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Effect of Credit Risk Management on the Financial Performance of Deposit Money Banks in Nigeria

Perpetua Ugwu & Ifeom Mary Okwo
Department of Accountancy,
Faculty of Management Science
Enugu State University of Science and Technology, Enugu

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Abstract: *This study examined the effect of credit risk management on the financial performance of Deposit Money Banks in Nigeria. Specifically, it analyzes the impact of Non-Performing Loans (NPL), Loan Loss Provision (LLP), and Capital Adequacy Ratio (CAR) on Return on Assets (ROA). The study used secondary data from 2014 to 2023 and applied Panel Ordinary Least Squares (OLS) multiple regression for analysis. The findings reveal that NPL has a negative and significant effect on ROA, with a coefficient of -0.031054, a t-statistic of -2.954064, and a p-value of 0.0044. This means that an increase in NPL reduces bank profitability. LLP has a positive and significant effect on ROA, with a coefficient of 0.006245, a t-statistic of 6.092986, and a p-value of 0.0000, showing that higher loan loss provisions improve financial performance. CAR also has a positive and significant effect on ROA, with a coefficient of 0.031904, a t-statistic of 2.189893, and a p-value of 0.0321, indicating that banks with higher capital adequacy perform better. The model explains 44.44% of the variation in ROA, as shown by the R^2 value of 0.444412. The F-statistic of 12.99828 and its p-value of 0.000000 confirm that the overall model is statistically significant. This study contributes to knowledge by examining these three credit risk factors together, filling gaps in past research. The findings provide valuable insights for bank managers, regulators, and policymakers on how to improve bank stability and profitability through better credit risk management.*

Keywords: credit risk management, non-performing loans, loan loss provision, capital adequacy ratio, return on assets, deposit money banks, financial performance.

INTRODUCTION

The banking sector plays a crucial role in the economic growth and development of any country by providing financial services that support businesses, individuals, and the government. Deposit Money Banks (DMBs) in Nigeria are responsible for mobilizing funds from depositors and channeling them into productive investments through loans and advances. However, lending activities come with risks, particularly credit risk, which arises when borrowers fail to repay their loans as agreed (Basel Committee on Banking Supervision, 2020). If banks do not manage credit risk properly, they may experience financial instability, reduced profitability, and even collapse (Gana et al., 2022). Therefore, credit risk management is essential for ensuring the financial performance and sustainability of banks in Nigeria.

Credit risk management refers to the strategies and practices banks use to reduce the likelihood of loan defaults and minimize losses (Gana et al., 2022). This involves assessing borrowers' creditworthiness, setting loan conditions, monitoring loan repayments, and making provisions for possible loan losses (Fadun & Silwimba, 2023). In Nigeria, where economic fluctuations, unstable exchange rates, and business uncertainties affect borrowers' ability to repay loans, credit risk management becomes even more critical. Banks must strike a balance between maximizing profits through lending and ensuring that credit risks are controlled to avoid financial distress (Cheng et al., 2020). The financial performance of banks, measured by Return on Assets (ROA), indicates how efficiently they utilize their assets to generate profits. When credit risk is poorly managed, non-performing loans increase, leading to higher loan loss provisions, reduced profitability, and a weakened financial position (Odebode et al., 2024).
One key indicator of credit risk is the Non-Performing Loans (NPL) ratio, which measures the proportion of loans that have not been repaid as scheduled (Odebode et al., 2024). A high NPL ratio indicates that a bank has a significant number of bad loans, which reduces interest income and requires banks to allocate funds for loan loss provisions (Çollakua & Aliu, 2021). As bad loans increase, banks may struggle to maintain liquidity and financial stability. Another important factor is the Loan Loss Provision (LLP), which represents the amount set aside to cover potential losses from defaulted loans. While LLP helps banks absorb credit losses, excessive provisioning reduces profits and limits the funds available for further lending and investments (Adegbite & Olayemi, 2020). Finally, the Capital Adequacy Ratio (CAR) reflects a bank's financial strength by comparing its capital to risk-weighted assets. A high CAR indicates that a bank has sufficient capital to absorb credit losses, while a low CAR suggests that a bank is vulnerable to financial shocks (CBN, 2022).

In Nigeria, the banking sector has faced several challenges related to credit risk, particularly during periods of economic downturn. Factors such as poor loan repayment culture, inadequate credit monitoring, and macroeconomic instability have led to high levels of non-performing loans in some banks (Çollakua & Aliu, 2021). The Central Bank of Nigeria (CBN) and other regulatory bodies have implemented policies to strengthen credit risk management, including stricter capital requirements and loan classification guidelines. However, despite these measures, some banks still struggle with credit risk-related problems that affect their financial performance (Okafor & Eze, 2023).

This study aims to examine the effect of credit risk management on the financial performance of Deposit Money Banks in Nigeria. By analyzing the impact of Non-Performing Loans, Loan Loss Provision, and Capital Adequacy Ratio on Return on Assets, the study will provide insights into how effectively Nigerian banks manage credit risk and how it influences their profitability. The findings will be useful for bank managers, regulators, and policymakers in making informed decisions to enhance the stability and profitability of the banking sector.

