



**NON-PERFORMING LOAN PORTFOLIO AND FINANCIAL PERFORMANCE OF
LISTED DEPOSIT MONEY BANKS IN NIGERIA**

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ABSTRACT

This paper examined the effect Impact the non-performing loan portfolio on the listed deposit money bank's organizational performance in Nigeria. However, the specific objective examined the relationship between the credit risk rate, lending rate, and exchange rate volatility and the return on equity of Nigerian listed deposit money institutions. Using an ex-post facto design, data were collected from 10 banks over 10 years (2012–2021). Results show credit risk and exchange rate volatility significantly reduce return on equity, while average lending rate had no effect. The study recommends proactive loan management, portfolio diversification, and stress testing to reduce default risk and improve financial health.

INTRODUCTION

Risk assets that aren't making money are known as non-performing loans. First of all, when principal or interest on a loan is due and not paid for ninety days or longer, the debt is generally regarded as nonperforming. There is significantly more to loan classification and provisioning than just calculating pastdue amounts (Ugoani, 2022). Whether or not the loan is past due is not nearly as crucial as the borrowers' cash flow and general ability to repay amounts outstanding. A non-performing loan portfolio is identified for financial reporting purposes by looking at the principal balance outstanding rather than past-due payments (Ugoani, 2022). The portfolio of non-performing loans serves as a barometer for the overall quality of the portfolio and, ultimately, the caliber of loans made by a bank.

Greuning and Bratanovic (2021) claim that credit risk is the primary factor in nonperforming loans and bank failures, which is why nearly all regulatory bodies have minimum requirements for credit risk management. They contend that identifying the current and potential risks associated with lending activities forms the cornerstone of effective credit risk management. Non-performing loans (NPLs) occur when repayments are overdue by 90 days or more. These loans reflect poor asset quality and expose banks to systemic risks. Nigerian banks face rising NPLs due to weak credit culture, mismanagement, and economic instability. Understanding the link between NPLs and bank performance is crucial, especially as NPLs reduce profitability, limit credit expansion, and increase default risk.

Statement of the Problem

Access to credit drives economic development, but poor loan recovery practices and weak regulation can undermine bank performance. Many Nigerian banks suffer due to inadequate credit risk assessment and poor monitoring. These problems raise the risk of defaults and hurt profitability. This study investigates the effect of credit risk, lending rates, and exchange rates on banks' return on equity

Objectives of the Study

Examining the effect of the non-performing loan portfolio on the financial performance of Nigerian listed deposit money banks was the primary goal of the research. The particular goals were to:

- i. examine the impact of credit risk rate on return on equity of listed deposit money banks in Nigeria.
- ii. determine the relationship between average lending rate on return on equity of listed deposit money banks in Nigeria.
- iii. investigate the impact of exchange rate on return on equity of listed deposit money banks in Nigeria.

LITERATURE REVIEW

Conceptual Review

Concept of Non-Performing Loans

The primary goal of every banking institution is to operate profitably, ensuring stability and sustainability over the long run. However, a significant portion of the banking industry's non-performing loans (NPLs) have serious consequences, including stifling private investment, impairing banks' debt repayment capacity, and constraining credit availability for borrowers, ultimately undermining the overall health of the financial system. According to Warue (2019), the internal and external economic situations are important factors that contribute to nonperforming loans. A non-performing loan (NPL) refers to a loan that is either in default or on the verge of default, characterized by the borrower's failure to make scheduled interest and principal payments. According to the terms of the loan arrangement, a loan is generally deemed nonperforming if payments are past due by more than ninety days. The chance of a loan being fully repaid is greatly reduced if it becomes non-performing.

Bank Performance

Retained earnings are used to improve future profitability and boost a bank's capital position, making profitability the bank's primary safeguard against unforeseen losses. If a business keeps losing money, it will ultimately run out of money, endangering its creditors and stockholders. Furthermore, the bank must generate value for shareholders if its return on equity (ROE) exceeds its cost of equity since the ultimate goal of any profit-seeking business is to protect and increase wealth for its owners. Earnings, efficiency, risk-taking, and leverage continue to be the primary elements influencing banking firms' success, notwithstanding their increasing complexity.

