

Studying the Link(s) between Credit Risk Management and Profitability of DMBS in Nigeria

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ABSTRACT

The study examined the effect of credit risk management on profitability of deposit money banks (DMBs) in Nigeria. Specifically, it analyzed the impact of non-performing loans (NPL), loan loss provision (LLP), and capital adequacy (CAR) on return on assets (ROA) of sampled firms. Panel least squares, specifically, Prais-Winsten panel corrected standard errors (PCSEs) regression were used to analyze the collated data. The Prais-Winsten regression correlated panels corrected standard errors (PCSEs) examined how $npltta$, $llpta$, $cartta$, and $lnta$ affect roa . In respect to the coefficients, $npltta$ has a coefficient (-9.5123). It implies that a unit increase in $npltta$ reduces roa by 9.512 units. Further, this exertion is statistically strong given the p -value = 0.028 < 5% and t -statistic = -2.20. Conversely, $llpta$ exerted a positive albeit nonsignificant influence on roa (coefficient = 7.72, p -value = 0.501 > 5% and t -statistic = 0.67). This implies that a unit increase in $llpta$ increases roa by 7.72 units. $cartta$ exerted a statistically very strong negative impact on roa (coefficient = -0.568, p -value = 0.005 < 5% and t -statistic = -2.83). This is most likely to emanate from an increased dividend / payout ratio. The adjusted R^2 value is 0.6323 i.e. 63.23% of the changes in the regressand are explained by the model predictors including the control variable. The F -statistic, a measure of the combined influence of all explanatory variables, is 40.36 and the corresponding p -value = 0.000. That is, the overall effect is very strong statistically. *Nonetheless, original value of Durbin-Watson statistic $DW = 0.5338$ signals the presence of autocorrelation and other diagnostic issues hitherto corrected using PCSEs and transformed DW.* Findings suggest that non-performing loans ($npltta$), capital adequacy ($cartta$) and natural logarithm of total assets ($lnta$) negatively and strongly influence profitability (roa) while only loan loss provision ($llpta$) exerted a nonsignificant positive impact on profitability. Further, DMBs adopting comprehensive procedures for appraising, monitoring and recovering loans, assessing borrowers' creditworthiness is deemed necessary if not imperative to minimize NPL, LLP.

Key words: Credit risk, return on assets, DMBs.

1. INTRODUCTION

1.1 Background of the Study

The banking industry exerts a key role in economic development of most countries via rendering financial and other services that support individuals, firms and government. DMBS especially in Nigeria are tasked with mobilizing funds from depositors and channeling them into productive investments through loans and advances. Since borrowing vis-a-vis lending activities come with risks, particularly credit / economic risks, arising when customers / borrowers fail to repay their loans as agreed (Basel Committee on Banking Supervision, 2020); banks must manage these risks properly to circumvent financial instability, reduced profitability, and even bankruptcy / liquidation (Gana et al., 2022).

Credit risk management (CRM) denotes those strategies / practices used by banks to curb or significantly minimize bad debts / loan defaults and losses (Gana et al., 2022). It connotes evaluating a borrower's creditworthiness, monitoring loan repayments, setting loan conditions, and creating provisions for doubtful debts / loan losses (Fadun & Silwimba, 2023). In Nigeria, where unstable exchange rates, economic fluctuations and business uncertainties affect borrowers' capacity for loan repayment, CRM becomes very imperative. Banks should exert a tradeoff between maximizing profits via lending and curb financial distress through proper management of CRM (Cheng et al., 2020). The financial performance of DMBS, proxied by ROA, indicates how effective and efficient they utilize their assets to generate profits. When credit risk is mismanaged, non-performing loans inadvertently increase. This leads to reduced profitability, higher loan loss provisions cum weakened financial position (Odebode et al., 2024).

Main focus of CRM is non-performing loans (NPL) ratio, which accentuates the proportion of loans that have not been repaid according to loan agreement (Odebode et al., 2024). A high NPL ratio indicates a significant number of bad debts / loans. This reduces interest income in that banks must allocate funds from profits for loan loss provisions (Çollakua & Aliu, 2021). The later, loan loss provision (LLP) signifies the amount set aside to cover likely losses from defaulted loans. LLP reduces profits limiting funds accessible to lenders and investors (Adegbite & Olayemi, 2020). Further, the capital adequacy ratio (CAR) mirrors a bank's liquidity status / financial strength by comparing its capital to risk-weighted assets. A high CAR indicates DMBS has sufficient capital to absorb credit losses, while a low CAR suggests vulnerability to financial shocks (CBN, 2022).