Statement of the Problem

Banks play an important role in the economy by providing loans to individuals, businesses, and the government. However, when banks give out loans, there is always a risk that some borrowers will not repay as expected. This risk is known as credit risk. If a bank has too many unpaid loans, it can struggle to make a profit and even face financial problems. In Nigeria, many Deposit Money Banks (DMBs) have been dealing with high levels of non-performing loans, which affects their ability to operate efficiently and remain profitable. When borrowers fail to repay their loans, banks must set aside money to cover the losses, reducing the funds available for other investments and business activities. This issue has raised concerns about how well banks in Nigeria are managing their credit risks and how it affects their financial performance.

One major problem is the increasing level of non-performing loans in Nigerian banks. When banks have a high number of loans that are not being repaid, it means they are losing money instead of making profits. This problem has been seen in several banks, especially during times of economic hardship when businesses struggle, and individuals face financial difficulties. Many banks have had to write off huge amounts of bad loans, which weakens their financial strength and limits their ability to give new loans to customers. Despite efforts by the Central Bank of Nigeria (CBN) to enforce strict lending guidelines, non-performing loans remain a serious issue, affecting the stability of the banking sector.
Another concern is that banks have to make provisions for bad loans, known as Loan Loss Provision (LLP). This means that banks must set aside a portion of their income to cover expected losses from unpaid loans. While this helps banks prepare for loan defaults, it also reduces their profits. If too much money is allocated to LLP, it can negatively impact the financial performance of banks, making them less attractive to investors and reducing their ability to expand their operations. Some banks struggle to find the right balance between managing credit risks and maintaining profitability, which affects their long-term growth and survival in the competitive banking industry.

Capital Adequacy Ratio (CAR) is another important factor in credit risk management. Banks need to have enough capital to absorb losses from bad loans and remain financially strong. However, some banks in Nigeria have low CAR, making them vulnerable to financial shocks. When a bank does not have enough capital, it may struggle to operate efficiently and may even risk collapse if loan defaults continue to rise. Regulators such as the CBN have set minimum capital requirements to ensure banks remain stable, but some banks still struggle to maintain the required levels, especially during economic downturns. This raises concerns about the overall financial health of Nigerian banks and their ability to manage credit risks effectively.

Given these issues, it is important to understand how credit risk management affects the financial performance of Deposit Money Banks in Nigeria. If banks do not properly manage their credit risks, they may continue to experience financial losses, reduced profitability, and possible failure. This study aims to examine how key credit risk factors; Non-Performing Loans (NPL), Loan Loss Provision (LLP), and Capital Adequacy Ratio (CAR) influence the financial performance of Nigerian banks.

Objectives of the Study
The main objective of this study is to examine the effect of credit risk management on the financial performance of Deposit Money Banks in Nigeria. The specific objectives are:

i. To assess the effect of Non-Performing Loans (NPL) on the Return on Assets (ROA) of Deposit Money Banks in Nigeria.
ii. To determine the effect of Loan Loss Provision (LLP) on the Return on Assets (ROA) of Deposit Money Banks in Nigeria.
iii. To examine the effect of Capital Adequacy Ratio (CAR) on the Return on Assets (ROA) of Deposit Money Banks in Nigeria.

REVIEW OF RELATED LITERATURE

Credit Risk Management
Credit risk management is the process that banks use to make sure they do not lose too much money when they give out loans (Musa & Oloruntoba, 2022). When a bank lends money, there is always a chance that some borrowers may not be able to repay their loans on time or at all. To reduce this risk, banks carefully check a borrower's ability to pay back before giving a loan, set aside money to cover possible losses (loan loss provision), and ensure they have enough capital to absorb any losses if borrowers fail to pay (capital adequacy ratio) (Cheng et al., 2020). Good credit risk management helps

banks stay profitable and financially stable while still lending money to businesses and individuals who need it.

Non-Performing Loans (NPL)

Non-Performing Loans (NPL) refer to loans on which the borrower has defaulted, and payments are overdue by 90 days or more (Çollakua & Aliu, 2021). NPLs are a critical indicator of the asset quality and financial health of banks. High levels of NPLs signify poor loan performance, reducing profitability and increasing the risk of insolvency (Çollakua & Aliu, 2021). Managing NPLs is essential for banks as it directly affects their capital and retained earnings. In Nigeria, the CBN has implemented strict guidelines to curb rising NPLs and enhance credit quality (CBN, 2017). The ability of banks to minimize NPLs can positively influence their overall financial performance, as NPLs drain resources needed for growth and capital reserves.

