

Risk Management Practices and Financial Performance of Listed Deposit Money Banks in Nigeria

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<https://doi.org/10.56201/jafm.vol.12.no8.2026.p365.380>

Abstract

The banking sector remains a vital component of economic development through its role in financial intermediation, savings mobilisation, credit allocation, and payment facilitation. However, the operations of Deposit Money Banks are associated with various risks, including credit risk, liquidity risk, and operational risk, which can adversely affect profitability and long-term sustainability when inadequately managed. Despite continuous regulatory reforms and improvements in risk governance frameworks, Nigerian banks continue to encounter challenges such as deterioration in asset quality, increasing non-performing loans, operational inefficiencies, and unstable financial performance. This study examined the effect of risk management practices on the financial performance of listed Deposit Money Banks in Nigeria. Specifically, the study evaluated the influence of key risk management dimensions, including credit risk management, liquidity risk management, and operational risk management, on bank performance. The study was anchored on Agency Theory, which emphasises the importance of effective monitoring mechanisms, accountability structures, and internal control systems in improving organisational outcomes. A quantitative research design was adopted, using panel data obtained from the audited annual reports and financial statements of selected listed Deposit Money Banks in Nigeria. Financial performance was measured using Return on Assets (ROA), while risk management practices were represented by relevant risk indicators. The data were analysed using panel regression techniques to determine the relationship between risk management practices and financial performance. The findings revealed that risk management practices significantly influence the financial performance of Deposit Money Banks in Nigeria. The study established that effective management of banking risks contributes to improved profitability, operational resilience, and sustainable performance. Based on the findings, the study recommends that Nigerian Deposit Money Banks should continuously strengthen their risk management frameworks by improving credit evaluation procedures, enhancing liquidity monitoring mechanisms, and establishing effective operational risk control systems.

Keywords: Risk Management Practices, Credit Risk, Liquidity Risk, Operational Risk, Financial Performance, Deposit Money Banks, Nigeria.

1.0 Introduction

Background to the Study

The stability and efficiency of the banking sector are fundamental to economic growth and the development of a sound financial system. Deposit Money Banks (DMBs) perform essential economic functions, including financial intermediation, mobilisation of savings, allocation of credit, and facilitation of payment activities. Through these functions, banks contribute significantly to investment activities, business expansion, and overall economic development. However, the nature of banking operations exposes these institutions to various forms of risk, which, if not effectively managed, may threaten profitability, financial stability, and long-term survival. Banks are constantly exposed to risks arising from lending activities, liquidity pressures, market uncertainties, technological changes, and operational challenges. Among the major risks confronting financial institutions are credit risk, liquidity risk, market risk, and operational risk (Okoughenu & Imagbe, 2025). These risks have the potential to weaken banks' financial positions and reduce their ability to achieve sustainable performance, making effective risk management an essential component of modern banking operations.

Risk management practices provide banks with structured mechanisms for identifying, assessing, monitoring, and controlling potential threats that may affect their operations. Through effective risk governance structures, internal control systems, and continuous monitoring processes, banks are able to manage risk exposures within acceptable limits and minimise unexpected losses (Yakubu & Bunyaminu, 2023). Therefore, the effectiveness of a bank's risk management framework can significantly influence its ability to maintain profitability, withstand financial shocks, and achieve sustainable growth.

The increasing complexity of the financial environment has further heightened the importance of effective risk management practices. Factors such as economic uncertainty, inflationary pressures, exchange rate fluctuations, and global financial disruptions have increased the vulnerability of banking institutions to financial instability. Banks with well-developed risk management systems are better equipped to absorb shocks, maintain stable earnings, and improve their overall financial performance (Umar & Sun, 2022).

Among the various dimensions of risk management, credit risk management remains particularly important because lending activities constitute a major source of income for Deposit Money Banks. Credit risk arises when borrowers fail to meet their repayment obligations, resulting in financial losses and deterioration in asset quality. Ineffective credit assessment procedures, weak loan monitoring systems, and poor recovery mechanisms may increase non-performing loans and negatively affect bank profitability (Bolarinwa & Soetan, 2023). Consequently, effective credit risk management is necessary to ensure proper loan evaluation, maintain asset quality, and enhance financial performance.

Liquidity risk management is also critical because banks must maintain sufficient resources to meet withdrawal demands and other financial obligations. Inadequate liquidity management may expose banks to funding difficulties, loss of depositor confidence, and possible financial distress. Conversely, excessive liquidity holdings may reduce profitability because funds maintained in low-return assets may limit investment opportunities. Therefore, effective liquidity management requires maintaining an appropriate balance between financial stability and profitability objectives (Adusei, 2022; Ozili, 2023).

In addition, operational risk has become increasingly significant due to the rapid adoption of technology and digital banking services. Operational risks may arise from ineffective internal processes, human errors, system failures, fraud, and cybersecurity threats. These challenges can increase operating costs, disrupt service delivery, and negatively influence customer confidence and financial outcomes (Olowokudejo et al., 2022). As a result, banks must establish effective internal controls, strengthen technological infrastructure, and develop appropriate operational risk management strategies.

