

**CRITICAL ANALYSIS OF THE ROLE OF CENTRAL BANK IN REGULATING
THE NON-PERFORMING LOANS AND PERFORMANCES OF THE NIGERIAN
BANK SYSTEM**

MSC FINANCE

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TABLE OF CONTENT

ABSTRACT.....	i
DECLARATION.....	ii
ACKNOWLEDGMENT.....	iii
CHAPTER ONE.....	1
CHAPTER TWO.....	7
CHAPTER THREE.....	22
CHAPTER FOUR.....	28
CHAPTER FIVE.....	33
APPENDIX.....	36
REFERENCES.....	38

Abstract

This research was carried out to examine and investigate, the role of the Central Bank in regulating non-performing loans and the performance of the Nigerian banking system. However, Nigerian banks are exceeding the Central Bank of Nigeria's 5% threshold on non-performing loans, exposing them to a large number of unpaid debts as a result of borrowers who didn't fulfill their financial responsibilities. The study adopted the ex-post facto research design. The study population was 33 banks that the Central Bank of Nigeria granted a license to operate in Nigeria between 2000 and 2020. Both descriptive and inferential statistics were used to analyze the data. The p-value (.006) was larger than the level of significance of 0.05 in the analysis of variance, indicating that the model was significant in predicting these effects in Nigeria. Furthermore, the F-calculated value (6.310) was higher than the tabulated value at conventional df (3, 15). According to the coefficients, all independent factors, including Bank lending rate, Net Interest Margin, and non-performance loans, had a positive but statistically insignificant impact on Return on Asset. In order to prevent the buildup of bad credit, which is impeding bank performance in Nigeria, the study urged the central bank of Nigeria to establish a special court that will swiftly decide loan default and recovery cases for Nigerian banks. It also urged Nigerian banks to use credit reference bureau information when processing a borrower's credit application. Due diligence may minimize the bank's potential for timely loan defaults while also boosting profits.

DECLARATION

I, Vivian Nwajuo, hereby affirm that I wrote the entire dissertation that is being submitted, with all necessary citations and references. In other words, all information gathered, and ideas consulted during this research have been acknowledged.

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I would first like to express my gratitude to all the NCI Graduate school of Business who gave up their time for their assistance with this paper and my degree. Thank you to my supporting parents for providing me with daily encouragement during this course. Finally, I want to thank my supervisor Richard Heywood Jones for all your advice, direction, and assistance, you deserve special recognition.

CHAPTER ONE

INTRODUCTION

1.1. Background to the Study

The provision of loans to people, companies, and even governments, so they can engage in investment and development activities that support a nation's economic development and progress, is one of a bank's most crucial responsibilities in Nigeria. This study aims to critically analyze the role of the central bank in regulating non-performing loans and the performance of the Nigerian Banking system. The Central Bank of Nigeria (CBN) was formally founded on July 1, 1959, following the Central Bank of Nigeria Act, which was passed in 1958. The central bank's primary goals, as stated by the Act, are to issue legal tender currency in Nigeria, keep an external reserve to safeguard the currency's value abroad, support monetary stability and a healthy financial system in Nigeria, and act as a banker and financial adviser to the Federal Government. Like any other central bank, the CBN carries out all the usual duties. However, the CBN has been forced to emphasize the central bank's developmental tasks because of Nigeria's developing economy. Government debt is managed by central banks either wholly independently, as in Nigeria, or jointly with the Treasury, as in the United Kingdom. Floating government loans with short, medium, or long maturities is a part of managing the nation's debt. Treasury bills and certificates are used to raise funds for short-term government loans, whereas government stocks are used to raise funds for long-term loans. Some central banks guarantee these loans to the point where neither bank, non-bank financial entities, nor the public use them. This is the practice in Nigeria. In other countries such as the U.K., the central bank does not determine what amount can be raised but rather the commercial banks and other financial institutions bid for the take-up of government debt instruments by tender either as syndicates or severally. The interest rates payable on the loans are determined by market forces and not given by the central bank as in the case of Nigeria.

