

Liquidity Management and Commercial Banks' Performance in Nigeria

Andabai, Priye Werigbelegha, Ph.D & Oyakegha Ekiyeghazi Samuel

Department of Banking and Finance. Niger Delta University,
Bayelsa State, Nigeria.

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Abstract

The research looks at the performance of Nigerian commercial banks over a 31-year period, from 1993 to 2023, in relation to liquidity management. The Central Bank of Nigeria statistics bulletin 2023 provided the secondary data used in the research. The paper utilise an ex post facto design. Return on assets (ROA) was the dependent variable in the research, while loans and advances (LAA), non-performing loans (NPL), and provision for undesirable debt (PBD) served as the explanatory factors. We tested the proposed hypotheses using the Ordinary Least Squares statistical estimation approach. Loans and advances have a substantial positive implication on Nigeria's commercial banks' return on assets. Non-performing loans in Nigeria have a significant favourable influence on commercial banks' ROA. The amount that commercial banks in Nigeria reserve for bad debt has a positive and substantial implication on their ROA. According to the coefficient of determination, changes in Nigeria's liquidity management variables account for approximately 58% of the fluctuations in the country's commercial performance. For Nigeria to experience economic progress, the report suggests managing non-performing loans well. Nigeria's central bank needs to regularly evaluate the lending practices of the country's commercial banks. In order to improve the efficacy of regulatory and supervisory responsibilities, it is also recommended that the supervisory authorities actively participate in capacity development.

Keywords: *Liquidity Management, Commercial Banks' Performance, Nigeria.*

Introduction

The current crisis in the world economy has exposed several shortcomings in financial institutions' liquidity management. Financial institutions, such as banks, serve as the foundation of the financial system, providing money for general growth, innovation, infrastructure, and job creation (Chugo, 2022). The essential function that banks provide in society influences not only the spending patterns of specific customers, but also the overall expansion of the sector.

As a result, every system has certain key elements that are necessary for it to survive. This also holds true for the financial system. Banks have significantly increased the overall efficacy of the financial system by offering an efficient institutional mechanism for reallocating resources from less crucial to more lucrative goals (Wilner, 2022). The idea of liquidity management is gaining traction on a global scale, particularly in light of the present financial and economic conditions in the globe. A few notable corporate ambitions include maximising profit, sustaining a high degree of liquidity to ensure safety, and achieving the maximum degree of

owner net worth in conjunction with the accomplishment of other corporate objectives. In today's economic climate, it is difficult to emphasise the importance of liquidity management in relation to firm profitability.

A business must determine if it has sufficient liquidity to pay its current obligations. Because of its intimate connection to a company's daily operations, liquidity analysis is crucial for external and internal experts (Saha & Bhunia, 2015). One challenge in liquidity management is achieving the desired trade-off between profitability and liquidity (Nahum & Amarjit, 2022). The Nigerian banking industry, as an important financial intermediary that promotes economic activity via lending and investment, is essential to the nation's economic growth (Uwuigbe, Olubukunola, & Babajide, 2020). However, a number of hazards affect the performance and stability of Nigeria's commercial banks, with lending risk being one of the most imperative. Credit risk arises from debtors' potential default, which could cause banks to suffer financial losses. Thus, the health and longevity of Nigeria's commercial banks depend heavily on efficient credit risk management.

Nigerian commercial banks have a difficult time controlling lending uncertainty, which has an adverse effect on their operations. The risk of credit is the likelihood that borrowers won't fulfil their payments, which might cost banks money. The total viability of commercial banks is meaningfully affected by the quality of their management of credit risk procedures (Adebiyi & Olokoyo, 2019). Reduced profitability, higher provisioning costs, and a high percentage of non-performing loans (NPLs) are all consequences of ineffective credit risk management (Ismaila, 2021).

Statement of Problem

The development, survival, sustainability, growth, and performance of a banking system are largely dependent on liquidity management and commercial bank performance, and bank managers are concerned about their capacity to manage the trade-off between the two. For example, banks provide demand deposits, which enable depositors to take money out at any moment, as well as loans that are not easily redeemed at a high price. When too many depositors want to withdraw at once, the mismatch in liquidity occurs, meaning that the bank's obligations are more liquid than its assets. This negatively impacts the bank's liquidity situation. Since each kind of liquidity has a distinct impact on profitability, the difficulty is in determining the ideal point at which a deposit money bank may hold its assets to maximise these two goals. This issue becomes worse since many deposit money institutions prioritise maximising profits above managing liquidity. As a result, they often overlook the significance of effective liquidity management. This is the context in which the research aims to explore Nigerian commercial banks' performance and liquidity management.

