OPEN ACCESS
Global Journal of Research in Business Management
ISSN: 2583-6218 (Online)
Volume 03| Issue 06| Nov.-Dec. | 2023
Journal homepage: https://gjrpublication.com/gjrbm/
Review Article

# Non-Performing Loan and Return on Assets of Nigerian Banking Industry – A Conceptual Review

[1]Nuruddeen Abubakar, [2]Dr. Abubakar Sadiq Usman, [3]Isyaka Mohammed Salisu, [4]Marcel Essien Edibo

[1,2,3] Department of Business Administration, Faculty of Arts amd Social Sciences, Gombe State University - Nigeria
[4]Sunny Communication Ventures, 414 Oron Road, Uyo - Nigeria

DOI: 10.5281/zenodo.10202001

***Corresponding author:** Nuruddeen Abubakar
Department of Business Administration, Faculty of Arts amd Social Sciences, Gombe State University - Nigeria

## Abstract
This study reviewed the effects of non-performing loans on return on assets of Nigerian banking industry. The study made use of several relevant literatures that were gathered from recently published journal articles, textbooks, and earlier scholarly investigations that are relevant to the topic. The results showed that return on assets and nonperforming loans have negative relationship. The study's conclusion is based on a thorough analysis of the phenomena and takes into account the implications of the evaluated relevant literatures. The report suggests that more empirical reviews and or researches need to be conducted and that management should only grant loans against reliable collateral.

**Keywords:** Assets, Banking, Loan, Non-performing and Return.

## Introduction

A significant build-up of non-performing loans has frequently been linked to the occurrence of banking sector failure brought on by insolvency (Sitepu et al., 2023). The ownership, scale, and scope of operations of Nigeria's banking sector have all changed throughout time. Eighty-nine (89) banks operated under the Universal Banking System (UBS) prior to the 2005 banking system consolidation in Nigeria. This system did not impose any limitations on the banks' share capital investments in other financial service sectors (Patwary &Tasneem 2019). Because of the interconnection of its subsidiaries, UBS caused other financial organizations with banks as majority or minority shareholders to proliferate and generated supervisory bottlenecks for the regulating body (Jolevski, 2017). In spite of these investments, the banking system was ranked extremely low in relation to its potential (CBN, 2019), which is why the banking system was consolidated in 2005. This was made possible by Nigeria's large capital market, population, and total economic activity. The consolidation process had an almost immediate impact, as seen by the sharp drop in non-performing loans, which fell from 21.6% in 2005 to 9.3% in 2006. In a similar vein, return on assets decreased from 2.1% in 2005 to 1.8% in 2006 before gradually increasing to 3.0% in 2007. The start of the Global Financial Crisis (GFC) in 2007–2008 led to a sharp drop in oil prices and a notable reduction in the returns on investments made in the oil industry. The banking system was placed in a high credit risk position as a result of the accompanying capital outflow. Nigerian banks' asset quality declined dramatically as the number of non-performing loans increased, having a negative impact on the economy. The situation grew worse as a result of the GFC's aftereffects, and in 2009 the banks' non-performing loan (NPL) ratio reached an all-time high of 37.3%. (Patwary &Tasneem 2019). The banks' capacity to provide loans to the real sector was hampered by their glut of bad assets and severe liquidity issues. In order to overcome the difficulties, several banks were forced to reduce staff and limit spending. Florid and Purnamasari (2023) assert that bank failure could result from an inability to successfully lower nonperforming loan levels. The Asset Management Corporation of Nigeria (AMCON) was established in 2010 to take up bank non-performing loans (NPLs) in an effort to address these issues. The comparison of the industry's liquidity positions prior to and following 2010 highlights the impact of securitization on Nigerian banks' performance. According to NDIC data in 2019, the average liquidity ratio was 44.45% in 2009 and 68.01% on December 31, 2012. This demonstrated that AMCON operations had a favorable effect on Nigerian banks' liquidity. Furthermore, Salihu et al. (2023) claim that the situation is comparable to how securitization affects the asset quality of Nigerian banks. As of December 31, 2012, the percentage of nonperforming loans to total loans had decreased from 37.3% in 2009 to 3.71%. In a similar vein, ROA rose from roughly 2.52% in 2009 to 3.0% in 2012 (Jolevski, 2017).

