EFFECT OF NON-PERFORMING LOANS ON FINANCIAL PERFORMANCE OF LISTED DEPOSIT MONEY BANKS IN NIGERIA

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ABSTRACT

This study examined the effect of non-performing loans (substandard loans, doubtful loans and loan loss) on financial performance (Return on Assets-ROA) of listed Deposit Money Banks (DMBs) in Nigeria. Ex-post facto research design was adopted for the study. The study has the population of fifteen (15) banks listed on Nigerian Exchange Group as at 2021 where Thirteen (13) listed DMBs were selected. Secondary data was extracted and used from the annual reports and accounts of the sampled banks for the period 2012 to 2021.Data were analyzed using descriptive statistics which provides the description of the data, correlation analysis which provided the relationship between the dependent and independents variable, it also show the relationship between the independent variables among themselves and regression analysis used to test the formulated hypotheses. The study found that substandard loans has positive insignificant effect on financial performance of deposit money bank in Nigeria. While doubtful loans have a negative significant effect on financial performance of deposit money banks in Nigeria. However, loan loss has a significant positive effect on financial performance of deposit money banks in Nigeria. The study concluded that non-performing loans has effect on financial performance of DMBs in Nigeria. The study therefore recommends the management of the deposit money banks in Nigeria should design and maintain a robust credit management strategy & framework as well as stringent credit policy that would decrease non-performing loan and default level; and improve their performance level.

INTRODUCTION

The financial performance of banks is inextricably linked to survival of the banks. Several banks in Nigeria are currently undergoing some form of restructuring through recapitalization or business combinations in order to meet up with minimum capital requirements as stipulated by the Central Bank of Nigeria (CBN). Financial performance of banks depends largely on loans since they typically constitute the single largest item on the statement of financial position. Non-performing loans thus become a source of concern for bank performance coupled with the fact that in the recent past in Nigeria, banks have either had to be restructured or have their licenses revoked owing to non-performing loans. Non-performing loans (NPLs) have been extensively studied in empirical literature. Etale, Ayunku and Etale (2016) define NPLs as loans not generating income for at least three months, while Adegbie and Otitolaiye (2020) categorize them as loans overdue by 90 days or more. The IMF Financial Soundness Indicators Guide (2006) adds that loans should also be classified as non-performing if the debtor is bankrupt. The CBN mandates quarterly evaluations of bank credit portfolios to monitor declines in credit quality due to rising NPLs.

Non-performing loans are categorized into substandard, doubtful, and lost, and affects the financial performance of deposit money banks (Adegbie & Otitolaiye, 2020). Credit creation, while crucial for bank revenue, exposes banks to credit risk. Higher exposure to credit risk increases the likelihood of poor performance, a problem faced by banks globally, including in Nigeria. The increase in bad debts and NPL provisions in Nigerian banks is notable. Mwangi (2014) suggests that lending policies should provide clear guidelines on loans and securities to mitigate these risks. However, both internal and external factors contribute to the rise in NPLs, leading to adverse impacts on the financial performance of Nigerian deposit money banks. This study aims to examine the impact of NPLs on the financial performance of deposit money banks in Nigeria.

Managing credit risk in loan portfolios is a critical challenge for deposit money banks, as loans and advances are key contributors to their financial performance. However, non-performing loans (NPLs) can negatively impact their financial health. Patil (2018) noted that NPLs reached 35% in Nigerian banks, while Pinto et al. (2017) linked poor credit risk management, such as weak loan processing and inadequate collaterals, to rising NPLs. Previous studies (e.g., Adegbie & Otitolaiye, 2020; Naomi & Omar, 2017) have focused on limited financial performance metrics like Return on Assets (ROA) and Return on Equity (ROE) but have not extensively considered loan provision guidelines. Moreover, past research covered shorter periods and smaller sample sizes, often using basic statistical methods. This study, spanning ten years (2012-2021) with 13 Nigerian banks, takes a more comprehensive approach by decomposing NPLs based on their determinants and employing advanced regression analysis to investigate their effect on banks' financial performance.