Research Hypotheses

Loans and advances has no significant effect of on the return on assets of commercial banks in Nigeria.

Non-performing loans has no significant impact on the return on assets of commercial banks in Nigeria.

Provision for bad debt has no significant impact on the return on assets of commercial banks in Nigeria.

Literature Review

Banks Liquidity

Because they exist to both take deposits and offer credit facilities, commercial banks are intrinsically exposed to risk of managing lending. According to Greuning and Bratanovic (2003), credit refers to the lender's faith in a borrower, which enables the borrower to access resources without requiring timely payment. Put differently, a lender expects to receive an equivalent asset from the borrower on the day of payment, when he provides the borrower with an asset. More than any other risk, credit risk is the biggest one that banks deal with, and the success of the bank's operations depends on how accurately and efficiently it manages this risk.

To use the language of finance, credit also includes granting loans and incurring debt. Gieseche (2004). Healthy credit-giving practices are one of the most important tenets that support financial organisations' healthy financial position, claims Tetteh (2012). The study emphasised that responsible credit distribution sets credit limitations and creates a credit-granting procedure for authorising new credit. A nation's ability to thrive and flourish economically depends heavily on its credit situation. These two functions of credit are as follows: first, credit facilitates the transfer of funds to the most productive and efficient locations; second, financing reduces the amount of currency or coin money used because the amount of extending credit multiplies the quantity of money or coin in circulation.

Theoretical Review

According to portfolio theory, DMBs may mitigate credit risk by spreading their loan portfolio over several markets, industries, and geographical areas. By distributing the risk across a variety of borrowers via the investment in a portfolio of loans with varying risk characteristics, DMBs may lower their credit risk. In addition to lowering concentration risk, this may enhance DMBs' overall credit risk management (García & García, 2014).

Empirical Review

Adegbie and Dada (2018) assessed how risk asset and liquidity management affected deposit money banks' long-term viability in Nigeria. The ex-post factor was used. The deposit banks that are active in the banking sector made up the study's population, and the Central Bank of Nigeria served as a representative sample along with three other banks. While secondary data were utilised to examine the managers' activities, primary data were used to get the respondents' perspectives. The SPSS was used to assist with the studies, which included both regression analysis and descriptive statistics. Four hypotheses were examined, and all analyses were carried out at 0.05 alpha. The results demonstrated the close connections between risk asset management, liquidity management, and the long-term viability of Nigerian deposit banks. The research came to the conclusion that the banking industry's ability to sustain sustainable performance depends largely on efficient risk asset and liquidity management. According to the research, banks should implement efficient and superior risk portfolio and liquidity management to maintain the viability and stability of the financial system, and the regulatory body should compel adherence to monetary policy.

Taiwo et al. (2017) explore the outcome of lending risk management on the loan development and achievement of Nigeria's deposit banks during a 17-year period (1998-2014). Data for the study came from the CBN bulletin 2014 and the World Bank 2015. The paper used a multivariate regression. The result indicates how efficient lending management approaches may boost financiers' in banks, increasing the amount of cash accessible as lending and boosting bank profitability.

Kumaraswamy (2019) investigates the connection between business profitability and trade credit management. Forty-one manufacturing companies from the energy, materials, and capital goods sectors between 2009 and 2017 in Saudi Arabia were considered. The panel data is analysed using the fixed effect regression approach. The study's empirical results reveals that trade credit has a substantial, favourable outcome on profitability. The study's conclusions suggest that Saudi Arabia's industrial companies can significantly increase their cash flows and profitability by implementing efficient trade credit management.

Kasali and Fashanu (2020) looked at the interplay between financial viability and lending management in Nigerian financial institutions. In order to accomplish this goal, the study used a descriptive survey research approach, and information was gathered from the employees and clients of two well-known financial institutions in Nigeria. Using regression and correlation analysis, we estimated the causal links between credit management, financial performance, and other associated factors. The analysis's findings showed that a company's productivity increases when it puts in place efficient credit management systems. In terms of debtor turnover, financial growth, management, and ultimately profitability, this affects the degree of financial performance. Financial institutions should properly consider how good credit management may improve organizational profitability, according to the recommendation.

Alalade et al. (2014) examined the effect of controlling credit risk and bank profitability in Nigeria. The study premise was tested and examined in light of lending uncertainty and its noteworthy implication on banks' viability. This study also sought to determine how well a bank can control its lending uncertainty to increase profit level. The researchers collected data by asking participants to complete standardized questionnaires. Determining whether management of lending uncertainty affects profitability. The results indicates that lending uncertainty lowers earnings; therefore, managing credit risk should be a major preference for bank.

