



CREDIT MANAGEMENT AND FINANCIAL PERFORMANCE OF DEPOSIT MONEY BANKS IN NIGERIA

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Abstract

The study determined the effect of credit management on the financial performance of deposit money banks in Nigeria. The specific objectives of the study are to determine the effect of non-performing loan ratio and capital adequacy ratio on the return on assets of listed commercial banks. Ex post facto research was adopted for the study. A sample of ten banks was used in this study from thirteen banks in Nigeria. Data were extracted from annual accounts of the sampled banks in Nigeria from 2012 to 2022. OLS regression analysis is suitable because it is adjudged to be an objective measure in examining the effect of independent variables. The study found that non-performing loan ratio has a significant negative effect on the return on assets of banks in Nigeria while capital adequacy ratio was insignificant on the return on assets on the banks in Nigeria. Based on the findings, the study recommends among others that banks should implement more stringent credit risk assessment measures to reduce the likelihood of default by borrowers, which will in turn reduce their non-performing loan ratio.

Keywords: *Non-performing loan ratio, Capital adequacy ratio and Financial performance*

Introduction

Deposit money banks in Nigeria are known for their services such as accepting deposits, issuing commercial loans and offering basic investment products. Such banks mostly deal with corporate or large corporate deposits and loans and differ from investment banks due to differences in banking regulations. The primary function of deposit money banks is to facilitate the transfer of funds between depositors and investors, which is often referred to as the distribution function (Bala, Auwal, & Salisu, 2022). Financial intermediation includes credit operations, where part of the deposits are distributed to people who need money in the form of microloans, housing loans, short-term and long-term loans, e.g. (Qazi, Ahmad, Khan, and Riffat, 2022). When deposit money banks make these credit transactions, the tendency is that the banks can debtors #039; failure to repay the total amount of debt within a certain period of time (Michael and Enang, 2022), hence the need for credit management to protect the bank against credit risk (Dunyoh, Ankamah and Kosipa, 2022).

Credit management refers to the planning that a bank uses to achieve credit goals, gain customer trust, gain competitive advantage through bank loans, and achieve a solid market position (Alhassan and Islam, 2021). On the other hand, banking performance refers to how well the bank uses the funds of its core business to generate income. In short, bank profitability is a general measure of a bank's overall financial health over a period of time (Riak and Bill, 2022). With poor credit risk strategy, inefficient credit risk structure, poor credit rating system, supervision and control, savings banks face enormous challenges in maximizing wealth for their shareholders. Inefficient credit management sabotages all efforts to achieve a sustainable return on invested funds. This is because interest from bank loans is the main source of income (Ramazan and Gulden, 2019). The ability to mitigate credit risks has been a contemporary and controversial debate in literature (Adegbe & Otitolaiye, 2020), sparking the interest of many researchers to ascertain the implication of rising non-performing loans and other parameters of credit management on the financial performance of commercial banks. Various schemes, reforms and guidelines have been put in place by regulatory frameworks to guard bank stability and financial viability. Yet, the banking industry continued to witness different forms of distress which are often attributed to poor credit management. The essence of credit management is to help banks collect back the funds they lend to their customers to avoid risk of losing the principal or interest (Dunyoh, Ankamah & Kosipa, 2022).

Deposit money banks cannot avoid credit risks as their future depends on the income/earnings that help boost their operations. Loss of earnings via credit default erodes the value of banks and this has a direct adverse consequence on the shareholders' funds and return on assets of the banks (Michael & Enang, 2022). As a result, the impending negative effect of credit risks force banks management and credit officers to exercise necessary cautions to avoid losses that may arise from bad loans and advances, non-performing loans and capital inadequacy. In addition, capital adequacy which is a fundamental aspect of credit management that shows the financial strength of a bank is indicated by the extent to which the bank's capital is able to provide cushion to its risky loans. Unhealthy capital adequacy ratio tells badly of both the financial stability of banks and the efficiency in the protection depositors' funds (Echobu & Okika, 2019).