The listed banks in Nigeria, otherwise DMBS, has faced sever challenges not unrelated to credit risk, mostly during periods of economic downturn. Factors such as inadequate credit monitoring, poor loan repayment culture, and macroeconomic instability did lead to high levels of non-performing loans in some banks (Çollakua & Aliu, 2021). The Central Bank of Nigeria (CBN) and other regulatory bodies did implement policies / moral persuasions to strengthen credit risk management, including stricter capital requirements and loan classification guidelines. Nonetheless, some DMBS are still grappling with credit risk-related issues that influence their financial performance (Okafor & Eze, 2023).

1.2 Problem Statement

DMBS do contribute significantly to the economy by providing loans to firms, individuals and governments. However, when banks give out loans, there emanates risks some borrowers repudiating

the loan covenants. It is, otherwise, known as credit risk. Excessive unpaid loans results in DMBS struggling to make profits and may face bankruptcy / illiquidity. In Nigeria, many DMBS have dealt with high levels of NPLs, which affects their ability to operate effectively and efficiently. Banks do maintain reserves / provisions to cover the losses inherent from unpaid loans. This reduces funds available for other investments / business activities. DMBS experiencing high frequency of unpaid loans connotes losing money instead of making profits. This problem has been seen in several banks, especially during times of economic recession wherein firms and individuals are threatened with bankruptcy / illiquidity. Many banks do have to write off huge amounts from profits due to bad loans, which weakens their financial strength and limits their ability to give new loans to customers. Despite efforts by CBN, SEC, and CAC to enforce strict lending guidelines and other regulations, NPLs remain a serious issue, influencing the stability of the sector.

Next, DMBS must make provisions for bad and doubtful debts / loans, called loan loss provision. This implies that DMBS must reserve portions of profits to cover anticipated losses from accrued / unpaid loans. While it assists DMBS prepare for loan defaults, it reduces profitability. Too much money being allocated to LLP negatively impacts on profitability of banks. This makes them less attractive to investors hindering their capacity for expansion of operations. Some DMBS do struggle to find the right tradeoff between credit risks and profitability levels, which affects both their short and long-term growth and survival in the competitive industry.

Capital adequacy ratio (CAR) is another vital factor worth considering as regards CRM. Banks need to have enough capital to absorb losses from bad loans and remain financially strong. Given that some banks in the local economy have low CAR, this makes them susceptible to financial shocks. Inadequate capital base forces DMBS struggle to operate effectively and efficiently and may even lead to illiquidity due to increasing loan defaults. Notwithstanding the minimum capital requirements set by CBN to ensure banks' stability, a few DMBS could not maintain the required levels continuously especially during economic recession. These raise concerns about the overall financial health of DMBS and their ability to manage credit and other risks effectively. Given these issues, it is important to understand how credit risk management affects the profitability of DMBS in Nigeria.

1.2 Research Objectives

This study examined the responsiveness of profitability of DMBS in Nigeria to credit risk management via the impact of non-performing loans, loan loss provision, and capital adequacy ratio on return on assets.

2. REVIEW OF RELATED LITERATURE

2.1 Conceptual Framework

2.1.1 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 (due to insanity, death, bankruptcy, etc) may be unable to repay all or part of their loans as at when due. To minimize this risk, banks carefully check a borrower's capacity

to pay back before giving a loan. They must 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 (Cheng et al., 2020).

2.1.2 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 / management, 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.

2.1.3 Loan Loss Provision

Loan Loss Provision (LLP) is the money that DMBS kept to cover probable losses from loans that may not be repaid (Adegbite & Olayemi, 2020). Since some borrowers may fail to pay back their accrued loans due to financial difficulties, banks create this provision as a safety measure. It helps banks prepare for loans that eventually become bad without affecting their profits too much.

2.1.4 Capital Adequacy Ratio

Capital adequacy ratio (CAR) is a measure used to assess a DMBS's capital strength. This ensures it has adequate capital base to cover probable 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). Regulatory bodies, such as the CBN, require banks to maintain a minimum CAR to safeguard the financial system and enhance public confidence.

