



GRADUATE PROGRAMS INSTITUTE

**A STUDY ON THE IMPACT OF RISK MANAGEMENT
PRACTICES ON THE PERFORMANCE OF FINANCIAL
ORGANIZATIONS IN NIGERIA**

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**A STUDY ON THE IMPACT OF RISK MANAGEMENT
PRACTICES ON THE PERFORMANCE OF FINANCIAL
ORGANIZATIONS IN NIGERIA**

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PREFACE



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ABSTRACT

A STUDY ON THE IMPACT OF RISK MANAGEMENT PRACTICES ON THE PERFORMANCE OF FINANCIAL ORGANIZATIONS IN NIGERIA

The banking industry depends on risk management to identify, assess, and mitigate risks to financial performance and stability. The Nigerian banking sector has expanded and encountered several challenges, making risk management a primary priority for commercial banks. This study looks at how risk management approaches impact the financial performance of Nigeria's top five commercial banks—Zenith Bank, GT Bank, UBA, FBN, and Access Bank—from 2013 to 2023. The quantitative study relies on secondary data from selected banks' financial filings. Risk management strategies (capital sufficiency, asset quality, liquidity, and bank size) and financial performance (return on assets) were investigated using descriptive and inferential statistical approaches, such as correlation and multiple regression analysis. The findings of the study reveal that capital adequacy and liquidity have statistically significant positive effects on return on assets (ROA), suggesting that banks with stronger capital positions and higher liquidity levels tend to have better financial performance. Bank size also has a statistically significant positive effect on ROA, indicating that larger banks tend to benefit from economies of scale and have better profitability than smaller banks. However, the impact of asset quality on ROA is positive but statistically insignificant, suggesting that the effect of credit risk management on bank profitability may be less pronounced than other risk management practices. The study also finds that the selected banks have varying levels of risk management practices and financial performance over the study period.

Keywords: Risk management practices, financial performance, commercial banks, Nigeria, capital adequacy, asset quality, liquidity, bank size, return on assets.

ABBREVIATIONS

AMCON - Asset Management Corporation of Nigeria

BNR - Bank of Nigeria

CBN - Central Bank of Nigeria

FBN - First Bank of Nigeria

GT Bank - Guaranty Trust Bank

NPLs - Non-Performing Loans

NSE - Nigerian Stock Exchange

OLS - Ordinary Least Squares

ROA - Return on Assets

ROE - Return on Equity

SMEs - Small and Medium Enterprises

SPSS - Statistical Package for the Social Sciences

UBA - United Bank for Africa

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1. INTRODUCTION

1.1 BACKGROUND OF THE STUDY

The global financial systems act as the engines of economic growth. In their role as middlemen, they help investors and depositors trade by guiding funds towards assets that provide a guaranteed return. Financial institutions aid in the mobilisation of savings, the distribution of resources, and the aggregation and diversification of risks (Ongore, 2013; Arora & Kumar, 2014). However, the globe has seen an unparalleled financial crisis in the previous ten years. Nearly every aspect of the corporate world was impacted by the crisis, despite the fact that the banking sector was most badly hit. Apart from the failure of well-known financial firms, the sector as a whole often faced heightened regulatory oversight, popular outrage, and scholarly criticism. The present financial crisis might have many different causes. Throughout this crisis, there has been a great deal of attention paid to the risk management debate. Banks seem to be prioritising risk management in an effort to gain regulatory and public trust (Anas & Fauziah, 2014).

Organisations from a wide range of industries, including the financial services industry, have realised in recent years how crucial risk analysis and other corporate risk management strategies are. Any company that is founded with the intention of making money will eventually face risks, or uncertainty. Banks and other financial organisations face a range of risks, the most significant of which include credit, interest rate, liquidity, market, currency, foreign exchange, and commodities risks (Alexandre, 2011).

The possibility that a creditor would stop fulfilling their contractual commitments and make payments is known as credit risk, also known as default risk. Regardless of the root reason, the borrower's inability to fulfil their responsibilities may raise the bank's credit risk. Default and a decline in portfolio value as a consequence of real or perceived declines in credit quality that do not result in default are two possible ways in which these losses might materialise (Ahmed et al., 2011). Inadequate risk management

techniques have been linked in studies to financial losses, harm to a bank's reputation, and even bank collapse. However, the possible outcomes of well managed risks include higher shareholder value, better financial performance, and enhanced resilience to economic upheavals.

1.2 RATIONALE FOR THE STUDY

Many academics have invested a great deal of time and energy in the study of financial risk management. In order to strengthen the risk management practices used by the banking industry, the CBN has enacted a number of reforms and regulations. The Asset Management Corporation of Nigeria (AMCON) was founded and Basel II and III capital adequacy rules were put into place in order to handle non-performing loans (NPLs). Some commercial banks have had liquidity issues that have hindered their ability to get enough money to meet their commitments. These institutions were therefore put under statutory receivership. Notably, prudential requirements are intended to support these kinds of establishments in efficiently managing and optimising their return on assets (BNR, 2019).

Previous research has shown that poor credit management contributed significantly to the failure of several institutions, which has caused widespread anxiety (Kiplimo and Kalio, 2012). Adekunle et al. (2015), who looked at the influence of credit risk management on the profitability of different commercial banks in Nigeria, came to a similar conclusion: it has a big impact. Nonetheless, a cross-sectional research approach was used in the study. The relationship between credit risk management and the financial performance of commercial banks in Juba, South Sudan, was examined by Mogga et al. (2018). Between the two factors, the researchers found a statistically significant and favourable correlation. Despite not covering the post-COVID financial crisis era, the study's conclusions are nevertheless applicable to the present investigation. Therefore, the main goal of this research was to find out how risk management

techniques affected the effectiveness and operational efficiency of commercial banks in Nigeria.

1.3 PURPOSE AND OBJECTIVES

The purpose of this study is to investigate the impact of risk management practices on the performance of financial organizations in Nigeria using secondary data from the financial statements of selected commercial banks. The specific objectives of the study are as follows:

- I. To examine the relationship between capital adequacy ratio and the financial performance of commercial banks in Nigeria.
- II. To assess the impact of non-performing loan ratio on the profitability of commercial banks in Nigeria.
- III. To investigate the effect of liquidity risk management on the financial performance of commercial banks in Nigeria.
- IV. To evaluate the relationship between provisioning coverage ratio and the financial performance of commercial banks in Nigeria.

1.4 STRUCTURE OF THE RESEARCH

The remainder of this study is organized as follows: section 2 provides general information related to the study. It includes a discussion of the theoretical approaches relevant to risk management practices and a comprehensive literature review of previous studies. section 3 describes the research methodology employed in the study. It begins by discussing the current approaches in the literature and then provides detailed information on the current research design. section 4 presents the findings of the study, including descriptive statistics, correlation analysis, and regression analysis. section 5 provides summary and recommendations for commercial banks, regulators, and future research based on the insights gained from the study.

2. LITERATURE REVIEW

2.1 THEORETICAL APPROACHES

Prior research suggests that relationships between theories and these variables can be readily identified when the two are compared. Positive and negative associations between two variables may establish unique connections between them. Scholars and philosophers who have conducted extensive research on money have developed numerous hypotheses over time. The continued applicability of financial applications from previous years is truly shocking. As additional concepts are proposed, the financial sector continues to implement a number of them. Valid application of any given theory requires the matching of variables with its intended purpose. Existing research attempts to identify hypotheses that closely resemble the relationship between risk management and profitability. Because concepts that are effective for individuals in Nigeria would also be effective in this country, Nigerian history is thoroughly examined (Fadun, 2020).

2.1.1 Risk Management Theory

This approach is more applicable to many areas of financial management. This hypothesis has diverse implications in different managerial domains, according to scientific research. In essence, this concept seeks to reduce the degree of danger linked to a specific circumstance. This is among the most vital theories with regard to risk management. We are preoccupied with risk in the financial sector, despite the fact that the varied circumstances transcend risk management theories. The aforementioned scenarios may encompass not only internal factors but also external influences, such as changes in society, the environment, or government policy. Controlling these variables individually and collectively is occasionally the objective of risk management theories. (Fagboyo et al., 2018) Critical circumstances have the ability to increase the risk-to-reward ratio, compelling organisations to rely temporarily on alternative strategies and creative concepts.

In order to assess their risk factors, businesses must seek the counsel of knowledgeable professionals. Research findings have also indicated that a number of enterprises have encountered failure when attempting to independently address risk-related issues. Without a doubt, conducting an evaluation that considers all facets requires a satisfactory amount of time. A fully validated approach to addressing risk-related concerns can only be formulated at that juncture. Increasing inflation, credit risk, and other economic concerns are the external factors that have the greatest impact on financial institutions. Risk management theory is an essential component of this investigation due to the fact that our sole concern is the minimization of risk and its impact on profitability. Instances of unethical behaviour are rare in nature. Akinleye et al. (2019) state that the key is to reduce one's own risk while increasing the risk of others.