The main objective of this study therefore was to determine the effect of non-performing loans on financial performance of listed deposit money banks in Nigeria. This was decomposed as mentioned earlier to specifics thus: to assess the effect of substandard loans, doubtful loans, and loan loss on the financial performance of listed deposit money banks in Nigeria.
The null hypothesis to be tested is stated as Non-Performing loans have no significant effect on financial performance of listed deposit money banks in Nigeria. This would be tested in line with the specified objectives.

2.0 LITERATURE

2.1 Financial Performance

Forecasting future loan defaults by banks, lowering taxes by controlling bank earnings and capital, controlling income and earnings volatility, and minimizing changes in risk-weighted assets that impact banks' performance are the primary goals of loan loss provision (Ryan, 2022). One important benefit of LLP is that it allows banks to estimate loss on a specific loan portfolio even before the actual loss can be ascertained (Christian et al., 2014). Loan loss provisions should result in direct charges against earnings during economic upturns since banks expect losses on their loan portfolios when the economy enters a downturn.

Financial Performance Measures

a) Return on Assets (ROA):

ROA is a key financial metric that measures how efficiently a company's management uses its assets to generate profit. It is calculated as the ratio of net operating profit to total assets (Albulescu, 2015). ROA evaluates the overall profitability and performance of an organization by assessing how well assets are utilized to generate income (Khrawish, 2011). In the banking industry, ROA reflects how efficiently management deploys both financial and non-financial assets to produce revenue. For banks, which often have significant initial investments, a lower ROA may be typical (Akonga'a, 2015). This metric helps indicate how much profit is generated from the total assets

held by the company and serves as a valuable measure for both internal assessment and external comparison.

b) Return on Equity (ROE):

ROE measures a company's profitability in relation to shareholders' equity. It is calculated by dividing net income after taxes by total shareholders' equity (Budiarto, 2020). ROE indicates how well a company uses its equity investments to generate profit and growth (Adam, 2022). It reveals the effectiveness of management in using the capital provided by shareholders to create returns (Ahmed et al., 2012). A higher ROE suggests better utilization of equity to generate profits, making it a key performance indicator for investors. A good ROE typically falls within the 15-20% range (Bhattarai, 2017), though this can vary by industry. In banking, ROE shows the return that shareholders can expect on their investments after considering all potential risks (Adebisi& Matthew, 2015). ROE is particularly useful for comparing the financial performance of companies within the same industry.

2.2 Non-Performing Loans

Non-performing loans (NPLs) are loans where banks no longer receive interest or principal payments as agreed, typically after 90 days of non-payment (Okoli et al., 2020). A loan is considered non-performing if interest or principal payments are overdue by 90 days or more, or if there are reasons to doubt full repayment, even if the delay is less than 90 days (Olumide et al, 2024). NPLs stop generating income for banks and create financial strain, with loans in arrears categorized as substandard, doubtful, or loss depending on the duration and severity of non-payment (Hou, 2014).

Research has linked the rise of NPLs to failures in credit policy (Karim, Chan & Hassan, 2010). While the definition of NPLs varies slightly between countries, the International Monetary Fund (IMF) defines them as loans overdue for 90 days or more or those where interest payments have been delayed, refinanced, or questioned due to a debtor's financial difficulties (Malimi, 2017; Lydnon et al., 2016).

NPLs are a key measure of a bank's asset quality (Kamande, 2017) and are typically part of a contract with agreed repayment terms (Amoako, 2015). High NPL levels signal financial difficulties for borrowers, reduce a bank's ability to lend, lower profitability, and pose risks to economic stability (IMF, 2020). Ultimately, NPLs represent loans that have not met repayment obligations, threatening both banking performance and broader financial stability.

Type of Non-Performing Loans

Licensed banks are mandated to make specific provisions for non-performing loans categorized as Sub-Standard, Doubtful, and Lost, as follows:Sub-Standard Credit Facilities: 10% of the outstanding balance.Doubtful Credit Facilities: 50% of the outstanding balance.Lost Credit Facilities: 100% of the outstanding balance.