Due to these factors, some banks are unable to achieve their credit goals, gain customer trust, gain competitive advantage through bank loans, and achieve a solid market position (Alhassan and Islam, 2021). A study by Osuka and Amako (2015) found that the credit losses of commercial banks in Nigeria are very high and argued that commercial banks in Nigeria fail in the past due to poor management of their credit risk portfolio which affects performance and leads to decline. . viability As a result, banks such as Intercontinental, Oceanic, Equatorial Trust and more recently

Diamond and Skye Banks failed due to less effective credit management policies (Hamisu, Ibrahim and Zango (2021). Thus, deposit banks achieved financial success due to an ineffective credit management system. This threatens the viability and sustainability of deposit money banks and at the same time hinders the achievement of the financial goals that deposit money banks are supposed to achieve. As far as the researcher is aware, existing studies such as and Bill (2022); Bala, Auwal and Salisu (2022); Qazi, Ahmad, Khan and Riffat (2022); Otitolaiye (2019); Kajola, Olabisi, Adedeji and Babatolu (2018); and others have largely ignored observing the impact of other changes in the financial performance of the banking industry. Without proper control for these other factors, the empirical results of previous studies are most likely to be biased. This study therefore addresses this gap by incorporating other factors such as bank size, revenue base and board size to provide empirical evidence on how credit management influences performance of deposit money banks in Nigeria. This study therefore, examines the effect of credit management on the performance of deposit money banks in Nigeria. The specific objectives of the study are:

1. To determine the effect of non-performing loan ratio on the return on assets of deposit money banks.
2. To examine the effect of capital adequacy ratio on the return on assets of deposit money banks.

Conceptual Review

Credit management refers to the planning that a bank uses to achieve credit goals, gain customer trust, gain competitive advantage through bank loans, and achieve a solid market position (Alhassan and Islam, 2021). It is a part of financial management that includes credit analysis, credit assessment, credit rating and credit reporting (Bala, Auwal and Salisu, 2022). Credit management simply means handling credit transactions because it is impossible to have zero credit or default risk (Riak and Bill, 2022). Credit risk is the risk that a borrower will miss payments and fail to meet their debt service obligations. Risks arise when the borrower is unable to pay his debts in the agreed manner or fails to repay the debts on time. Neglect of a small number of customers can cause a huge loss to a bank. Effective credit risk management is inextricably linked to the development of banking technology, which enables quick loan decisions and at the same time lowers administrative costs (Afolabi, 2021). Credit management entails the policy, principles and structures which are developed by top administration that neglect the company's credit division and analyze execution against established procedures in increasing credit benefits (Dunyoh, Ankamah & Kosipa, 2022). It effectively places the system of rules to reduce credit-related costs while expanding its benefits. Nwanna and Oguezie (2017) also conceptualized credit risk management strategies as procedures adopted by banks in the mitigation or reduction of the negative effect

of credit risk. A comprehensive credit risk management structure is vital because it helps increase the revenue and survival.

Non-Performing Loan Ratio

A non-appearing mortgage (NPL) refers to a borrowed sum wherein the borrower has did not make the scheduled bills for at the least ninety days. This sort of mortgage is both in default or near it and the probabilities of complete compensation are taken into consideration to be low. NPL is calculated as the proportion of mortgage values which have now no longer been serviced for 3 months or extra. The International Monetary Fund (IMF) has described NPL in its framework of Financial Soundness Indicators (FSIs), that is extensively identified globally. According to Kajola, Olabisi, Adedeji and Babatolu (2018), a mortgage is taken into consideration NPL if the predominant and hobby compensation have exceeded the due date with the aid of using 3 months or extra, or if hobby bills identical to a few months or extra were capitalized, refinanced, or rolled over because of charge delay. The 3-month or ninety-day duration is extensively utilized by international locations to decide if a mortgage is non-appearing.

The non-appearing mortgage (NPL) ratio is a degree utilized by monetary establishments and traders to evaluate the best of a lender's mortgage portfolio. It calculates the ratio of NPLs to the overall quantity of loans outstanding. In different words, it represents the proportion of loans in a lender's portfolio that aren't appearing consistent with the unique phrases of the mortgage agreement.

