Credit Risk Management and Performance of Selected Deposit Money Banks in Nigeria

Abstract

This study examined credit management and performance of selected Deposit Money Banks in Nigeria. The time series data was sourced from the audited financial statements of the banks. Non-performing Loans (NPLs), Loan-to-Deposit Ratio (LDR), Liquidity Ratio (LQR), and Capital Adequacy Ratio (CAR) were used as a proxy of credit management. In contrast, return on equity (ROE) was used to measure performance. The stationarity of the time series was tested using the LLC, IPS, and ADF PP tests. Using the panel regression of fixed effects and random effects techniques, the study found that credit management had a positive and significant effect on MDB performance in MDBs under the reviewed period. From the indicators, the liquidity ratio (LQR) was found to have a positive but insignificant effect on ROE. The findings also revealed that NPL has a positive but insignificant effect on ROE. The study further found that the capital adequacy ratio (CAR) negatively but significantly affected ROE. Loan to deposit ratio (LDR) was found to have a negative and insignificant effect on ROE. The study recommended, among other things, that to maintain a stable liquidity ratio and meet financial obligations, banks should endeavor to operate within the CBN policy minimum requirement of liquidity ratio at 30%, which can be achieved by shortening asset maturity, lengthening liability maturities, and possibly issuing more equity.The findings of this study indicate that effective credit management policies are essential for improving the performance of DMBs in Nigeria. Policymakers should focus on enforcing liquidity and capital adequacy regulations to ensure banks can withstand credit risks without compromising profitability. Also, maintaining non-performing loans within regulatory thresholds is crucial for sustaining asset quality and financial stability in the banking sector.

Keywords: Credit Management, Non-Performing Loans, Liquidity Ratio, Capital Adequacy Ratio, Return on Equity

JEL Code: G21, G32, G33, G28, G10

1. Introduction

The banking industry is a cornerstone of economic development, playing a vital role in facilitating commerce, providing liquidity, and supporting efficient payment systems (Simatele, 2021). In Nigeria, as in other nations, the sector's strategic importance is evident in mobilizing funds from surplus to deficit units through lending activities. The timely repayment of loans and advances is crucial, enabling banks to extend additional credit to existing and future customers (Ogujiuba*et al.*, 2004).

However, the lending function exposes banks to significant credit risk, which refers to the possibility of losing outstanding loans due to borrowers' default. Poor credit risk management can erode a bank's profitability and lead to distress, highlighting the need for effective credit management practices(Naili & Lahrichi, 2022; Caouette et al., 2011). As credit creation is the primary income-generating activity for banks, the importance of managing credit risk cannot be overstated. Despite various regulatory measures and interventions by the Central Bank of Nigeria (CBN) and other authorities, challenges such as non-performing loans (NPLs) continue to pose significant risks to the stability and performance of Nigerian banks.

This study aims to explore the effects of credit management on the financial performance of Deposit Money Banks (DMBs) in Nigeria, focusing on key variables such as liquidity ratio, non-performing loans, capital adequacy ratio, and loan-to-deposit ratio. Understanding these relationships is crucial for improving Nigeria's banking sector's resilience and sustainability.

Various factors, including credit management practices, liquidity, and monetary policy, have significantly influenced the financial performance of deposit money banks in Nigeria.Research indicates that effective credit management is critical for enhancing financial performance, as it helps mitigate risks associated with credit defaults and non-performing loans. Studies have

shown that banks with robust credit management frameworks experience better financial outcomes. For instance, a study evaluating the financial performance of Nigerian banks found that credit risk had a non-significant negative correlation with financial performance, while liquidity risk exhibited a significant negative correlation with financial performance (Abiodun & Alade, 2020). This suggests that banks need to enhance their credit management capabilities to improve performance, specifically by implementing practical credit assessment and monitoring strategies (Olusegun & Odetayo, 2021). Furthermore, the capital adequacy ratio and provisions for loan losses have been found to positively impact bank performance. In contrast, non-performing loans negatively affect financial performance, indicating the need for banks to maintain a diversified and well-balanced credit portfolio (Olusegun & Odetayo, 2021; Yakubu, 2018).