2.2.1 Substandard Loans

A substandard asset is one that has been non-performing for twelve months or less (Kariuki&Peddy, 2017). The borrower's net worth or the security's market value is insufficient to ensure full debt recovery. These assets have clear credit weaknesses that jeopardize debt repayment, posing a risk of loss to the banks if not corrected (Klein, 2014).Substandard loans arise when the borrower's repayment ability is uncertain due to adverse financial conditions, necessitating a larger provision for potential loss than standard loans. Economic downturns or poor business performance often lead to substandard loans (Akinlo& Emmanuel, 2019). These loans, classified as non-performing, are a precursor to more severe classifications like doubtful loans or outright losses. Effective credit risk management, including advanced risk assessment models and continuous borrower monitoring, is crucial to mitigate these risks (Akintoye&Olagunju, 2020).

2.2.2 Doubtful Loan

A loan is classified as doubtful if it remains in the substandard category for 12 months (Kariuki&Peddy, 2017). Doubtful loans share all the weaknesses of substandard loans, but the likelihood of full collection or liquidation based on current facts and conditions is highly questionable and improbable (Okoh, et al., 2019). These loans are not well-secured, and the probability of full recovery is doubtful (Amoako, 2015; Etale et al., 2016). Doubtful loans indicate a borrower's highly questionable repayment capacity, with slim chances of full recovery, although some portions might be recoverable. Olusola and Adegoke (2021) note that doubtful loans have increased in Nigerian banks due to prolonged economic recessions and poor credit risk management. They recommend stricter lending criteria and better monitoring to curb this growth.

2.2.3 Loan Loss

It is stated that loan losses are uncollectible and of such low value that it is not justified to continue treating them as recoverable advances (Etale, et al., 2016). A loan loss occurs when a loss is recognized by the bank and/or external or internal auditors, but the amount is not completely written off. Put differently, an asset of this kind is deemed uncollectible and of such low value that, even though there might be some salvage or recovery value, its continuation as a bankable debt is not justified (Ozili, 2018). According to Nwanna and Oguezue (2017), the annual loan loss provision is increased in proportion to the estimated risk of the loans extended to consumers. There are two types of loan loss provisions: general provisions and customized provisions. The general provision for loans that may be impaired, which is losses expected as a result of future events that may not be recognized, does not include the specific loan loss provision, which is losses expected from individuals or loans that are classified as impaired (Oganda et al., 2019).The amount of money that a bank or other financial organization loses when a borrower defaults on a loan and it becomes evident that the debt cannot be repaid is referred to as loan loss. Since loan losses have an immediate effect on a bank's profitability and financial stability, they are a crucial component of non-performing loans (NPLs). In order to account for loan losses in a bank's financial statements, preparations for expected losses must be made.

2.2.4

2.2.5 Non-Performing Loans and Financial Performance

Non-performing loans (NPLs) are loans in arrears for at least ninety days, and they negatively impact a bank's operational efficiency, profitability, liquidity, and solvency (Joseph &Okike, 2015). NPLs are a leading cause of financial institution failure, which can destabilize entire economies. Understanding the causes of NPLs is crucial for minimizing their negative effects and safeguarding financial stability (Chinkono et al., 2016). NPLs are also linked to banking crises, with excessive NPLs being a major factor in their development (Eke, et al., 2021; Kalani, 2014).Numerous studies from developed and developing nations have explored the relationship between NPLs and banks' financial performance. Researchers (Kitonyi et al.,2019;Eddy et al., 2020; Olusola&Adegoke, 2021) consistently find that NPLs harm bank profitability. Uche and Obinna (2022) suggests that higher NPLs correlate with lower financial performance, as measured by return on assets (ROA).Adamu and Olabisi (2020) confirm this negative correlation between NPLs and financial performance in Nigerian banks, where higher NPL ratios typically result in lower returns on equity (ROE) and ROA. Efforts by the Central Bank of Nigeria (CBN), such as stricter regulations and the establishment of the Asset Management Corporation of Nigeria (AMCON), aim to reduce NPLs and improve bank resilience and asset quality (CBN, 2021). Managing NPLs effectively is vital for enhancing a bank’s financial performance and ensuring overall industry stability.