2.1.2 Financial Distress Theory

1983 marked the inception of the notion and proposal by the two academicians, Mason and Baldwin. Despite some degree of continued implementation in academic institutions, this hypothesis continued to garner attention during that period. Despite the fact that this concept has been studied and taught about in Nigeria, issues that require additional research and unresolved concerns regarding its implications remain unaddressed. This theoretical perspective primarily examines the dire consequences that ensue when an organisation, financial institution included, is incapable of fulfilling its financial responsibilities. According to research (Paulinus et al., 2017), numerous organisations, both domestically and internationally, have been compelled to liquidate their operations or sell for a nominal profit after failing to meet their financial obligations. This theory is required because we are approaching the identification of the variables influencing profitability from a variety of sources.

Although not all components may be mandatory, it is advisable to include at least some. Serwadda (2018) argues that the present circumstance is consistent with this theory,

which posits that an organisation cannot anticipate enhanced employee performance from its staff members who are cognizant of the impending closure of their place of employment, as such news would result in their insecurity.

2.1.3 Information Asymmetry Theory

Extensive research has been conducted on this concept in other countries, with a particular emphasis on Western nations. Organisations in pursuit of precise and reliable data recognise the delicate nature of this matter. This hypothesis states that when one party has significantly more information than the other, two individuals engage in a transaction. Central-stage businesses, including wholesalers and retailers, must negotiate judiciously with their consumers and therefore must have precise information regarding the products and services they offer. Retailers and wholesalers are individuals who engage in both of these activities.

Employees in various industries have expressed that a dearth of information on their end could have a substantial impact on their profitability, emphasising the importance of obtaining accurate information from both parties. Regardless of the quantity, a proportionate amount of information will invariably hold greater significance than other information. Maintaining the confidentiality of critical information needed by senior executives is of the utmost importance. These critical metrics are pivotal in determining the profitability and risk management of an organisation, and they exert a substantial impact on its enduring sustainability and growth (Adamgbo et al., 2019).

2.1.4 Commercial Loan Theory

This concept centres on the relations between the numerous operations of a company and the commercial institutions of the state. This notion exposes the provision of loans and the profit-driven repayment process that follows. Commodity and credit flows between banks and businesses maintain stability in the state's economy; however, this stability is accompanied by numerous risks and obstacles. Numerous businesses have

been aided in their establishment and expansion by this hypothesis; however, scholars have also discovered that the notion is more persistent in practice than it is in theory. The commerce sector must actively accept and manage the risks associated with financial systems if it is to continue to function. This is an obvious necessity. Certain states have government representatives provide these loans, which entail reduced risk for business proprietors and entrepreneurs. Nevertheless, this does not entirely benefit the banking industry, especially newly founded institutions, as the extent to which the government finances loans and assumes complete liability for such businesses can reduce bank profitability. The extent to which this occurs is dependent on the level of government involvement. Profitability is a central point of contention in this area, so it is vital to study this theory concurrently (Soliman et al., 2017).

2.1.5 Anticipated Income Theory

Early in the 1940s, H.V. Prochanow made the initial proposal for this hypothesis, which gained rapid recognition in the academic and banking communities. As an explicit consequence of the implications of their hypothesis, the financial industry has flourished, according to the researchers. The financial world, in accordance with the philosopher, operates independently of legal obligations and does not await their fulfilment. Firms incur the least amount of risk, according to this hypothesis, when banks extend short-term, always-recoverable loans. It is exceedingly unlikely that the borrowers will fail to repay the funds along with accrued interest on these loans. Contrary to expectations, the banks have consistently increased their earnings with the assistance of self-liquidating loans. Since banks frequently favour these loans and the governments of the majority of nations also endorse them, this has been occurring for years. As this hypothesis appears to be a low-risk proposition, influential industrials that are perpetually in need of short-term financing also recommend investigating it. (Nwude et al., 2018) Successful enterprises can occasionally obtain repayment in this manner through the acquisition of additional banking facilities.

2.2 FINANCIAL RISK MANAGEMENT

Financial risk management is the process of enhancing economic value for a company by reducing exposure to risk, particularly credit and market risk, through the utilisation of financial instruments, as per Vickery (2006). Stock, foreign exchange, interest rate, and commodities risk are the four primary categories of market risk. Financial risk management is comparable to general risk management in that it necessitates the identification of its sources, the establishment of mitigation strategies, and the monitoring of its progress. Financial risk, which is frequently defined as the unexpected volatility or unpredictability of returns, encompasses credit, liquidity, and market risks (Greuning & Bratanovic, 2009). The procedures and activities that managers employ to safeguard a company from market, credit, and liquidity concerns are referred to as financial risk management techniques. Credit risk management, liquidity risk management, and market risk management are the three categories of financial risk management techniques, as per Kithinji (2010).

Timothy and Yiuman (2016) have identified two categories of financial hazards: conventional risks and banking risks. Credit and solvency risk are conventional hazards that are well-known and are a result of the structure of the income statement and balance sheet. A company's capital is influenced by treasury risks, which encompass currency, interest rate, market, and liquidity risks. In recent years, the banking sector has underscored the importance of financial risk management. This is due to their substantial influence on business operations (Triantis, 2000).

Businesses are vulnerable to a variety of hazards, including operational and financial ones. Operational risks, which are frequently referred to as business risks, are influenced by the product markets in which a company operates and are associated with uncertainties regarding the firm's investments and investment prospects. In addition to

operational risks, individual enterprises may be at financial risk due to unforeseen fluctuations in crude prices, currency exchange rates, and interest rates. Operational risks are exclusive to a firm or industry, while financial risks are market-wide hazards that may impact the financial performance of enterprises throughout the economy. Any type of risk exposure can significantly affect the value of a company (Ofosu-Hene & Amoh, 2015).

Financial risk management may encompass both qualitative and quantitative components. Financial risk management is a specialised discipline that emphasises the prudent utilisation of financial instruments to mitigate costly risk exposures (Greuning & Bratanovic, 2009). It discusses the strategies and procedures that a company implements to mitigate the risk associated with its financial interests.

In-house financial risks are the result of internal organisational issues, whereas external financial risks are the result of changes in the financial markets. Factors like interest rates, product prices, and transaction currency rates are examples of external financial issues. Issues with liquidity, interest rates, credit, capital management, and currency exchange are the five types of financial risks that will be examined in this study. According to Greuning and Bratanovic (2009), there are mainly four types of financial risk.

Among the several organisational tiers that commercial banks use to mitigate financial risk is the strategic tier. Risks must be recognised, evaluated, quantified, tracked, and managed in this process. The boards of directors of commercial institutions are ultimately responsible for managing financial risk.. Consequently, the Board is required to establish specific guidelines and procedures for risk management and to determine strategies for managing financial risks. The provision of banking services is associated with specific financial hazards, including currency, interest rate, liquidity, and credit risk. The hazards are further elaborated upon in the subsequent subsections (Olusanmi et al.,

2015). the profitability and daily operations of the financial industry are influenced by a multitude of risks. Risk is categorised as either systematic (market) or unsystematic, as well as financial or non-financial. Credit, liquidity, operational, market, political, currency, and strategic risks are among the risk categories that Timothy and Yiuman (2016) identify. This research exclusively investigates operational risk, liquidity risk, and credit risk.

2.3 REVIEW OF RELATED STUDIES

Numerous academic studies have been conducted on commercial banks' financial performance, both locally and globally, to examine the impact of risk management. The effect of economic worries on business results was studied by Ali and Dhiman in 2019. Finding out how much credit risk affects company performance was the driving force for the inquiry. in order to assess how currency risk affects company operations. Financial performance metrics were shown to be strongly correlated with risk. According to the research, financial risks are the most detrimental to a company's bottom line. Financial institutions are impacted by credit risk when making borrowing and lending choices, and firms are impacted by foreign currency risk when they are exposed to unexpected losses, which affects their performance, according to the report.

In order to enhance their comprehension of credit risk identification, assessment, monitoring, and comprehension, bank managers were administered questionnaires. Descriptive and inferential statistics were implemented for the purpose of analysis. The findings of their research indicated that the advantages of risk management in terms of cost reduction were recognised by the top administrators at Bahraini establishments. The results of the selected Bahraini institutions indicate that they possess an understanding of risk, risk management, and other outcome-related elements. The multiple regression analysis conducted in their study revealed a positive correlation between all independent variables and risk management strategies. Credit, liquidity, and operational risk were the

primary concerns of both conventional and Islamic institutions. The analysis determined that Bahraini Islamic institutions presented a significantly greater threat than conventional ones.

Research by Fadun and Oye (2020) examined the effect of operational risk management on the bottom line of Nigerian commercial banks. Two important profitability metrics—return on equity and return on assets—were shown to be negatively affected by the percentage of non-performing loans to total loans in financial institutions. Profitability took a hit as a whole. Islam and Rana (2017) looked at how six different institutions based in Barbados handled risk. They underscored the critical role of risk management in the performance of Barbados' financial institutions. Credit risk, operational risk, interest rate risk, country risk, and market risk were the most significant risk categories identified by financial institutions situated in Barbados. They found that the risk management strategies employed by the selected institutions were effective, particularly in light of the dynamic nature of the business environment.