However, because of low asset prices, loan defaults may rise during economic downturns, leading to substantial loan losses and a detrimental effect on the bank's profitability. Furthermore, the bank's solvency ratio becomes unfavorable if such assets provide little to no income limiting a bank's ability to promptly refund deposits is negative for the bank's reputation. Unrecoverable amounts of loans are written off as non-performing loans because of the Nigerian banks holding that kind of asset becoming frail and losing the faith of their

customers (Sere-Ejembi, et al., 2014). Non-performing loans should therefore be thoroughly probed because they have a detrimental effect on the viability and survival of the banking industry. I am looking forward to pursuing my Ph.D. and this dissertation will be of great benefit.

Nigeria's financial ecosystem comprises several marketplaces, players, tools, and organizations that collaborate to provide financial services to the nation's populace. The Central Bank of Nigeria (CBN) describes the financial ecosystem in Nigeria as consisting of financial markets like the "money market" and "capital market," financial institutions like banks, including supervisory and regulatory authorities, development finance institutions, as well as other financial institutions like pension funds, insurance companies, bureau de changes, investment management firms, and mortgage companies, among others (Central Bank of Nigeria, 2017). Non-performing loans are those that are either unlikely to be repaid by the borrower or are prone to late repayment. During the financial crisis or the accompanying recession, the inability to repay this loan may worsen. In the financial crisis that resulted in non-performing loans in the Irish banking sector, structural real estate imbalances and cheap but short-term international sources of funding led to weaker lending practices as banks competed for scarce real estate business opportunities, and authorities failed to act swiftly enough to reduce the accumulation of excessive risks that resulted. When NPLs in Nigeria reached a significant level (37% in 2009), the country created the Asset Management Corporation of Nigeria (AMCON) to take over those debts and try to recover them, due to a sizable portfolio of non-performing loans on their books, several Nigerian banks were on the verge of insolvency at the time AMCON was founded. The non-performing assets and bad debts in the Nigerian banking sector cannot, however, be efficiently managed by a single asset management firm.

Another crisis occurred in 2016 when the Nigerian financial system went through its greatest nightmare because of the country's economic recession and the country's economy suffered its biggest setback in 25 years. Banks recorded N1.02 trillion in defaulted loans in the first half of 2016, according to the Financial Stability Report from the Central Bank of Nigeria. According to the CBN, non-performing loans (also known as bad loans) climbed by 158 percent during the study period, rising from N649.63 billion at the end of December 2015 to N1.68 billion at the end of June 2016. As a result, the bad loan ratio increased from 5.3 percent at the end of 2015 to 11.7 percent in the first half of 2016. As a result, borrowers would not be able to pay back 11.30 Naira for every 100 Naira that the bank loaned them.

First Bank, the largest bank in Nigeria, has been plagued for years by "bad credit choices, huge and non-performing insider loans, and inadequate corporate governance standards," according to a 2020 report. Poor corporate governance processes, substantial and non-performing insider loans, and bad credit choices were held responsible for the bank's issues. Also, unable to recapitalize the bank to the necessary levels were the bank's shareholders and FBN Holding Plc. Banks and other financial institutions must report non-performing loan limits set by the Central Bank of Nigeria on their accounts. To manage their credit risk effectively, NPL restrictions are required. To that aim, all banks are required to maintain a 5 percent maximum NPL to gross loan ratio. With a strong 22.2 percent increase in NPLs from N219.91 billion at the end of Q4 2019 to N268.79 billion in Q2 2020, the Oil and Gas sector was the largest contributor to NPLs in Nigerian banks at the end of H1 2020. From N86.79 billion in the second quarter of 2019 to N167.86 billion in the second quarter of 2020, construction grew by 93.4 percent. At the end of the second quarter of 2020, Commerce and Trade had increased their share of NPLs in Nigerian banks by 17.5%, from N146 billion to N171.55 billion. Credit default could cause worry during a time of financial collapse because it could lead to significant loan losses and a decline in bank privileges. Every day, businesses have financial difficulties and people lose their jobs. E.C. Bank (2021). Banks, on the other hand, must limit the number of risky loans because they are usually expensive. Non-performing loans expose banks to two penalties. By decreasing the quantity of money received through the loan industry, they diminish bank earnings. To account for these losses, banks must record provisions. They will therefore need to set aside money to cover the anticipated losses. The money is no longer accessible to make new loans or pay for potential losses. The ongoing merger between two of Nigeria's major second-generation banks has been cited as an indirect effect of NPLs, which are thought to have a long-term negative impact on bank profitability in Nigeria. The effect of NPLs is so far-reaching that even where banks make profits, such profits will be exhausted in a bid to offset their inherent liabilities owing to their NPLs. While regulators have put measures in place to encourage more bank mergers and acquisitions to curb the decline in Capital Adequacy Ratio among banks and the subsequent reliance on injections by the CBN in a bid to save the banks. Thus, the study seeks to contribute to the existing body of knowledge by examining how the non-performing loans affect the thirty-three most recent Nigeria bank's performance, using the performance measures such as Bank lending rate, Return on assets, and interest margin. The effect of the monetary policy, the importance of and comparing the European Central Bank Regulation and the Central Bank of Nigeria's Financial regulation on