2.2.6 Conceptual Framework

To achieve the study objectives, the various aspects under study can be conceptualized as being in association. Mugenda and Mugenda, (2009) defines conceptual framework as a concise description of phenomenon under study accompanied by a graphical or visual depiction of the major variables of the study. According to (Ebba, 2016), conceptual framework is a diagrammatical representation that shows the relationship between dependent variable and independent variables. A conceptual framework

therefore shows the relationship between independent and dependent variable. In this study, the dependent variable is financial performance with ROA while the independent variable is Non-Performing Loans (NPLs) with variables such as Substandard Loan, Doubtful Loan and Loan Loss as presented below.

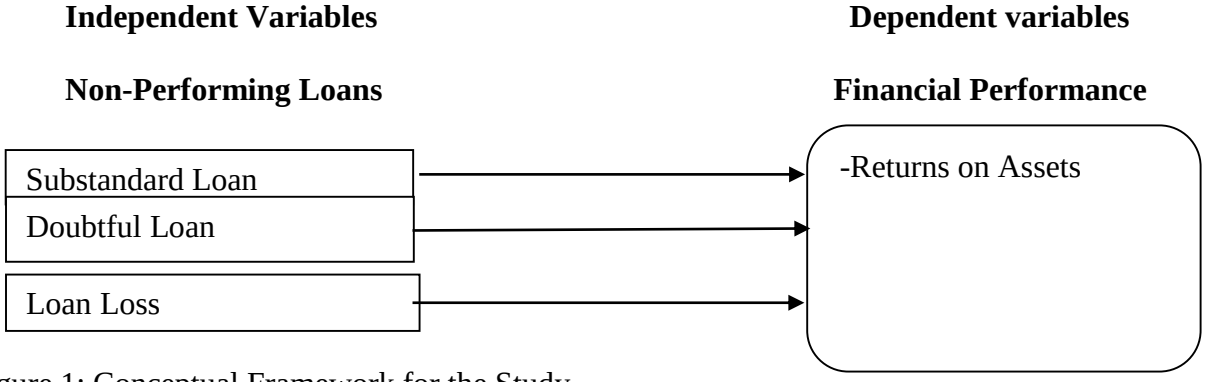

Figure 1: Conceptual Framework for the Study
Source, Researcher, 2022

2.3 Empirical Review

Many studies have examined the connection between non-performing loans (NPLs) and financial performance in both established and emerging nations. Many of these studies have shown differing opinions and unequal results. Reviews are conducted on a handful of the studies.

Olumide, Chukwugoziem and Bernhard (2024) looked at the impact of non-performing loans (NPL) on the return on equity (ROE) of a few Nigerian commercial banks from 2010 and 2021, focusing on Fidelity Bank, Union Bank, and Wema Bank Plc. It precisely ascertained how bank size (SIZE) and non-performing loans (NPL) affected the profitability of commercial banks as indicated by return on equity (ROE). The annual financial report and accounts of the chosen commercial banks in Nigeria throughout the study period provided secondary data for the research. Panel least squares technique was used to examine the data. The findings showed that, during the study period, Bank Size (SIZE) had a positive influence on the return on equity of the chosen commercial banks, whilst non-performing loans had a negative effect. The study comes to the conclusion that non-performing loans have a detrimental impact on the performance of commercial banks in Nigeria. This impact is significant because it threatens the survival and expansion of commercial banks as corporate businesses. The study suggests that banks should uphold strict credit standards, and that the central bank of Nigeria (CBN) and other regulatory bodies should closely monitor the credit operations of commercial banks. These recommendations are based on the aforementioned findings. A decrease in level of loan default will lead to decline in non-performing loans, and successively enhance return on equity of affected banks in Nigeria.

Collakua and Aliub (2021) investigated the effect of non-performing loans on the profitability of Kosovo banks from 2010 to 2019. Econometric analysis was used in the study to look at the link between the two variables. The study's conclusions showed that nonperforming loans had a statistically significant effect on profitability, showing that, when all other factors were held constant, the Return on Assets (ROA) fell by 0.19% for every 1% increase in NPL.