Kumar and Yadav (2013) have demonstrated that credit risk significantly enhances the profitability of commercial banks in Sweden. Additionally, Nwanna (2019) investigated the correlation between business profitability and credit risk management. They observed that lending levels were high during the initial years of Basel II, but they experienced a significant decline in 2007 and 2008, which was likely due to the implementation of the law by commercial banks. The results indicate that additional factors are also at play, as the bottom lines of the majority of commercial banks are not significantly impacted by credit and nonperforming loans. The impact of credit risk management on company financial performance was investigated in a 2015 research by Olamide et al. Determining the relationship between credit risk management and financial performance was the main goal of the inquiry. Credit risk management relied heavily on the CAMEL indicators, which stand for capital sufficiency, asset quality, earnings, and liquidity. Pearson conducted correlation research that revealed a -0.25 correlation coefficient with a p-value

of 0.035 between financial success and capital adequacy. The data collection phase lasted for five years. The researcher identified a correlation ($r=0.324$) between financial success and asset quality at a significance level of 0.041. Additionally, there was a negative correlation ($r=-0.512$, $p=0.001$) between financial performance and management quality. The research revealed a weakly inverse relationship ($r=0.89$, $p=0.001$) between the financial performance of Kenyan institutions and their management of credit risk. Additionally, a correlation between earnings quality and return on equity (ROE) was demonstrated at a 95% confidence level. Earnings are inextricably linked to financial success.

Rasul (2013) assessed the foreign currency risk management strategies of numerous Nigerian enterprises. The primary goal of the investigation was to determine the most feasible method for managing foreign exchange risk. The study also employed primary and secondary data sources. Spot transactions have been demonstrated to effectively mitigate foreign exchange risk. Nevertheless, the researchers were unable to identify any evidence that would establish a correlation between the two characteristics. Serwadd (2018) investigated the extent to which Ghana's institutions were influenced by fluctuations in exchange rates. The investigation investigated the manner in which organisations respond to fluctuations in exchange rates. Statistics indicate that financial institutions implement an assortment of risk management strategies. As a result, risk management was demonstrated to be a critical component of numerous organisations. The geographic focus of this study may preclude its applicability to the Democratic Republic of the Congo.

Serwadd (2018) contends that while increasing interest rates have an effect on borrowers, they do not have a substantial influence on bank profitability. High interest rates have minimal impact on the financial performance of banks, regardless of whether they are detrimental to borrowers. This occurs as a consequence of the increase in interest rates, which results in a surplus for creditors and a deficit for depositors. Ultimately, neither the

creditor nor the depositor will be able to reimburse it. A rise in interest rates has a detrimental impact on the inclination of borrowers and depositors to participate in financial activities such as investing and saving, as per Tega and Mojekwu (2019). Banks establish inclusive spreads by offering their depositors low rates of return in order to deter low-interest investors and attract high-interest borrowers. Pakistan's distribution is more extensive. Ultimately, banks generate substantial profits from loans and investments, as well as spreads, when interest rates increase. Furthermore, investors are compelled to maintain their funds in the bank due to the current interest rates that financial institutions are providing.

Canton (2021) conducted a quantitative analysis of the impact of credit risk on the performance of Nigerian commercial banks from 2000 to 2010. Oye (2020) conducted a study that investigated the impact of credit risk on the profitability of Nigerian banks. The results indicated that credit risk had a cross-sectional effect on bank performance in 27 distinct versions, as determined by return on assets. The research reveals that Nigerian banks' profitability is significantly influenced by credit risk management. Banks are reported to be at a high risk of experiencing illiquidity and hardship due to the inverse relationship between profitability and the quantity of non-performing loans, deposits, loans, and advances.

Previous research has shown that the efficacy of a credit risk management system is influenced by a comprehensive credit risk architecture, rules and processes, rating system, monitoring, and control. (December 2021) The effectiveness of credit risk management is contingent upon the maintenance of the appropriate credit risk environment, credit strategy, and norms, according to a comparable study (Vilk et al., 2018). Consequently, the primary goal should be to enhance and safeguard the integrity of loans. In the same vein, Rottluff (2018) demonstrated that non-performing loans were significantly influenced by bank size, capital ratio, and rapid lending growth.

3. METHODOLOGY

3.1. RESEARCH OBJECTIVE

The purpose of this study is to investigate the impact of risk management practices on the performance of financial organizations in Nigeria using secondary data from the financial statements of selected commercial banks. The specific objectives of the study are as follows:

- I. To examine the relationship between capital adequacy ratio and the financial performance of commercial banks in Nigeria.
- II. To assess the impact of non-performing loan ratio on the profitability of commercial banks in Nigeria.
- III. To investigate the effect of liquidity risk management on the financial performance of commercial banks in Nigeria.
- IV. To evaluate the relationship between provisioning coverage ratio and the financial performance of commercial banks in Nigeria.

3.2. RESEARCH QUESTIONS

The specific research questions that the study aims to answer, such as:

- I. How does capital adequacy ratio affect the financial performance of commercial banks in Nigeria?
- II. What is the impact of non-performing loan ratio on the profitability of Nigerian commercial banks?
- III. How does liquidity risk management influence the financial performance of Nigerian commercial banks?
- IV. What is the relationship between provisioning coverage ratio and the financial performance of Nigerian commercial banks?

3.3. RESEARCH MODEL

This research uses quantitative method to investigate how risk management impacts Nigerian financial institutions. Several variables impact quantitative design choices. First, a quantitative method is reasonable given that the study's objectives and research challenge entail investigating measurable linkages. Second, quantitative approaches are feasible and economical since secondary data from the selected commercial banks' financial statements is easily accessible. Third, using a quantitative technique permits this study to generalise its findings to Nigerian commercial banks. This study conducted correlational quantitative research. Correlational study investigates variables without modification. This study's independent variables are the selected commercial banks' risk management methodologies, which are operationalized as capital adequacy, non-performing loan, liquidity, and provisioning coverage ratios. The dependent variable is bank performance, which includes returns on equity, assets, net interest margin, and earnings per share.

Since 2013, secondary data has been derived from audited financial accounts of Zenith Bank, GT Bank, UBA, FBN, and Access Bank. We picked these banks based on size, market share, and data accessibility. Zenith Bank, Access Bank, First Bank (FBN), GT Bank, and United Bank of Africa are Nigeria's largest and most profitable banks. We examine financial account data using descriptive and inferential statistics. The chosen organisations' risk management and financial performance are described using descriptive data like percentages, standard deviation, and mean. To test the study's assumptions and investigate the connections between the variables under investigation, researchers use inferential statistics like multiple regression and correlation. The regression model is specified as follows:

$$\text{ROA} = \beta_0 + \beta_1(\text{Capital_adequacy}) + \beta_2(\text{Asset_quality}) + \beta_3(\text{Liquidity}) + \beta_4(\text{Bank_size}) + \varepsilon$$

Where:

- ROA = Return on Assets (Dependent Variable)
- Capital_adequacy = Capital Adequacy Ratio (Independent Variable)
- Asset_quality = Asset Quality Ratio (Independent Variable)
- Liquidity = Liquidity Ratio (Independent Variable)
- Bank_size = Total Assets or Log of Total Assets (Independent Variable)
- β_0 = Intercept
- $\beta_1, \beta_2, \beta_3, \beta_4$ = Regression coefficients
- ε = Error term

3.4. HYPOTHESIS

Hypotheses to be tested in the study;

H1: There is a significant positive relationship between capital adequacy ratio and bank financial performance.

H2: Non-performing loan ratio has a significant negative impact on bank profitability.

H3: Liquidity risk management has a significant positive effect on bank financial performance.

H4: Provisioning coverage ratio is significantly related to bank financial performance.

3.5. DATA COLLECTION

The chosen organisations' audited financial records served as the primary secondary data source for this investigation. Financial statements were sourced from Bloomberg, Thomson Reuters, corporate websites, and the Nigerian Stock Exchange. This investigation used the balance sheet, income statement, and account annotations. Bank income statements display revenue, expenses, and profits, while balance sheets show assets, liabilities, and equity. Account annotations provide risk management measures

such as provisioning coverage, capital adequacy, non-performing loan rates, and liquidity ratios.

The data gathering period from 2013 to 2023 covers Nigeria's adoption of the Basel III capital adequacy requirement as well as the aftermath of the financial crisis. Because financial accounts were created and assessed on a regular basis, data was gathered once every year. Data quality and reliability were evaluated in a variety of methods. To minimise data entry errors, financial statements were first obtained from relevant company websites or other credible sources. Cross-referencing with financial databases and the NSE website guaranteed that data was consistent. Data were also examined for anomalies and missing statistics, and any discrepancies were rectified in following research.

SPSS 26 was used to analyse financial account information. After the data was coded and entered into SPSS, an error and missing value check was performed. The data was summarised, and the chosen institutions' risk management strategies and financial outcomes were discussed using mean, standard deviation, and percentages. We evaluated banks' risk management based on the mean capital adequacy, provisioning coverage, liquidity, and non-performing loan ratios. Financial performance was determined by the mean earnings per share, net interest margin, return on equity, and return on assets.