2.1.5 Financial Performance

Financial performance measures how well a bank is doing in terms of profitability and managing its resources effectively and efficiently. One of the most widely used measure of financial performance is return on assets (Singh et al., 2024). ROA shows how much profit a bank makes from its total assets. The later includes such assets as cash, loans and advances, 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 and efficiently to generate profit, while a lower ROA shows that the bank is mismanaging its resources (Ojeegbe, 2024)

2.2 Theoretical Framework

The study was anchored on Asymmetric Information Theory (AIT). It was developed by Akerlof (1970), enhanced by Spence (1973) and Stiglitz (2001). The theory elucidated that one party often has much more information than the other in given financial transaction. This leads to complications in decision-making. As regards banks, borrowers / customers usually know more about their financial situation than external parties including DMBS. As a result, banks do find it very difficult to distinguish between borrowers that really have the capability to repay their loans and the ones that cannot. Banks must manage effectively such credit risks to prevent, if unavoidable minimize financial

losses (Akerlof, 1970). Stiglitz and Weiss (1981) asserted that banks must address this information asymmetry to curb financial instability arising from high bad debts / default rates.

Asymmetric information results in two major issues especially in the banking sector: moral hazard and adverse selection. Whereas adverse selection occurs before the loan contract as DMBS really grant loans and advances albeit unknowingly to risky borrowers with high probability of defaulting (Stiglitz & Weiss, 1981); moral hazard occurs after the loan contract authentication as borrowers are most likely to misappropriate the funds and / or unable to repay given the banks' provisions for non-performing loans (Spence, 1973). Banks adopt CRM strategies such as maintaining and monitoring loan loss provisions (LLP), non-performing loans (NPL) and strong capital adequacy ratio (CAR) to cushion potential losses (Stiglitz & Weiss, 1981). Akerlof (1970) also observed that financial institutions including DMBS that do not manage credit risks effectively experience cash flow problems, reduced profits, and so on that could become permanent (insolvency).

The AIT accentuates the relevance of proper management of credit risks. That is, it enhances banks' profitability. When credit risks are effectively managed by DMBS, bad debts / loan defaults are minimized significantly, profits increased and finances stabilized (Akerlof, 1970). Stiglitz and Weiss (1981) argued that these DMBS that engage in sound credit assessments of borrowers and monitor loan performance are much more profitable in the long run. It brings to light the need for banks to have solid capital base to cover unexpected losses and boost customer confidence (Spence, 1973).

2.2 Empirical Review

Munangi and Sibindi (2020) explored how credit risks influence profitability of 18 South African banks for an eleven study period 2008 to 2018. Using panel least squares specifically fixed effects and random effects estimators, they investigated the connection between credit risk and financial performance, proxied by non-performing loans, loan loss provision, return on assets (ROA), and return on equity (ROE). Their findings proved that credit risks adversely affect return on assets and return on equity as higher levels of NPLs reduce profitability.

Afolabi et al. (2020) scrutinized the influence of credit risks on financial performance of Nigerian microfinance banks for a seven year period 2012 to 2018. They adopted panel data using panel least squares regression on audited financial statements of 6 selected microfinance banks. Findings indicated that NPLs significantly reduced ROA. Further, they discovered a strong positive relationship between the control variable (total loans and advances) and returns on assets.

Siddique et al. (2022) looked at how CRM and bank-specific factors affect financial performance of listed commercial banks in South Asia. They considered NPLs and CAR as indicators of credit risk while employing average lending rate (ALR), cost-efficiency ratio (CER) and liquidity ratio (LR) as bank-specific factors. Financial performance was proxied by ROA and ROE. Processing collated data from 19 commercial banks (10 in Pakistan and 9 in India) for the ten year period 2009 to 2018 using the generalized method of moments (GMM), findings showed that CER, NPLs and LR negatively affected financial performance, while CAR and ALR showed a positive effect on same financial performance.