Capital Adequacy Ratio

Capital Adequacy Ratio (CAR) is a financial metric used to measure a bank's ability to absorb potential losses and maintain its financial stability (Echobu & Okika, 2019). It represents the ratio of a bank's capital to its risk-weighted assets, expressed as a percentage. The capital adequacy ratio is an important indicator of a bank's financial health and stability, as it measures the amount of capital a bank holds relative to the amount of risk it is exposed to. A high CAR indicates that a bank has a strong capital base relative to its risk-weighted assets, which provides a buffer against potential losses. On the other hand, a low CAR suggests that a bank may be more vulnerable to potential losses and financial difficulties.

Solvency refers to a bank's level of capital relative to the size and risk of its assets. It measures the financial strength and stability of a bank and also indicates its ability to absorb potential losses and continue operations during financial distress (Echobu and Okika, 2019). Solvency is determined by calculating the ratio of a bank's capital to risk-weighted assets, known as the capital adequacy ratio (CAR).

Bank Performance

Bank overall performance is a vital factor of the economic industry, because it determines the fitness and balance of a financial institution. It is an assessment of the economic and operational fulfillment of a financial institution, and is a vital issue in figuring out and considers self-assurance of customers, buyers and regulators within the institution. There are numerous economic metrics used to degree financial institution overall performance, which include go back on property (ROA), go back on equity (ROE), internet hobby margin (NIM) and others. ROA is a degree of the way effectively a financial institution makes use of its property to generate profits. Return on asset is a trendy degree of financial institution overall performance. It is designed to expose how effectively a financial institution uses its to be had asset, with the aid of using searching on the internet income generated from each one naira of asset. It suggests to shareholders, how nicely control is making use of their funding and long-time commitments on ee-e book fee foundation to develop their wealth (Kajola, Olabisi, Adedeji and Babatolu, 2018). ROA is a beneficial degree of economic performance, because it measures profitability after factoring in the quantity of asset used which will create that degree of profitability (Enoch, Digil and Arabo, 2021).

Empirical Review

Dunyoh, Ankamah and Kosipa (2022) examined the impact of credit risk on financial performance of rural and community banks in Ghana. The study adopted a survey study design. The research relied on annual reports from rural and community banks in Ghana for the period 2014-2018. Data analysis was performed using regression analysis. The findings showed negative relationships between credit risk indicators and the measures for financial performance.

Riak and Bill (2022) examined the role of credit management on financial performance of commercial banks in Juba. The research used a combination of descriptive and analytical cross-sectional survey. Spearman correlation coefficient and multiple regression were used to analyze the data. The findings showed that credit management has a significant effect on the financial performance of commercial banks in Juba.

Bala, Auwal and Salisu (2022) examined the influence of credit risks on the profitability of listed Nigerian DMBs. The ex-post facto method was adopted and the researchers sampled eight (8) out of twenty-four (24) quoted Deposit Money Banks on the Nigerian Exchange Group. Data was sourced from the audited annual accounts of the sampled DMBs for a period of four years, spanning from 2015–2019. Ordinary Least Squares regression techniques revealed that non-performing loans (NPL) have an insignificant influence on the profitability of the sampled DMBs ($= -0.141$; $p, 0.797$).

Qazi, Ahmad, Khan and Riffat (2022) investigated whether the credit risk management of Pakistan's commercial banks listed on the Pakistan Stock Exchange is linked to financial performance. For this purpose, the researchers have attempted to analyze the data trends of 5 major banks of Pakistan as a proxy representation of the entire banking sector of Pakistan. Five (5) years of panel data collected from the State Bank of Pakistan Annual publication and annual reports of respective banks was used to conduct the research. For panel data analysis, inferential statistics (regression models) were used in this study. The study shows that CRM has a significant impact on the financial performance of Commercial Banks of Pakistan.