The persistent issue of non-performing loans has been a significant concern for the Nigerian banking industry. Despite various reforms and guidelines implemented by regulatory bodies, the sector faces liquidity challenges due to poor credit management. In 2009, non-performing loans across the industry reached alarming levels, prompting interventions such as establishing a private credit bureau and the consolidation program by the CBN. Although these measures initially led to a reduction in NPLs, the problem has resurfaced, with the non-performing loan ratio rising again in subsequent years.

The resurgence of NPLs highlights the ongoing struggle to manage credit risk within the banking sector effectively. Poor credit management not only hampers a bank's ability to lend but also undermines the overall financial stability of the institution, affecting both current and potential customers. The conflicting empirical evidence on the impact of credit management practices on the financial performance of banks further complicates the issue, with some

studies indicating a negative relationship between credit management and performance. In contrast, others suggest positive or insignificant effects.

This study seeks to address these inconsistencies by providing an analysis of the relationship between credit management and the financial performance of selected Deposit Money Banks in Nigeria. By focusing on key indicators such as liquidity ratio, non-performing loans ratio, capital adequacy ratio, and loan-to-deposit ratio, the study aims to offer insights that could inform better credit management practices and contribute to the stability and profitability of the Nigerian banking sector.

Given the importance of effective credit management as a strategy for preventing bank distress, the findings of this study are expected to be of significant value to bank management, regulators, policymakers, and other stakeholders in the financial industry. The study's outcomes could also provide a foundation for further research on enhancing the banking sector's resilience in the face of credit-related challenges.

The primary problem this study addresses is the persistent challenge of non-performing loans (NPLs) in Nigeria's Deposit Money Banks (DMBs), despite numerous regulatory interventions. While DMBs rely heavily on loans created from customer deposits as a critical revenue source, poor credit management has led to a significant increase in NPLs, jeopardising these banks' financial stability and performance. Despite efforts by the Central Bank of Nigeria (CBN) to mitigate this issue through various programs and reforms, including establishing private credit bureaus and revising safety guidelines, the NPL ratio has continued to rise, leading to liquidity problems and reduced lending capacity. The empirical literature presents conflicting results regarding the impact of credit management on the

financial performance of DMBs, further complicating the issue and necessitating a more in-depth investigation. This study is thus motivated by the need to address these gaps and provide clearer insights into the relationship between credit management and bank performance in Nigeria.The study will focus on three quoted deposit money banks (DMBs) namely Zenith Bank Plc., First Bank Plc, and, Guarantee Trust Bank Plc.

2. Literature Review

A discussion of some theoretical literature in information asymmetry and liquidity management in the financial markets is reviewed. Asymmetric Information theory presents possibilities to banks since their information states differ from borrowers' states; there can be moral hazard and adverse selection problems. This theory, as described by Akerlof's Lemon Problem, makes people understand that information asymmetry affects the market dealing through credit markets, whereby lenders face problems in evaluating the risks of borrowers and thus may incur high costs in interest rates or result in refusal of financing. Anticipated Income Theory asserts that the banking system can control or regulate liquidity by scheduling loan re-payments to correspond with the borrowers' anticipated income, thus ensuring the supply of short-term and long-term credit facilities. Also, the Shift-ability theory suggests that certain assets are easily negotiable or can be sold to provide liquidity and, thus, the need for a large amount of cash.

Non-performing loans (NPLs) have burdened banks, particularly in emerging markets like Nigeria. Rehman et al. (2024) assessed that controlling corruption is one of the significant factors that influence NPL, and poor control of corruption leads to high NPLs in South Asian

countries. This is true in Nigeria as various regulatory efforts have failed to tame the acts that lead to NPLs, even with efforts made by CBN.