The reason for the increase in bank asset quality was the AMCON's acquisition of the non-performing loans of the deposit money banks (DMBs) at the time, as well as the DMBs' improved credit risk management. According to Ozurumba (2016) the increase in oil prices in 2013 had a significant effect on the decline in non-performing loans (NPLs) in the banking sector, with the ratio falling to 3.39 percent in 2013 and then to an all-time low of 2.96 percent in 2014. Additionally, a slight improvement in ROA from 2.04% in 2013 to 2.09% in 2014 followed this. Nevertheless, NPLs increased dramatically to 12.8, 14.8%, and 16.8% in 2016, 2017, and 2018, respectively, as a result of the 2016–2017 economic downturn (Patwary &Tasneem 2019). This resulted from the economy's significant reliance on oil and its exposure to it. This analysis shows that the majority of the time, there is an inverse link between non-performing loans and the return on assets of Nigerian banks. Examining the relationship between deposit money banks in Nigeria's nonperforming loan ratio and return on assets is the study's main goal.

## 2.1 Literature Development

## 2.2 Return on Assets

A profitability ratio called return on assets shows how much money a business can make from its assets. Stated differently, return on assets (ROA) quantifies the effectiveness of a company's management in generating profits from the assets or financial resources listed on its balance sheet. A company's management is more effective at managing its balance sheet to produce profits when it has a greater return on assets (ROA) % (Sitepu et al., 2023). Because a company's asset total might change over time as a result of the acquisition or sale of cars, land, or equipment, as well as inventory adjustments or seasonal variations in sales, average total assets is used to calculate return on assets (ROA). Because of this, computing the average total assets throughout the relevant time yields more accurate results than computing the total assets for a single period. The balance sheet shows the total assets of a corporation (Florid & Purnamasari, 2023).

But according to Salihu et al. (2023) figuring out a company's return on assets (ROA) can be useful when analyzing its profitability over several quarters and years, as well as when comparing it to similar businesses. To assess a company's financial success, however, no single financial ratio should be employed. The return on all assets utilized by the business is displayed by the ROA ratio. Furthermore, ROA offers. A more accurate indicator of the business's success since it demonstrates how well management uses resources.

## 2.3 Non-performing Loans

When a borrower defaults on a loan and fails to make monthly principal and interest payments for a predetermined amount of time, the loan is considered non-performing (NPL). When debtors are unable to continue making loan repayments because they are out of money or face other obstacles, the loan becomes non-performing (Sitepu et al., 2023). According to Taswan et al. (2023), banks often categorize loans as non-performing when principal and interest repayments are past due for more than 90 days or in accordance with the parameters stated in the loan agreement. Once a loan is labeled as non-performing (NPL), there is far less chance that it will be repaid. Even so, a borrower who has already had a debt declared non-performing may begin to make repayments on it. The non-performing loan turns into a re-performing loan in these circumstances (Jolevski, 2017).

Generally speaking, non-performing loans are regarded as bad debts since there is little likelihood of collecting the overdue loan installments. On the other hand, Ozurumba (2016) believes that a higher percentage of non-performing loans on the balance negatively impacts the bank's cash flows and stock price. As a result, banks that record non-performing loans may pursue legal action to ensure that the loans they are due are repaid. Possession of the assets pledged as loan collateral is one of the options available to lenders. For instance, if the borrower pledged a car as collateral for the loan, the lender will seize the car and sell it to recoup any money the borrower still owes. When mortgage payments are not made on time and are past due for more than ninety days, banks may also foreclose on homes. If the lender wants to remove the risky assets from their balance sheet, they can also choose to sell the non-performing loans to outside investors and collection agencies. Banks offer substantial discounts on non-performing loans, and collection agencies strive to retrieve the maximum amount of outstanding debt. Alternatively, the lender can engage a collection agency to enforce the recovery of a defaulted loan in exchange for a percentage of the amount recovered (Patwary & Tasneem 2019).

## 2.4 Empirical Review

Different related studies conducted were reviewed

### 2.4.1 Return on Assets and Non-performing Loan Ratios

At Conventional Rural Banks in Medan City, Sitepu et al. (2023) assess the impact of the following variables on return on assets: net interest margin as an intervening variable; capital adequacy ratio; non-performing loans; loan to deposit ratio; operational costs; operating income; and credit disbursement. Financial reports that have been gathered and publicized about the subject of the study are used as secondary data collection in this study. The present study employed a combination of classical assumption testing, panel data regression analysis, and enlarged Sobel test analysis to investigate mediating (intervening) variables, as well as descriptive statistical methods to solve research concerns. The loan to deposit ratio had a positive and significant impact on net interest margin at conventional rural banks in Medan City, the capital adequacy ratio had a positive and significant effect on net interest margin at these banks, non-performing loans had no significant impact on net interest margin at these banks, and operating costs and income had a negative and significant impact on net interest margin at conventional rural banks in Medan City.