Loan Loss Provision

Loan Loss Provision (LLP) is the money that banks set aside to cover possible losses from loans that may not be repaid (Adegbite & Olayemi, 2020). Since some borrowers may fail to pay back their loans due to financial difficulties, banks create this provision as a safety measure. It helps banks prepare for bad loans without affecting their profits too much. If a loan turns bad, the bank uses the loan loss provision to absorb the loss instead of letting it negatively impact their financial performance (Adegbite & Olayemi, 2020). Properly managing loan loss provisions helps banks remain strong and continue lending money safely.

Capital Adequacy Ratio

The Capital Adequacy Ratio (CAR) is a measure used to assess a bank's capital strength, ensuring it has enough capital to cover potential losses and protect depositors' funds (Ezu, et al., 2023). According to the Basel Committee on Banking Supervision, CAR is defined as the ratio of a bank's capital to its risk-weighted assets (Basel Committee, 2010). It is calculated to ensure that banks can absorb a reasonable amount of loss before becoming insolvent, thereby enhancing financial stability. The higher the CAR, the greater the bank's ability to withstand financial stress and continue operations during periods of economic downturn (Ezu, et al., 2023). Regulatory bodies, such as the Central Bank of Nigeria (CBN), require banks to maintain a minimum CAR to safeguard the financial system and ensure public confidence.

Financial Performance

Financial performance refers to how well a bank is doing in terms of making profits and managing its resources efficiently. One of the common ways to measure financial performance is through Return on Assets (ROA) (Singh et al., 2024). ROA shows how much profit a bank makes from the total assets it owns, such as cash, loans, buildings, and equipment. It is calculated by dividing the bank's net profit by its total assets. A higher ROA means the bank is using its assets effectively to generate profit, while a lower ROA indicates that the bank may not be making good use of its resources (Singh et al., 2024). ROA is important because it helps investors, bank managers, and regulators understand how well a bank is performing compared to others (Said & Doll, 2021). Since banks rely on loans and investments to make money, ROA helps show whether they are making smart lending decisions. If a bank has too many bad loans or is not managing risks properly, its ROA will be low. On the other hand, a bank with strong risk management and good investment strategies will have a higher ROA, meaning it is more profitable and financially stable.

Theoretical Framework

The study was anchored on Asymmetric Information Theory. The Asymmetric Information Theory was developed by George Akerlof (1970), Michael Spence (1973), and Joseph Stiglitz (2001). This theory

explains that in financial transactions, one party often has more information than the other, leading to problems in decision-making. In the case of banks, borrowers usually know more about their financial situation than the bank does. Because of this, banks may find it difficult to identify which borrowers are likely to repay their loans and which ones are not. This creates credit risk, which banks must carefully manage to avoid financial losses (Akerlof, 1970). According to Stiglitz and Weiss (1981), banks that fail to address this information gap may suffer financial instability due to high default rates. In banking, asymmetric information can lead to two major problems: adverse selection and moral hazard. Adverse selection happens before a loan is given, where banks may unknowingly lend to risky borrowers who have a high chance of defaulting (Stiglitz & Weiss, 1981). Moral hazard occurs after a loan has been given, where borrowers may misuse the funds or fail to repay because they know the bank will bear the loss (Spence, 1973). To reduce these risks, banks use credit risk management strategies such as monitoring Non-Performing Loans (NPL), setting aside Loan Loss Provisions (LLP), and maintaining a strong Capital Adequacy Ratio (CAR) to absorb potential losses (Stiglitz & Weiss, 1981). Akerlof (1970) also noted that when financial institutions do not properly assess credit risks, they may experience significant financial losses, leading to reduced profitability.

The Asymmetric Information Theory highlights the importance of proper credit risk management in ensuring the financial performance of banks. When banks effectively manage credit risk, they can minimize loan defaults, increase profitability, and ensure financial stability (Akerlof, 1970). Stiglitz and Weiss (1981) argue that banks that conduct thorough credit assessments and monitor loan performance are more likely to remain profitable. This theory supports the need for banks to maintain adequate capital to cover unexpected losses and to develop better risk management practices that enhance financial performance (Spence, 1973).

Empirical Review

Munangi and Sibindi (2020) examined how credit risk influences the financial performance of 18 South African banks between 2008 and 2018. Using panel data methodologies, including pooled ordinary least squares (OLS), fixed effects, and random effects estimators, they investigated the relationship between credit risk and financial performance, measured by non-performing loans (NPLs), return on assets (ROA), and return on equity (ROE). Their findings indicated that credit risk adversely affects financial performance, as higher levels of non-performing loans reduce profitability. Afolabi et al. (2020) analyzed the effect of credit risk on the financial performance of Nigerian microfinance banks, using data from 2012 to 2018. They employed panel data and OLS regression on financial statements of six selected microfinance banks, finding that non-performing loans significantly reduced returns on assets. Furthermore, they observed a significant positive correlation between total loans and advances (as a control variable) and returns on assets.