Banks' operating results, therefore, can be seen as correlated with credit risk management approaches. Similarly, Ekinci and Poyraz (2019) establish a negative association between credit risk and financial performance within Turkey's banking sector study; however, they highlighted the need for adequate credit risk management to ensure profitability among the banks. Likewise, Sadaa et al. (2023) studied the antecedent of credit risk in Iraqi banks and concluded that poor governance practices increase the financial craze associated with credit risk. The above facts make an extreme case for effective credit risk mitigation that would help protect the emerging market banks' balance sheets.

Financial innovation is also a double-edged sword in the banking sector. Ashiru et al. (2023) demonstrated that electronic banking services significantly enhance banks' profitability in Sub-Saharan Africa, including Nigeria. However, deploying such technologies must be carefully managed to avoid increasing exposure to credit risk and other financial vulnerabilities. In contrast, Osabutey and Jackson (2024) highlighted the challenges of financial inclusion initiatives in Africa, particularly the limitations of mobile money systems in reaching the poorest segments of the population. These challenges suggest that financial innovation can drive performance but must be aligned with broader economic and social objectives.

The conflicting evidence on the impact of credit management practices on bank performance in Nigeria further complicates the issue. For example, Fajinmi et al. (2023) found that effective portfolio management significantly influences Nigerian Deposit Money Banks

(DMBs) profitability and asset quality. However, there remains to be a gap in understanding the specific mechanisms through which credit management practices affect bank performance.

Credit Management and Performance of Selected Deposit Money Banks in Nigeria refers to the practices and processes employed by Deposit Money Banks (DMBs) in Nigeria to effectively manage credit risk, ensuring financial stability and enhancing profitability. Given the rising concern over non-performing loans (NPLs), credit management has become a pivotal factor influencing the overall performance of banks in the country (Lawal & Iloh, 2012 and Oladele & Samuel, 2015). The establishment of a Credit Bureau by the Central Bank of Nigeria (CBN) has been instrumental in addressing credit management challenges by providing essential credit information and promoting responsible lending practices (Adegbite & Babajide, 2018).The significance of credit management in Nigerian banks is underscored by research indicating a strong correlation between effective credit risk management and improved financial performance (Oladele & Samuel, 2015).Banks that implement robust credit management frameworks are likely to experience fewer loan defaults and enhanced profitability, particularly in regions characterized by fluctuating economic conditions and regulatory compliance pressures (Lawal & Iloh, 2012 and; Oladele & Samuel, 2015). The effective monitoring of borrower exposure, consistent classification of loans, and adherence to regulatory guidelines are essential components that contribute to sound credit management practices. However, the credit management landscape in Nigeria has challenges. The prevalence of NPLs, insufficient credit information, and economic factors such as inflation and GDP fluctuations complicate the ability of banks to conduct thorough risk assessments (Adegbite & Babajide, 2018 & CBN). Also, regulatory compliance issues and inadequate training in credit risk management further

exacerbate these challenges, hindering the performance of DMBs (Olusegun & Odetayo, 2021 and Ali & Ogbonna, 2021).

To address these concerns, it is vital for banks to enhance their credit management strategies through improved data sharing, continuous staff training, and the implementation of advanced risk management frameworks (Ali & Ogbonna, 2021 and CBN, n.d.). The evolving regulatory framework, coupled with the efforts of the CBN to foster a stable banking environment, plays a significant role in shaping the future of credit management within the sector (Usman, 2022 and Johnson & Ogedengbe, 2022).