The relationship between risk management practices and financial performance remains an important area of investigation because effective risk controls can reduce financial losses, improve asset quality, strengthen operational efficiency, and enhance profitability. Financial performance in banking is commonly assessed using indicators such as Return on Assets (ROA), Return on Equity (ROE), and Net Interest Margin (NIM). Among these measures, ROA is widely applied because it evaluates how effectively banks utilise their assets to generate profits. Although the Nigerian banking sector has undergone several reforms aimed at strengthening risk management practices and improving financial stability, challenges such as rising non-performing loans, economic uncertainties, and operational vulnerabilities continue to affect bank performance. These persistent challenges create the need to further examine whether risk management practices significantly influence the financial performance of listed Deposit Money Banks in Nigeria.

Statement of the Problem

The banking industry remains a critical component of Nigeria's financial system due to its contribution to economic growth, investment financing, and financial stability. Deposit Money Banks serve as key intermediaries between surplus and deficit economic units by mobilising deposits and providing credit facilities to individuals, businesses, and government institutions. However, despite continuous regulatory reforms and improvements in banking supervision, Nigerian Deposit Money Banks continue to face challenges associated with financial risks, declining asset quality, and fluctuations in profitability.

One of the major concerns affecting the performance of banks is their increasing exposure to different categories of risks, particularly credit risk, liquidity risk, and operational risk. Credit risk remains a significant challenge because lending activities represent one of the major sources of bank revenue. Inadequate credit evaluation, weak loan monitoring mechanisms, and ineffective recovery strategies often result in increased non-performing loans. The growth of non-performing loans reduces interest income, increases impairment costs, weakens asset quality, and ultimately affects the profitability and financial performance of banks.

Liquidity risk also presents a major challenge within the banking sector. Although maintaining adequate liquidity is essential for ensuring operational stability and sustaining depositor confidence, poor liquidity management may expose banks to difficulties in meeting short-term obligations. At the same time, excessive liquidity levels may negatively affect profitability because resources held in low-yield assets may reduce opportunities for income generation. Therefore, banks must achieve an appropriate balance between maintaining liquidity safety and maximising profitability. Furthermore, the increasing reliance on technology-driven banking services has heightened concerns regarding operational risk. Issues such as system failures, cybersecurity threats, electronic fraud, and weaknesses in internal control systems can increase operational costs and negatively influence financial outcomes. The ability of banks to manage these operational challenges effectively has become essential for improving efficiency, maintaining customer confidence, and achieving sustainable performance.

Although previous studies have examined the relationship between risk management practices and bank performance, empirical findings remain inconclusive. While some studies indicate that effective risk management enhances profitability by reducing losses, improving efficiency, and strengthening financial stability, other studies suggest that excessive risk controls may restrict income-generating opportunities. This variation in findings indicates the need for further investigation into how risk management practices influence the financial performance of Deposit Money Banks within the Nigerian banking environment.

Therefore, this study seeks to address this gap by examining the effect of risk management practices on the financial performance of listed Deposit Money Banks in Nigeria. The study

provides empirical evidence on whether effective management of banking risks contributes to improved profitability and sustainable financial performance.

Research Question

Based on the identified research problem, the study seeks to answer the following question:
What is the effect of risk management practices on the financial performance of Deposit Money Banks in Nigeria?

Objective of the Study

The main objective of this study is to examine the effect of risk management practices on the financial performance of Deposit Money Banks in Nigeria.

Research Hypothesis

To achieve the objective of the study, the following null hypothesis was tested:

H₀₁: Risk management practices have no significant effect on the financial performance of Deposit Money Banks in Nigeria.

Significance of the Study

The significance of this study is based on the increasing importance of effective risk management in improving the profitability, resilience, and sustainability of Deposit Money Banks. The findings provide empirical evidence on how risk management practices influence financial performance and highlight the importance of effective risk identification, assessment, monitoring, and control mechanisms within the Nigerian banking sector.

For bank management, the study provides useful insights into the need for strengthening risk management frameworks. The findings emphasise the importance of improving credit assessment procedures, enhancing loan monitoring processes, and adopting effective risk identification strategies to reduce financial losses and improve profitability.

For regulatory institutions, particularly the Central Bank of Nigeria (CBN), the study provides evidence that may support the formulation and enforcement of effective risk management guidelines aimed at promoting banking stability and improving the performance of financial institutions. For investors and shareholders, the study provides a better understanding of how effective risk management practices contribute to sustainable financial performance. The findings enable stakeholders to appreciate the relationship between risk control mechanisms and profitability, thereby supporting more informed investment decisions.

For researchers and academics, the study contributes to existing literature by providing additional empirical evidence on the relationship between risk management practices and financial performance among Nigerian Deposit Money Banks. It also provides a foundation for future studies on banking risks, profitability, and financial sustainability.

Scope of the Study

This study focuses on examining the effect of risk management practices on the financial performance of listed Deposit Money Banks in Nigeria. The study is restricted to the banking sector due to the important role Deposit Money Banks play in financial intermediation, economic development, and the stability of Nigeria's financial system.

The study covers selected listed Deposit Money Banks in Nigeria and uses secondary data obtained from the audited annual reports and financial statements of the selected banks. The study period covers 2015 to 2024, providing a ten-year period for assessing changes in risk management practices and their influence on financial performance.