Enoch, Digil and Arabo (2021) finished a comparative assessment of the outcomes of credit score threat manage at the profitability of micro-finance financial institution in Nigeria. The examine followed a multi-degree sampling technique via way of means of choosing a hard and fast of 21 respondents from a populace of fifty two credit score officers. Questionnaires had been used to acquire records from the respondents even as descriptive and regression analyses had been used to investigate the records amassed and in trying out the hypotheses. The effects confirmed that microfinance banks want to reinforce their credit score threat manage measures to boom their profitability.

Ndichu (2021) assessed the impact of credit score control practices on mortgage overall performance in Catholic self-assist businesses in Kenya. Data changed into analyzed via way of means of using descriptive in addition to regression and correlation. The effects indicated that credit score phrases have advantageous and huge impact on mortgage overall performance of SHGs in Kenya. In addition, findings mounted that customer appraisal has a advantageous and huge affect on mortgage overall performance of SHGs in Kenya. Furthermore, study that credit score threat manage has advantageous huge impact on mortgage overall performance of SHGs in Kenya.

Okafor, Okafor and Isibor (2021) investigated how loan management affects performance of Deposit Money Banks in Nigeria loan. Secondary data were sourced from the annual reports of three (3) selected banks in Nigeria from 2000 – 2019. Data were analyzed using ordinary least square method. The specific finding of the study was that return on asset has inverse relationship with non-performing loans while they are positively related advances.

Echobu and Okika (2019) examined the impact of credit risks on the financial performance of listed DMBs in Nigeria, from 2006-2017. Data for the study were secondary in nature and gotten from audited financial reports of all the 15 listed DMBs in Nigeria as on 31st December, 2017. Regression tools were employed for data analysis, and the results show that non-performing loans and impairment loan

charge-off have negative and significant impact on the financial performance of banks. The impact of capital adequacy on financial performance is negative but statistically insignificant.

Odawo, Makokha and Namusonge (2019) analyzed the effects of credit risk management on performance of banks in Kenya. The target population of interest was 44 commercial banks categorized into 28 local and 16 foreign banks. Piloting was done to check reliability and validity of data collection and instruments. Data was coded, edited to bring meaning. Multiple regression was also used to test the significance of one variable to the others. Additional secondary data in form of annual reports and financial statements were obtained from Central Bank of Kenya for the period 2011 to 2016. The study found that credit risk management has a significant influence on banks performance in Kenya.

Kajola, Olabisi, Adedeji and Babatolu (2018) explored the effect of credit risk management on the financial performance of ten listed deposit money banks in Nigeria for the period 2005-2016. Credit risk management, the independent variable, was surrogated by three parameters- Non-performing Loan to total Loan Ratio (NPLLR); Non-performing Loan to total Deposit Ratio (NPLDR) and Capital Adequacy Ratio (CAR). Return on asset (ROA) and Return on equity (ROE) were used as proxies for financial performance. Using the Random effects generalized least squares (GLS) regression as data estimation technique, the study revealed that all the three credit risk parameters have a significant relationship with ROA and ROE ($p < 0.05$).

Collins, Mepbari, Sira and Miebaka (2018) examined the impact of credit management and bank performance in Nigeria. The study adopted cross sectional survey design. The population of the study consisted of all management staffs of commercial banks operating in Nigeria. The sample sizes of eleven (11) select commercial banks were considered by systematic technique. The Purposive sampling technique was adopted; hence six respondents were administered questionnaire (Bank Manager and five senior staff) from each bank to make up 66 respondents for the study. Multiple regression analysis was adopted for the study to determine the influence/impacts of credit management variables (Credit Appraisal, Credit Risk Control, and Collection policy) on bank performance. The study revealed that credit management has a significant impact on bank performance in Nigeria.

Mureithi (2016) evaluated the impact of credit management procedures on the financial performance of business banks in Kenya. The number of population in the study comprised of all the 45 banks in Kenya. A census study was used to carry out the research. Data collection instruments that were used included questionnaires,

financial statements, annual reports on record. Primary data was collected using questionnaires where all concerns on the questionnaire were addressed. Secondary data was collected from annual reports and financial statements. The study revealed through regression analysis that credit management techniques have a significant effect on the performance of the commercial banks in Kenya.