non-performing loans through the concept, relevant theories, and empirical findings reached in the research.

1.1 Statement of the problem

The recent collapse of several Nigerian banks and the recent financial instability in developed countries underline the need for ongoing financial system surveillance and ongoing empirical research on this case study. Banking involves lending, which entails the danger of a borrower default. Some loans have a fixed rate of interest, and defaults on these loans can harm Nigerian banks. In this circumstance, there is a chance that lending rates will decline, resulting in a situation where the bank earns less on investments than it does on deposits. In a setting that is exclusive to the banking industry, managing credit default risk can be highly unpredictable and complex. The rising documentation of defaults of either loan interest or loan principals in at least 90 days is jaw-dropping and mostly responsible for many problems experienced in the financial sector in Nigeria (Ajayi & Ajayi, 2017). According To (Hamisu, 2011) Nigeria's Banking system play a key role in the socio-economic growth of the Nigerian economy by providing multiple economic supports that contribute positively to the survival of the economy; however, many of the banks in Nigeria are raking huge losses due to the problem of non-performing loans. This is clearly a downside to the banks' intermediate role in fostering economic growth. It is against this backdrop, that this work will research the critical analysis of the role of the central bank of Nigeria in regulating non-performing loans and the performance of the Nigerian banking system.

1.2 Research Questions

A research question should meet certain requirements and specifications as well as the standards established by the evaluating institution, according to Saunders and Lewis (2012). It should also offer fresh perspectives and a direct connection to pertinent material. According to the issues, the research question for this dissertation is listed below:

1. Critical analysis of the role of the Central Bank of Nigeria on Non-performing loans in the Nigeria Banking system and any Changes since the Financial crisis?
2. What are the elements or factors that influence the performance of the thirty-three most recent Nigeria banks?
3. What is the impact of the monetary policy of the Central Bank of Nigeria on non-performing loans in the Nigerian Banking system

4. How can the structure of the Central Bank of Nigeria's regulation be compared to the Irish Banking system on non-performing loans?

1.3 Research Aims and Objective

The aim and objective of the research should be properly mapped out because they are thought to be one of the most crucial components of any form of research, according to the business research methodology (2018). It not only establishes the breadth and depth of the research but also provides the overall framework for the body of work. The goals of the research should be stated in clear, explicit terms in the objectives of the study. It is not a topic that is particularly new, but it doesn't make the study of the role of the Central Bank on non-performing Loans and the performance of the Nigerian banking system any less important.

The research objectives are stated below:

1. To investigate the role of the Central Bank of Nigeria in regulating the non-performing loans of the Nigerian banking system
2. Examining how the non-performing loans affect the thirty-three most recent Nigeria bank's performance, using the performance measures such as Bank lending rate, Return on assets, and net interest margin.
3. Identify and compare the Irish Central Bank regulation and the Central bank of Nigeria's regulation on non-performing loans
4. Examining the effect of the monetary policy of the central bank of Nigeria on non-performing loans in the Nigerian Banking system

1.4 Structure of the Research

Chapter 1: This contains the section of the research study's introduction that gives background knowledge and the study's context. The study's relevance, goals, and research questions are all clearly stated.