Conceptually, the study is limited to risk management practices and financial performance. Risk management practices are examined through key indicators, including credit risk

management measured by the Non-Performing Loan Ratio (NPLR), liquidity risk management measured by the Loan-to-Deposit Ratio (LDR), and operational risk management measured through operational efficiency indicators. Financial performance is measured using Return on Assets (ROA).

2.0 Literature Review

2.1 Concept of Risk Management Practices

Risk management practices refer to the structured processes adopted by organisations to identify, assess, monitor, and control uncertainties that may affect the achievement of organisational objectives. In the banking sector, risk management is particularly important because financial institutions operate within an environment characterised by continuous uncertainty and exposure to various categories of risks, including credit risk, liquidity risk, operational risk, and market risk (Okoughenu & Imagbe, 2025).

The nature of banking operations makes effective risk management a critical requirement for maintaining stability and profitability. Banks engage in activities such as deposit mobilisation, lending, investment, and payment services, all of which expose them to potential financial losses. Therefore, effective risk management enables banks to establish appropriate mechanisms for identifying potential threats, evaluating their possible consequences, and implementing strategies aimed at reducing adverse outcomes (Yakubu & Bunyaminu, 2023).

Risk management practices involve the development of policies, procedures, governance structures, and internal control systems that guide financial institutions in managing their risk exposures. These mechanisms help banks maintain their operations within acceptable risk limits while improving their capacity to withstand financial shocks. Strong risk governance frameworks also support effective decision-making by ensuring that risks are properly monitored and controlled at different levels of the organisation (Umar & Sun, 2022).

In the banking industry, risk management practices are commonly examined through different dimensions, particularly credit risk management, liquidity risk management, and operational risk management. Credit risk management focuses on reducing losses associated with borrowers' inability to fulfil their repayment obligations, while liquidity risk management ensures that banks maintain sufficient resources to meet their financial commitments. Operational risk management, on the other hand, addresses risks arising from inadequate internal processes, human errors, technological failures, fraud, and other operational disruptions (Bessis, 2022). The effectiveness of risk management depends not only on the availability of formal risk frameworks but also on their proper implementation, continuous evaluation, and integration into strategic decision-making processes. Banks with effective risk management structures are better positioned to identify emerging threats, minimise unexpected losses, and maintain sustainable operations. This highlights the importance of risk management as both a regulatory requirement and a strategic mechanism for improving institutional performance (Berger & Bouwman, 2022). Furthermore, the increasing complexity of banking activities and the rapid growth of technology-driven financial services have expanded the scope of risks confronting financial institutions. Cybersecurity threats, digital fraud, system failures, and other operational challenges have made it necessary for banks to strengthen their risk management systems and adopt proactive approaches to risk identification and mitigation (Olowokudejo et al., 2022). Therefore, effective risk management practices provide banks with the ability to balance risk-taking activities with profitability objectives. By reducing potential losses, improving operational efficiency, strengthening asset quality, and enhancing financial resilience, sound risk management practices contribute significantly to improved financial performance and long-term sustainability of Deposit Money Banks.

Credit Risk Management

Credit risk management represents one of the most important dimensions of risk management practices in the banking sector because lending activities constitute a major source of income for Deposit Money Banks. Credit risk arises when borrowers fail to meet their contractual repayment obligations, thereby exposing banks to potential financial losses and deterioration in asset quality. Since a significant proportion of bank earnings is generated through lending activities, ineffective management of credit risk can negatively affect profitability and overall financial performance (Bolarinwa & Soetan, 2023).

Effective credit risk management requires banks to establish appropriate credit evaluation procedures, assess borrowers' repayment capacity, monitor loan performance, diversify credit portfolios, and implement efficient recovery mechanisms. These practices enable banks to identify potential credit problems at an early stage and reduce the likelihood of losses arising from loan defaults. A well-developed credit risk management framework therefore enhances asset quality and contributes to improved financial stability (Adebisi & Matthew, 2022).

Non-performing loans (NPLs) remain one of the major indicators used to assess the effectiveness of credit risk management in banking institutions. A high level of non-performing loans reflects weaknesses in credit assessment, loan monitoring, and recovery processes. The accumulation of non-performing loans reduces interest income, increases loan impairment provisions, and weakens the ability of banks to generate sustainable returns. Consequently, effective credit risk management is essential for controlling loan losses and improving bank profitability (Natufe & Evbayiro-Osagie, 2023). The importance of credit risk management has become more pronounced in emerging economies such as Nigeria, where banks operate within an environment affected by economic uncertainties, changing market conditions, and fluctuations in borrowers' repayment capacity. Weak credit management practices may expose banks to increased financial vulnerability, while effective credit control mechanisms improve resilience and support long-term performance (Ozili, 2022). Empirical evidence from banking studies indicates that credit risk management has a significant relationship with financial performance. Banks that implement effective credit appraisal systems, maintain proper loan monitoring procedures, and adopt efficient recovery strategies are better positioned to reduce credit losses and enhance profitability. Conversely, poor credit risk management often results in increased loan defaults, reduced asset quality, and declining financial performance (Adebisi & Matthew, 2022; Natufe & Evbayiro-Osagie, 2023).

Therefore, credit risk management remains a critical component of banking operations because it enables Deposit Money Banks to balance lending opportunities with the need to minimise potential losses. Through effective management of credit exposures, banks can improve asset quality, maintain profitability, and strengthen their overall financial performance.