Amijaya and Alaika (2023) looked at the relationship between liquidity, operational, credit risks and financial performance (proxied by ROA) of national Islamic commercial banks in Indonesia for the 7 year period 2015 to 2021. Using 7 national Islamic banks as sample, independent variables proxied by finance to deposit ratio, non performing finance, operational risk (BOPO); technological and macroeconomic variables as control variables; the study analyzed collated data panel least squares regression. Findings showed that credit risk or NPF and operational risk (BOPO) exerted very significant negative influence on ROA. However, inflation and liquidity risk exerted nonsignificant albeit positive influence on same ROA.

Ananda et al (2023) examined the impact of capital adequacy, liquidity, NPF, and efficiency on return on assets of 13 Islamic Commercial Banks in Indonesia for a five year period 2015 to 2019. Collated unbalanced panel data from audited annual reports of these banks were analyzed using panel least squares. Results indicated that all four predictors (NPF, CAR, FDR and BOPO) exerted negative impacts on profitability (ROA).

Ezu et al. (2023) studied the connection between capital adequacy (proxied by market capitalization to total credit assets, total capital to risk weighted assets (TCRWA) and debt-equity ratio) and financial performance of DMBs proxied by return on equity (ROE) and ROA for a 21 year period 2000 to 2020. Employing multiple regressions, diagnostic and other tests on secondary data, findings showed that the relationships between TCRWA, DER and ROA are positive but statistically non-significant.

Asogwa et al. (2025) investigated the influence of risk management strategies on job performance of surveyed 90 multidisciplinary construction firms in Enugu State, Nigeria. Collating data on 12 architects, 10 quantity surveyors, 28 engineers, and 28 builders via survey method, it was analyzed via such indexes as severity index, frequency index and relative important index in lieu of associated risks in construction business (material resources, design, planning and labor ranking). Findings indicated that all of the above mentioned associated risks in construction exerted significantly on job performance.

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 how capital adequacy (proxied by capital regulation and monetary policy) affected Nigerian DMBs' stability (proxied by ROA and ROE) given the country's recurring recessive periods. The study period is 16 years i.e. 2005 to 2020. Findings showcased that both capital adequacy ratio and firm size positively influence stability. However, NPL and LA negatively influence ROA and ROE.

Ojiegbe and Ihejirika (2024) evaluated the existence or otherwise of a causation / connection between capital adequacy (proxied by adjusted shareholders' fund, capital to weighted risk and total

qualifying capital) and profit before tax Nigerian DMBS for 19 years i.e. 2004 to 2022. Collated data were diagnosed, treated and analyzed using Augmented Dickey-Fuller test, Granger Causality test and autoregressive distributed lag (ARDL) model respectively. Findings showed that CWR exerted a negative non-significant effect on profitability, while both TQC and adjusted shareholders' funds exerted a significant positive influence on PBT.

Ajagbe, et al. (2024) examined the existence or otherwise of a causation / connection between financial risk management (proxied by liquidity risk, capital risk, operational and market risks) and quoted Nigeria commercial banks' (DMBS) profitability (proxied by ROA) for a 14 year period i.e. 2009 to 2022. Panel least squares regression, specifically, Fixed Effects Model was used to analyze a sample of 70 observations from five significant DMBS. Findings proved that F-test i.e. cumulative effects of all predictors (CAR, OPR, MKR, and LQR) on ROA is statistically significant. However, hypothetical tests proved insignificant influence on ROA.

Amakwe et al. (2025) investigated the existence or otherwise of a causation / connection between management of risky assets and financial performance of listed DMBS in our local economy for an eleven year period (2012-2022). Adopting ex-post facto design, a sample of twelve DMBS were drawn from a population of 43 and relevant panel data therefrom. While return on equity proxied financial performance, investment securities, loans and advances acted as proxies for management of risky assets using general method of moments (GMM) regression. Findings indicated strong positive effects of these predictors on return on equity.

Olawale (2024), Onyegiri et al. (2024), Amakwe et al. (2025) and so on 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 ROA in Nigerian DMBS from 2014 to 2024. It also employed more recent data and a most suitable method of analysis.

3. METHODOLOGY

This research work employed *ex-post facto* in looking at connection between credit risk management profitability of DMBS in Nigeria. It focused on the first-tier of Nigerian banking industry using panel data drawn from audited annual reports and accounts of these sampled banks for an eleven year period 2014–2024. The population consists of all 43 licensed DMBS as at October 31 2025. However, the study made use of a sample of only five DMBS with international acclaim: Zenith Bank Plc, Access Bank Plc, Fidelity Bank Plc, First City Monument Bank Plc and Guaranty Trust Bank Plc given their current extensive operations and comparable asset base.