Chapter 2: This section provides a thorough analysis of the literature on non-performing loans and the performance of the Nigerian banking sector.

Chapter 3: This section examines the methodology, research design, sample, and sampling techniques used in this study.

Chapter 4: Both the research findings and the analysis of the research data are provided. The outcomes of the different analyses are provided.

Chapter 5: The summary, conclusion, study limitations, and suggested future research are covered in this section.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

A strong foundation is provided for each research project by a literature review. This background enables researchers to have a thorough understanding of earlier case study research. According to (Saunders, et al., 2009). Researchers can identify trends in the case study while also gaining a clear image of other significant prior investigations by doing a literature review. According to this research topic, the literature analysis will attempt to assess conventional thinking regarding the role of central banks in regulating non-performing loans and the performance of the Nigerian banking system to provide the researcher with the opportunity to gain a broad perspective on the problem. To identify any knowledge gaps regarding the research evaluated, all prior works on the case study will be reviewed briefly and organized chronologically. This review of the literature will contain a conceptual analysis, theoretical framework, empirical analysis, discussion, and conclusion (based on the literature).

2.1 Conceptual Review

2.1.1 The Concept of Non-performing Loans

Every banking institution's principal objective is to maximize profitability while preserving stability and fostering sustainable growth. However, non-performing loans (NPLs) in the banking sector have a negative impact on the amount of private investment, distort the bank's capacity to pay its obligations as and when they become due, and limit the range of bank loans to loanees. A loan is non-performing if the borrower has stopped making payments on the principal and interest, essentially bringing the debt close to default (Sanju, et al., 2021). Most loans become non-performing if payments are more than 90 days past due, depending on the contract terms. Although there are several international financial agencies that offer specific guidelines for identifying nonperforming loans, there are no official definitions of non-performing loans. Non-performing loans are defined by the European Central Bank (ECB) as loans that are 90 days past due, even if they have not defaulted, impaired in accordance with the accounting requirements for U.S. GAAP and International Financial Reporting Standards (IFRS) banks, and in default in accordance with the Capital Requirements Regulation (ECB, 2017). The likelihood of a loan being fully repaid is regarded as being extremely low the instant it stops performing. Even though the debtor has not made up all the missed payments, the loan will become a reperforming loan (RPL) if the borrower starts making payments again on it. For

banks, non-performing loans are a major problem. Cash flow issues for banking institutions are caused by loans that no longer generate any income and may represent money that is likely lost. Banks typically reserve some money to cover these prospective non-performing loans to account for potential losses. These loans would be labeled as bad debts by banks, which would then write them off in their profit and loss statements.

According to research, during an economic boom, the non-performing loan ratio tends to be low and loan loss provisioning is generally low (Ihegboro and Egbo, 2021), however, during an economic recession, the opposite is true. Due to the high likelihood that the loans won't be repaid, non-performing loans can be categorized as bad debts. A bank's market value and cash flows would be impacted by having too many non-performing loans on its books (stock). This could encourage deposit money institutions to act and compel the recovery of non-performing loans that are on their balance sheets. According to Ogundipe, et al., (2020), as cited in Ihegboro and Egbo, (2021), non-performing loans have a negative impact on a bank's liquidity and profitability, which are crucial elements of the overall efficiency of banks, as any increase in NPL provision reduces income. In addition, a mismatch in the maturities of an asset's and liability's value can also put a bank at risk of liquidity or worsen the bank's credit.

2.1.2 The role of the Central Bank of Nigeria in regulating non-performing loans

The regulatory and oversight functions of the Central bank of Nigeria are necessary to ensure the smooth operation of the financial system. The second is the central bank's promotion function. Central banks are supposed to support the growth of financial infrastructures, including the creation of specialized financial institutions, money and capital markets, and market instruments. In addition, significant hazardous assets had been found on bank balance sheets by 2009. Only the timely and severe banking reforms implemented by the CBN, which increased minimum capital requirements, forced mergers, wrote off underperforming businesses, and cleaned up bad loans, were able to save the industry. From 89 to 21 banks, the number was drastically reduced. By any measure, this is a great regulatory accomplishment.