Liquidity Risk Management

Liquidity risk management is another important dimension of banking risk management practice because banks must maintain sufficient financial resources to meet their obligations as they fall due. Liquidity risk arises when a bank is unable to meet deposit withdrawals, payment obligations, or other short-term financial commitments without incurring unacceptable losses. Since Deposit Money Banks transform short-term deposits into long-term lending activities, effective liquidity management is essential for maintaining operational continuity and public confidence (Adusei, 2022).

Effective liquidity risk management involves maintaining adequate liquid assets, monitoring cash flow positions, managing maturity mismatches between assets and liabilities, and ensuring compliance with regulatory liquidity requirements. These practices enable banks to respond effectively to unexpected funding pressures while maintaining stable operations. A well-

managed liquidity position also enhances depositor confidence and reduces the possibility of financial distress (Ozili, 2023).

Poor liquidity management can expose banks to serious financial challenges, including inability to meet withdrawal demands, increased dependence on expensive sources of funding, and reputational damage. When banks experience liquidity shortages, their ability to undertake profitable lending activities may be constrained, thereby affecting earnings and financial performance. Consequently, maintaining an appropriate liquidity position remains essential for balancing stability and profitability objectives.

However, excessive liquidity holdings may also create challenges for bank profitability. Funds maintained in highly liquid but low-return assets may reduce the resources available for income-generating activities such as lending and investment. Therefore, effective liquidity risk management requires banks to maintain an optimal balance between holding sufficient liquidity reserves and efficiently deploying available funds to generate returns (Ozili, 2022).

The importance of liquidity risk management has increased due to economic uncertainties, financial market volatility, and changing regulatory requirements. Banks with strong liquidity management systems are better positioned to withstand financial shocks and maintain stable performance during periods of economic instability. Effective liquidity controls therefore contribute to improved financial resilience and sustainable banking operations (Berger & Bouwman, 2022). Empirical studies have also shown that liquidity management influences bank performance. Banks that effectively manage liquidity risks are more capable of meeting financial obligations, maintaining customer confidence, and supporting profitable operations. Conversely, weak liquidity management may increase vulnerability to financial distress and negatively affect profitability (Banna et al., 2022).

Therefore, liquidity risk management remains a critical component of banking operations. By ensuring adequate liquidity availability while promoting efficient utilisation of financial resources, banks can strengthen their financial stability, improve profitability, and enhance long-term performance.

Operational Risk Management

Operational risk management represents another important dimension of risk management practice in banking institutions. Operational risk refers to the possibility of losses arising from inadequate or failed internal processes, human errors, system failures, fraud, and external events that disrupt banking activities. Unlike credit risk, which is primarily associated with borrowers' inability to repay loans, operational risk originates from weaknesses within the internal operating environment of financial institutions (Bessis, 2022).

The increasing adoption of technology and digital banking platforms has further expanded the importance of operational risk management. Modern banks rely heavily on electronic payment systems, online banking platforms, automated processes, and information technology infrastructure. While these innovations have improved efficiency and service delivery, they have also increased exposure to risks such as cybersecurity threats, electronic fraud, system downtime, and data breaches, which may negatively affect operational effectiveness and customer confidence (Olowokudejo et al., 2022).

Effective operational risk management requires banks to establish strong internal control systems, improve process efficiency, invest in reliable technological infrastructure, provide adequate employee training, and maintain effective compliance structures. These measures enable financial institutions to identify operational weaknesses, reduce the likelihood of disruptions, and improve their ability to respond to unexpected operational challenges.

Operational risk management involves the continuous identification, assessment, monitoring, and mitigation of operational vulnerabilities that may affect bank performance. Important practices include internal auditing, business continuity planning, risk assessment procedures,

and the use of monitoring tools such as Key Risk Indicators (KRIs) and scenario analysis. These mechanisms enable banks to detect potential operational failures early and implement appropriate corrective measures before significant financial losses occur (Tran et al., 2022). Regulatory frameworks, including Basel II and Basel III, have also emphasised the importance of operational risk management by requiring banks to develop appropriate systems, maintain adequate controls, and provide sufficient capacity to absorb operational losses (Basel Committee on Banking Supervision, 2023). This demonstrates that operational risk management is not only a regulatory obligation but also a strategic approach for improving efficiency, resilience, and sustainable performance.

Empirical evidence suggests that effective operational risk management contributes positively to bank performance. Banks with strong operational risk frameworks are better able to minimise losses, improve internal efficiency, and maintain financial stability. Banna et al. (2022) found that effective risk management structures enhance bank resilience and reduce exposure to financial difficulties. Similarly, Adebayo and Olawale (2023) reported that operational risk management practices, including effective internal auditing, proper documentation, and staff competency development, positively influence financial performance indicators such as Return on Assets (ROA) and Return on Equity (ROE) among Nigerian Deposit Money Banks. Therefore, operational risk management remains a crucial element of banking risk management practices. By strengthening internal processes, improving technological systems, and maintaining effective control mechanisms, banks can reduce operational losses, enhance efficiency, and improve their overall financial performance.

Risk Management Practices and Financial Performance

The relationship between risk management practices and financial performance has attracted significant attention in banking literature due to the sensitive nature of banking operations and the potential consequences of ineffective risk control mechanisms. Banks operate in an environment characterised by uncertainty, where inadequate management of financial and operational risks may result in increased losses, reduced profitability, and weakened institutional stability. Consequently, effective risk management has become an important factor influencing the ability of banks to achieve sustainable financial performance.

