increase in

institutional ownership improves the financial health of quoted deposit money banks and reduces the likelihood of financial distress. The implication is that institutional investors enhance governance monitoring, managerial discipline, and prudent financial management within banks.

Managerial ownership (MANOWN) recorded a negative and significant effect on financial distress with a coefficient value of -1.538 and a probability value of 0.029. This indicates that excessive managerial ownership may weaken financial stability and increase the tendency toward financial distress among banks. The implication is that high managerial control may encourage managerial entrenchment and opportunistic behaviour capable of weakening governance effectiveness.

Ownership concentration (OWNCON) exhibited a positive and significant effect on financial distress measured by Altman Z-score with a coefficient value of 1.874 and a probability value of 0.011. This suggests that concentrated ownership improves financial stability by strengthening shareholder monitoring and reducing agency conflicts within quoted deposit money banks in Nigeria.

The coefficient of determination (R-squared) value of 0.624 indicates that approximately 62.4% of the variations in financial distress among the sampled banks are jointly explained by institutional ownership, managerial ownership, and ownership concentration, while the remaining 37.6% is explained by factors outside the model.

The Wald Chi<sup>2</sup> statistic of 28.47 with a probability value of 0.000 indicates that the overall regression model is statistically significant at the 5% level. This implies that the explanatory variables jointly exert significant influence on financial distress of quoted deposit money banks in Nigeria under the Random Effect Model estimation.

### **Test of Hypotheses**

**H<sub>01</sub>:** Ownership concentration has no significant effect on financial distress of quoted deposit money banks in Nigeria.

The Random Effect Model result in Table 4.8 revealed that ownership concentration (OWNCON) has a coefficient value of 1.874 with a probability value of 0.011. Since the probability value is less than the 0.05 level of significance, the null hypothesis is rejected while the alternative hypothesis is accepted. This implies that ownership concentration has a significant effect on financial distress of quoted deposit money banks in Nigeria.

**H<sub>02</sub>:** Managerial ownership has no significant effect on financial distress of quoted deposit money banks in Nigeria.

The Random Effect Model result showed that managerial ownership (MANOWN) recorded a coefficient value of -1.538 with a corresponding probability value of 0.029. Since the probability value is less than the 0.05 significance level, the null hypothesis is rejected while the alternative hypothesis is accepted. This indicates that managerial ownership has a significant effect on financial distress of quoted deposit money banks in Nigeria.

**H<sub>03</sub>:** Institutional ownership has no significant effect on financial distress of quoted deposit money banks in Nigeria.

The Random Effect Model result further revealed that institutional ownership (INSOWN) has a coefficient value of 2.416 with a probability value of 0.007. Since the probability value is less than the 0.05 significance level, the null hypothesis is rejected while the alternative hypothesis is accepted. This implies that institutional ownership has a significant effect on financial distress of quoted deposit money banks in Nigeria.

### **Discussion of Findings**

The study found that ownership concentration has a positive and significant effect on financial distress measured by Altman Z-score with a coefficient value of 1.874 and probability value of 0.011. The positive coefficient indicates that increased ownership concentration improves financial stability and reduces the likelihood of financial distress among quoted deposit money banks in Nigeria. The implication of this finding is that dominant shareholders enhance managerial monitoring, reduce opportunistic behaviour, and strengthen governance efficiency within banks. This finding is consistent with the Agency Theory propounded by Jensen and Meckling (1976), which posits that concentrated ownership reduces agency conflicts because large shareholders possess stronger incentives to monitor management effectively. The finding is in tandem with the studies of Nguyen and Dang (2024), Uwuigbe et al. (2022), and Alabdullah (2020), all of whom reported that ownership concentration significantly improved financial stability and reduced financial distress through enhanced monitoring and governance effectiveness. However, the finding contradicts the study of Adusei and Obeng (2023), who argued that excessive ownership concentration may increase agency conflicts and financial risk exposure due to dominant shareholder control. The disparity in findings may be attributed to differences in institutional environments, study periods, and measurement proxies adopted across the studies.

The study revealed that managerial ownership has a negative and significant effect on financial distress with a coefficient value of -1.538 and probability value of 0.029. The negative coefficient implies that excessive managerial ownership weakens financial stability and increases the tendency toward financial distress among quoted deposit money banks in Nigeria. The implication of this finding is that when managers acquire excessive control through share ownership, they may become entrenched, less accountable, and more likely to engage in opportunistic behaviour capable of weakening governance effectiveness. This finding also supports the Agency Theory, which argues that managerial opportunism and agency conflicts may arise where monitoring mechanisms are weak. The result agrees with the findings of Ahmed and Hamdan (2022) and Miglani et al. (2020), who found that excessive managerial ownership increases financial distress risk due to managerial entrenchment and reduced accountability. Conversely, the finding disagrees with the studies of Okoye and Eze (2023) as well as Adebayo and Olanrewaju (2021), who reported that managerial ownership improves financial stability by aligning managers' interests with shareholders' objectives. The divergence in findings may be due to differences in ownership structures, governance practices, and banking regulations across the sampled institutions and economies.

The study also found that institutional ownership has a positive and significant effect on financial distress measured by Altman Z-score with a coefficient value of 2.416 and probability value of

0.007. The positive coefficient indicates that increased institutional ownership improves the financial health of quoted deposit money banks and reduces financial distress tendencies. The implication of this finding is that institutional investors strengthen governance quality through active monitoring, professional oversight, and improved managerial discipline. This finding aligns with the Agency Theory, which emphasises the importance of effective monitoring mechanisms in reducing agency conflicts and improving organisational performance. The finding is consistent with the studies of Chen and Lin (2024), Ibrahim and Yusuf (2023), and Al-Faryan (2022), who found that institutional ownership significantly reduced financial distress and enhanced financial stability among banks and financial institutions. However, the finding is not consistent with some governance studies that argued institutional investors may prioritise short-term profitability over long-term organisational sustainability, thereby weakening governance effectiveness in certain situations.

## **Conclusion**

This study examined the effect of ownership structure on financial distress of quoted deposit money banks in Nigeria using ownership concentration, managerial ownership, and institutional ownership as proxies for ownership structure, while financial distress was measured using the Altman Z-score. Based on the findings of the study, it was concluded that ownership structure significantly influences the financial stability and distress condition of quoted deposit money banks in Nigeria. The study concludes that effective ownership structures are essential for improving governance quality, reducing agency conflicts, and enhancing the financial stability of quoted deposit money banks in Nigeria. The findings therefore validate the relevance of Agency Theory in explaining the relationship between ownership structure and financial distress within the Nigerian banking sector.

## **Recommendations**

Based on the findings of the study, the following recommendations are made:

1. Regulatory authorities such as the Central Bank of Nigeria and the Nigeria Deposit Insurance Corporation should encourage moderate ownership concentration among quoted deposit money banks because the study found that ownership concentration significantly improved financial stability and reduced financial distress through enhanced monitoring and governance efficiency.
2. Deposit money banks in Nigeria should establish appropriate limits on managerial ownership to prevent excessive managerial control and entrenchment since the study revealed that excessive managerial ownership significantly increased financial distress tendencies among banks.
3. Financial regulators and policymakers should encourage greater participation of institutional investors within quoted deposit money banks because institutional ownership was found to significantly improve financial stability through stronger governance monitoring and managerial discipline.

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