The global financial crisis of 2008 hastened a fundamental shift in the banking sector worldwide because of its enormous effects, which almost all global business sectors have been impacted. The banking sector was particularly challenged because of its role in creating credit, which has been exposed to significant risks of loan default and other investment risks. Olalekun et al(2021)

The introduction of the rule and compliance strategy, which relies on transaction testing to determine the effectiveness of the credit administration process, evaluate the quality of loans,

and ensure adequate provisioning for loan losses, was one of the Central Bank of Nigeria's responsibilities (CBN, 2014). The process of establishing and reviewing NPL-related policies should be strongly influenced by risk control and compliance functions, particularly to incorporate best practices to resolve difficulties reported in the past. Before the management body approves the policies, these functions should at the very least review them.

Instead of the prudential controls, the Central Bank's main regulatory focus was on assuring compliance with the allocative controls, such as the sectoral lending standards. The allocative regulations reduced the quality of the loan portfolio by directing loans to ineligible borrowers. Issues with banking compliance can arise from both direct and indirect legislation that are the result of inadequate internal procedures, personnel, or systems, as well as from outside events. Credit Inspection at the file and field level area deals with all credit inspection-related issues, including ensuring that policy regarding the credit-granting procedure is followed, reviewing the corporate portfolio, and conducting physical inspections of client premises and files (Lalong, 2015). Additionally, the risk management standards in Section 3.9 of the CBN Act set forth the minimum requirements that must be satisfied before providing exposures. Prior to providing any facility to their customers, all banks are required to collect credit reports from at least two credit agencies, according to item (d) of section 3.9, which relates to credit information reporting.

The central bank also ensured that the Nigerian Banking sector has a cash reserve ratio: In accordance with the guidelines of its monetary policy, the CBN will periodically prescribe a minimal cash reserve ratio for banks in Nigeria. Furthermore, according to Bouwman (2013), the implementation of the mandatory reserve is predicated on the bare possibility that a bank would spend clients' savings or loans excessively. This is so that banks' liquidity can be increased through interbank lending and borrowing, as well as by taking advantage of the discount window, both of which carry higher risks and financial drawbacks. Reserve capitals did not initially exist with interest against banks; rather, they were financial tools stored to increase banks' liquidity.

After the financial crisis, the central bank made sure that Nigerian banks had a sound credit creation system in place. A sound credit creation system establishes credit limits and the procedure for approving new credits, making it one of the most important principles that strengthen financial institutions. A nation's economic growth and development depend heavily on credit. Loan risk management must be viewed as essential for the sustainability of banks and the national economy because credit creation serves as a significant source of income for banks.

Another recent change that happened in the financial sector was that according to Xavier-itam & Chinedu(2022) The CBN's policy initiatives and development finance interventions in Nigeria, according to the World Bank, have so far managed to avert a serious credit constraint in the financial sector. It listed specific steps taken by the Bank in this regard, such as regulatory forbearance for the restructuring of COVID-19 pandemic-affected exposures, softening/extension of intervention loan terms, the introduction of new interventions at subsidized interest rates, reducing the impact of the pandemic on households and SMEs, and aiding pharmaceutical firms, healthcare providers, and SMEs in responding to the pandemic by providing new funding through various channels.