From recent studies, Okere et al. (2024) examined the impact of the capital adequacy ratio and loan loss provisions on the return on assets of Guaranty Trust Bank, United Bank for Africa, and Zenith Bank from 2007 to 2022, utilizing panel least squares regression and Granger causality tests. The findings indicated that the capital adequacy ratio adversely impacts the return on assets of deposit money banks in Nigeria, while loan loss provisions also have a detrimental influence on the return on assets of these banks. Their study concludes that a decrease in the capital adequacy ratio and loan loss provisions has a beneficial effect on the return on assets of deposit money institutions. Also, Scott et al. (2024) examine the importance of credit risk mitigation strategies in banks and other financial institutions. The authors showed the credit risk mitigation strategies include diversification of credit portfolios, collateralization of loans, credit derivatives, and credit insurance. Landry et al. (2024) examined the impact of credit risk management on the financial profitability of the Congo's commercial banks. The authors used commercial banks in the Democratic Republic of the Congo as a study population and, as a sample, the four largest banks from 2009 to 2016. Generalized Least Squares regression follows the fixed effects model specification on a panel. Findings from their analysis show that the

capital adequacy ratio has statistically significant effect on commercial banks performance in Democratic Republic of Congo, also, NPLR shows a statistically significant effect on commercial banks, but they found a negative relationship between NPLR and ROE and ROA; while a positive relationship exist between the CAR and ROE and ROA.

3.Method of Study

In achieving the objectives of this study,the study adopted a Longitudinal ex-post facto research design as past data in the form of secondary data were utilized. Thus, data were sourced from the audited annual financial statements of listed banks covering for fourteen years and were analyzedguided by the availability of relevant data used for the study, three banks, namely Zenith Bank Plc., Guarantee Trust Bank Plc., and First Bank Plc., were selected. The justification for the selection of the banks analyzed is that the sampled banks represent a significant share of Nigeria's banking assets, deposits, and customer base. These banks also have reliable audited financial statements over the study period and possess a diversity of operations, which is critical for consistency in our analysis. While the findings may not be fully generalizable to all banks, they provide valuable insights into credit risk management and performance patterns in large quoted Nigerian banks. In other words, this selection is based on their substantial market share and data availability, representing a significant portion of the Nigerian banking sector, thereby ensuring reliable insights into credit management practices.

Furthermore, studies by Okere et al. (2024) and Ohonba & Osarere (2024) indicate the importance of focusing on large banks when analyzing credit risk management in Nigeria, as they are often at the forefront of adopting regulatory and operational changes that influence the entire industry. Tsomocos et al. (2007) also illustrate that larger banks set benchmarks in credit risk management due to their impact on financial stability.The study modeled the effect of credit management indicators and the performance of DMBs as follows:

$$ROE_t = \beta_0 + \beta_1 NPL_{it} + \beta_2 LDR_{it} + \beta_3 LQR_{it} + \beta_4 CAR_{it} + e_{it} \quad (1)$$

Where:

ROE: Return on Equity

NPL: Non-performing Loan ratio of *ith*bank at year t.

LDR: Loan-to-Deposit Ratioof *ith*bank at year t

LQR: Liquidity Ratioof *ith*bank at year t

CAR: Capital Adequacy ratio of *ith*bank at year t.

e = Stochastic or disturbance term.

t = Time dimension of the Variables

β_0 = Constant or Intercept.

β_{1-4} = Coefficients to be estimated or the Coefficients of slope parameters.

To determine which of the results of the two regressions (Fixed effects and Random effects models) is appropriate for purpose of valid inference, the Hausman's(1978) specification test was conducted, as presented in table 4.4

4.1Results and Discussion

Table 4.1 Descriptive Statistics

	ROE	NPL	LQR	LDR	CAR
Mean	18.24405	3.410000	59.76190	41.46000	31.29048
Median	18.85000	3.060000	57.35000	46.75000	26.50000
Maximum	33.98000	12.26000	90.60000	85.74000	58.70000

Minimum	2.000000	0.300000	40.07000	2.570000	16.64000
Std. Dev.	8.578177	2.410908	11.97030	25.22088	11.71258
Skewness	-0.161347	1.408299	0.433557	-0.239452	0.786762
Kurtosis	2.122977	5.588460	2.531649	1.721849	2.396639
Jarque-Bera	1.528275	25.60835	1.699668	3.260281	4.970039
Probability	0.465735	0.000003	0.427486	0.195902	0.083324

Table 4.1 shows the descriptive statistics for the five variables under study. From the table, the average value of DMB performance (ROE) is 18.24%, indicating that during the period under review (2007-2020), the total returns equity generated by the three sampled DMBs in Nigeria is 18.24%. Judging from the global industry standard of 10%-12%, the studied banks are profitable and efficient in generating profits for their shareholders.