Siddique et al. (2022) investigated how credit risk management and bank-specific factors affect the financial performance (FP) of commercial banks in South Asia. They considered non-performing loans (NPLs) and capital adequacy ratio (CAR) as indicators of credit risk, while using cost-efficiency ratio (CER), average lending rate (ALR), and liquidity ratio (LR) as bank-specific factors. Financial performance was gauged by ROE and ROA, analyzing data from 19 commercial banks (10 in Pakistan and 9 in India) from 2009 to 2018 with the generalized method of moments (GMM). Results indicated that NPLs, CER, and LR negatively impacted FP, while CAR and ALR showed a positive effect on FP. Amijaya and Alaika (2023) analyzed the effects of operational, liquidity, and credit risks on the financial performance (measured by ROA) of national Islamic commercial banks in Indonesia over the period from 2015 to 2021. Their study focused on seven national Islamic banking institutions, applying panel data regression to assess trends across the time series. The findings indicated that credit risk (measured by NPF) and operational risk (BOPO) had a significant negative impact on financial performance (ROA), while liquidity risk and inflation did not demonstrate a significant positive effect. Ezu et al.

(2023) studied capital adequacy's effect on Nigerian deposit money banks' performance from 2000 to 2020. Using OLS regression on secondary data, they found that indicators like total capital to risk-weighted assets and debt-to-equity ratio significantly impact return on assets (ROA), showing both positive and negative effects.

Ibianga and Enyi (2024) explored how risk management influences the financial performance of deposit money banks (DMBs) in Nigeria, drawing data from the banks' published financial statements. Using descriptive statistics and Ordinary Least Squares (OLS) regression through E-view-9 software, they found that loan loss provision did not significantly impact operating income. Onyegiri et al. (2024) investigated the impact of risk management strategies on the financial performance of deposit money banks in Nigeria. Adopting an ex post facto design, they utilized the Auto-Regressive Distributed Lag (ARDL) technique to analyze data spanning 29 years, from 1994 to 2022. Results showed that credit and liquidity risks did not significantly influence return on assets, whereas operational risk and capital adequacy risk had a significant effect on ROA. Olawale (2024) examined capital adequacy's role in Nigerian banks' stability within an unstable economy. Using OLS on data from 2005 to 2020, the study found that the capital adequacy ratio (CAR) and firm size positively affect stability, while non-performing loans (NPL) and loans and advances (LA) negatively impact it. Monetary policy and capital regulation were also influential. Ojiegbe (2024) analyzed capital adequacy's effect on profit before tax for Nigerian banks from 2004 to 2022. The study used an ARDL model on time-series data, finding that total qualifying capital negatively impacts profit before tax, while adjusted shareholders' funds positively and significantly influence profitability. Ajagbe, et al. (2024) explored the impact of financial risk management Nigerian commercial banks' financial performance from 2009 to 2022. Return on assets (ROA) is used to assess financial performance, and capital risk (CAR), liquidity risk (LQR), market risk (MKR), and operational risk (OPR) are used to proxy financial risks. Fixed effects panel data regression analysis is used in the study on a sample of 70 observations from five significant commercial banks in Nigeria. The findings demonstrate that none of the risk variables individually significantly affect ROA.

Gap in Empirical Review

After reviewing these past studies, it is clear that there are some important gaps that need to be filled. Many of the studies, like those by Munangi and Sibindi (2020) and Afolabi et al. (2020), focused mostly on how Non-Performing Loans (NPLs) affect financial performance but did not look deeply into Loan Loss Provision (LLP). Some other studies, like Siddique et al. (2022) and Ezu et al. (2023), talked about Capital Adequacy Ratio (CAR) but had mixed results, meaning there is still a need to study it further in Nigerian banks. Also, studies like Amijaya and Alaika (2023) and Ojiegbe (2024) examined different risks but did not analyze NPL, LLP, and CAR together in the Nigerian banking sector. More so, Olawale (2024) and Onyegiri et al. (2024) had different findings on whether credit risk management really affects financial performance, showing that there is no clear answer yet. This study fills these gaps by looking at NPL, LLP, and CAR together and their effect on financial performance (ROA) in Nigerian deposit money banks from 2014 to 2023. It also uses more recent data and a strong method to give a clearer and more complete understanding.

METHODOLOGY

This study adopted an *ex-post facto* research design to investigate the effect of credit risk management on the financial performance of deposit money banks in Nigeria, using past financial data that the researcher could not manipulate. The focus is on the Nigerian banking sector, with secondary data drawn from the annual financial statements of selected banks, as well as publications from the Central Bank of Nigeria (CBN), the Nigerian Deposit Insurance Corporation (NDIC), and other regulatory bulletins covering the period 2014–2023. The population comprises all 43 licensed deposit money banks

in Nigeria as of March 10, 2025, but the study narrowed its scope to seven banks with international authorization, namely Access Bank, Fidelity Bank, First City Monument Bank, First Bank, Guaranty Trust Bank, United Bank for Africa, and Zenith Bank, given their wide operations and strong asset base. Multiple regression analysis was employed to examine the effect of credit risk on financial performance, with diagnostic tests such as multicollinearity and heteroscedasticity applied to ensure the reliability and validity of the model.