Furthermore, credit program utilization is one of the agenda of the Central bank of Nigeria the goal of CBN's credit initiatives is to reach targeted customers in sufficient numbers and with the necessary finance and funds (uptake). Without outreach (beneficiaries), uptake (loans issued), and utilization, there can be none of these things. Without utilization, a program cannot work, let alone be effective or efficient because the intended debtors cannot be reached and the anticipated results cannot be obtained (conversely, if there is utilization, effectiveness is, of course, measured by relating outcomes to targets or objectives). Xavier-itam & Chinedu(2022)

2.1.3 Factors Influencing Non-Performing Loans

Numerous studies have found several variables that affect non-performing loans; however, it is unclear how these variables relate to non-performing loans. While some studies conclude that these determinants are positively correlated, others hold the opposite view. In Nigeria, one of the main causes of bad debts is insider lending. This ostensibly points to a significant moral hazard problem in the banking industry. These insider loans are frequently used to fund risky ventures and other long-term initiatives with minimal short-term volatility. According to the NDIC's findings from its off-site supervision of the banks on fraud and forgeries, 320 fraud incidents related to internal abuse by bank staff were reported in 2017, a 38.53 percent increase over 2016. Umaru Ibrahim, the Chief Executive of the Nigeria Deposit Insurance Corporation (NDIC), also stated that three commercial banks were found to contain 60% of the N700 billion in insider-related bad loans plaguing the sector on their balance sheets. Speaking at a recent seminar hosted by the Financial Institutions Training Centre (FITC), Lagos, Mr. Umaru suggested that if banks adhered to good corporate governance more consistently, the amount of non-performing loans (NPLs) in the sector may be reduced.

To combat the growing instances of insider bad loans, which not only pose a conflict of interest but also go against the prudential standards for the sector, the Code of Corporate Governance

for Bank Directors was established. The Code, which all bank directors sign when they are appointed, gives the banks' boards the authority to fire any director who has knowledge of non-performing loans.

Another aspect is the CBN's political meddling in bank operations by raising interest rates. This has a negative impact on the bank's current loan portfolios and inevitably leads to an increase in NPLs. This is since interest rates are often determined by the current market rate and may, at the time of liquidation, have increased beyond what the borrower can comfortably liquidate. The Exchange Regulations also have a negative impact on the bank loan portfolio because when loans are disbursed in foreign currency, an unfavourable exchange rate has a negative impact on liquidity at the time of payback.

In a similar vein, studies by Sankey and Greenwalt (1991), which covered the years 1984 to 1987 and focused on non-performing loans in the United States of America, identified high-interest rates, unnecessary loans, and erratic funding as the primary drivers of non-performing loans in the country's banking sector. Salas and Saurina (2002) investigated the factors that contributed to non-performing loans in Spain from 1984 to 2003. Their findings demonstrated that Spain's non-performing loans were mostly caused by high-interest rates, GDP expansion, and favorable lending conditions. Interest rates and inflation rates were the primary predictors of non-performing loans in the UK according to Hoggarth et al. (2005) in another study covering the years 1988 to 2004. According to a 2003 study by Rajan and Sarat on Indian banks, the primary factors influencing non-performing loans in India were bank size, lending length, and direction. The factors that contributed to non-performing loans in the American banking industry between 1979 and 1985 were studied by Keeton and Morris in 1987. According to their findings, the main causes of non-performing loans during the study period were subpar performance in the agricultural and energy sectors.

According to Nkusu, unfavorable macroeconomic developments, such as a decline in real GDP, high unemployment, high-interest rates, a drop in housing values, and a decline in stock prices, had a detrimental impact on non-performing loans. Real GDP growth, share prices, exchange rates, and bank lending rates were found to have a substantial impact on the non-performing loan ratios in a study undertaken by Beck et al. (2013) on the determinants of non-performing loans across 75 countries. According to their research, the impact of non-performing loans was found to be greater in the case of share prices in nations with big stock markets in relation to GDP. The impact of currency rates also depended on how much money was being lent in foreign currencies to lenders who weren't hedged. Rachman, et al. (2018) investigated several banking parameters that impacted the non-performing loans (NPLs) in Indonesia and

concluded that banks with high profitability have fewer NPLs due to higher advanced activity and an efficient credit supervisory system.