Furthermore, from 2013 to 2021, Salihu et al. (2023) assessed the effect of total and short-term leverage on the return on assets of eight (8) deposit money banks listed on the Nigerian Exchange Group. This study also looks at how non-performing loans affect the linkages between return on assets, total leverage ratio, and short-term ratio. The appropriateness of random effects regression is demonstrated by the Hausman test. Dependable standard errors. The results of a random-effects regression study indicate that while total leverage has an insignificantly negative impact on return on assets, short-term leverage has a considerable negative impact. The regression study also reveals that the ratio of non-performing loans significantly and favorably moderates the relationship between short-term leverage and return on assets, while the ratio of non-performing loans significantly and negatively moderates the relationship between the sampled companies' total leverage and return on assets.

In a similar vein, Florid and Purnamasari (2023) examine how financial performance is affected by non-performing loans, the loan to deposit ratio, and the ratio of operational costs to income. This study used multiple linear regression using cross-data and time series, utilizing a quantitative data approach with hypothesis testing. The statistical software Statistica Program for Social Science (SPSS) Version 23 is used to help with data management in this study. The study findings demonstrate that, while Operational Cost to Operational Income (BOPO) has a positive impact on Return On Asset (ROA), Non-Performing Loan (NPL), Loan to Deposit Ratio (LDR), and Loan to Operational Cost to Operational Income (BOPO) have negative effects on ROA. Additionally, from 2018 to 2021, these variables would affect Financial Performance (ROA) in Islamic Commercial Banks. Islamic Commercial Banks are anticipated to exercise greater caution when extending credit, as data from studies indicates that the percentage of non-performing loans (NPLs) has a major impact on Islamic banks' return on assets (ROA).

Additionally, Taswan et al. (2023) then investigates the variables that affect non-performing loans at commercial banks that are listed on the Indonesia Stock Exchange (IDX). Non-performing loans are the dependent variable in this study, whereas the independent factors are bank size, return on assets, net interest margin, and loan-to-deposit ratio. In order to examine the impact of return on assets, loan-to-deposit ratio, net interest margin, and bank size on non-performing loans, 144 N samples from 25 commercial banks were collected. We employed path analysis to evaluate the data and the purposive sampling technique. The analysis's findings provide empirical proof that, in contrast to the loan-to-deposit ratio and bank size, the net interest margin positively affects return on assets. Return on assets and loan-to-deposit ratio have a negative effect on non-performing loans, while net interest margin and bank size have no effect. The novelty of this research is to place the return on assets as an intermediate variable that plays a double role as the dependent and independent variable. By placing ROA as the mediating variable, it is found that the effect of net interest margin on non-performing loans is not a direct effect but through ROA.

Furthermore, Awaluddin et al. (2023) ascertain the impact of Loan to Deposit Ratio and Non-Performing Loan on Return on Assets. Using the financial statements of banking firms for the years 2017 through 2022, this study was carried out on banking companies listed on the Indonesia Stock Exchange (IDX). The study's sample consists of all 44 banking companies that are listed on the Indonesia Stock Exchange. Purposive sampling is being used in the sample process to ensure that there are five companies that match the criteria. The F test and multiple linear analysis are used in this study to determine the relationship between the variables. The study's findings demonstrate that, for banking businesses listed on the Indonesia Stock Exchange (IDX), both the loan to deposit ratio and non-performing loans simultaneously have a substantial impact on return on assets, with a significance value of $0.000 < 0.05$. However, for banking businesses listed on the Indonesia Stock Exchange (IDX), the loan to deposit ratio has no influence on return on assets with a significance value of $0.827 > 0.05$. In contrast, partially non-performing loans have an effect on return on assets with a significance value of $0.000 < 0.05$.

Similarly, Thyovani and Manda (2022) ascertain the impact of the capital adequacy to non-performing loan ratio on return on assets. During the three-year observation period (2017-2019), a number of banking companies listed on the IDX comprise the population of this study. Purposive sampling was used in this study to get sample data. Based on multiple linear regression analysis results, which indicate that non-performing loans have a negative and minor impact on asset returns whereas the capital adequacy ratio has a positive and substantial effect.