Model Specification

The model for this study examined the credit risk management (independent variables) on financial performance (dependent variable). The general model is specified as follows:

$RE = \beta_0 + \beta_1 NPL + \beta_2 LLR + \beta_3 CAR + \beta_4 TA + c_{it} + \varepsilon_{it}$ [Equation (1)]

Where:

ROA = Return on Assets
NPL = Non-Performing Loans
LLR = Loan Loss Ratio
CAR = Capital Adequacy Ratio
TA = Total Assets (Control Variable)
β_0 = Coefficient (constant) to be estimated
$\beta_i - \beta_4$ = Parameters of the independent variables to be estimated
t = Current period

DATA ANALYSIS AND DISCUSSION

Table 4.2.1: Descriptive Statistics for the Variables

	ROA	NPLR	LLR	CAR	LNTA
Mean	0.018864	0.092485	-1.100076	1.291046	15.21473
Median	0.013664	0.044242	-1.493045	1.283300	15.23120
Maximum	0.056189	0.482107	1.821540	1.558349	16.82950
Minimum	0.000707	0.000481	-3.092283	1.047664	13.96353
Std. Dev.	0.012038	0.116061	1.157991	0.086450	0.704852
Skewness	1.243204	0.936272	0.990195	0.696626	-0.038105
Kurtosis	4.075093	2.850343	2.902367	2.765590	2.534163
Jarque-Bera	21.40264	6.743641	11.46680	5.110081	0.649869
Probability	0.000023	0.064788	0.003236	0.123886	0.722575
Sum	1.320446	6.473976	-77.00533	90.37322	1065.031
Sum Sq. Dev.	0.009998	0.929442	92.52503	0.515678	34.28034
Observations	70	70	70	70	70

Source: Eviews 10.0 Software, 2024

The normality of a dataset helps to understand whether the data follows a normal distribution, which is important for statistical analysis. In this study, the normality of the variables Return on Assets (ROA), Non-Performing Loan Ratio (NPLR), Loan Loss Ratio (LLR), Capital Adequacy Ratio (CAR), and Log of Total Assets (LNTA) is examined using skewness, kurtosis, and the Jarque-Bera test. Looking at skewness, which shows if the data is symmetrically distributed, ROA, NPLR, LLR, and CAR are positively skewed, meaning their values are more concentrated on the left with a longer right tail. Among them, ROA has the highest skewness (1.243204), indicating the most asymmetry. LNTA, however, has a negative skewness (-0.038105), which is very close to zero, meaning its distribution is nearly symmetric.

Kurtosis measures whether the data is peaked (leptokurtic) or flat (platykurtic). A normal distribution has a kurtosis of 3. ROA has a kurtosis of 4.075093, meaning it is leptokurtic (has a sharper peak and

longer tails). The other variables have kurtosis values close to 3, indicating they are near normal, except LNTA, which is platykurtic (2.534163), meaning it has a flatter distribution. The Jarque-Bera test checks whether the dataset follows a normal distribution. A probability value (p-value) below 0.05 means the variable is not normally distributed. ROA has a p-value of 0.000023, meaning it is not normally distributed. LLR also has a low p-value (0.003236), indicating non-normality. However, NPLR (0.064788), CAR (0.123886), and LNTA (0.722575) have p-values greater than 0.05, suggesting that they are normally distributed. ROA and LLR are not normally distributed, while NPLR, CAR, and LNTA follow a normal distribution.

Table 4.2.2: Panel Ordinary Least Square Multiple Regression Analysis (ROA)

Variable	Coefficient	Standard Error	t-Stat	p-Value
NPLR	-0.031054	0.010512	-2.954064	0.0044
LLR	0.006245	0.001025	6.092986	0.0000
CAR	0.031904	0.014569	2.189893	0.0321
LNTA	0.001333	0.001732	0.769608	0.4443
C	-0.032861	0.026015	-1.263163	0.2110
R^2 = 0.444412, Adjusted R^2 = 0.410222, F-Stat = 12.99828, Prob(F-stat) = 0.000000, DW = 0.54				

Source: Eviews 10.0 Output, 2025

The Panel Ordinary Least Squares (OLS) Multiple Regression Analysis examines how Non-Performing Loan Ratio (NPLR), Loan Loss Ratio (LLR), Capital Adequacy Ratio (CAR), and Log of Total Assets (LNTA) affect Return on Assets (ROA). The results show the impact of each independent variable on ROA, along with their statistical significance.

Looking at the coefficients, NPLR has a negative coefficient (-0.031054), meaning that an increase in NPLR reduces ROA. This is statistically significant because the p-value is 0.0044, which is less than 0.05. On the other hand, LLR has a positive coefficient (0.006245) and is highly significant (p-value = 0.0000), showing that an increase in LLR improves ROA. CAR also has a positive impact on ROA (0.031904) and is significant at a 5% level (p-value = 0.0321), meaning that well-capitalized banks tend to have better financial performance. However, LNTA has a very small and statistically insignificant effect on ROA (coefficient = 0.001333, p-value = 0.4443), suggesting that bank size does not significantly influence financial performance in this study.