Methodology

The study applied ex-post facto design. The design is a strategy or blueprint outlining the methods for gathering and evaluating data relevant to a certain issue. It functions similarly to a building plan that a contractor uses to build a structure.

Model Specification

According to Yomere & Agbonifoh (1999), a model is a condensed representation of reality that helps us explain the fundamental elements and relationships inside the system or phenomenon it represents. The research indicates that while examining the connection between globalisation and bank performance $ROA=F(LNA, NPL, PBD)$
(1)

$$\text{Log(ROA)} = a_0 + a_1 \log \text{LNA} + a_2 \log \text{NPL} + a_3 \log \text{PBD} + u_4 \quad (2)$$

Where, ROA = Return on Assets, LNA = Loan and Advances .NPL = Non-performing Loans

PBD = Provision for Bad Debt

Data Presentation

Descriptive Statistics

Table 1 shows the summary of data and variables used in the study.

Table 1: Summary Descriptive Results

	LNA	NPL	PBD	ROA
Mean	6130.655	1276.209	43.65000	2.831000
Median	6063.100	1407.960	41.80000	2.500000
Maximum	16117.20	2103.180	101.1000	9.820000
Minimum	272.9000	52.81000	1.700000	0.040000
Std. Dev.	5389.790	619.7301	29.18167	1.914116
Skewness	0.490762	-0.508253	0.467455	2.406360
Kurtosis	1.940902	2.049718	2.606952	10.18422
Jarque-Bera	1.737563	1.613602	0.857119	62.31273
Probability	0.419462	0.446283	0.651447	0.000000
Sum	122613.1	25524.18	873.0000	56.62000
Sum Sq. Dev.	5.52E+08	7297243.	16179.83	69.61298
Observations	31	31	31	31

Source: E-view Output, 10.1

The (CBN) bulletin, 2017 were gathered over a 20-year period, as shown in Table 1, and were used for analysis in the research. With a lowest and highest value of N272.9000 billion and N16,117.20 billion, respectively, the mean loan and advance amount was N6,130.655 billion. With a low value of N52.81000 billion and a high value of N2,103.180 billion, respectively, the mean amount of non-performing loans was N1,276.209 billion. The mean amount of bad debt provision was N43.65000 billion, with the lowest and highest values being N1.700000 billion and N101.1000 billion, respectively. Finally, returns on assets ranged from a minimum of 0.04% to a high of 9.82%, with a mean of 2.83%.

Unit Root Test

Researchers used the ADF Unit Root Test to determine if the variables were stationary. Table 2's result demonstrates that every variable is integrated at levels, namely 1(1) at the 1% or 5% level of significance.

Table 2: Unit Root Test Analysis

Variables	ADF test Statistics	Mackinnon (5%) critical value	No of the time difference	Remark
ROA	1.5648676	-3.9674860	1(I)	Stationary
NPL	-3.8566754	-1.7564836	1(I)	Stationary
LNA	-4.7564870	-4.7957686	1(I)	Stationary
PBD	5.7689681	4.3680589	1(I)	Stationary

[i]

Test for Co-Integration

Upon discovering that every variable is stationary at the initial difference, the next step involves executing the Johansen co-integration process to determine whether the ROA, Loan and advances non-performing loans and provision for bad debt are co-integrated respectively. Table 3 displays the test results.

Table 3: Multivariate Johansen's Co-Integration Test Result.

Null hypotheses	Alternative hypotheses	Eigen value	Likelihood ratio	Critical vale: 5%	Critical value 1%	Hypothesized No. of CE(s)
r=0	r=1	0.7697852	56.70235	64.84	46.02	None **
rd≤1	r=2	0.7486978	53.96755	52.03	36.34	At most 1
rd≤2	r=3	0.6794654	48.87463	46.76	24.63	At most 2
rd≤3	r=4	0.6285768	43.75835	43.56	20.44	At most 3

Table 4

Dependent Variable: (ROA)
Method: Least Squares
Date: 24/08/24 Time: 15:19
Sample: 1993 2023
Included observations: 31

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.153993	0.000028	0.505466	0.0001
LOG(LNA)	-0.234235	0.004300	0.700674	0.0036
LOG(NPL)	0.725877	0.001102	1.228006	0.0072
LOG(PBD)	-0.360501	0.004051	1.147906	0.0079
R-squared	0.577923	Mean dependent var	0.763701	
Adjusted R-squared	0.531111	S.D. dependent var	1.040964	
S.E. of regression	1.071405	Akaike info criterion	3.152676	