Allen et al. (2020) examined Tanzania's commercial banks, concentrating on the relationship between the nation's commercial banks' performance and non-performing loans. The study employed a comprehensive longitudinal research methodology, gathering panel data from 41 commercial banks as well as macroeconomic data (2006 to 2019). PLS-SEM and fixed and random effect regression models were used by the three analysts to analyze the data. Return on Equity (ROE), Return on Asset (ROA), and Net Positive Loan Ratio (NPLR) were found to have a negative and non-significant relationship. Additionally, they noted that the yearly GDP rate had a negative impact on both ROA and ROE. They found inflation in their research and attempted to examine how it related to ROE and ROA.The exchange rate had a positive and significant impact on ROE and ROA, while the interest rate did not appear to have a negative impact on

either. Consequently, the paper suggests that bank management improve their credit risk management procedures and implement an early warning system to notify the banks in the event of NPL accumulation, thereby averting potential challenges. Annual GDP, on the other hand, showed a positive trend and had no discernible impact on ROA and ROE.

Budiarto (2020) examined the impact of non-performing loans on BPR's bottom line in Central Java. A purposive sample technique was used to choose 150 BPR leaders from the 260 leaders in the Central Java Province that made up the sample population. Credit collectibility (enterprise prospects, debtor performance, and ability to pay) has a strong and significant link with nonperforming loans (NPLs), according to data analysis done using SEM AMOS. The analysis also discovered that BPR's financial performance was significantly and negatively impacted by non-performing loans.

Eddy et al. (2020) analyzed the performance of the bank and non-performing loans (NPL). The outcome demonstrates that NPL has a detrimental impact on ROA. this indicates that, in comparison to net interest margin, management is more focused on NPL levels. This is due to the fact that a rise in NPL causes bank performance to drop. However, because these banks are major institutions with capital of more than IDR 30 trillion, the study found that NPL BUKU 4 had no impact on ROA.

Afolabi et al. (2020) investigated the effect of credit risk indicators, such as non-performing loans and loan-loss provisions, on the financial performance of microfinance banks in Nigeria using the Granger causality technique. Using E-VIEW 9 statistical software, they performed an Augmented-Dickey Fuller and Phillip-Perron unit root test using secondary data that they had obtained from six (6) carefully chosen microfinance banks between 2012 and 2018. The variables are suitable for the VAR model because, as the findings showed, they are fixed. A crucial connection between the credit risk factors and financial performance was also shown by the Granger causality analysis result. This link included a unidirectional causation flow from nonperforming loans to loan-loss provisions and from loan-loss provisions to returns on assets. The study's result demonstrated the significant influence non-performing loans have on Nigeria's microfinance institutions' financial performance. As a result, they advise microfinance banks to periodically review their loan portfolios and set credit limits for specific borrowers or counterparties, taking into account their own credit rules and risk tolerance.

2.4 Theoretical Framework

This section presents review of the relevant theories and the theory that this study is anchored on.

2.4.1 Credit Default Theory

Sy proposed the Credit Default Theory hypothesis in 2007. In the conclusion, the Theory aids in the methodical explanation of lending risk and the dynamic measurement and management of credit risk for the stability of the financial system. According to Sy's (2007) hypothesis, both delinquency and insolvency contribute to a credit default.

Failure to repay a debt by the due date is referred to as delinquency, whereas an asset shortage is referred to as insolvency. Delinquency is the central idea behind the phrase credit default. When a borrower's liquidity fails and they are unable to make a loan payment by the due date, this is known as delinquency. When a borrower is delinquent, a solvency evaluation is initiated, and this might result in a negative equity position, which could terminate the loan and cause the lender to anticipate a loss.

The maximum loan interest rate that an owner-occupier borrower may afford to service a loan amount with disposable income is known as the Loan Serviceability Ratio, or LSR, as proposed by the theory. The risk associated with loan serviceability stems from the fact that serviceability varies over time as a result of shifting personal circumstances and shifting macroeconomic conditions. Even though a loan initially appeared to be easily serviceable, unforeseen negative events can make it difficult for the borrower to repay. This hypothesis is thought to support the research on the connection between non-performing loans (NPLs) and financial performance since it states that delinquency arises when a borrower fails to repay a loan by the due date due to a lack of liquidity.