The non-performing loan (NPL) ratio among the selected Nigeria DMBs ranges between 3.41% and 12.26% (Max) and 0.3% (Mini), respectively, of which is within the statutory threshold of 5%. The above indicates a moderate level of volatility in the banks' ability to manage credit risk.

Further, the minimum and maximum Capital Adequacy Ratio (CAR) of the banks stood at 58.7% (max)and 16.64% (mini) of, which are higher than the CBN and Basel II requirements regulatory threshold of 10%. Thus, the banks have a solid capital base and have complied with the CBN directives and Basel II requirements.

The liquidity ratio (LQR) of the sampled DMBs varied from 90.6% (max) to 40.0% (mini) with a mean of 59.76% and a standard deviation of 11.9%. The above implies that the banks have been able to compile with the CBN minimum liquidity requirement of 30%. Thus, the banks hold enough cash to meet their short-term obligations quickly.

The bank's loan-to-deposit ratio (LDR) mean is 41.46%, which is below the CBN threshold of 65%. The above, however, implies that MDBs have moderate liquidity to cover any unforeseen fund requirements.

Table 4.2: Panel Unit Root Test: Summary

Variables	**LLC**	**IPS**	**ADF Fisher**	**PP Fisher**	Breitung	**Remark**
ROE	-1.90463**	-2.09856**	14.7236**	13.0361**	-3.04242**	*I*(0)
NPL	-8.83158**	-4.61379	28.2074**	19.6640**	-2.51067**	*I*(1)
LDR	-5.31240**	-2.78868**	17.9844**	22.3041**	-1.84213**	*I*(1)
LQR	-4.29358**	-3.54621**	22.3376**	41.4542**	-2.51050**	*I*(1)
CAR	-4.85015**	-3.20196**	20.7943**	34.9930**	-2.12665**	*I*(1)

Table 4.2 indicates the stationarity test of the panel data using five different tests to test the null hypothesis (Ho) of the presence of unit root. At the level, the ROE test indicates the absence of unit root since all the variables were significant. However, NPL, LDR, LQR, & and CAR were stationary at the first difference in all the tests such as LLC, IPS, ADF, PP, Breitung

Table 4.3 presents the regression result based on Fixed effects and Random effects techniques. The two approaches demonstrated an agreement of Liquidity Ratio (LQR) having a positive but insignificant effect on the performance of MDBs (ROE). Also, the two approaches (Fixed and Random effects) agree with Capital Adequacy Ratio (CAR) having a negative but significant effect on the performance of MDBs under the period under review. Further, the Loan-to-Deposit Ratio (LDR) in both approaches negatively impacted ROE.However, it was insignificant under random and significant under fixed effects. Finally, non-performing loans (NPLs) were found to

have a negative and insignificant effect (Fixed effect) and a positive and insignificant effect on ROE under random effect.

Table 4.3: Regression Results

FixedeffectsRandomeffects		
	ROE	**ROE**
Constant	40.2721738.64348	
	(0.0001)	(0.0001)
NPL	-0.0846530.497742	
	(0.8667) (0.3019)	
LDR	-0.183136-0.096593	
	(0.0401) (0.1353)	
LQR	0.0162830.026330	
(0.8955) (0.8053)		
CAR	-0.483207-0.628482	
(0.0208) (0.0001)		
R^2	0.5865130.565186	
Adjusted R^2	0.5156300.518180	
F-statistic8.27433912.02349		
Durbin-Watson stat1.6241861.571713		
Prob(F-statistic)0.0000130.000002		
No of observations	42	42