Financial performance reflects the ability of a bank to efficiently utilise its resources, generate earnings, maintain operational effectiveness, and create value for stakeholders. In banking studies, financial performance is commonly assessed using indicators such as Return on Assets (ROA), Return on Equity (ROE), and Net Interest Margin (NIM) (Adeyemi & Oladele, 2022; Chikweche & Fletcher, 2023). Among these measures, Return on Assets (ROA) is widely applied because it evaluates how effectively a bank utilises its total assets to generate profits. ROA provides an indication of management efficiency by showing the extent to which available resources are converted into earnings. A higher ROA suggests effective utilisation of assets and improved profitability, while a declining ROA may indicate weaknesses in asset quality, operational efficiency, or risk management practices (Al-Homaidi et al., 2021). Therefore, examining the relationship between risk management practices and ROA provides useful insights into how effectively banks manage risks while pursuing profitability objectives. Effective risk management practices contribute to improved financial performance by reducing unexpected losses, enhancing asset quality, strengthening operational efficiency, and increasing stakeholder confidence. Banks that effectively manage credit risk are better positioned to control non-performing loans, maintain stable income streams, and improve profitability. Similarly, efficient liquidity risk management enables banks to meet financial obligations while maintaining sufficient resources for productive investment activities (Ozili, 2022).

Strong risk governance structures also enhance the resilience of banks by reducing their vulnerability to financial shocks. Banks with effective risk identification, assessment, and

monitoring mechanisms are better able to respond to economic uncertainties and maintain stable performance during challenging periods. Berger and Bouwman (2022) noted that effective risk management supports bank resilience by strengthening financial stability and promoting sustainable operations.

Empirical evidence further supports the positive relationship between risk management practices and bank performance. Ozili (2022) found that effective credit risk control and liquidity management improve profitability by reducing non-performing loans and enhancing asset utilisation. Similarly, Banna et al. (2022) reported that banks with stronger risk management frameworks experience improved profitability, reduced earnings volatility, and greater resilience during periods of financial stress.

Within the Nigerian banking environment, effective risk management practices have also been identified as important determinants of financial performance. Adebisi and Matthew (2022) found that sound credit risk management practices, including effective loan evaluation and recovery strategies, contribute to improved bank profitability. Furthermore, Natufe and Evbayiro-Osagie (2023) reported that weak credit monitoring practices and increasing loan defaults negatively affect the performance and stability of Nigerian Deposit Money Banks.

However, the relationship between risk management practices and financial performance depends largely on how banks' balance risk control with profitability objectives. While excessive risk-taking may expose banks to financial losses, excessive risk avoidance may limit income-generating opportunities. Therefore, effective risk management requires an appropriate balance between maintaining financial stability and pursuing profitable growth.

Overall, effective risk management practices remain essential for improving the financial performance of Deposit Money Banks. By strengthening credit risk management, maintaining adequate liquidity, improving operational efficiency, and developing effective risk governance systems, banks can minimise losses, enhance profitability, and achieve sustainable financial performance.

Theoretical Framework

Agency Theory

This study is anchored on Agency Theory, which was developed by Jensen and Meckling (1976). The theory explains the relationship between principals (shareholders) and agents (managers) within an organisation. According to the theory, shareholders delegate decision-making responsibilities to managers, who are expected to act in the best interest of the organisation. However, differences in interests between managers and shareholders may create agency conflicts, particularly when managers pursue personal objectives rather than maximising shareholder value. In financial institutions, agency problems are particularly significant because managers are responsible for making critical decisions relating to lending activities, investment choices, risk exposure, and resource allocation. Due to information asymmetry between managers and shareholders, managers may possess more information about the organisation's operations and financial position than the owners. This information advantage may encourage excessive risk-taking behaviour or decisions that may not align with shareholders' interests (Jensen & Meckling, 1976).

Agency Theory emphasises the importance of monitoring mechanisms, effective governance structures, and internal control systems in reducing conflicts between principals and agents. These mechanisms ensure that managerial decisions are properly supervised and aligned with organisational objectives. In the banking sector, risk management practices serve as important control mechanisms by providing structures for identifying, monitoring, and managing risks associated with banking activities.

Effective risk governance frameworks, internal controls, and regulatory compliance systems help reduce excessive risk-taking behaviour by managers and promote responsible decision-

making. Through proper risk monitoring and accountability mechanisms, banks can minimise potential losses, improve operational efficiency, and enhance financial performance.

The relevance of Agency Theory to this study lies in its explanation of how risk management practices influence the behaviour of managers and contribute to improved organisational outcomes. Since Deposit Money Banks operate within an environment characterised by significant financial and operational risks, effective risk management mechanisms help align managerial actions with the interests of shareholders and other stakeholders.

Therefore, Agency Theory provides an appropriate theoretical foundation for examining the relationship between risk management practices and financial performance. By promoting accountability, transparency, and effective control systems, sound risk management practices can reduce agency conflicts and enhance the profitability and long-term sustainability of Deposit Money Banks in Nigeria.