Furthermore, Anggriani and Muniarty (2020) investigate and assess if Non-Performing Loans and Capital Adequacy Ratio have an impact on PT. Bank Central Asia, Tbk's profitability (ROA) in part and concurrently. This study used a quantitative, associative methodology. The participants in this research comprised all employees of PT. Bank Central Asia (BCA), Tbk for 44 years, from 1974 to 2018, with a total sample length of 9 years, from 2010 to 2018. Purposive sampling is the technique used for the sample. The data analysis method makes use of the coefficient of determination, multiple linear regression, t-tests and F-tests for hypothesis testing, and classical assumptions. The study's findings demonstrate that the return on assets is unaffected by non-performing loans. However, Capital Adequacy Ratio has a significant effect on Return on Asset. While simultaneously this study proves that Non-Performing Loans and Capital Adequacy Ratio affect the Return on Assets at PT. Bank Central Asia, Tbk.

The major objective of Patwary and Tasneem (2019) is to ascertain the influence of the ratio of non-performing loans, capital adequacy, and provision maintenance on the return on asset (ROA) of all banks by using data spanning 22 years. This research also looks into the underlying reasons and negative consequences of the non-performing loan. Via the use of STATA 14.2 and the Ordinary Least Square (OLS) method and Vector Auto Regression (VAR) model, secondary sources of data are gathered from Bangladesh Bank's annual reports. OLS regression analysis verifies that two independent variables, the non-performing loan ratio and the provision maintenance ratio, are statistically significant to the dependent variable, return on asset (ROA). The study's results indicate that there are different directional short-run causalities between variables.

Furthermore, Jolevski (2017) looks into how the ratio of non-performing loans affects profitability metrics in the Republic of Macedonia's banking sector from 2007 to 2015. The connection and regression between the nonperforming loan ratio of nonfinancial businesses and profitability indicators—the spread between interest rates on loans and deposits in denars, as well as the rate of return on equity and assets—are presented in this analysis. The correlation's findings indicate a rather strong negative relationship between the ratio of non-performing loans and the rates of return on equity and return on assets. Regression study demonstrates that a rise in the percentage of nonperforming loans has an impact on bank profitability. Also, the statistical analysis confirms that the profitability position of the real sector is one of the most important factors affecting the movement and level of non-performing loans.

In a similar vein, Ozurumba (2016) focused on Access Bank, United Bank for Africa, and Union Bank of Nigeria Plc while analyzing the effects of non-performing loans on the performance of a few selected commercial banks in Nigeria between 2000 and 2013. It precisely ascertained how non-performing loans, loan loss provisions, and loans and advances affected banks' performance as defined by return on assets and return on equity. The study made use of secondary data from the chosen banks' accounts and annual reports for the studied period. Ratio analysis and the ordinary least squares approach were used to analyze the data. The work's specific conclusion is that while return on equity and return on asset are positively correlated with loans and advances, they have an inverse association with non-performing loans and loan loss provisions, respectively. Thus, it can be concluded that non-performing loans have a detrimental impact on the performance of commercial banks, which should not be understated. Additionally, these loans represent a serious threat to the banks' continued survival as corporate businesses.

## 2.5 Theoretical Review

Numerous theoretical expositions have proven the connection between ROA and NPL. The resource base theory and the information asymmetry hypothesis are two of the theoretical pillars. Since information asymmetry theory was the only explanation that could explain the connection between nonperforming loans and return on assets, the study focused on it. It was therefore selected as the supporting theory as well.

### 2.5.1 Information Asymmetry Theory

The notion of information asymmetry was initially introduced in Akerlof's landmark 1970 article, which contended that an imperfect market was caused by the unequal distribution of knowledge amongst parties involved in transactions. "Information is imperfect and obtaining information can be costly," stated Stiglitz (1981). He added that there exist information asymmetries and that business and individual decisions have an impact on how asymmetrical the information is. In every market, the seller typically knows more about the products than the customer does, therefore the buyer is taking a chance when they purchase the item. Kemei and Kerongo (2014) linked a lack of information to the high percentage of non-performing loans in banks. Dell'Ariccia (2001) pointed out that the high percentage of loan defaults would decrease if banks were able to accurately assess borrowers' creditworthiness and grant credit facilities to those who deserve them. On the other hand, an unfavorable selection exposure in which creditworthy borrowers are replaced by high-risk borrowers may eventually result in a decline in the general quality of bank loan portfolios and a build-up of non-performing loans. Therefore, a careful balance is required to lower the high rate of loan defaults, diminishing profitability, capital erosion, and the subpar performance of the banking industry (Makri et al., 2014).