The R-squared (R^2) value is 0.444412, meaning that about 44.44% of the changes in ROA are explained by the independent variables in the model. The Adjusted R^2 (0.410222) accounts for the number of predictors, showing a slightly lower explanatory power. The F-statistic (12.99828) is significant (p-value = 0.000000), confirming that the model is a good fit for explaining ROA. However, the Durbin-Watson (DW) value of 0.54 suggests the presence of positive autocorrelation, meaning that there could be some pattern in the residuals that needs further examination.
The findings suggest that credit risk (NPLR) negatively affects financial performance, while loan loss provisions (LLR) and capital adequacy (CAR) positively impact ROA. However, bank size (LNTA) does not have a significant effect.

Test of Hypotheses

Decision Rule: Following the guidelines outlined by Gujarati and Porter (2009), the decision rule entails accepting the alternative hypothesis (H1) under the following conditions: if the coefficient exhibits either a positive or negative sign, the absolute value of the t-statistic is greater than 2.0, and the

p-value associated with the t-statistic is less than 0.05. Otherwise, the null hypothesis (H0) is accepted, and H1 is rejected.

Presentation of Test Results

Table 4.2.2 Panel ordinary least square multiple regression analysis was used to test the above-stated hypothesis.

Hypothesis One

H_{01}: Non-Performing Loans (NPL) have no significant effect on the Return on Assets (ROA) of Deposit Money Banks in Nigeria.

H_{11}: Non-Performing Loans (NPL) have a significant effect on the Return on Assets (ROA) of Deposit Money Banks in Nigeria.

Decision: Since the p-value is less than 0.05, we reject the null hypothesis (H_{01}) and conclude that NPL has a significant negative effect on Return on Assets (ROA). This means that as the level of non-performing loans increases, the profitability of banks, measured by ROA, decreases.

Hypothesis Two

H_{02}: Loan Loss Provision (LLP) has no significant effect on the Return on Assets (ROA) of Deposit Money Banks in Nigeria.

H_{12}: Loan Loss Provision (LLP) has a significant effect on the Return on Assets (ROA) of Deposit Money Banks in Nigeria.

Decision: Since the p-value is less than 0.05, we reject the null hypothesis (H_{02}) and conclude that LLP has a significant positive effect on ROA. This suggests that when banks allocate more provisions for potential loan losses, their financial performance improves.

Hypothesis Three

H_{03}: Capital Adequacy Ratio (CAR) has no significant effect on the Return on Assets (ROA) of Deposit Money Banks in Nigeria.

H_{13}: Capital Adequacy Ratio (CAR) has a significant effect on the Return on Assets (ROA) of Deposit Money Banks in Nigeria.

Decision: Since the p-value is less than 0.05, we reject the null hypothesis (H_{03}) and conclude that CAR has a significant positive effect on ROA. This means that banks with higher capital adequacy tend to perform better financially.

DISCUSSION OF FINDINGS

Effect of Non-Performing Loan Ratio on Return on Assets

The finding that non-performing loans (NPLs) have a significant negative effect on Return on Assets (ROA) suggests that when banks have more bad loans (loans that borrowers fail to repay) it reduces their profitability. This happens because banks make money by lending, and when too many loans go unpaid, they lose interest income. At the same time, banks must set aside money to cover these losses, which further reduces their earnings. The high level of NPLs may also indicate poor credit risk management, leading to financial instability and reduced investor confidence in the bank.

This result aligns with previous studies. For example, Munangi and Sibindi (2020) found that credit risk, represented by NPLs, negatively affects profitability (ROA and ROE) in South African banks. Similarly, Afolabi et al. (2020) showed that NPLs significantly reduce ROA in Nigerian microfinance banks. Siddique et al. (2022) also reported that NPLs negatively impact financial performance in South

Asian commercial banks. These studies confirm that high NPL levels weaken a bank's ability to generate profits, making it crucial for banks to improve their loan management strategies.

Effect of Loan Loss Ratio on Return on Assets

The finding that Loan Loss Provision (LLP) has a significant positive effect on Return on Assets (ROA) means that when banks set aside more money to cover bad loans, their financial performance improves. This may seem unexpected, but it could be because higher provisions indicate that banks are actively managing credit risks and ensuring stability. When banks take proactive measures to cover potential loan defaults, they build investor confidence, reduce unexpected losses, and maintain strong financial health. This strategic approach helps them sustain profitability over time.

This result aligns with prior studies. For example, Siddique et al. (2022) found that certain risk management factors, including capital adequacy, positively affected financial performance. Similarly, Ezu et al. (2023) reported that risk-weighted assets had both positive and negative effects on ROA, indicating that proper capital management influences performance. However, Ibianga and Enyi (2024) found that Loan Loss Provision did not significantly impact operating income, suggesting that the effect of LLP on profitability may depend on other financial factors or bank-specific strategies.