Empirical Review

Several empirical studies have examined the relationship between risk management practices and the financial performance of banking institutions across different economies. These studies have produced valuable insights into how different dimensions of risk management influence profitability, stability, and operational efficiency. However, variations in findings across different banking environments indicate the need for further investigation, particularly within the Nigerian banking sector. Ellul and Yerramilli (2021) examined the relationship between enterprise risk management structures and bank performance. The study found that banks with stronger risk management systems recorded improved performance outcomes and lower exposure to financial distress. The findings suggest that effective risk governance mechanisms enhance the ability of banks to identify, monitor, and control risks, thereby improving operational sustainability and financial performance.

Ozili (2022) investigated the role of risk management practices in promoting financial stability and profitability in banking institutions. The study revealed that effective credit risk control and liquidity management significantly improve bank profitability by reducing non-performing loans and enhancing asset utilisation. The study further emphasised that strong risk management frameworks are particularly important in emerging economies because financial institutions in these environments are more vulnerable to economic shocks.

Banna et al. (2022) examined the effect of risk management practices on bank performance and financial resilience. The findings revealed that banks with effective risk management frameworks achieved higher profitability, lower earnings volatility, and improved resilience during periods of financial instability. The study concluded that risk management should not only be considered a regulatory requirement but also a strategic mechanism for improving financial outcomes. Tran et al. (2022) investigated the relationship between banking risk management practices and financial performance. The study found that effective liquidity management and operational risk control contribute significantly to bank efficiency and profitability. The findings further indicated that maintaining adequate liquidity buffers enables banks to respond effectively to financial pressures while sustaining customer confidence and operational stability. Adebisi and Matthew (2022) examined the influence of credit risk management practices on the financial performance of banks. The study revealed that effective credit appraisal procedures, proper loan monitoring mechanisms, and efficient recovery strategies positively influence profitability. The authors concluded that weak credit risk management increases non-performing loans, reduces income-generating capacity, and threatens banking stability. Adebayo and Olawale (2023) investigated operational risk management practices among Nigerian Deposit Money Banks. The study found that effective internal control systems, staff competency development, and proper auditing procedures significantly improve financial performance indicators such as Return on Assets (ROA) and

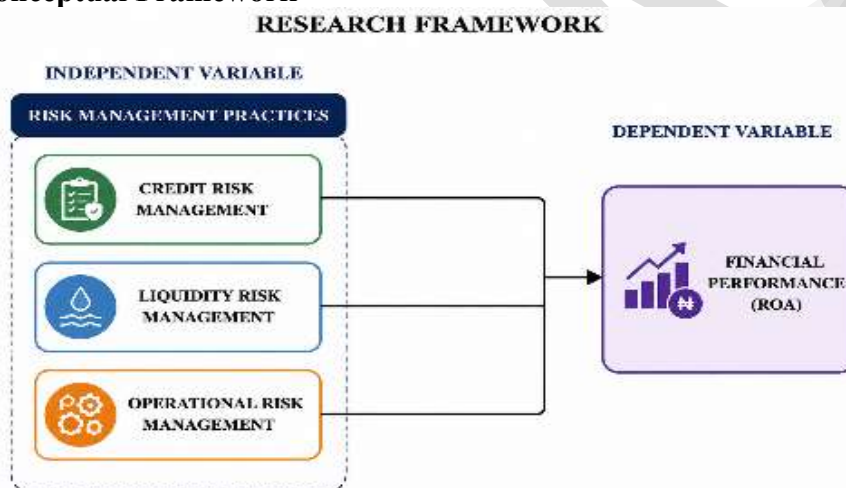
Return on Equity (ROE). The study highlighted the increasing importance of operational risk management due to the growing dependence on technology-driven banking services.

Natufe and Evbayiro-Osagie (2023) examined the relationship between credit risk management and the performance of Nigerian banks. Their findings showed that poor credit monitoring practices and increasing loan default rates negatively affect bank profitability and stability. The study recommended strengthening credit evaluation procedures and improving loan recovery mechanisms to enhance financial performance.

Adedipe and Adeyemi (2025) investigated risk management practices among Deposit Money Banks in Nigeria. The study emphasised the importance of structured risk governance frameworks and found that effective risk identification, assessment, and monitoring mechanisms enable banks to minimise losses and improve financial sustainability.

The reviewed empirical studies demonstrate that effective risk management practices contribute significantly to improved bank performance. However, differences in research contexts, methodologies, risk indicators, and findings suggest that further empirical investigation remains necessary. This study therefore contributes to the existing literature by examining the effect of risk management practices on the financial performance of listed Deposit Money Banks in Nigeria.

Conceptual Framework



3.0 Methodology

This study adopted a quantitative research design to examine the relationship between risk management practices and the financial performance of Deposit Money Banks (DMBs) in Nigeria. The quantitative approach was considered appropriate because the study relies on numerical data obtained from the financial statements of selected banks and applies statistical techniques to evaluate the relationship between the study variables.

A panel research design was employed to analyse secondary data collected over the period 2015 to 2024. The use of panel data allows the study to examine observations across multiple banks over time, thereby providing a broader understanding of variations in risk management practices and financial performance among listed Deposit Money Banks in Nigeria. Panel data analysis also improves the ability to identify relationships between explanatory variables and the dependent variable by considering both cross-sectional and time-series characteristics.