Theoretical Review

Transactions Costs Theory

Transaction Cost Theory (Schwartz, 2019) underpins the study. It suggests suppliers and lenders with better information access and monitoring mechanisms can lower credit costs and manage risks better. Three sources of cost advantage were identified by Petersen and Rajan (2020): knowledge acquisition, buyer management, and maintaining the value of current assets. Because data is acquired during regular company operations, sellers are able to get information on buyers more quickly and at a cheaper cost, which explains the first source of cost advantage. In other words, the volume and frequency of a buyer's orders can tell suppliers about the buyer's circumstances; if the buyer refuses discounts for on-time payment, the supplier may be informed that the buyer's creditworthiness is deteriorating; and finally, sellers typically visit customers more frequently than banks.

Empirical Review

A weak macroeconomic framework limits the financial success of Nigerian consumer products companies, according to research by Ezenwa, Ogbebor, and Alalade (2021). This study looked at how changes in exchange rates affected the return on assets of Nigerian consumer goods manufacturing enterprises between

2010 and 2019. The Ex-post facto research design was adopted in the study. Out of the listed companies, fourteen (14) consumer products companies were chosen through a methodical selection procedure. The exchange rate volatility (ERV) was calculated using the GARCH approach, and panel regression models estimated with regard to the fixed-effect model and random effect model were employed in the study. The Hausman test was used to evaluate each model's accuracy. The three inference thresholds were 1%, 5%, and 10%. The study concluded that exchange rate volatility has a considerable impact on return on assets. The study recommends several methods for the monetary authorities to regulate the exchange rate. As a result, local businesses will see an increase in return on their investments, and businesses will become more productive.

Ihegboro and Egbo (2021) looked on the connection between credit risk and deposit money bank performance in Nigeria. The results of the Vector Autoregressive Estimate (VAR) with a one-period lag length show that a one-period lag of return on asset (ROA) has a negative and significant impact on current ROA; non-performing loans have a positive but negligible impact on ROA; loans and advances have a negative but negligible impact on ROA; and INTR has a positively but negligible relationship with ROA.. According to these results, for every unit change in loans and advances, ROA falls by -6.31. Additionally, it demonstrates that ROA rises by 5.76 for each unit change in non-performing loans and by roughly 0.45 for each unit change in interest. We advise monetary authorities to implement strict risk management regulations as soon as feasible in light of the findings.

METHODOLOGY

Research Design

An ex-post facto design was used. The sample included 10 deposit money banks listed on the Nigerian Exchange Group, selected via purposive sampling.

Data Sources

Secondary data from audited financial reports (2012–2021) and CBN bulletins were used.

Method of Data Analysis

Analyzing data involves using statistical and analytical techniques to find relevant information and support decision-making. To determine if the variables are related, the data will be examined using E-view 09 Panel Pool Analysis (Ordinary Least Square). Hausman test analysis, fixed tests, random tests, and descriptive statistics are all included in the analysis test.

Model Specification

This paper took into account the following variables: return on equity was utilized as a proxy for the dependent variable, while credit risk rate, average lending rate, and exchange rate represented the independent variables. The models that will be formulated include;

$$ROE = f(CRR, ALR, EXR)$$

$$ROE = \beta_0 + \beta_1 CRR + \beta_2 ALR + \beta_3 EXR + \mu$$

Where ROE = Return on Equity

CRR = Credit Risk Rate

ALR = Average Lending Rate

EXR	=	Exchange Rate
β_0	=	constant term
		3
β_1 - β_3	=	Coefficient of Independent Variables
μ	=	Error term.