Effect of Capital Adequacy Ratio on Return on Assets

The finding that Capital Adequacy Ratio (CAR) has a significant positive effect on Return on Assets (ROA) suggests that banks with strong capital reserves are more financially stable and profitable. When banks have enough capital, they can absorb unexpected losses, invest in profitable opportunities, and gain the confidence of investors and depositors. This financial strength allows banks to operate smoothly, expand their services, and generate higher returns on their assets. A well-capitalized bank also faces lower risks of financial distress, which can improve overall performance.

This result is supported by previous studies. For example, Siddique et al. (2022) found that CAR positively impacts financial performance in South Asian commercial banks. Similarly, Ezu et al. (2023) discovered that capital adequacy variables significantly affect ROA in Nigerian banks. Olawale (2024) also reported that CAR improves financial stability, which aligns with the current study's findings. However, some studies, such as Ojiegbe (2024), found mixed effects, indicating that other factors might influence how CAR impacts profitability. Overall, strong capital reserves remain a key driver of financial performance in banks.

CONCLUSION AND RECOMMENDATIONS

This study examined the effect of credit risk management on the financial performance of Deposit Money Banks in Nigeria. Specifically, it assessed the impact of Non-Performing Loans (NPL), Loan Loss Provision (LLP), and Capital Adequacy Ratio (CAR) on Return on Assets (ROA). The study successfully achieved its objectives and answered the research questions through statistical analysis using the Panel Ordinary Least Squares (OLS) regression model. The findings revealed that NPL has a negative and significant effect on ROA, indicating that an increase in non-performing loans reduces bank profitability. LLP showed a positive and significant effect on ROA, suggesting that proper loan loss provisioning enhances financial performance. CAR also had a positive and significant impact on ROA, meaning that banks with stronger capital adequacy tend to perform better financially. These findings confirm that credit risk management plays a crucial role in determining the financial performance of Deposit Money Banks in Nigeria.

The results of this study align with the Asymmetric Information Theory, which suggests that banks must manage credit risks effectively to avoid financial instability caused by information gaps between

lenders and borrowers. The negative effect of NPL on ROA supports the theory's argument that poor credit risk management leads to adverse selection and moral hazard, which weaken financial performance. Additionally, the positive impact of LLP and CAR on ROA further supports the theory by showing that adequate risk buffers and prudent loan provisioning improve bank stability and profitability. Overall, the study confirms that effective credit risk management is essential for improving the financial health of Deposit Money Banks in Nigeria.

Based on the study's findings, the following recommendations are made for each variable to help improve the financial performance of Deposit Money Banks (DMBs) in Nigeria.

i. **Non-Performing Loans (NPL):** Banks should adopt stricter loan appraisal procedures, enhance borrower creditworthiness assessments, and implement robust loan recovery mechanisms to minimize the incidence of non-performing loans. Additionally, continuous monitoring of loan portfolios and early warning systems should be employed to detect and mitigate credit risks before they escalate.
ii. **Loan Loss Provision (LLP):** Regulators should ensure that banks comply with prudential guidelines on provisioning to enhance financial stability. Additionally, banks should adopt forward-looking provisioning models that anticipate credit risks and proactively set aside reserves to cover potential losses, thereby ensuring financial sustainability.
iii. **Capital Adequacy Ratio (CAR):** Banks should focus on maintaining strong capital buffers to improve financial performance. This can be achieved by retaining earnings, attracting more equity investments, and adhering to regulatory capital requirements. Policymakers and financial regulators should ensure that banks maintain sufficient capital to absorb risks, promote financial stability, and enhance investor confidence in the banking sector.

This study made an important contribution to knowledge by addressing the gaps identified in previous research on credit risk management and financial performance in Nigerian banks. Unlike earlier studies that focused on only one or two risk factors, this study examines Non-Performing Loans, Loan Loss Provision, and Capital Adequacy Ratio together, providing a more comprehensive analysis of their effects on Return on Assets. The findings confirm that NPL has a negative effect on financial performance, LLP has a positive effect, and CAR significantly improves ROA. These insights help clarify the mixed results from past studies, such as those by Siddique et al. (2022) and Ezu et al. (2023), which reported inconsistent effects of CAR. Additionally, by using recent data from 2014 to 2023 and applying a robust statistical approach, this study provides updated evidence that can guide banks, regulators, and policymakers in improving credit risk management practices.

REFERENCES

Adegbite, E., & Olayemi, A. (2020). Loan loss provisions and profitability of Nigerian banks. *International Journal of Economics, Commerce and Management, 8*(7), 123–137.

Afolabi, T. S., Obamuyi, T. M., & Egbetunde, T. (2020). Credit risk and financial performance: Evidence from microfinance banks in Nigeria. *IOSR Journal of Economics and Finance*, *11*(1), 8-15.