Model Specification: The comprehensive model is specified as follows:

$$ROA_{it} = \beta_0 + \beta_1 NPL_{it} + \beta_2 LLR_{it} + \beta_3 CAR_{it} + \beta_4 TA_{it} + c_{it} + \varepsilon_{it} \quad (1)$$

Where: ROA = Return on Assets NPL = Non-Performing Loans LLR = Loan Loss Ratio

CAR = Capital Adequacy Ratio TA = Total Assets = Control Variable
 β_0 = intercept to be estimated
 $\beta_i - \beta_4$ = Parameters of the predictors to be estimated
 c_{it} & ε_{it} = non-observable individual effect and error for firm i in the year t

4. RESULTS

Table 4.1: Descriptive / Summary Statistics for the Variables

Var.	Obs.	Mean	Std.	Std.	Prob.	Prob.	Prob.	Min	
Max			Dev.	Error	(Skew)	(Kurt)	Joint		
roa	55	.4510	.1468	.0198	.5051	.6409	.7115	.1847	.8799
npltta	55	.0037	.0055	.0007	.0000	.0056	.0000	.00007	.0218
llptta	55	.0021	.0028	.0004	.0000	.0004	.0000	.00006	.0124
cartta	55	.0591	.0945	.0127	.0001	.4246	.0023	.00003	.2824
lnta	55	11.553	.9030	.1218	.4810	.0016	.0112	10.223	13.208

Source: STATA 14.2 Outputs, 2025

Table 4.1 above depicts both summary statistics and normality / distributional tests of skewness and kurtosis. The mean, a measure of central tendency, when compared to the minimum and maximum values proved the absence of extreme values for all entered variables. However, standard deviations that measure spread / dispersion of sample values is larger than the means for non-performing loans (npltta), loan loss provision (llptta) and capital adequacy ratio (cartta) excluding return on assets (roa) and natural logarithm of total assets (lnta). It depicts a diverging spread for the independent variables. Fortunately, the standard error that shows how close to true population mean the sample values are) are quite small in comparison supporting the theoretical postulate of becoming smaller as the sample size approaches normal / real population (hence, bell-shaped distribution). Except for natural logarithm of total assets at 12.2%, the remaining variables recorded error values less than to 2% and is statistically accepted at 95% confidence interval.

The joint probabilities of both skewness and kurtosis in table 4.1 are below 2% for all independent and control variables. In other words, roa is not bell-shaped. Further, test for multivariate normality (Doornik-Hansen) carried out depicted p-values 0.000% < 5% for the entire variables studied. This strengthens the results above proving that the entered variables are approaching normality.

Table 4.2: Panel Data Stationarity (Absence of Unit Roots) & Group Cointegration Tests

Levin-Lin-Chu unit-root test for all the variables based on Augmented Dickey-Fuller tests

Ho: All panels contain unit roots Ha: Panels are stationary

Number of panels (N) = 5 Number of periods (T) = 11 Asymptotic: —T / N 0

Variables	Panel-adjusted	1%	5%	P-values	Lags
roa	-4.287	-2.58	-1.95	0.044	1
npltta	-4.031	-2.58	-1.95	0.023	1
llptta	-5.558	-2.58	-1.95	0.000	1

cartta	-5.373	-2.58	-1.95	0.003	1
lnta	-0.655	-2.58	-1.95	0.256	1

Source: STATA 14.2 Outputs, 2025

In table 25, Levin-Lin-Chu unit-root test was employed which assumes that the ratio T / N approaches zero. At both 99% and 95% confidence levels, the p-values and panel-adjusted t-statistics (All Variables > 2.58) strongly suggest absence of a unit root excluding the control variable. That is, all the entered variables are stationary minus lnta. As regards group cointegration test using Pedroni Residuals at lag 1 (Newey-West automatic bandwidth selection and Bartlett kernel; both probabilities of weighted and unweighted Panel V-statistic, rho-statistic, PP-statistic and ADF-statistic are greater than 5% signaling the absence of cointegration.