Presentation of Results

Table 4.1.1: Descriptive Statistics

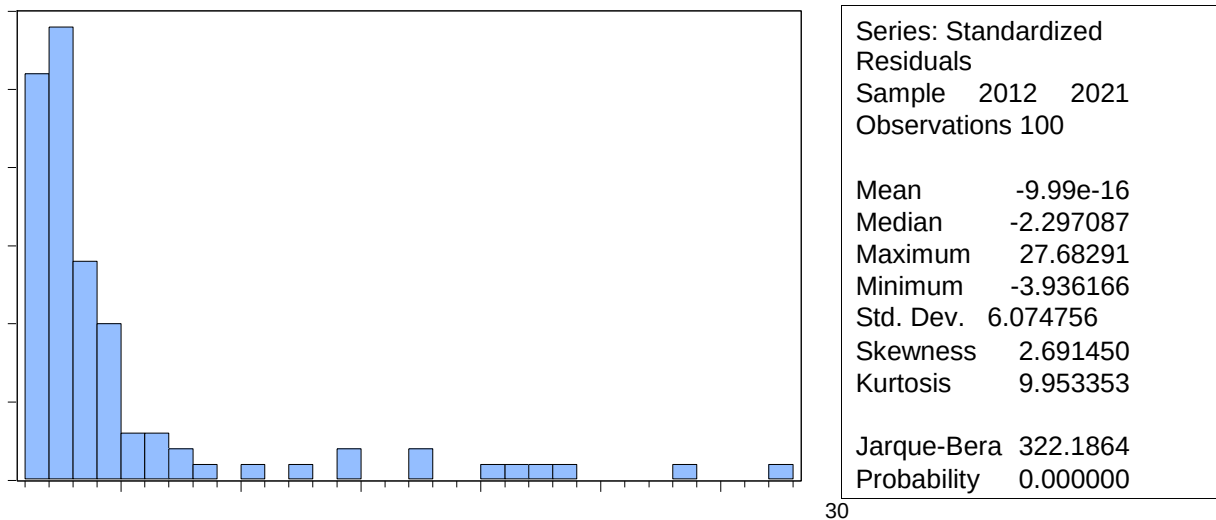
	ROE	CRR	ALR	EXR
Mean	3.008808	5.082046	57.78891	348.4620
Median	0.261900	1.342800	34.59030	365.5450
Maximum	31.36350	64.94330	963.5716	795.7500
Minimum	-0.155200	-0.249200	0.081000	159.2700
Std. Dev.	6.276590	10.24313	113.7995	173.2298
Skewness	2.747802	3.555057	5.778067	1.428456
Kurtosis	10.12067	17.18386	43.47491	4.867143
Jarque-Bera	337.1066	1048.899	7382.344	48.53404
Probability	0.000000	0.000000	0.000000	0.000000
Sum	300.8808	508.2046	5778.891	34846.20
Sum Sq. Dev.	3900.163	10387.25	1282083.	2970849.
Observations	100	100	100	100

Source: E-View Output, (2024)

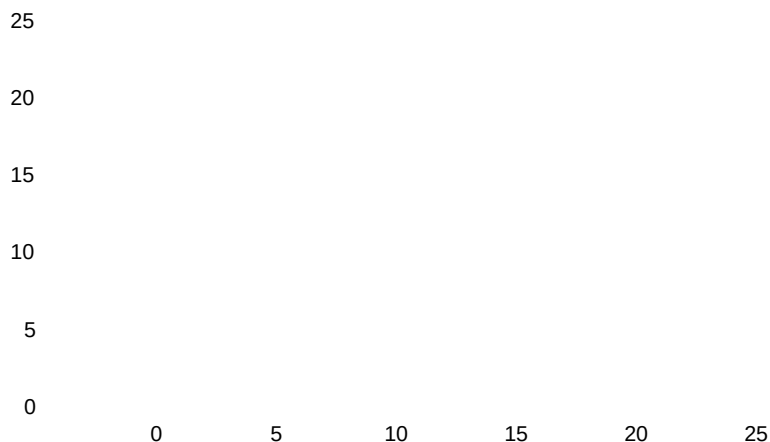
Table 4.1.1 provides the descriptive statistics for the variables that were utilized. The mean lending rate is 57.78891 with a standard deviation of 113.7995, the mean credit risk rate is 5.082046 with a standard deviation of 10.24313, and the mean return on equity is 3.008808 with a standard deviation of 6.276590. Finally, the average mean of the exchange rate is 348.4620, and the standard deviation is 173.2298. The return on equity, credit risk rate, average lending rate, and exchange rate are all The Jarque-Bera normality test indicates that it is normally distributed. Nonetheless, the null hypothesis states that the variables are normally distributed.

Table 4.1.2

Post Estimation Result



Source: E-view Output, (2024)



According to the post estimation result in table 4.1.2, the variables were highly dispersed, with the mean being -9.99 and the maximum and minimum being 27.68291 and -3.936166, respectively, with a standard deviation of 6.074756. The normal distribution of the variables is indicated by the JarqueBera value of 322.1864. However, the null hypothesis in this instance suggests that the variables have a normal distribution.