2.4.2 Information Asymmetry Theory

Introduced by Akerlof (1970) in "The Market for Lemons," Information Asymmetry Theory addresses scenarios where knowledge is uneven between parties. In financial markets, borrowers typically possess more information about their financial status than lenders. This discrepancy can lead to problems like adverse selection and moral hazard, where lenders struggle to distinguish between reliable and unreliable borrowers (Auronen, 2003; Richard, 2011). Karim, Chan and Hassan (2010) highlight that improving information sharing can reduce adverse selection by providing banks with better insights into credit applicants. However, borrowers might withhold information to secure more favorable loan terms, exacerbating information asymmetry (Macharia, 2014). This theory underscores the difficulty in distinguishing good from bad borrowers, leading to issues such as non-performing loans (NPLs) that affect financial performance.

The limitations in the understanding of how non-performing loans affect financial performance are examined in this section. Academics from non-Nigerian backgrounds have investigated the impact of non-performing loans on financial performance across multiple fields, yielding diverse conclusions (Çollakua&Aliub, 2021; Allen et al., 2020; Eddy et al., 2020; Olumide, Chukwugoziem& Bernhard, 2024; Mwangi, 2014). However, none of these studies have looked at how non-performing loans impact Deposit Money Banks' financial performance using loans, advances, and loan loss reserves as proxies. The impact of non-performing loans on financial performance has also been studied by academics in Nigeria, with differing conclusions drawn from several studies (Afolabi et al., 2020; Okoli et al., 2020; Saliu et al., 2020; Ugwu et al., 2020; Ajayi&Ajayi, 2017; Ozurumba, 2016; Joseph &Okike, 2015).

3.0 METHODOLOGY

This section presents the study design, comprising the research design, population, sample, model specification and method of analysis.

3.1 Design

The ex-facto research design was used to conduct the study. The population of the study consisted of fifteen (15) listed Deposit Money Banks in Nigeria and insured by the Nigerian Deposit Insurance Corporation (NDIC). Purposive sampling technique was adopted in selecting the deposit money banks; units selected are limited to those that contain the available data needed for the purpose of this study. Specifically, the sample size of this study was 13 listed deposit money banks. The study adopts secondary technique of data collection.

3.2 Measurement of Variables

This section presents measurement of variables used in this study as shown on Table 3.3

Table 3.1: Variables Measurement

S/N	Variables	Codes	Measurement
1	**Financial Performance**	**FP**	**FP=ROA**
	Return on Asset	ROA	ROA= Earnings before Interest Tax Depreciation Amortization(EBITDA) ÷ [Total Assets – current liability OR share capital + long-term liability]
2	Substandard Loan	SBSL	10% of 90 days to less than 180day loan overdue
3	Doubtful Loan	DFL	50% of180 days to less than 360 days loan overdue
4	Loan Loss	LL	100% of360 days and above of loan overdue

5	Firm Size	FSZE	Natural logarithm of total assets

Source: Authors' Compilation, 2024

3.3 Model Specification

This section details out the model for the present study as follows

Financial Performance (FP) =*f* (Non- performing loans-NPLs)

Financial Performance is a function of Non-performing loans-NPLs introduces the surrogates (i.e. proxies' variables).

FP-($ROA_{it,}$) = *f* ($NPLs\text{-}SBSL_{it,}$ $DFL_{it,}$,$LL_{it,}$)…model1

Financial performance is proxy by ROA, while Non-performing loans indicator isproxies by SBSL, DFL and LL

$ROA_{it} = \alpha_0 + \beta_1 SBSL_{it} + \beta_2 DFL_{it} + \beta_3 LL_{it} + \beta_4 FSZE_{it} + \varepsilon_{it}$…....model2

Where:

ROA= Return on Assets: SBSL= Substandard Loans: DFL =.Doubtful Loans

LL= Loan Loss.: FSZE= Firm Size α= Constant (Co-efficient of intercept)

$\beta_1 - \beta_4$= Regression coefficient of four variables. ε=error term.