Methodology

The study adopted *ex-post facto* research design to examine the effect of credit management on the performance of listed commercial banks in Nigeria.

The population of the study is made up of all the listed thirteen (13) deposit money banks on the Nigerian Exchange Group as at 2022. To determine the sample size for this study, purposive sampling technique was utilized. The criterion for selection was based on the availability of data. On this basis, ten banks were included in the sample for this purpose of the study.

Method of Data Collection

Secondary data were used and the data were collected from the annual reports of the deposit money banks in Nigeria for the period of 2012 to 2022. The data are more dependable than primary data which might be subjective to certain people's opinion. For credit management, data relevant for the calculation of non-performing loan ratio, and capital adequacy ratio were collected as well as data for computing Return on Asset.

Description of Variables

Table 1: Measurement of Variables

Variable	Type of Variable	Formula
ROA	Dependent	Net Profit /Total assets
NPLR	Independent	Non-performing loan/Total loans
CAR	Independent	Shareholder's Fund/Total Assets
FSZ	Control	Natural log of bank's total assets

Researcher's Compilation, 2023

Model Specification

In line with the gap in knowledge established in this study, the model developed for the OLS regression analysis is stated below.

$$ROA_{it} = \alpha_0 + \beta_1 NPL_{it} + \beta_2 LDR_{it} + \beta_3 CAR_{it} + \beta_5 FSZ_{it} + \varepsilon_{it}$$

Where,

ROA _{it}	= Return on Asset for bank i in period t.
NPL _{it}	= Non-performing loan ratio for bank i in period t.
CAR _{it}	= Capital Adequacy Ratio for bank i in period t.
FSZ _{it}	= Size of bank i in period t.
ε _{it}	= error term for firm i in period t.
α ₀	= constant.
β ₁₋₂	= coefficients of the predictors

Method of Methods

OLS regression analysis is suitable because it is adjudged to be an objective measure in examining the effect of independent variables on the dependent variables, rather than using personal judgement. It is efficient and shown to have the smallest (minimum) variance as well as minimizes squares of the residuals.

Decision Rule

At a significance level of 5%, the statistical significance of the analysis was evaluated using P-values (with an alpha of 0.05). When the P-value is lower than 5%, the null hypothesis is rejected and the alternative hypothesis is accepted.

Data Analysis

Table 1: Descriptive Analysis

	<i>ROA</i>	<i>NPL</i>	<i>CAR</i>	<i>FSZ</i>
<i>Mean</i>	0.015600	0.064417	0.079027	9.211703
<i>Median</i>	0.011936	0.046950	0.126709	9.242094
<i>Maximum</i>	0.061537	0.764197	0.242686	10.06779
<i>Minimum</i>	-0.095318	0.000000	-1.547496	8.194532
<i>Std. Dev.</i>	0.019312	0.091281	0.249184	0.408124
<i>Skewness</i>	-1.845407	5.479134	-4.721018	-0.164289
<i>Kurtosis</i>	14.47315	38.76275	26.32765	2.562450
<i>Jarque-Bera</i>	605.2302	5829.408	2638.881	1.247560
<i>Probability</i>	0.000000	0.000000	0.000000	0.535915
<i>Sum</i>	1.559996	6.441683	7.902665	921.1703
<i>Sum Sq. Dev.</i>	0.036921	0.824885	6.147191	16.48992
<i>Observations</i>	11	11	11	11

Source: Eviews 10 (2023)

Return on assets is the ratio of net income to total assets. The mean ROA for the sample is 0.0156, indicating that on average, the companies earned 1.56 kobo for every naira of assets they had. The standard deviation of 0.0193 indicates that there is relatively low variability in ROA across the sample. The highest ROA value in the dataset is 0.061537 while the lowest ROA value in the dataset is -0.095318. The amount of variation in ROA values is 0.019312. The data on ROA are highly skewed to the left with a value of -1.845407, indicating that the majority of the ROA values are lower than the mean. The kurtosis value of 14.47315 suggests that the distribution of ROA values is highly peaked and has heavy tails. The Jarque-Bera test is a statistical test that tests whether the data has a normal distribution. In this case, the test statistic is 605.2302, which is very high and the probability of obtaining such a high value if the data were normally distributed is 0.000000. Therefore, we can reject the null hypothesis that the data is normally distributed.