The study's hypotheses were examined using inferential statistics, which reveal independent-dependent relationships. These statistics include multiple regression and correlation. Pearson's correlation coefficient (r) examined the relationships between risk management approaches and financial performance metrics. Multiple regression analysis was used to determine how risk management approaches influenced the financial performance of the chosen institutions. The regression model was estimated using OLS, which reduces total squared residuals. Scatterplots, histograms, and residual plots were

utilised to assess OLS regression assumptions of linearity, normality, error independence, and homoscedasticity. When assumptions were broken, data transformation or robust standard errors were used. The regression coefficients were tested using T-tests with a 5% significance level.

4 FINDINGS AND DISCUSSION

4.2 DESCRIPTIVE STATISTICS

This section examines the chosen institutions' risk management techniques and financial performance (ROA) using descriptive statistics such as mean, standard deviation, and percentages. Return on Assets (ROA) is a significant profitability statistic that compares a bank's profits to its assets. Figure 1 depicts the 2013-2023 ROAs for UBA, Access Bank, FBN, GTBANK, and Zenith. GTBANK had the greatest ROA in 2018, at 6.2%, reflecting its robust profitability. Following closely, Zenith Bank demonstrated significant and consistent profitability, with a ROA ranging from 2.2% to 3.9%. Access Bank and UBA have much lower ROAs: 0.001% to 3.5% and 1.1% to 2.5%, respectively. FBN had the lowest return on assets (ROA) in the study, dropping to 0.1% in 2016, indicating that it struggled to maintain profitability. Overall, ROA figures indicate the profitability of the chosen institutions. FBN had profitability challenges at the time, although Zenith Bank and GTBANK dominated.

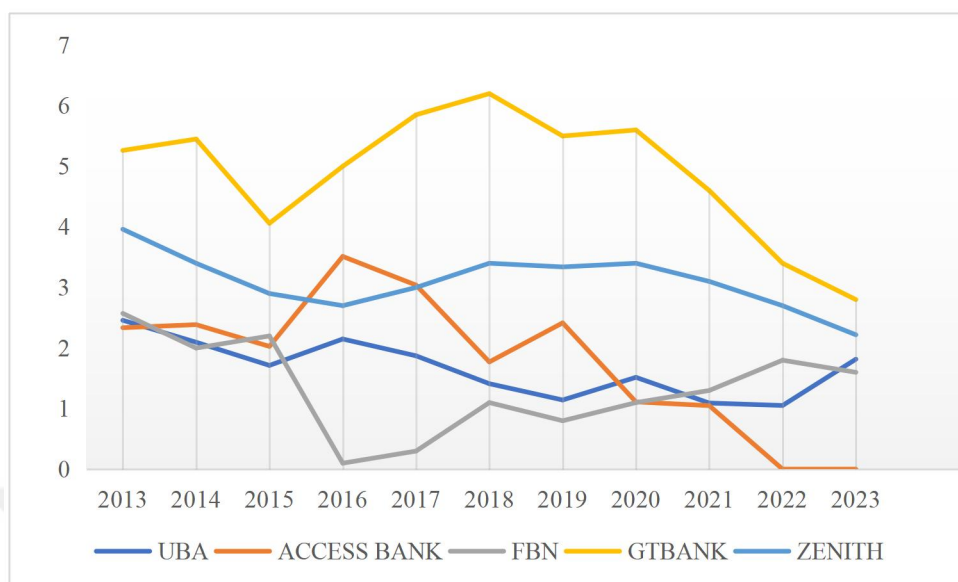


Figure 4.1: The Return on Assets (ROA)

Assets represent loan default risk, which influences a bank's credit risk exposure. Figure 2 depicts the asset quality ratios of certain Nigerian institutions from 2013 to 2023. In 2021, FBN had the highest asset quality ratio (7.7%), suggesting substantial credit risk. In 2018, GTBANK's asset quality ratio was 7.7%, indicating credit risk. Zenith Bank's asset quality ratio fluctuated between 2.18% and 4.98%, showing modest credit risk stability. Over the past three years, UBA's asset quality ratio increased from 1.2% to 4.7%. In 2016, Access Bank had the lowest asset quality ratio among the banks analysed, at 1.5%. This decrease represents lower credit risk throughout that period. Asset quality statistics reveal the credit risk levels of the selected institutions. In contrast to FBN and GTBANK, Access Bank consistently maintained lower ratios.

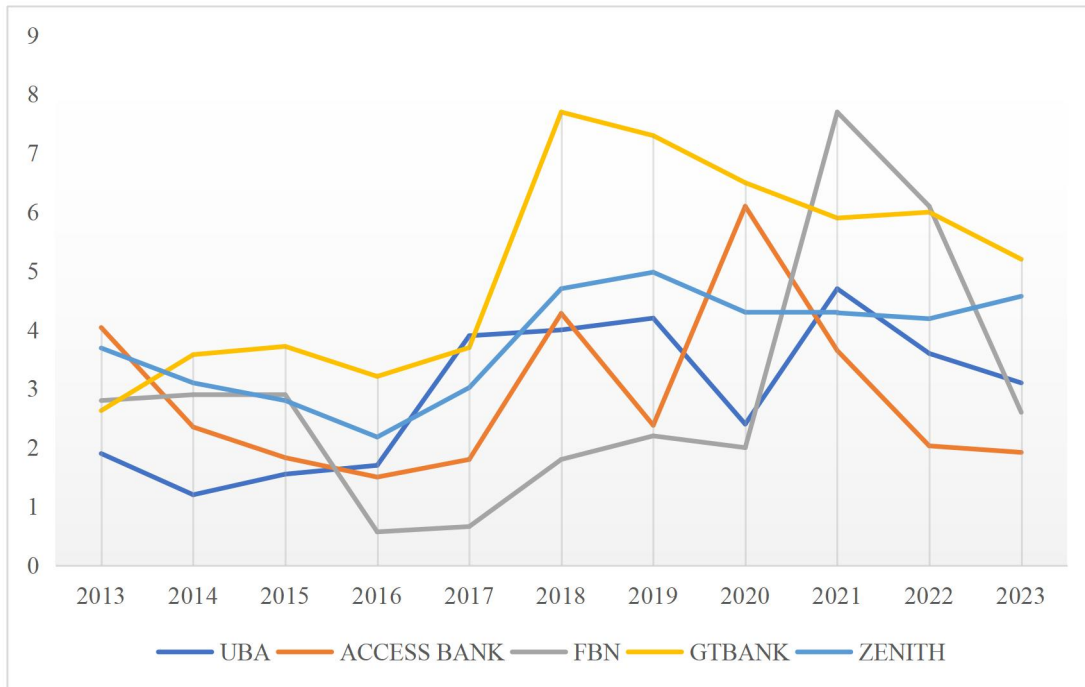


Figure 4.2 Asset Quality

A bank's capital adequacy evaluates its ability to sustain losses. Figure 3 depicts the capital adequacy ratios of selected Nigerian institutions for the years 2013–2023. UBA and Zenith Bank have the highest capital adequacy ratios, 28.3% for UBA in 2023 and more than 20% for Zenith Bank, showing strong capital reserves. GTBANK has a significant capital buffer, with capital adequacy ratios ranging from 19.6% to 25.7%. The capital adequacy ratio for Access Bank fluctuated from 15.39% to 22%, and it recently rose. The FBN's capital adequacy ratio fell to 13.6% in 2014, the lowest among the studied banks, prompting concerns. The capital adequacy figures suggest that UBA, Zenith Bank, and GTBANK had good capital holdings, but FBN suffered.