3.4 Method of Data Analysis

In this research, the method of data analysis is descriptive and linear regression with the application of Ordinary least squares (OLS) technique. The data was via SPSS version 26. The study involved time series and cross-sectional data (that is, 10 time series and 13 banks which is one hundred (130) observational pooled data).The decision was based on 5% level of significant. Accept null hypothesis (H_0) if probability value (P-value or Sig.) is greater than or equals to (≥) stated 5% level of significance (α); otherwise, reject and accept alternate hypothesis (H_a), if p-value or sig calculated is less than 5% level of significance (Osisioma, Egbunike & Jesuwunmi, 2015).

4.0 RESULTS AND DISCUSSION

4.1 Correlation Analysis

The Table 4.1 provides a summary of the correlation between the dependent variable (financial performance), each independent variable (substandard, doubtful and loan loss) and control variable (FSIZE).

Table 4.1: Correlations

Variables	ROA	SBSL	DFL	LL	FSIZE
ROA	1.0000				
SBSL	0.0188	1.0000			
DFL	-0.7120	-0.0404	1.0000		
LL	0.1311	-0.1604	0.3700	1.0000	
FSIZE	0.7400	0.1688	-0.6822	-0.0021	1.0000

0.05 level of significant

Source: Authors computation, 2024

This section explains the correlation analysis. Based on Table 4.1, FP has a negative correlation with DFL of Nigerian deposit bank with correlation coefficient of -0.7120. However, SBSL, LL and FSIZE have positive relationship with 0.0188, 0.1311, and 0.7400 respectively.

4.2 Diagnostic Test

For better reliability and validity of all statistical inferences to be drawn for the study, this section presents the result of the diagnostic test conducted. Shapiro-Wilk W Test for normal data was conducted and it was found that the data used for the study are not normally distributed as it revealed significant p-value. Similarly, Multicollinearity Test was conducted to check whether there is a strong correlation between the independent variables which could mislead the result of the study. The result of the diagnostics test reveals no multicollinearity in the data as presented in Table 4.2. The variance inflation factor and the tolerance

were found to be consistently lower than ten and one respectively indicating the absence of multicollinearity. Heteroscedasticity Test evidenced from Breuch Pagan/Cook-Weisberg coefficient of 50.94 with a p-value of 0.000 confirms the presence of the effects of heteroscedasticity for the model, that is, there is constant variance in the residuals. This suggests the use of Robust Generalised Least Square model.

Table 4.2: Variance Inflation Factor (VIF)

Variable	VIF	1/VIF
SBSL	1.12	0.8890
DFL	2.70	0.3707
LL	1.47	0.6802
FSIZE	2.34	0.4272

Source: Authors computation, 2024

4.3 Regression for NPLs and FP

This section discusses the effect of non-performing loan (measured by sub-standard loan, doubtful loan and loan loss) on the financial performance of listed deposit money in Nigeria.

Table 4.3: Summary of Regression Analysis

Variables ROA	Coef.	Std. Err.	T	P>|t|
SBSL	.0128261	.0951236	0.13	0.893
DFL	-.5853413	.0709346	-8.25	0.000
LL	.9247377	.1447988	6.39	0.000
FSIZE	.0282494	.0066155	4.27	0.000
cons	1.134266	.1103192	10.28	0.000
Number of obs	130			
F(5, 155)	67.63			
Prob> F	0.0000			
R-squared	0.7317			
Adj R-squared	0.7209			
Root MSE	0.0919			
Mean VIF |	1.74			

Source: Authors computation, 2024

Table 4.3 shows R^2 of 0.7317. The model thus explains 73.2% of the variations in the study variables. The f statistic is 67. 63 and significance with calculated value less 0.05. The root mean square the mean and VIF as shown in Table 4.3 is 1.74. The analysis was undertaken at 95% confidence level. Based on the result of f statistic the 0.000 significance is within the critical level of 0.005. The model therefore explains significantly the impact of Non-performing loan on the financial performance of Nigerian deposit money bank.