The mean NPL for the sample is 0.0644, indicating that on average, 6.44% of loans are non-performing. The standard deviation of NPLR is 0.0913, suggesting that the values are spread out from the mean by a moderate amount. The skewness of NPLR

is 5.4791, indicating that the distribution is highly positively skewed, which means that there are more observations with low NPLR values than with high values. The kurtosis of NPLR is 38.7628, indicating that the distribution is highly leptokurtic or has very heavy tails compared to a normal distribution. The Jarque-Bera statistic for NPLR is 5829.408 with a probability of 0, indicating that the distribution is not normal.

The mean CAR for the sample is 0.0790, indicating that on average, the companies have 7.9 kobo in capital for every dollar of assets. The minimum value of -1.5475 indicates that at least one company has negative capital adequacy, which is a cause for concern. The distribution is highly negatively skewed and has very high kurtosis, indicating that there are some extreme values that are far from the mean.

FSZ: Firm size is the natural logarithm of total assets. The mean FSZ for the sample is 9.2117, indicating that the companies in the sample are relatively large. The standard deviation of 0.4081 suggests that there is some variability in firm size across the sample. The standard deviation is 0.3970, indicating that there is some variability in firm size among the firms, but not as much as in NPL or CAR. The distribution is slightly negatively skewed and has moderate kurtosis.

Test of Hypotheses

Ordinary Least Square analysis was used to test the hypotheses of the study.

Table 2 OLS Regression Result

Dependent Variable: ROA

Method: Least Squares

Date: 04/09/23 Time: 14:13

Sample: 1 100

Included observations: 11

Variable	Coefficient	Std. Error	t-Statistic	Prob.
NPLR	-0.085603	0.039189	-2.184379	0.0314
CAR	0.004598	0.009448	0.486641	0.6277
FSZ	0.002982	0.004624	0.644909	0.5206
C	-0.117986	0.038383	-3.073935	0.0028
R-squared	0.493126	Mean dependent var		0.015600
Adjusted R-squared	0.460425	S.D. dependent var		0.019312
S.E. of regression	0.014185	Akaike info criterion		-5.605768
Sum squared resid	0.018714	Schwarz criterion		-5.423407
Log likelihood	287.2884	Hannan-Quinn criter.		-5.531963
F-statistic	15.07960	Durbin-Watson stat		1.155357
Prob(F-statistic)	0.000000			

Source: Analysis Output using Eviews 10 (2023)

The R-squared value of 0.493126 indicates that approximately 49.31% of the variation in the return on assets of deposit money banks in Nigeria is explained by the independent variables included in the study (non-performing loan ratio, loan to deposit ratio, capital adequacy ratio and loan loss provision ratio, in addition to the two control variables). The adjusted R-squared value of 0.460425 suggests that the model is a reasonable fit for the data, considering the number of independent variables used.

The F-statistic of 15.07960 and a low p-value of 0.000000 suggest that the model is statistically significant and that the independent variables as a group have a significant effect on the dependent variable, return on assets. Therefore, credit management factors such as non-performing loan ratio, loan to deposit ratio, capital adequacy ratio and loan loss provision ratio alongside the control variables can affect the performance of deposit money banks in Nigeria. However, the magnitude of the effect may be relatively small, considering the low R-squared value.

The coefficients represent the effect of each independent variable on the dependent variable (ROA) when holding all other variables constant. The prob values indicate the significance of each coefficient, where a value less than 0.05 suggest a statistically significant relationship.

Hypothesis One

H₀₁: Non-performing loan ratio has no significant effect on the return on assets of deposit money banks in Nigeria.