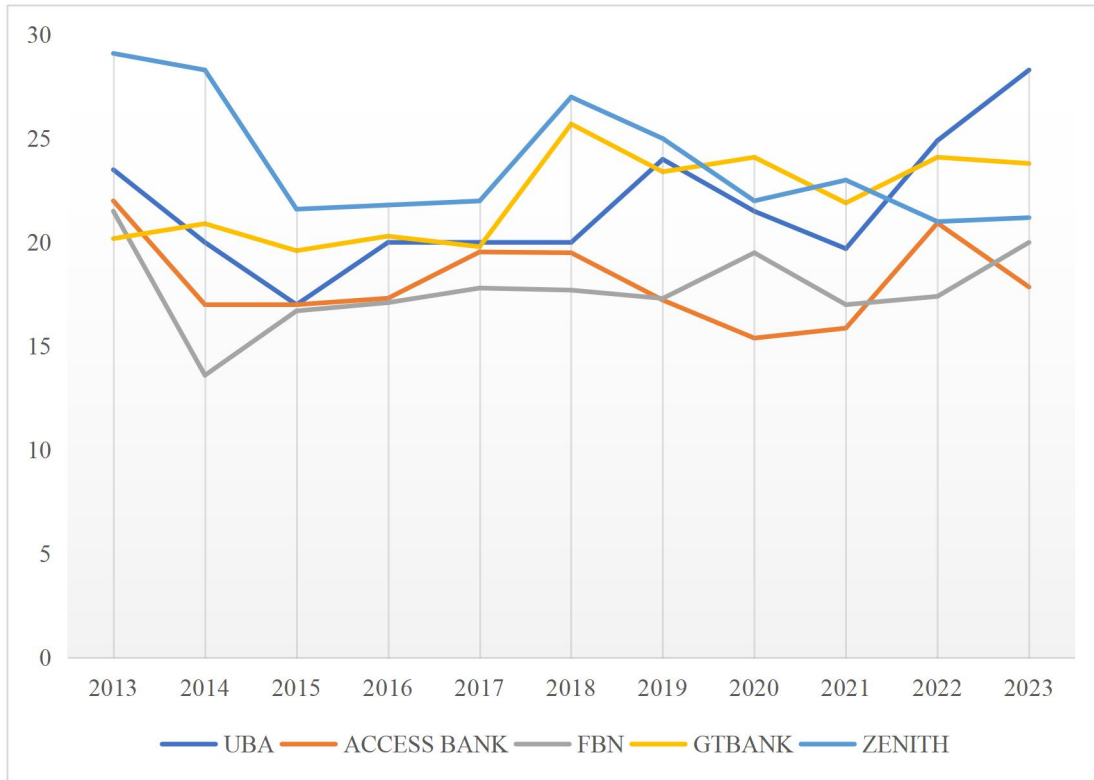


Figure 4.3 The Capital Adequacy ratio

Liquidity Rate is an essential measure of a bank's ability to meet its short-term obligations and withstand potential liquidity shocks. Figure 4 presents the Liquidity Rate for the selected Nigerian banks from 2013 to 2023. The data reveals that Zenith Bank had the highest liquidity rates, consistently maintaining rates above 40% and reaching 75% in 2023, indicating a strong liquidity position. FBN also maintained relatively high liquidity rates, ranging from 31.7% to 54.9%, suggesting a comfortable liquidity buffer. GTBANK's liquidity rate fluctuated between 38.3% and 50.31%, indicating a stable liquidity position. UBA's liquidity rate ranged from 24.06% to 32.66%, suggesting a moderate liquidity level. Access Bank had the lowest liquidity rates among the selected banks, dropping to 7.22% in 2018, indicating potential liquidity challenges during that

period. The liquidity rate data highlights the varying levels of liquidity among the selected banks, with Zenith Bank and FBN maintaining strong liquidity positions, while Access Bank faced some liquidity concerns.

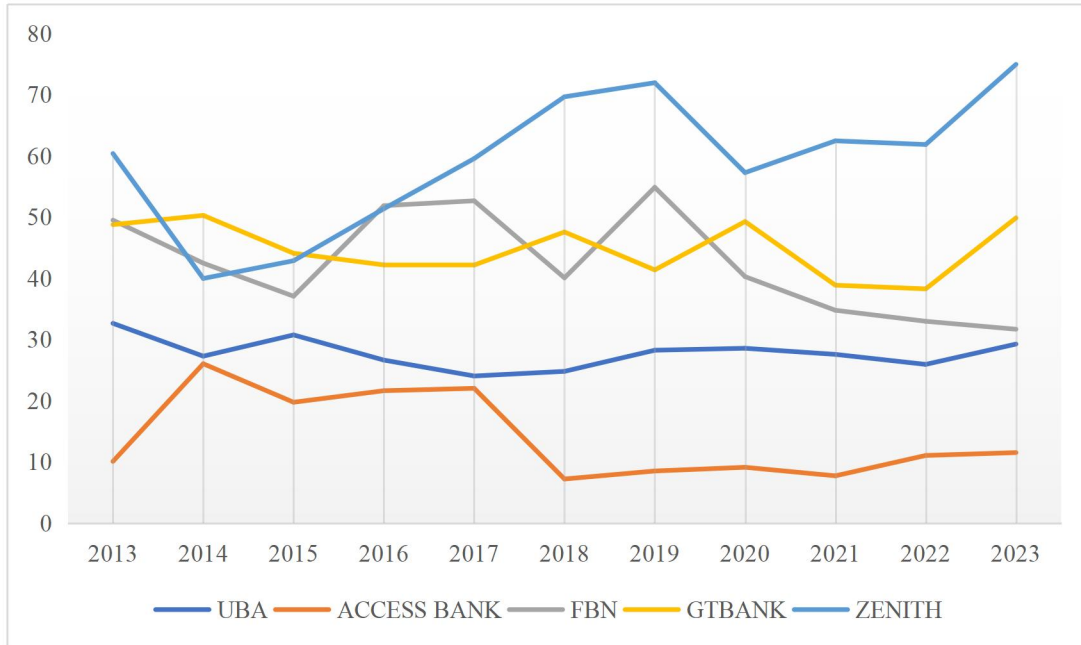


Figure 4.4 The Liquidity Rate for the selected Nigerian banks

Bank Size, measured as the natural logarithm of total assets, is an important factor in assessing a bank's market presence and potential for economies of scale. Figure 5 presents the Bank Size for the selected Nigerian banks from 2013 to 2023. The data reveals that Access Bank had the largest asset base among the selected banks, with its size consistently increasing from 9.24 in 2013 to 10.10 in 2023, indicating significant growth over the period. GTBANK also maintained a relatively large asset base, ranging from 9.21 to 9.61, suggesting a strong market presence. FBN's asset size increased significantly from 6.44 in 2013 to 8.45 in 2023, indicating substantial growth during the period. Zenith Bank's asset size also grew steadily, increasing from 6.38 in 2013 to 7.02

in 2023. UBA had the smallest asset size among the selected banks, ranging from 6.28 to 6.87, suggesting a relatively smaller market presence. The bank size data highlights the varying levels of market presence and growth among the selected banks, with Access Bank and GTBANK maintaining large asset bases, while UBA had a smaller asset size.

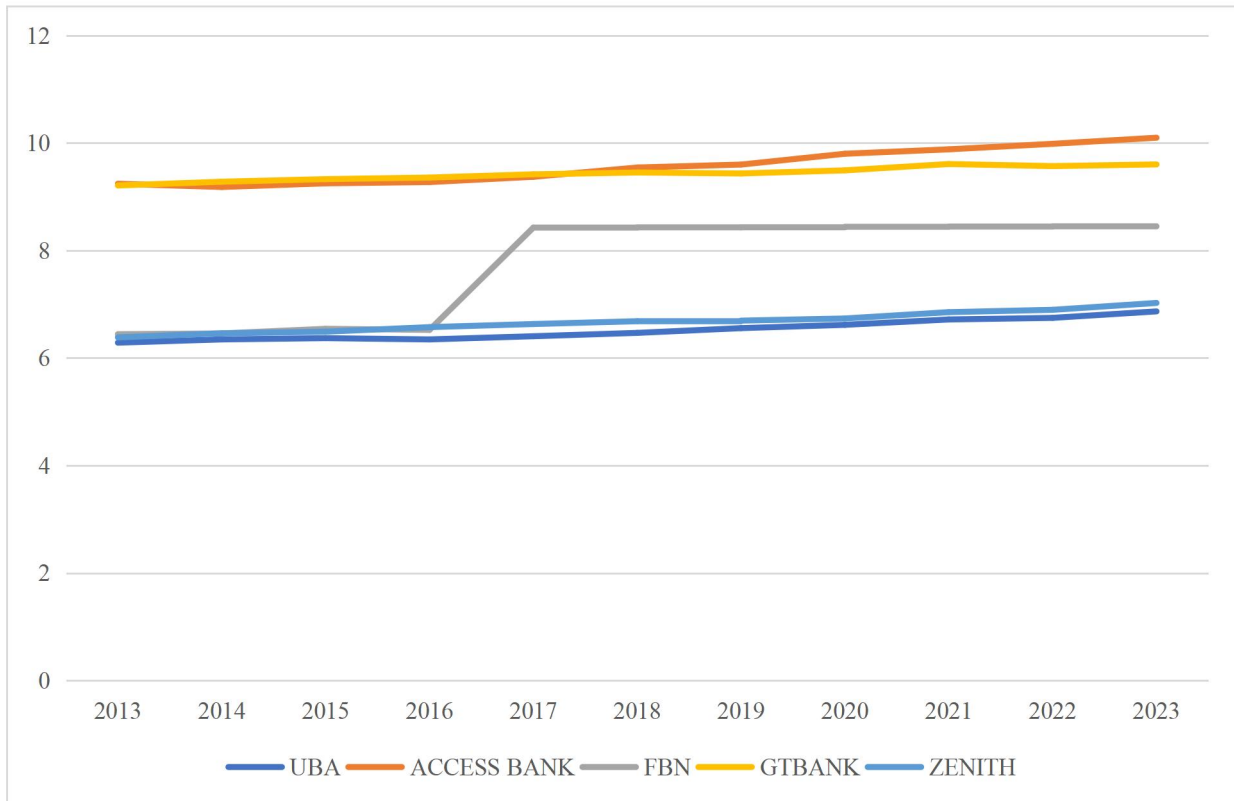


Figure 4.5 The Bank Size

The summary statistics table displays the primary metrics of central tendency and dispersion used to characterise the study variables. The selected banks' return on assets (ROA) vary, but the average is 2.56% and the standard deviation is 1.54%. This indicates high profitability. The Asset Quality ratio, with a standard deviation of 1.72%

and a mean value of 3.52%, shows that the institutions have minimal credit risk. The average capital adequacy ratio is 20.72%, with a standard deviation of 3.41% indicating strong capital position. This element varies widely across banks. The mean liquidity rate of 37.73% and the standard deviation of 17.14% demonstrate that institutional liquidity fluctuates significantly. The selected banks' asset sizes vary, as seen by a mean bank size of 7.98 and a standard deviation of 1.40. These summary statistics give a brief overview of the key variables, emphasising the major trends and dispersion to aid future study.