Ajagbe, S. T., Jubril, T. S., & Kareem, I. A. (2024). Impact of financial risk management on performance of Nigerian commercial banks. *Journal of Management and Social Science Research, 5(1),* 37-55. DOI: http://doi.org/10.47524/jmssr.v5i1.38

Akerlof, G. A. (1970). The market for "lemons": Quality uncertainty and the market mechanism. *Quarterly Journal of Economics, 84*(3), 488–500.

Amijaya, R. N. F., & Alaika, R. (2023). Does financial risk matter for financial performance in Sharia banks. *Jurnal Ilmu Ekonomi Terapan*, *8*(1), 24-40.

Basel Committee on Banking Supervision. (2019). *Risk management in banking: Principles and guidelines*. Bank for International Settlements.

Basel Committee on Banking Supervision. (2020). *Principles for the management of credit risk*. Bank for International Settlements.

BIS (Bank for International Settlements). (2019). *Basel III: Finalising post-crisis reforms*.

Central Bank of Nigeria. (2022). *Guidelines on regulatory capital*. https://www.cbn.gov.ng/Out/2022/CCD/Guidelines_on_Regulatory_Capital.pdf

Cheng, L., Nsiah, T. K., Charles, O. & Ayisi, I. L. (2020). Credit risk, operational risk, liquidity risk on profitability. A study on South Africa commercial. *Revista Argentina de Clínica Psicológica, XXIX(5),* 5-18. https://doi.org/10.24205/03276716.2020.1002

Çollakua, B. & Aliu, M. (2021). Impact of non-performing loans on bank's profitability: Empirical evidence from commercial banks in Kosovo. Journal of Accounting, Finance and Auditing Studies, 7(3), 226-242.

Ezu, G. K., Nwanna, I. O., & Eke-Jeff, O. M. (2023). Effect of capital adequacy on the performance of deposit money banks in Nigeria. *International Journal of Novel Research in Marketing Management and Economics, 10(1),* 53-63. DOI: 10.5281/zenodo.7774547.

Fadun, O. S., & Silwimba, P. (2023). Does credit risk management impact the financial performance of commercial banks? *International Journal of Business Ecosystem & Strategy*, 5(2), 55–66.

Gana, U., Tijjani, M. S. & Abubakar, S. (2022). Effect of credit risk on financial performance of listed deposit money banks in Nigeria. *Gusau International Journal of Management and Social Science, 5(1),* 49-65.

Ibianga, A. G. & Enyi, H. C. (2024). Federally collected tax revenue and economic growth in Nigeria. *Journal of Economy, Tourism and Service*, *3*(2), 57-66. https://jets.innovascience.uz/index.php/jets/article/view/182

Munangi, E., & Sibindi, A. B. (2020). An empirical analysis of the impact of credit risk on the financial performance of South African banks. *Academy of Accounting and Financial Studies Journal*, *24*(3), 1-15.

Musa, I. & Oloruntoba, O. (2022). Credit risk management and financial performance of quoted deposit money banks in Nigeria. *Journal of Leadership, Accounting Development and Investigation Research, 6(1),* 186-196. \

Odebode, O. K., Ezi, C. T., & Ishioro, B. O. (2024). Effects of non-performing loans on return on equity of selected commercial banks in Nigeria. *World Journal of Advanced Research and Reviews*, *21*(1), 2599-2608.

Ojiegbe, J. N. (2024). Capital adequacy and profit before tax of deposit money banks in Nigeria. *Journal of Accounting and Financial Management, 10(4),* 107-119. DOI: 10.56201/jafm.v10.no4.2024.pg107.119.

Okafor, C., & Eze, O. (2023). Regulatory policies and credit risk management in Nigerian banks. *International Journal of Economics, Finance and Management Sciences, 11*(1), 15–25.

Olawale, A. (2024). Capital adequacy and financial stability: A study of Nigerian banks' resilience in a volatile economy. *GSC Advanced Research and Reviews*, *21*(1), 001-012.

Onyegiri, P. K., Ibenta, S. N., & Okaro, C. S. (2024). Risk management and financial performance of deposit money banks in Nigeria. *African Banking and Finance Review Journal*, *9*(9), 114-129.

Said, K., & Doll, Y. (2021). Strategies to improve financial profitability in the banking industry. *International Journal of Applied Management and Technology, 20,* 52–70. https://doi.org/10.5590/IJMAT.2021.20.1.03

Siddique, A., Khan, M. A., & Khan, Z. (2022). The effect of credit risk management and bank-specific factors on the financial performance of the South Asian commercial banks. *Asian Journal of Accounting Research, 7(2),* 182-194.

Singh, R., Gupta, C. P., & Chaudhary, P. (2024). Defining return on assets (ROA) in empirical corporate finance research: A critical review. *Empirical Economics Letters, 23*(Special Issue 1), 1–20. https://doi.org/10.5281/zenodo.10901886

Spence, M. (1973). Job market signaling. *Quarterly Journal of Economics, 87*(3), 355–374.

Stiglitz, J. E., & Weiss, A. (1981). Credit rationing in markets with imperfect information. *American Economic Review, 71*(3), 393–410.