The population of this study comprised all licensed Deposit Money Banks operating in Nigeria as of 2022. According to the Central Bank of Nigeria (CBN) listing, there were 27 licensed

Deposit Money Banks in Nigeria. The population includes banks of different sizes and operational capacities, providing a broad representation of the Nigerian banking sector. The study utilised secondary data obtained from the audited annual reports and financial statements of selected listed Deposit Money Banks in Nigeria. Additional information was obtained from relevant regulatory publications of the Central Bank of Nigeria (CBN). The study covered the period from 2015 to 2024, providing a ten-year period for examining trends in risk management practices and financial performance.

Model Specification

This study adapted the models of Banik et al. (2023), with a little modification and the functional model is presented below:

Model 1/objective 1

$$ROA = f(\beta_0 + \beta_1 NPLR_{it} + \beta_2 LDR_{it} + \beta_3 OLI_{it} + \beta_4 FS_{it} + \epsilon_{it}) \dots\dots\dots i$$

Where

ROA = Return on Assets (Financial Performance)

NPLR = Non-Performing Loan Ratio

LDR = Loan-to-Deposit Ratio

FS = Financial Stability

ϵ = Error term

4.0 Results and Discussion

Empirical Results

Table 4.1: Regression Results

Dependent Variable: Return on Assets (ROA)

Variables	Pooled OLS	Fixed Effect Model	Random Model	Effect
Constant	-	2.698 (0.012)	2.530 (0.027)	
NPLR	0.000 (0.000)	-0.020 (0.004)	-0.010 (0.008)	
LDR	0.084 (0.000)	0.013 (0.004)	0.035 (0.000)	
CIR	-0.020 (0.000)	-0.028 (0.077)	-0.059 (0.000)	
FS_ZSCORE	0.680 (0.000)	0.019 (0.009)	0.029 (0.006)	
R²	1.000	0.691	0.522	
Adjusted R²	1.000	0.628	0.511	
F-statistic	-	11.084	47.807	
Prob(F-statistic)	0.000	0.000	0.000	
Durbin-Watson	2.042	2.277	1.643	
Observation	180	180	180	

Source: Field Survey, 2026

Table 4.2 Hausman Test Result

Test	Chi-Square Statistic	Degree of Freedom	Probability	Decision
Cross-section Random Effects	0.000	4	1.000	Fail to reject RE
Period Random Effects	0.000	4	1.000	Fail to reject RE

Cross-section and Period	0.000	4	1.000	Fail to reject RE
Random Effects				

Source: Author's Computation, 2026

Hausman Specification Test and Model Selection

The Hausman specification test was conducted to determine the most appropriate estimation technique between the Fixed Effect Model (FEM) and the Random Effect Model (REM). The result presented in Table 4.4 shows a Chi-square statistic value of 0.000 with a probability value of 1.000 for the cross-section, period, and combined random effects.

Since the probability value (1.000) is greater than the 5% significance level, the null hypothesis that the Random Effect Model is appropriate cannot be rejected. Therefore, the Random Effect Model (REM) is considered the appropriate model for interpreting the relationship between risk management practices and financial performance of Nigerian Deposit Money Banks.

Interpretation of Random Effect Model Results

The Random Effect Model results indicate that risk management practices significantly influence the financial performance of Nigerian Deposit Money Banks. This is evidenced by the F-statistic value of 47.807 with a probability value of 0.000, which indicates that the overall regression model is statistically significant at the 1% level.

This implies that the explanatory variables, namely Non-Performing Loan Ratio (NPLR), Loan-to-Deposit Ratio (LDR), Cost-to-Income Ratio (CIR), and Financial Stability (FS-Zscore), jointly provide significant explanation for variations in Return on Assets (ROA), which represents financial performance. The coefficient of determination ($R^2 = 0.522$) indicates that the explanatory variables jointly explain approximately 52.2% of the variations in the financial performance of Nigerian Deposit Money Banks, while the remaining 47.8% is explained by other factors not included in the model. The adjusted R^2 value of 0.511 further confirms that the model maintains substantial explanatory power after adjusting for the number of explanatory variables. The Durbin-Watson statistic value of 1.643 suggests that the model does not suffer from serious autocorrelation problems, indicating that the regression estimates are reliable for statistical inference.

Effect of Non-Performing Loan Ratio (NPLR) on Financial Performance

The result shows that Non-Performing Loan Ratio has a negative and statistically significant effect on financial performance, with a coefficient value of $\beta = -0.010$ and probability value of 0.008. This implies that an increase in non-performing loans reduces the profitability of Nigerian Deposit Money Banks. The negative relationship suggests that rising loan defaults increase loan loss provisions, reduce interest income, and weaken asset quality, thereby negatively affecting banks' ability to generate returns from their assets.

The finding indicates that effective credit risk management remains critical in ensuring sustainable profitability. Banks with efficient loan appraisal systems, continuous credit monitoring, and effective recovery mechanisms are better positioned to minimize the adverse effect of non-performing loans on financial performance.

Effect of Loan-to-Deposit Ratio (LDR) on Financial Performance

The coefficient of Loan-to-Deposit Ratio is positive and statistically significant ($\beta = 0.035$; $p = 0.000$). This indicates that an increase in the proportion of deposits converted into loans significantly improves the financial performance of Nigerian Deposit Money Banks.