Hausman's Specification

To determine which of the results of the two regressions (Fixed effects and Random effects models) is appropriate for purpose of valid inference, the Hausman's(1978) specification test was conducted as presented in table 4.4. According to Gujarati and Porter (2009), when the *p*-value is significant at 5% level, the Fixed effects model is more appropriate for valid inferences to be made. However, if the *p*-value is not significant at 5%, then the random effects model is

suitable for inference. The results of the *p*-values for the model, as shown in Table 4.4, are more significant than 5%. Hence, the regression results were discussed using the outcome of the Random effects model.

Table 4.4: Hausman's Specification Result

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random	4.284746	4	0.3688

Source: Authors' computation

The empirical result in table 4.3 provides that the coefficient of determination (R-squared) of 0.565 (56.5%) and Adjusted R-squared of 0.51 (51%) indicating that 56.5% variation in the dependent variable (ROE) is explained by the explanatory and control variables (NPL, LDR, LQR, and CAR). The Durbin-Watson value of 1.5 (which falls within the acceptable region) clearly shows the absence of auto-serial correlation in the successive values of the parameters. F-statistic is 12.02 and this is significant at 5% level (p = 0.000). The above result affirms that the model as a whole is jointly fit. Hence, the explanatory values are significantly linked with the dependent variable (ROE). Thus, credit management has a significant effect on the performance of MDBs.

The Random effect of the regression result in Table 4.3 indicates a positive (*0.026330*) but insignificant (p-value *0.8053*) effect of liquidity ratio on ROE. They are implying that increase in liquidity management will increase ROE by 0.026%. The result implies that the studied banks may have met the liquidity regulatory threshold of 30% and hold moderate cash to meet their short-term obligations, but the above is yet to impact ROE during the period under

considerationsignificantly. The positive coefficient of LQR is in line with the priori expectation because theoretically, adequate liquidity is an essential requirement for the profitability of any bank.The study hence accepted the null hypothesis and conclude that liquidity ratio has no significant effect on ROE. The above findings contradicts the findings of Mayowaand Ehi(2019) that found liquidity ratio (LQR) having negative but significant impact on performance (ROA) of MDBs.

Non-Performing Loan (NPL) has a positive and insignificant effect on Performance (ROE) as indicated by a coefficient of 0.497742 and statistically insignificant (p = 0.30) at 5%. This implies that increase in Non-Performing Loan is highly detrimental to DMBs Performance (ROE). The positive effect of NPL is contrary to the priori expectation of NPL having negative effect on ROE. That is high non-performing loan has depreciated shareholders returns. Hence, the study accepts the null hypothesis and conclude that Non-performing loans (NPLs) ratio does not have any significant effect on ROE. The study's finding is in line with the findingsof Mayowa and Ehi (2019) who established positive relationship between NPLR andROA. However, the finding contradicts the findings of Uwuigbe, Uwuigbe, &Oyewo (2015) that found ratio of non-performing loans and bad debt having significant negative effect on the performance of banks in Nigeria. Also, the finding did not support that of Ifeanyi (2017) that found non-performing loan having negative and insignificant effect on profitability.

Capital adequacy ratio (CAR)has a negative but significant effect on Performance (ROE). This is shown by a regression coefficient of -0.62848 and statisticalsignificant P-vale of 0.0001at 5%. Implying that increase in CAR will decrease performance (ROE) by -0.62%. The result also implies operating within and above the CBN and Basel II threshold of 10% have a significant negative effect on ROE of the studied banks. The negativeeffect of CAR on ROE is theoretically

inconsistent with a priori expectation, and this implies that availability of adequate capital to DMBs is not the only factor that determines an improved performance of banks over time. The study's finding did support the findings of Mayowa and Ehi (2019) whose study revealed that credit risk management measured by Capital Adequacy Ratio (CAR) has a significant impact on the profitability measured by Return on Assets (ROA) of commercial banks' in Nigeria. However, the finding is inconsistent with the findings of Kajola, Olabisi, Adedeji, &Babatolu (2018) that found CAR, NPL having positive andinsignificant effect on ROE & ROA.