Table 4.1 Summary Statistics

	ROA	Asset_quality	Capital_adequacy	Liquidity_rate	Bank_size
Mean	2.558023	3.52041	20.72483	37.72777	7.98476
Standard Error	0.208268	0.231509	0.460019	2.311416	0.188386
Median	2.335792	3.21	20.1822	38.9	8.430754
Standard Deviation	1.544557	1.716913	3.41159	17.14192	1.397108
Minimum	0.001354	0.57	13.6	7.215553	6.28494
Maximum	6.2	7.7	29.1	75	10.09813
Count	55	55	55	55	55

4.3 CORRELATION ANALYSIS

The correlation analysis, presented in Table 2, examines the strength and direction of the relationships between the risk management practices (Asset Quality, Capital Adequacy, and Liquidity), Bank Size, and the financial performance indicator, Return on Assets (ROA), for the selected Nigerian banks.

Table 4.2 Correlation analysis

	ROA	Asset_quality	Capital_adequacy	Liquidity	Bank_size
ROA	1				
Asset_quality	0.426505	1			
Capital_adequacy	0.412235	0.314296	1		
Liquidity	0.393019	0.163952	0.391068	1	
Bank_size	0.21844	0.233252	-0.26776	-0.37747	1

The correlation matrix demonstrates that Asset Quality and ROA are relatively positively related ($r = 0.4265$), meaning that higher asset quality enhances ROA. Financial institutions with strong asset quality, as seen by a low non-performing loan ratio, are more likely to be successful. Capital adequacy and return on assets (ROA) have a small positive correlation ($r = 0.4122$), indicating that financial institutions with greater capital levels perform better. This highlights the need of capital buffers in absorbing losses and maintaining profitability. Liquidity and ROA have a somewhat positive relationship ($r = 0.3930$), indicating that banks with greater liquidity perform better. This highlights the importance of liquidity management in ensuring that financial institutions can satisfy their immediate commitments and continue operations, hence increasing profitability. Bank size and return on assets (ROA) show a slight positive correlation ($r = 0.2184$), suggesting that larger banks may be more lucrative. Correlation analysis also reveals significant risk management practice linkages. Asset quality and capital sufficiency are weakly positively related ($r = 0.3143$), implying that banks with greater asset quality have stronger capital levels. Liquidity has a somewhat positive correlation ($r = 0.3911$) with capital adequacy, meaning that financial businesses with more liquidity have higher capital ratios.

4.4 MULTIPLE REGRESSION ANALYSIS

This section uses multiple regression analysis to investigate how risk management and bank size impact the ROA of the selected institutions. Regression statistics give a comprehensive view of model fit. The multiple R value is 0.6693, showing a significant positive relationship between the predicted and observed dependent variable values. The R Square, also known as the coefficient of determination, is 0.4480, suggesting that 44.80% of the variation in ROA can be explained by the independent variables included in the model. The Adjusted R Square, which accounts for the number of independent variables and the sample size, is 0.4039, indicating that the model has a moderate explanatory power.

Table 4.3 Summary Output

Regression Statistics	
Multiple R	0.669343
R Square	0.44802
Adjusted R Square	0.403862
Standard Error	1.192553
Observations	55

The coefficients table presents the estimated regression coefficients, their standard errors, t-statistics, and p-values. Among the risk management practices, Capital Adequacy and Liquidity have statistically significant positive effects on ROA, with coefficients of 0.1428 (p-value = 0.0132) and 0.0360 (p-value = 0.0019), respectively. This suggests that a one-unit increase in Capital Adequacy and Liquidity is associated with a 0.1428 and 0.0360 unit increase in ROA, respectively, holding other variables constant. Asset Quality, with a coefficient of 0.1485 (p-value = 0.1743), positively affects ROA but not statistically. Better asset quality may increase profitability, but Capital Adequacy and Liquidity have a greater influence in this model. ROA is positively correlated with bank

size (0.4589) (p-value = 0.0015). Holding other factors equal, a one-unit increase in Bank Size increases ROA by 0.4589 units.

Table 4.4 Regression coefficient

	Coefficients	Standard Error	t Stat	P-value
Intercept	-5.94517	1.707222	-3.48237	0.001042
Asset_quality	0.148536	0.107776	1.3782	0.174278
Capital_adequacy	0.142758	0.055572	2.568893	0.013234
Liquidity	0.03598	0.010975	3.278538	0.001903
Bank_size	0.458897	0.136997	3.34968	0.001545

4.4 HYPOTHESIS RESULTS

This section presents the results of the hypothesis tests based on the multiple regression analysis conducted.

Hypothesis 1: There is a significant positive relationship between capital adequacy ratio and bank financial performance.

The hypothesis is supported. The regression analysis revealed a statistically significant positive relationship between capital adequacy and Return on Assets (ROA), with a coefficient of 0.1428 (p-value = 0.0132). This indicates that a one-unit increase in capital adequacy ratio is associated with a 0.1428 unit increase in ROA, holding other variables constant.

Hypothesis 2: Non-performing loan ratio has a significant negative impact on bank profitability.

The hypothesis is not supported. While the asset quality (measured by non-performing loan ratio) showed a positive relationship with ROA (coefficient = 0.1485), this relationship was not

statistically significant ($p\text{-value} = 0.1743$). This suggests that while better asset quality may contribute to higher profitability, its impact is not as pronounced as other factors in this model.

Hypothesis 3: Liquidity risk management has a significant positive effect on bank financial performance.

The hypothesis is supported. The regression analysis showed a statistically significant positive relationship between liquidity and ROA, with a coefficient of 0.0360 ($p\text{-value} = 0.0019$). This suggests that a one-unit increase in liquidity is associated with a 0.0360 unit increase in ROA, holding other variables constant.

Hypothesis 4: Bank size is significantly related to bank financial performance.

The hypothesis is supported. Bank size showed a statistically significant positive effect on ROA, with a coefficient of 0.4589 ($p\text{-value} = 0.0015$). This indicates that a one-unit increase in bank size is associated with a 0.4589 unit increase in ROA, holding other variables constant.

4.5 DISCUSSION OF FINDINGS

The financial health and soundness of commercial banks in Nigeria was one of the main foci of this research. With a coefficient of 0.1428 and a $p\text{-value}$ of 0.0132, capital sufficiency positively affected return on assets (ROA), according to the multiple regression analysis. According to these findings, financial institutions that are able to sustain losses while still making loans tend to do better overall. Previous research has reached the same conclusion. According to research by Adekunle et al. (2015), several commercial banks in Nigeria saw an improvement in their financial performance after they achieved capital adequacy. Chukwunulu et al. (2019) discovered that capital sufficiency determines bank profitability in Bahrain. Capital adequacy boosts financial performance because depositors and investors see well-capitalized banks as safer and more dependable, thereby lowering borrowing costs and increasing profitability. Some

studies found inconsistent or inconclusive results. Olamide et al. (2015) discovered a moderate negative relationship between Kenyan banks' capital adequacy and financial performance. The authors suggested that increasing capital might affect bank lending and profitability. This suggests that banking sector, regulatory framework, and environmental competition may impact capital adequacy and financial performance.

Another study purpose was to examine how asset quality influences Nigerian commercial banks' finances. A multiple regression research found a small but positive influence of asset quality on ROA. Better asset quality may enhance profitability, but other risk management methods like capital and liquidity may work better. This contradicts previous research. Fadun and Oye (2020) argue that Nigerian commercial banks' profitability is hurt by the ratio of non-performing loans to total loans. Islam and Rana (2017) found that Barbados' banks' highest risk was credit risk, which impacts asset quality and financial performance. The study's finding that asset quality does not affect financial success might be interpreted many ways. Credit risk management, such as loan assessment and monitoring, may have affected the chosen banks' profits. Second, diversifying loan portfolios across industries and geographies may have decreased credit risk. Third, banks may have had enough collateral and reserves to absorb loan losses without non-performing loans affecting their financial accounts.

The third goal of this research was to examine how liquidity impacts Nigerian commercial banks' financial performance. Multiple regression showed that liquidity increased ROA by 0.0360 ($p\text{-value} = 0.0019$). The report says higher liquidity banks perform better because they can meet short-term commitments while running their operations. This confirms previous studies. According to Rasul (2013), Nigerian commercial banks that handled liquidity risk with liquid assets and multiple financing sources were more lucrative. Like Serwadd (2018), liquidity management impacts Ghanaian banks' financial outcomes. Financial success and liquidity are linked for several reasons. First, banks with higher liquidity suffer financing shortages less

frequently, which may interrupt operations and raise expenses. Second, when liquidity is strong, banks may invest in high-yielding goods like government securities or interbank loans to increase earnings. Third, since investors and depositors trust high-liquidity banks, they may lower borrowing rates and boost market prices. Remember that excessive liquidity might hurt bank profits. Too many liquid assets might limit lending, interest revenue, and prospects. Banks must balance lucrative investments with liquidity to fulfil their duties.