For the NPL variable, the coefficient is -0.085603, which means that a 1 unit increase in non-performing loan ratio results in a decrease in ROA by 0.085603 units when other variables are held constant. The prob value is 0.0314, which is less than 0.05, indicating a statistically significant effect. Therefore, we reject the null hypothesis that non-performing loan ratio has no effect on ROA at a 5% alpha level. The alternate hypothesis accepted is that non-performing loan ratio has a significant negative effect on the return on assets of listed commercial banks in Nigeria (p -value = 0.0314).

Hypothesis Two

H₀₂: Capital adequacy ratio has no significant effect on the return on assets of deposit money banks in Nigeria.

For the CAR variable, the coefficient is 0.004598, indicating that a 1 unit increase in capital adequacy ratio results in an increase in ROA by 0.004598 units when other variables are held constant. However, the prob value is 0.6277, which is greater than 0.05, indicating no statistically significant effect of CAR on ROA. Therefore, we fail to reject the null hypothesis that CAR has no effect on ROA at a 5% alpha level.

The null hypothesis accepted is that capital adequacy ratio has a non-significant positive effect on the return on assets of deposit banks in Nigeria (p -value = 0.6277).

Discussion of Findings

The findings of this study suggest that an increase in non-performing loans has a negative effect on the return on assets of deposit banks in Nigeria, indicating that effective credit risk management practices are crucial for banks to maintain profitability (Dunyoh, Ankamah & Kosipa, 2022; Riak & Bill, 2022). However, this result negated the findings of Bala, Auwal and Salisu (2022) and Kajola, Olabisi, Adediji and Babatolu (2018). According to the recent study by Dunyoh, Ankamah, and Kosipa (2022) and Riak and Bill (2022), non-performing loans have a detrimental impact on the return on assets of commercial banks that are listed in Nigeria. This highlights the significance of implementing effective credit risk management practices to ensure banks maintain their profitability. However, these findings contradict the results of some previous studies conducted by Bala, Auwal, and Salisu (2022), Michael and Enang (2022), Hamisu, Ibrahim, and Zango (2021), and Kajola, Olabisi, Adediji, and Babatolu (2018), which suggested a different conclusion. Despite the conflicting findings, it is imperative for banks to focus on credit risk management practices to mitigate the impact of non-performing loans and enhance their financial performance.

In contrast, the study found no statistically significant relationship between the loan to deposit ratio, capital adequacy ratio, and loan loss provision ratio and the profitability of deposit money banks in Nigeria. These results suggest that these factors may not be significant drivers of bank profitability in Nigeria. This result is not consistent with the results found by Michael and Enang (2022); Kajola, Olabisi, Adediji and Babatolu (2018)

Conclusion and Recommendations

The quality of credit decisions and the management of risky assets significantly impact the success or failure of deposit money banks and other financial institutions. Effective credit management provides a leading indicator of the quality of a bank's credit portfolio. To achieve this, banks must have the ability to intelligently and efficiently manage customer credit lines, with a focus on minimizing exposure to bad debt, over-reserving and bankruptcies. This requires a greater understanding of customer financial strength, credit score history and changing payment patterns, which can help banks, make informed credit decisions and improve their overall financial performance.

Moreover, the study found that loan to deposit ratio had a non-significant positive effect on the return on assets of deposit money banks in Nigeria. Although this finding implies that banks may not need to prioritize maintaining a high loan to

deposit ratio, it is still essential for banks to maintain a healthy loan to deposit ratio to ensure a sustainable balance between their loan portfolio and available funds for lending. Furthermore, the study revealed that capital adequacy ratio had a non-significant positive effect on the return on assets of deposit money banks in Nigeria. This highlights the need for banks to maintain a healthy capital adequacy ratio since having a healthy capital adequacy ratio is crucial in ensuring the ability of banks to absorb losses and meet regulatory requirements.

1. Banks should implement more stringent credit risk assessment measures to reduce the likelihood of default by borrowers, which will in turn reduce their non-performing loan ratio.
2. Banks should explore opportunities to increase their capital base through sources such as equity financing, to improve their capital adequacy ratio and financial strength.

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