Sum squared resid	18.36655	Schwarz criterion	3.351822
Log likelihood	-27.52676	Hannan-Quinn criter.	3.191551
F-statistic	1.645224	Durbin-Watson stat	1.835482
Prob(F-statistic)	1.937478		

Source: E-view Output, 10.1

Test of Hypotheses

Loans and advances have little effect on the ROA of Nigeria's banks. Table 4's p-value = 0.0036 is more than the 0.05 alpha. This implies the dismissal of the null hypothesis. As a result, the research comes to the conclusion that loans and advances significantly improve the return on assets of Nigerian commercial banks. Non-performing loans have no appreciable effect on Nigerian commercial banks' return on assets. Thus, 0.0072 is the probability value from Table 4 that is more than the 5% threshold of significance. This implies the dismissal of the null hypothesis. Consequently, the analysis comes to the conclusion that non-performing loans significantly improve commercial banks' return on assets in Nigeria. The provision for bad debt has no substantial effect on ROA of Nigeria's commercial banks. Table 4 presents the probability value of 0.2679 with 0.05 alpha. Inferred is the acceptance of the null hypothesis. Consequently, the research comes to the conclusion that Nigerian commercial banks' provisions for bad debt have a affirmative and considerable implication on their return on assets.

Conclusion

The research comes to the decision that liquidity management has no appreciable impact on Nigerian commercial banks' performance. On the other hand, non-performing loans from banks increased the profitability of banking companies. Based on the data, the research came to the conclusion that banks' lending management has no appreciable effect on how well they function in Nigeria. Despite the fact that most of them were unable to expand or function as anticipated because of the large percentage of non-performing loans, strong commercial banks are nevertheless able to make loans from client deposits. Additionally, since these banks are certain that the interest rates on loans that are recovered will be high enough to balance the bad loans, they may provide additional loans without concern. They also include protections for loan loss; nonetheless, commercial banks must carefully consider credit requests before issuing them for consumers in order to prevent the high rate of non-performing loans.

Recommendations

When granting credit facilities, bank management, particularly credit officers, have a duty of care to follow prudential norms. It is essential for banks to establish a robust lending offering technique, adhere to the Know Your Customer system, implement efficient methods for lending dimension and monitoring, and ensure efficient controls over credit risk. In order to protect themselves against the loss of client funds due to credit default, commercial banks should guarantee credit. There are some loan facilities that small commercial banks with limited capital should not provide. Therefore, a bank's capital value serves as a buffer against the loss of deposited money. Nigerian deposit money institutions need to have enough capital, even in the absence of government oversight.

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Appendix.1:

Liquidity Management and Commercial Banks Performance in Nigeria 1993-2023

Year	Loan and Advances (N,Billion)	Non-Performing Loans (N,Billion)	Provision for Bad Debt (N,Billion)	Return on Assets %
1993	272.9	52.81	2.2	4.52
1994	322.8	324.22	2.6	4.13
1995	508.3	386.09	1.7	3.96
1996	796.2	472.54	45.0	4.82
1997	954.6	767.05	47.5	2.63
1998	272.9	52.81	2.2	4.52
1999	322.8	324.22	2.6	4.13
2000	508.3	386.09	1.7	3.96
2001	796.2	472.54	45.0	4.82
2002	954.6	767.05	47.5	2.63
2003	1,210.0	936.89	41.3	2.00
2004	1,519.2	1,312.48	62.0	2.58
2005	1,976.7	1,503.44	64.2	0.49
2006	2,524.3	1,249.21	14.0	2.65
2007	4,813.5	1,098.17	28.8	5.92
2008	7,799.4	1,591.96	32.4	4.29
2009	8,912.1	1,752.29	93.1	(9.28)
2010	7,706.4	1,733.16	42.8	3.91
2011	7,312.7	1,005.56	95.3	(0.04)
2012	8,150.0	2,047.73	101.1	2.62
2013	10,005.6	2,103.18	57.3	2.89
2014	12,884.4	1,718.82	31.2	2.50
2015	13,086.2	1,956.58	28.2	2.50
2016	16,117.2	1,926.19	42.3	1.36
2017	15,740.6	1,867.20	40.0	2.42
2018	16,117.2	1,926.19	42.3	1.36
2019	13,086.2	1,956.58	28.2	2.50
2020	16,117.2	1,926.19	42.3	1.36
2021	16,898.9	1,987.14	42.6	2.50
2022	18,324.9	2,435.16	42.6	2.50
2023	18,324.9	2,435.16	42.6	2.50

Source: *Central Bank of Nigeria Statistical Bulletin, 2023.*