Table 4.3: Prais-Winsten Regression Correlated Panels Corrected Standard Errors (PCSEs)

Panel-corrected						
roa	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
npltta	-9.5123	4.3271	-2.20	0.028	-17.993	
	-1.0313					
llptta	7.7205	11.477	0.67	0.501	-14.775	
	30.216					
cartta	-0.5681	0.2008	-2.83	0.005	-0.9617	
	-0.1745					
lnta	-0.1009	0.0487	-2.07	0.038	-0.1964	
	-0.0054					
_cons	1.5177	0.5296	2.87	0.004	0.4797	2.5557
rho	0.7294555	number of obs = 55		number of groups = 5		
DW (original)	0.533821	F(4, 50) = 40.36		Prob > F = 0.0000		
DW (transformed)	1.640072	R-squared = 0.6323		Root MSE = 0.34121		

Source: STATA 14.2 Outputs, 2025

The Prais-Winsten regression correlated panels corrected standard errors (PCSEs) examined how npltta, llptta, cartta, and lnta affect roa. In respect to the coefficients, npltta has a coefficient (-9.5123). It implies that a unit increase in npltta reduces roa by 9.512 units. Further, this exertion is statistically strong given the p-value = 0.028 < 5% and t-statistic = -2.20. Conversely, llptta exerted a positive albeit nonsignificant influence on roa (coefficient = 7.72, p-value = 0.501 > 5% and t-statistic = 0.67). This implies that a unit increase in llptta increases roa by 7.72 units. cartta exerted a statistically very strong negative impact on roa (coefficient = -0.568, p-value = 0.005 < 5% and t-statistic = -2.83). This is most likely to emanate from increased dividend / payout ratio. Expectedly, the control variable (lnta) exerted a statistically significant negative effect on roa (coefficient = -0.101, p-value = 0.038 < 5% and t-statistic = -2.87). The adjusted R² value is 0.6323 i.e. 63.23% of the changes in the regressand are explained by the model predictors including the control variable. The F-statistic, a measure of the combined influence of all explanatory variables, is 40.36 and the corresponding p-value = 0.000. That is, the overall effect is very strong statistically.

Nonetheless, original value of Durbin-Watson statistic $DW = 0.5338$ signals the presence of autocorrelation and other diagnostic issues hitherto corrected using PCSEs and transformed DW. Findings suggest that non-performing loans (npltta), capital adequacy (cartta) and natural logarithm of total assets (lnta) negatively and strongly influence profitability (roa) while only loan loss provision (llptta) exerted a nonsignificant positive impact profitability.

5. CONCLUSION

The study examined the effect of credit risk management on profitability of deposit money banks (DMBs) in Nigeria. Specifically, it analyzed the impact of non-performing loans (NPL), loan loss provision (LLP), and capital adequacy (CAR) on return on assets (ROA) of sampled firms. Panel least squares, specifically, Prais-Winsten panel corrected standard errors (PCSEs) regression were used to analyze the collated data. The Prais-Winsten regression correlated panels corrected standard errors (PCSEs) examined how npltta, llptta, cartta, and lnta affect roa. The F-statistic, a measure of the combined influence of all explanatory variables, is 40.36 and the corresponding p-value = 0.000. That is, the overall effect is very strong statistically. Findings suggest that non-performing loans (npltta), capital adequacy (cartta) and natural logarithm of total assets (lnta) negatively and strongly influence profitability (roa) while only loan loss provision (llptta) exerted a nonsignificant positive impact on profitability. These findings confirm that CRM plays a decisive role in increasing profitability of DMBs in Nigeria. Findings are also aligned with the Asymmetric Information Theory that postulates banks should plan and control credit risks effectively and efficiently to avoid illiquidity initiated by information gaps between actors.

6. RECOMMENDATIONS

- i. DMBs adopting comprehensive procedures for appraising, monitoring and recovering loans, assessing borrowers' creditworthiness is deemed necessary if not imperative to minimize NPL.
- ii. Prudential guidelines / moral persuasions, specifically on provisions must be monitored by such regulators as CBN, CAC to ensure adherence by these DMBs and boost customer cum public confidence. Further, DMBs should be more proactive as regards providing for anticipated loan losses.
- iii. DMBs should not wait for regulators to increase minimum capital base and then react. Rather, they should strike a tradeoff between retention and payout ratios such that capital base improves steadily.

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