## 3.1 Methodology

The conceptual reviews on non-performing loans and return on assets of the Nigerian banking sector were conducted using a range of related literatures and additional sources, such as academic research and textbooks. To do a literature review and draw a judgment (Taswan et al., 2023).

### 3.2 Discussion of Findings

The outcomes demonstrated the inadequate management of nonperforming loans. The outcome showed that return on assets and nonperforming loans had a negative connection. The majority of the examined research show that the factors are negatively correlated. That is to say, the return on assets will decrease and vice versa if the ratio of nonperforming loans rises. The results support those of Patwary & Tasneem (2019), Jolevski (2017), and Ozurumba (2016).

### 3.3 Conclusion

The analysis concludes that there is a negative association between nonperforming loans and return on assets in the Nigerian banking sector, based on the findings of the majority of the studied literature. The findings indicate that a lower percentage of nonperforming loans results in a higher return on assets.

### 3.4 Recommendations

The study recommend that;

i. Empirical research on this topic need to be done.
ii. Management should pay more attention on presenting collateral before given any facility to the customer.

## References


1. Anggriani, R., & Muniarty, P. M. (2020). The effect of non-performing loans (NPL) and capital adequacy ratio (CAR) on profitability (ROA) at PT. Bank Central Asia (BCA), TBK. Ilomata International Journal of Management,, 1(3), 121-126.
2. Awaluddin, M. R., Haliah, H., & Kusumawati, A. (2023). The Effects of Non Performing Loan and Loan to Deposit Ratio toward Return on Asset. International Journal of Humanities Education and Social Sciences (IJHESS), 2(6).
3. Br Sitepu, G. P. P., Irawati, N., & Nasution, F. N. (2023). The Influence of Capital Adequacy Ratio, Non Performing Loan, Loan to Deposit Ratio, Operational Costs of Operational Revenue and Credit Distribution on Return on Asset with Net Interest Margin A.
4. Florid, M. I., & Purnamasari, P. (2023). The Impact of Non-Performing Loan, Loan to Deposit Ratio, and Operational Cost to Operating Income Ratio on Financial Performance. Journal of World Science, 2(8), 1303-1309.
5. Jolevski, L. (2017). Non-performing loans and profitability indicators: The case of the republic of MACEDNIA.,. Journal of Contemporary Economic and Business Issues, 4(2).
6. Kemei, J. C., & Kerongo, F. (2014). The effects of information asymmetry in the performance of the banking industry: A case study of banks in Mombasa County. International Journal of Education and Research, 2(2).
7. Makri, V., Tsagkanos, A., & Bellas, A. (2014). Determinants of non-performing loans: The case of Eurozone.,. Panoeconomicus (pp. 61(2),193-206.). Panoeconomicus: 61(2).
8. Ozurumba, B. A. ((2016).). Impact of non-performing loans on the performance of selected commercial banks in Nigeria. Research journal of Finance and Accounting, 7(16), 95-109.
9. Patwary, M. S. H., & Tasneem, N. (2019). Impact of non-performing loan on profitability of banks in Bangladesh: A study from 1997 to 2017. Global Journal of Management and Business Research: C Finance, 19(1), 13-27.
10. Salihu, A. S., Abdullahi, S. R., & Adefiranye, J. R. A. (2023). The Influence of Non-Performing Loan Ratio on the Relationship between Short-Term and Total Leverage and Profitability. Fuoye Journal of Accounting and Management, 6(1).
11. Taswan, L. W. W., Nugroho, A. H. D., & Sudiyatno, B. (2023). Factors Influencing Non-Performing Loans: An Empirical Study on Commercial Banks in Indonesia. Journal of Hunan University Natural Sciences, 50(2).
12. Thyovani, E., & Manda, G. S. (2022). The Influence of Capital Adqucy Ratio and Non Performing Loan on Return on Asset. Primanomics: Jurnal Ekonomi & Bisnis, 20(2), 101-112.



**CITATION**

N. Abubakar, A.S. Usman, I.M.Salisu, & M.E. Edibo. (2023). Non-Performing Loan and Return on Assets of Nigerian Banking Industry – A Conceptual Review. Global Journal of Research in Business Management, 3(6), 47–51. https://doi.org/10.5281/zenodo.10202001