Loan to deposit ratio (LDR) was found to have negativeandinsignificant effect on Performance (ROE). This is indicated by a regression coefficient of -0.0965. The effect is statistically insignificant at p= 0.13 which is greater than 0.05. That is 1% increase in LDR will result to a decrease in ROE by -0.09%. This means that the LDR of the studied banks is below the CBN threshold of 65% and this have impacted negatively on their performance (ROE). Meaning also that the banks may not have the needed liquidity to cover any unforeseen fund requirements. Thenegative and insignificant effect ofLDRon ROE is theoretically inconsistent with a priori expectation that LDR will have positive impact on ROE. The study's finding is similar to that of Otitolaiye (2019) that found Loan-to-Deposit Ratio (LDR) having positive and insignificant effect on capital employed (ROCE) and Dividend per Share (DPRS).

5.1Concluding Remark

The empirical analysis established that credit management had a positive and significant relationship with the performance of the MDBs within the period under consideration. In particular, liquidity ratio (LQR) and non-performing loans (NPLs) were observed to be

positively related but insignificant to ROE. From the findings, it can be said that the capital adequacy ratio (CAR) has a negative significant relationship with Performance (ROE); on the other hand, the Loan to deposit ratio (LDR) has a negative insignificant relationship with Performance (ROE).

Credit management is one of the most crucial deposits money banks make, affecting their operations to achieve the set financial goals and future growth. Flawed risks are inherent in banks, including credit risk, in an effort to optimize their economic returns. Hence, if proper credit management is not employed, the winds of credit risk may negatively affect banks' business continuation. To this, the study established the effect that credit management has on the performance of MDBs in Nigeria using Non-Performing Loan (NPL), Loan-to-Deposit Ratio (LDR), Liquidity Ratio (LQR), Capital Adequacy Ratio (CAR) as an independent variable on Return on Equity (ROE).

As depicted in the statistical analysis, the conclusion derived from this study is that LDR negatively and insignificantly affects ROE. Further, it is concluded that there is a significant and positive relationship between NPL and ROE. They also find that H1b holds that CAR has a negative and significant impact on ROE. However, LDR has a negative and zero-order considerable effect on ROE. Regarding the above findings, this study concluded that credit management positively impacts the performance of MDBs during the period under analysis.

Based on the study's outcome, the following recommendations are proffered:

a) To maintain a stable liquidity ratio and meet financial obligations, banks should endeavor to operate within the CBN policy minimum requirement of 30%. This can be achieved by shortening asset maturity, lengthening liability maturities, and possibly issuing more equity.

b) Since non-performing loans (NPLs) hurt banks' cash flows significantly, they should maintain regulatory requirements at 5% in strengthening the asset quality of banks via taking possession of assets pledged as collateral, selling the non-performing loans at significant discounts, and maintaining good lending policy through client profiling.

c) To reduce the risk of insolvency, especially in meeting loan demands, banks should maintain the regulatory requirement of 65% of LDR. This can be achieved by offering higher deposit rate to encourage more deposit from customers and utilizing various online channels (POS, ATM, Mobile Apps) in growing customer deposits.

d) Banks should have adequate capital to withstand the adverse effects of credit risk by operating above the minimum regulatory framework of 10%

e) Further studies could examine credit management practices in various microfinance institutions (MFIs), given their unique financial structures and their critical role in financial inclusion. MFIs face similar credit risk challenges but operate under different regulatory frameworks and client dynamics compared to (larger)deposit money banks. Examining how credit management affects their financial stability and growth could yield valuable insights for smaller-scale financial institutions aiming to improve risk management and sustainability. This direction would broaden the applicability of this research and provide a more articulative view of credit management's impact across different types of financial institutions.

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