The result in Table 4.3 indicated that sub-standard loan has coefficient = .0128261, t = 0.13, P-value = 0.893. Based on this result, sub-standard loan has positive but no effect on financial performance of deposit money bank. Therefore, the null hypothesis is rejected and the alternate hypothesis is accepted.

Table 4.3 indicates that doubtful loan has coefficient= -0.5853413, t = -8.25, P-value = 0.000) meaning it has negative and significant impact on financial performance of deposit money bank. This indicated that a unit increase in doubtful loan will lead to decrease in financial performance. Therefore, alternate hypothesis is accepted and the null hypothesis is rejected.

Table 4.3 shows that loan loss has coefficient = 0.9247377, t = 6.3, P-value = 0.000. Based on this coefficient of loan loss has positive and significant impact on financial performance of deposit money bank. This indicated that a unit increase in loan loss will lead to increase in financial performance. Therefore, the null hypothesis is rejected and the alternate hypothesis is accepted.

Table 4.3 indicates that the control variable, firm size has a coefficient = 0.0282494, t = 4.27, P-value = 0.000). Based on this result firm size has positive and significant impact on financial performance of

deposit money bank. This indicated that a unit increase in firm size will lead to increase in financial performance. Therefore, the null hypothesis is rejected and the alternate hypothesis is accepted.

4.4 Discussion of Research Findings

The study's conclusion demonstrates the beneficial and detrimental effects of non-performing loans (substandard, dubious, and loan loss) on the financial performance of Nigerian deposit money banks; these conclusions were corroborated by research conducted by Kipruto et al. (2017), Lydnonet al. (2016), and Okoh (2019).

The study's conclusions indicate that bad loans have no appreciable effect on the financial performance of Nigerian deposit money. This outcome is in line with the findings of Lydnon et al. (2016), who studied the relationship between non-performing loans and bank performance in Nigeria from 1994 to 2014 and found that returns on capital employed (ROCE) were statistically negatively impacted by substandard loans but not significantly.

This study shows that the financial performance of Nigerian deposit money banks is significantly impacted negatively by questionable loans. The study's conclusions conflict with those of Okoh et al. (2019), who looked at how non-performing loans (NPLs) affected Nigeria's commercial banks' financial performance from 1985 to 2016.

The results show that loan loss significantly and favorably affects Nigerian deposit money bank's financial performance. This outcome was consistent with research conducted by Kamande (2017) and Oteng (2017), who looked at how non-performing loans (NPLs) affected Kenya's commercial banks' financial performance.

This study's result reveals that Non-performing loans has negative and not significant impact on financial performance of Nigerian deposit money banks. The finding of this study is in line with the study of Amoako (2015). But contradict Frederick(2014), Petria, Capraru and Ihnatov (2015) as well as OngoreandKusa (2013).

5.0 Conclusion and Recommendations

This study investigated the impact of non-performing loans on financial performance of Nigerian deposit money bank for the period 2012-2021.

Based on the result of the study, the study concluded; DFL and LL had statistically significant positive and negative impact on financial performance of deposit money bank in Nigeria; SBSL had statistically insignificant negative influence on financial performance, and also the overall implication of these results is that any increase in the volume of non-performing loans would reduce ROA of banks in the long run in Nigeria.

In line with the findings of this study, the study recommended that: The management of the deposit money banks in Nigeria should design and maintain a robust credit management strategy & framework as well as stringent credit policy that would decrease non-performing loan and default level; and improve their performance level. The management of Nigerian deposit money bank should also match their loan assets to the nature of their deposit liabilities. Irrespective of the size of the banks, the managers should not underplay the importance of capital adequacy; hence consistent evaluation of the capital adequate ratio is paramount. Given that loan loss has the highest effect on financial performance among other independent variables in the regression models, it is apparent that deposit money should pay greater attention to their non-performing loan ratio and formulate means and strategies to drive down the NPL ratio and maintain it at the barest minimum possible.

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