A fourth study purpose was to evaluate Nigerian commercial banks' size and performance. Multiple regression analysis showed a substantial link between bank size and ROA (coefficient = 0.4589, p-value = 0.0015). This research says economies of scale and market dominance boost larger banks' finances. Past research supports this conclusion. Canton (2021) discovered that larger Nigerian commercial banks were more lucrative because they could save and diversify. Rottluff found that bigger banks had lower credit risk and more non-performing loans in Germany in 2018. Contradictory research exists. Ali and Dhiman (2019) observed that regulatory constraints and structural concerns hurt Pakistani commercial banks. Tega and Mojekwu (2019) found that market circumstances and management quality were more essential than bank size in Nigerian bank profitability.

Our analysis indicated a positive association between bank size and financial success, although other things may have contributed. First, economies of scale may cut operating costs and improve productivity in bigger organisations. Second, bigger banks' market dominance and bargaining strength may allow them to charge higher fees and interest rates and negotiate better terms with suppliers and consumers. Thirdly, bigger banks may diversify their activity and revenue, reducing risk and increasing shock tolerance. Corporate governance, risk management, and market circumstances affect financial performance, therefore larger banks may not fare better. Bank size may not affect

financial performance, but diseconomies of scale and complexity may increase as a bank grows.

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5 RESULTS AND SUGGESTIONS

5.1 SUMMARY OF RESEARCH RESULT

This research examined the influence of risk management techniques on the financial performance of Nigeria's top five commercial banks, from 2013 to 2023. The researchers used quantitative tools to analyse secondary data from these institutions' financial filings. The research looked at four major risk management indicators: capital adequacy, asset quality, liquidity, and bank size, and how they correlated with financial success as assessed by Return on Assets.

Capital Adequacy and Financial Performance: The analysis discovered a statistically significant positive correlation between capital adequacy and ROA, with a coefficient of 0.1428 (p-value = 0.0132). This finding lends credence to the concept that banks with greater capital holdings outperform their peers financially. The conclusion is consistent with prior studies, such as Adekunle et al. (2015), who discovered that capital sufficiency enhanced the financial performance of Nigeria's commercial banks. There are various reasons why capital adequacy and ROA have a good connection. First, depositors and investors regard well-capitalized banks as safer and more dependable, which may reduce borrowing costs and increase profitability. Second, larger capital levels provide as a cushion against unanticipated losses, enabling banks to continue operating and lending even during economic downturns. Third, banks with solid capital positions may have more freedom to seek lucrative possibilities and invest in new technology, therefore improving their financial performance.

Also Asset Quality and Financial Performance: Unlike predictions, the analysis discovered a positive but statistically insignificant association between asset quality (measured by the non-performing loan ratio) and ROA, with a coefficient of 0.1485 (p-value = 0.1743). This conclusion contradicts the idea that non-performing loans have a major negative influence on bank profitability. This conclusion contradicts some prior

research, such as Fadun and Oye (2020), who discovered a negative association between non-performing loans and profitability in Nigerian commercial banks.

Furthermore, Liquidity and Financial Performance: The research found a statistically significant positive association between liquidity and ROA (coefficient = 0.0360; p-value = 0.0019). This study backs up the idea that effective liquidity risk management improves bank financial performance. The findings are consistent with prior studies, such as Rasul (2013), who found that Nigerian commercial banks with improved liquidity management were more lucrative. However, excessive liquidity may have a detrimental influence on profitability since it reduces the cash available for higher-yielding investments. Banks must find a compromise between preserving adequate liquidity and maximising asset returns.

Finally Bank Size and Financial Performance: The research discovered a statistically significant positive correlation between bank size and ROA, with a coefficient of 0.4589 (p-value = 0.0015). This finding lends credence to the theory that bigger banks outperform smaller banks. The findings are consistent with prior research, such as Canton (2021), which found that bigger commercial banks in Nigeria were more profitable owing to economies of scale and diversification advantages.

5.3 CONCLUSION

Capital Adequacy: Coefficient = 0.1428 (p-value = 0.0132) this statistically significant positive coefficient indicates that a one-unit increase in the capital adequacy ratio is associated with a 0.1428 unit increase in ROA, holding other variables constant. this supports the hypothesis that stronger capital positions enhance bank profitability. Liquidity: Coefficient = 0.0360 (p-value = 0.0019) this statistically significant positive coefficient indicates that a one-unit increase in the liquidity ratio is associated with a 0.0360 unit increase in ROA, holding other variables constant this supports the importance of effective liquidity management in enhancing bank profitability. Bank Size:

Coefficient = 0.4589 (p-value = 0.0015) this statistically significant positive coefficient suggests that larger banks tend to be more profitable, with a one-unit increase in bank size associated with a 0.4589 unit increase in ROA, holding other variables constant.

This study analysed the relationship between risk management techniques and the bottom lines of Nigeria's five largest commercial banks from 2013 to 2023. The participating banks were Zenith Bank, UBA, FBN, Access Bank, and GT Bank. The analysis was quantitative in nature and relied on secondary data culled from the selected institutions' financial statements. Financial performance (ROA) and risk management practices (capital adequacy, asset quality, liquidity, and bank size) were investigated using descriptive and inferential statistical methods, such as multiple regression and correlation analysis, applied to the data.

The study's conclusions showed that return on assets (ROA) was positively impacted by capital adequacy and liquidity in statistically meaningful ways. This suggests that banks with stronger capital positions and greater levels of liquidity often do better financially. Additionally, there was a statistically significant positive correlation between bank size and ROA, suggesting that bigger banks are often more profitable due to economies of scale. Nonetheless, asset quality had a positive but statistically negligible influence on ROA, indicating that alternative risk management strategies may have a greater impact on bank profitability than credit risk management.

The research also discovered that during the course of the investigation, the chosen institutions' financial performance and risk management strategies varied. While UBA and FBN sometimes had lower capital adequacy ratios and liquidity levels, Zenith Bank and GT Bank typically maintained good capital adequacy ratios and liquidity situations. Among the chosen banks, Access Bank had the biggest asset base and the fastest growth rate; nevertheless, in recent years, it also saw some declines in profitability and asset

quality. The study's conclusions have significant ramifications for theory, practice, and policy in the banking industry in Nigeria.

5.4 RECOMMENDATIONS

Based on the study's findings and implications, commercial banks, regulators, and future research in Nigeria's banking sector are advised:

5.4.1 Commercial Banking Advice

- **Enhance risk management techniques:** Banks must constantly enhance their risk management methods, notably capital adequacy, liquidity, and credit risk management, in order to maintain profitability and resilience in the face of changing market circumstances and regulatory requirements.
- **Income Diversity:** Banks should diversify their revenue streams to include fee-based services and digital banking in order to reduce their reliance on interest income and mitigate the negative effect of interest rate and credit risk on profitability.
- **Improve customer service, risk management, and operational efficiency:** To mitigate risk, banks should invest in mobile banking, data analytics, and artificial intelligence (AI).

5.4.2 Recommendations for Regulators

- **Strengthen risk-based supervision:** Regulators should devote more resources and attention to institutions with greater risk profiles or systemic relevance in order to ensure effective monitoring and early intervention.
- **Increase financial inclusion and literacy:** Regulators should encourage banks to supply products and services to underserved sectors such as SMEs and low-income households.

- Encourage collaboration and information sharing: Regulators should encourage banks, fintech companies, and other financial sector actors to work together and exchange knowledge in order to create innovation, competitiveness, and best practices in risk management and financial performance.

5.4.3 Recommendations for Future Research

- Broaden the scope of research: To better comprehend the Nigerian financial industry, future studies should cover microfinance banks, insurance companies, and fintech ventures.
- Future studies should use qualitative case studies and survey research to better understand the risk management approaches and perspectives of bank managers and other stakeholders.
- Evaluate corporate governance: Future research should look at how CEO pay, board composition, and ownership structure influence Nigerian institutions' risk management and financial performance.
- Conduct comparative analyses: Future study should evaluate financial performance and risk management approaches across countries or regions. This will aid in determining the top Nigerian banking industry approaches and insights.

5.5 CONTRIBUTION TO KNOWLEDGE

This research adds to the growing body of literature on banking risk management and financial performance, particularly as it pertains to Nigeria. The first part of the study reviews the literature on risk management and the profitability of banks, both theoretical and empirical. Subsequently, it examines the key financial performance indicators and risk management approaches covered in earlier studies. Furthermore, the study provides data that shows how the top five commercial banks in Nigeria fared financially (in terms

of return on assets) from 2013 to 2023 in connection to a number of risk management metrics (such as capital adequacy, asset quality, liquidity, and bank size). After controlling for other potential factors affecting financial performance, this study used multiple regression analysis and a quantitative research strategy to determine how risk management tactics affected bank profitability. Thirdly, the report recommends that banks in Nigeria prioritise maintaining healthy capital levels and enough liquidity, highlighting the importance of these factors as key drivers of bank profitability in the country.