Table 4.1.3: Fixed Effect Result

The dependent variable: ROE

Method: Panel Least Squares

Date: 10/21/23 Time: 06:11

Sample: 2012 2021

Periods included: 10

Cross-sections included: 10

Total panel (balanced) observations: 100

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.538135	1.240721	3.657658	0.0004

CRR	0.034001	0.062550	-0.543576	0.0381
ALR	-0.001207	0.005175	-0.233211	0.8161
EXR	0.003693	0.002959	-1.248140	0.0153

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.621841	Mean dependent var	3.008808
Adjusted R-squared	0.542095	S.D. dependent var	6.276590
S.E. of regression	5.091027	Akaike info criterion	6.213574
Sum squared resid	2254.914	Schwarz criterion	6.552246
Log likelihood	-297.6787	Hannan-Quinn criter.	6.350641
F-statistic	5.289805	Durbin-Watson stat	1.144009
Prob(F-statistic)	0.000001		

Source: E view Output, 2024

Table 4.1.5 Hausman Test

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	0.000000	3	1.0000

* Cross-section test variance is invalid. Hausman statistic set to zero.

Source: E view Output, 2024

Testing of Hypothesis

The more successful model was determined in this investigation using the Hausman Test. The outcome of the Hausman test was 1.0000, which was higher than the 5% cutoff. According to this, Fixed Effect (FE) is more effective than Random Effect (RE). Inferential analysis is where these two methods diverge most.

With a fixed-effects model, a researcher can only make inferences about a collection of data, but they can draw conclusions about the population from a sample.

Hypothesis One

Ho1: Credit risk rate has no significant impact on return on equity of listed deposit money banks in Nigeria.

Decision Rule: The credit risk rate's p value is 0.0381, indicating statistical significance. Thus, It conclude that the credit risk rate has a considerable impact on the return on equity of Nigerian listed deposit money banks after rejecting the null hypothesis...

Hypothesis Two

Ho2: The average lending rate has no discernible effect on the return on equity of Nigerian listed deposit money banks.

Decision Rule: The average loan rate's p value is 0.8161, indicating statistical insignificance. This indicates that we accept the null hypothesis and conclude that the return on equity of Nigerian listed deposit money banks is not significantly impacted by the average lending rate.

Hypothesis Three

Ho3: The return on equity of Nigerian listed deposit money banks is not significantly impacted by exchange rates.

Decision Rule: The exchange rate's p value is 0.0153, indicating statistical importance. Therefore, we reject the null hypothesis and conclude that the return on equity of Nigerian listed deposit money banks is considerably impacted by the exchange rate.

Table 4.1.6: Decision on Acceptance or Rejection of the stated Hypotheses

S/N	Hypothesis	p-value	Significant/ Insignificant	Decision
1.	Credit risk rate has no significant impact on return on equity of listed deposit money banks in Nigeria	0.0381	Significant	Reject
2.	There is no significant impact of average lending rate on return on equity of listed deposit money banks in Nigeria	0.8161	Insignificant	Accept
3.	Exchange rate has no significant impact on return on equity of listed deposit money banks in Nigeria	0.0153	Significant	Reject

Discussion of Findings

Results confirm that high credit risk and exchange rate volatility reduce bank profitability. Lending rate, however, shows no direct impact. The model is statistically significant and reliable, suggesting that better risk controls and currency stability are essential for improving ROE.

Conclusion

Non-performing loans negatively affect the financial performance of Nigerian banks, particularly through credit risk and exchange rate volatility. Average lending rate has minimal influence. The study concludes that effective risk management is crucial for maintaining profitability.

Recommendations

Based on the findings and conclusions of the data analysis, the report suggests the following actions:

- i. Improve transparency in financial reporting on NPLs
- ii. Strengthen loan approval and credit risk assessment
- iii. Diversify loan portfolios across industries
- iv. Conduct regular stress testing
- v. Use technology for better risk evaluation

Contribution to Knowledge

The study provides empirical evidence linking credit risk and exchange rate to bank performance, highlighting the need for robust risk management in developing economies.

Suggestion for Further Studies

Future research could explore other variables like inflation, GDP growth, or bank-specific characteristics and expand the sample to include other financial institutions.

Limitation to the study

The following are the limitations of the study:

Sample was limited to 10 banks

External factors like inflation or government policy may have influenced results.

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