The result suggests that banks that efficiently utilize available deposits for productive lending activities generate higher interest income, leading to improved profitability. It implies that

effective liquidity management and optimal credit deployment contribute positively to asset returns. However, while increased lending improves profitability, banks must maintain appropriate credit assessment procedures to prevent excessive lending that could increase exposure to loan defaults.

Effect of Cost-to-Income Ratio (CIR) on Financial Performance

The Cost-to-Income Ratio recorded a negative and statistically significant relationship with financial performance ($\beta = -0.059$; $p = 0.000$). This indicates that higher operational costs relative to income reduce the profitability of Nigerian Deposit Money Banks. The result implies that banks experiencing increasing operating expenses without corresponding growth in income are likely to record lower returns on assets. The finding highlights the importance of operational efficiency, cost control mechanisms, technological investment, and effective internal management systems in improving bank profitability.

Effect of Financial Stability (FS-Zscore) on Financial Performance

The result reveals that Financial Stability measured by the Z-score has a positive and statistically significant effect on financial performance ($\beta = 0.029$; $p = 0.006$). This indicates that financially stable banks tend to achieve better profitability outcomes. A higher Z-score reflects stronger financial resilience, lower probability of distress, and greater capacity to withstand economic uncertainties. The finding suggests that banks with stronger stability positions are better able to maintain operational continuity, attract stakeholders' confidence, and achieve sustainable financial performance.

Test of Hypothesis

H₀₁: Risk management practices have no significant effect on the financial performance of Nigerian Deposit Money Banks.

Table 4.3: Test of Hypothesis

Variables	Coefficient (β)	Probability Value
Non-Performing Loan Ratio (NPLR)	0.010	0.008
Loan-to-Deposit Ratio (LDR)	0.035	0.000
Cost-to-Income Ratio (CIR)	-0.059	0.000
Financial Stability (FS-Zscore)	0.029	0.006
F-statistic	11.084	0.000
R ²	0.691	
Adjusted R ²	0.628	

Source: Author's Computation, 2026

Interpretation

The result presented in Table 4. indicates that risk management practices significantly influence the financial performance of Nigerian Deposit Money Banks. This is evidenced by the F-statistic value of 11.084 with a probability value of 0.000, which is statistically significant at the 5% level. Since the probability value is less than the 5% significance level (0.05), the null hypothesis that risk management practices have no significant effect on financial performance is rejected.

Discussion of Findings

The hypothesis examined whether risk management practices significantly influence the financial performance of Nigerian Deposit Money Banks. The result of the study revealed that risk management practices have a significant effect on financial performance, leading to the rejection of the null hypothesis. The finding indicates that effective management of banking risks remains an important determinant of profitability among Nigerian Deposit Money Banks. The result suggests that banks that implement effective risk management practices are better positioned to identify, control, and mitigate potential financial threats, thereby improving their ability to generate sustainable returns. Deposit Money Banks operate in an environment characterized by credit risks, liquidity challenges, operational inefficiencies, and economic uncertainties. Therefore, effective risk management systems provide banks with the capacity to minimize losses and enhance financial stability.

The study further revealed that Loan-to-Deposit Ratio (LDR) has a positive and significant effect on financial performance. This finding implies that efficient utilization of deposits through productive lending activities improves bank profitability. When banks effectively transform deposits into loans, they are able to generate higher interest income, which contributes positively to Return on Assets (ROA). However, the finding also emphasizes the importance of maintaining an optimal lending level, as excessive credit expansion without proper risk assessment may increase exposure to loan defaults. The negative and significant effect of Cost-to-Income Ratio (CIR) on financial performance indicates that operational inefficiency reduces profitability. This suggests that banks with higher operating expenses relative to income experience reduced returns on assets. The finding emphasizes the importance of cost management, operational efficiency, investment in technology, and effective internal control systems in improving financial performance.

The positive and significant effect of Financial Stability (FS-Zscore) on performance indicates that financially stable banks are more capable of sustaining profitability. A higher level of financial stability reflects stronger resilience, lower probability of distress, and greater capacity to withstand adverse economic conditions. The finding supports the Risk Management Theory, which emphasizes that organizations that effectively identify, assess, and manage risks are more likely to achieve improved performance outcomes. In the banking sector, risk management serves not only as a regulatory requirement but also as a strategic mechanism for improving profitability and sustainability. The finding is consistent with previous empirical studies that established a significant relationship between risk management practices and bank performance. These studies argued that effective credit risk management, liquidity management, and operational risk control improve profitability by reducing unexpected losses and enhancing resource utilization.

5.0 Conclusion and Recommendations

The study concludes that risk management practices significantly influence the financial performance of listed Deposit Money Banks in Nigeria. The empirical findings reveal that effective risk management mechanisms enhance profitability by improving liquidity management, reducing operational inefficiencies, and strengthening banks' ability to manage financial uncertainties. The study further demonstrates that banks that adopt robust risk identification, monitoring, and control systems are better positioned to achieve sustainable financial performance. Based on the findings, the study recommends that Nigerian Deposit Money Banks should strengthen their risk management frameworks through improved credit assessment procedures, effective loan monitoring systems, enhanced operational controls, and continuous investment in risk management technologies. Effective integration of risk management practices into strategic decision-making processes will enable banks to improve profitability while maintaining resilience against financial risks.

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