REFERENCES

- Adamgbo, S. M., Osegi, E. N., & Origbo, P. O. (2019). Information asymmetry and financial performance of listed firms: A deep insight from the Nigerian capital market. *Journal of Accounting and Financial Management*, 5(1), 1-16.
- Adekunle, O., Alalade, S. Y., Agbatogun, T., & Abimbola, C. (2015). Credit risk management and financial performance of selected commercial banks in Nigeria. *Journal of Economic & Financial Studies*, 3(01), 01-09.
- Akinleye, G. T., Olarewaju, O. M., & Fajuyagbe, B. S. (2019). Corporate governance and financial performance: Evidence from selected multinational firms in Nigeria. *Journal of Economics, Management and Trade*, 24(3), 1-10.
- Ali, S., & Dhiman, S. (2019). The impact of financial risks on firm's performance. *International Journal of Accounting and Financial Reporting*, 9(1), 121-142.
- Canton, A. (2021). The impact of credit risk on the performance of Nigerian commercial banks. *Journal of Financial Risk Management*, 10(2), 81-92.
- Chukwunulu, J. I., Ezeabasili, V. N., & Igbojika, M. N. (2019). Risk management and the performance of commercial banks in Nigeria. *International Journal of Academic Research in Business and Social Sciences*, 9(12), 175-191.
- Fadun, O. S. (2020). Risk management theory: A comprehensive empirical assessment. *Journal of Risk and Financial Management*, 13(6), 116.
- Fadun, O. S., & Oye, O. J. (2020). Operational risk management and financial performance: A case of commercial banks in Nigeria. *International Journal of Finance & Banking Studies*, 9(3), 01-12.
- Fagboy, O., Adeniran, A., & Adedeji, A. (2018). Impact of risk management practices on financial performance of selected deposit money banks in Nigeria. *International Journal of Accounting Research*, 6(2), 1-10.
- Greuning, H. V., & Bratanovic, S. B. (2009). Analyzing and managing banking risk: A framework for assessing corporate governance and financial risk. World Bank Publications.
- Hermalin B.E. (2013), "Trends in Corporate Governance", being a Scholarly Study, University of California.
- Hilb M. (2015), "New Corporate Governance: from good guidelines to great practice", Corporate Governance – An International review.
- Hörisch, J., Schaltegger, S., and Freeman, R. E. (2020). Integrating stakeholder theory and sustainability accounting: A conceptual synthesis. *Journal of Cleaner Production*, 275, 124097.
- Islam, M. A., & Rana, R. H. (2017). Risk management practices in Islamic bank: A case study of Islami Bank Bangladesh Limited. *IOSR Journal of Business and Management*, 19(1), 21-30.

- Kithinji, A. M. (2010). Credit risk management and profitability of commercial banks in Kenya. Unpublished Master's Thesis, University of Nairobi, Kenya.
- Kumar, V., & Yadav, A. K. (2013). Liquidity risk management in bank: A conceptual framework. *AIMA Journal of Management & Research*, 7(2/4), 2-12.
- Mogga, J. P., Mwambia, F., & Kithinji, M. M. (2018). Effect of credit risk management on the financial performance of commercial banks in Juba city, South Sudan. *International Academic Journal of Economics and Finance*, 3(2), 93-116.
- Nwanna, I. O., & Oguezue, F. C. (2019). Effect of credit risk management on profitability of deposit money banks in Nigeria. *International Journal of Economics, Commerce and Management*, 7(6), 213-233.
- Nwude, E. C., & Okeke, C. (2018). Impact of credit risk management on the performance of selected Nigerian banks. *International Journal of Economics and Financial Issues*, 8(2), 287-297.
- Ofosu-Hene, E. D., & Amoh, P. (2015). Risk management and performance of listed banks in Ghana. *European Journal of Business Science and Technology*, 2(2), 107-121.
- Olamide, O., Uwalomwa, U., & Ranti, U. O. (2015). The effect of risk management on bank's financial performance in Nigeria. *Journal of Accounting and Auditing*, 2015, 1-7.
- Olusanmi, O., Uwuigbe, U., & Uwuigbe, O. R. (2015). The effect of risk management on bank's financial performance in Nigeria. *Journal of Accounting and Auditing: Research & Practice*, 2015, 1-7.
- Paulinus, E. C., & Jones, A. S. (2017). Financial risk management and corporate performance of deposit money banks in Nigeria. *Archives of Business Research*, 5(12), 78-87.
- Rasul, L. (2013). Impact of liquidity on Islamic banks' profitability: Evidence from Bangladesh. *IOSR Journal of Business and Management*, 9(2), 23-34.
- Rottluff, N. (2018). The influence of credit risk on bank profitability in Germany. Unpublished Master's Thesis, Berlin School of Economics and Law, Germany.
- Serwadda, I. (2018). Impact of credit risk management systems on the financial performance of commercial banks in Uganda. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*, 66(6), 1627-1635.
- Soliman, A. M., & Adam, M. H. M. (2017). Liquidity risk management: Conventional versus Islamic banking system in Egypt. *Journal of Islamic Accounting and Business Research*, 8(1), 100-128.
- Tega, D. Y., & Mojekwu, J. N. (2019). Determinants of bank profitability in Nigeria: A panel evidence. *Advances in Social Sciences Research Journal*, 6(10), 524-544.
- Timothy, A. K., & Yiuman, T. (2016). Risk management and firm value: Recent theory and evidence. *International Journal of Accounting and Information Management*, 24(1), 56-81.

Vilk, O., Niyonsaba, J. P., & Nyaringa, C. N. (2018). Influence of credit risk management practices on financial performance: A comparative study between I&M Bank Rwanda and Bank of Kigali. *International Journal of Scientific and Research Publications*, 8(10), 382-403.



APPENDIX

TABLE 1 ROA OF THE BANKS

	UBA	ACCESS BANK	FBN	GTBANK	ZENITH
2013	2.458157	2.335792	2.571901	5.262179	3.961455
2014	2.096268	2.386629	2	5.45	3.4
2015	1.713785	2.027899	2.2	4.06	2.9
2016	2.149583	3.512502	0.1	5	2.7
2017	1.871999	3.039545	0.3	5.85	3
2018	1.411953	1.771327	1.1	6.2	3.4
2019	1.142955	2.415971	0.8	5.5	3.339357
2020	1.516986	1.111613	1.1	5.6	3.4
2021	1.092796	1.049699	1.3	4.6	3.1
2022	1.052363	0.001658	1.8	3.4	2.7
2023	1.816264	0.001354	1.6	2.8	2.219281

TABLE 2 Asset Quality

	UBA	ACCESS BANK	FBN	GTBANK	ZENITH
2013	1.9	4.04	2.8	2.629237	3.692
2014	1.2	2.35	2.9	3.58	3.1
2015	1.55	1.83	2.9	3.72	2.8
2016	1.7	1.5	0.57	3.21	2.18
2017	3.9	1.8	0.66	3.7	3.02
2018	4	4.28	1.8	7.7	4.7
2019	4.2	2.38	2.2	7.3	4.98
2020	2.4	6.1	2	6.5	4.3

2021	4.7	3.65	7.7	5.9	4.29
2022	3.6	2.03	6.1	6	4.19
2023	3.1	1.92	2.6	5.2	4.57129

TABLE 3 Capital adequacy

	UBA	ACCESS BANK	FBN	GTBANK	ZENITH
2013	23.5	22	21.5	20.1822	29.1
2014	20	17	13.6	20.9	28.3
2015	17	17	16.7	19.6	21.6
2016	20	17.31	17.1	20.3	21.79678
2017	20	19.54	17.8	19.79	21.99534
2018	20	19.5	17.7	25.7	27
2019	24	17.22	17.3	23.4	25
2020	21.5	15.39	19.5	24.1	22
2021	19.7	15.87	17	21.9	23
2022	24.9	20.93	17.4	24.1	21
2023	28.3	17.85	20	23.8	21.19131

TABLE 4 Liquidity Rate

	UBA	ACCESS BANK	FBN	GTBANK	ZENITH
2013	32.66202	10.098053	49.53	48.8	60.42
2014	27.29771	26.058957	42.5	50.31	40
2015	30.7707	19.764389	37.1	44.12	42.9
2016	26.65542	21.650186	51.9	42.21	51.4

2017	24.05551	22.039339	52.7	42.19	59.6
2018	24.81546	7.2155527	40.1	47.6	69.7
2019	28.26825	8.5252052	54.9	41.4	72
2020	28.58832	9.1303721	40.3	49.3	57.3
2021	27.58963	7.7352657	34.8	38.9	62.5
2022	25.95358	11.065143	33	38.3	61.9
2023	29.27534	11.532722	31.7	49.9	75

TABLE 5 BANK SIZE

	UBA	ACCESS BANK	FBN	GTBANK	ZENITH
2013	6.28494	9.24184	6.442585	9.2096	6.383524
2014	6.345847	9.181528	6.456623	9.27975	6.459195
2015	6.369004	9.24964	6.542934	9.327688	6.489613
2016	6.345636	9.273063	6.522754	9.357483	6.574069
2017	6.404763	9.371129	8.426353	9.417196	6.631823
2018	6.467138	9.544029	8.430754	9.451008	6.684276
2019	6.555252	9.598584	8.431885	9.433373	6.695083
2020	6.616632	9.799863	8.441186	9.490976	6.735205
2021	6.716657	9.882239	8.445507	9.608691	6.852784
2022	6.746243	9.985011	8.449829	9.570076	6.896101
2023	6.866939	10.09813	8.45415	9.601519	7.024103