2.1.4 The Irish Central Bank Regulation and the Central Bank of Nigeria's Financial regulation on non-performing loans

The Irish economy and financial system were severely impacted by the global financial crisis of 2008. The domestic financial crisis was mostly caused by a heavily leveraged banking industry that was overly focused on lending for real estate. The macroeconomy deteriorated, partly due to a collapse in credit-fuelled housing values, which resulted in a sharp decline in economic growth and a sharp increase in unemployment. The rapid rise in non-performing loans (NPLs), which were a direct outcome of the reduction in asset quality, jeopardized the stability of the Irish banking sector on a national basis. The Irish government established the National Asset Management Agency (NAMA) in December 2009 in response to this fast-deteriorating macroeconomic scenario and its impact on the asset quality of banks. 10 Losses did accrue after the transfer to NAMA, but they were compensated by a government recapitalization. Therefore, NAMA was essential in lowering the uncertainty around possible future losses on banks' balance sheets. The Irish domestic banks sold NAMA a total of €74 billion in assets with a value of €31.8 billion, representing an overall aggregate haircut of 57%. Instead of residential mortgages, most of them were assets related to commercial real estate. The policies and procedures put in place to manage NPLs in Ireland have been the subject of a lively debate throughout the crisis, its aftermath, and the recovery. Given its mandate and objective to "Safeguard Stability, Protect Consumers," the Central Bank has actively established and implemented policies over the past ten years to ensure a deliberate and determined decrease in NPLs while also protecting borrowers. This called for a sequenced policy response that included the identification and acknowledgment of losses via NAMA transfers and the FMP. Assuring adequate strategies and governance inside banks was necessary for NPL and arrears resolution, along with the deployment of suitable resources to create work-out and arrears support units and goals to gauge their efficacy.

In Nigeria, the capital infusions by AMCON were a component of a policy package that included the purchase of non-performing loans and the recapitalization of undercapitalized institutions. AMCON was created to offer additional assistance after CBN interventions in the past failed to stabilize the financial system. The capital infusions made by AMCON were successful in protecting depositors and preventing the closure of failing banks. The governance of AMCON, its lack of CBN independence, and its lack of transparency came under fire. In 2013, two years after the recapitalizations, the CBN took over AMCON's debts, leaving it to

the central bank and potentially taxpayers to bear losses. Moreover, the government does not appear to have disclosed how much of those losses taxpayers ultimately realized. On the operational side, criticism focused on the guidelines issued by the CBN. Critics raised concerns regarding the central bank's decision to limit the scope of AMCON's activities to deposit money banks. The omission of the microfinance industry in particular "questioned the CBN's assertion that its intervention was [planned] to protect depositors and creditors and prevent losses," according to the report. The CBN's influence is also reflected in AMCON's governance. Beyond serving as the agency's main supervisory authority and shareholder, the central bank nominated all four executive members of the board of directors, including the chief executive. (Amcon 2011)

Given that independence is a crucial component of an AMCON's performance, according to experience, critics questioned if these powers endangered its goal of achieving financial stability. Concerns surrounding AMCON's capacity to carry out its functions increased the problems with AMCON's independence. According to one source, AMCON appears to be lacking personnel with specialized knowledge of credit and transaction risk management. Regarding AMCON's independence, the source notes that AMCON's board lacked enough independent recommendations to withstand political and other pressures, and AMCON was essentially a CBN arm. The Fund suggested that AMCON "stop buying distressed assets, formally sets a sunset to its existence, earmarks its cash flows to buy back bonds, sets annual disposal targets, implements a plan to divest AMCON's interests in businesses and banks, improves its legal power to recover assets, and is gradually phased out. Finally, there were issues with how AMCON handled losses from its loan purchases and bank recapitalization actions as well as the final distribution of those losses. However, the negative equity losses were transferred into the AMC with no expectation of recovery rather than being distributed to the banks' shareholders, depositors, and creditors, according to a World Bank report.

Due to its loss absorption program, AMCON's finances by 2014 showed a negative equity position of NGN 3.6 trillion. The debt that resulted from this was initially intended to be paid off with the money from asset sales, with any residual balance to be paid off from the Banking Sector Resolution Cost Fund. For a total of NGN 1 trillion in recovered funds, AMCON declared in 2015 that it had recovered 57 percent of its qualifying asset portfolio (Bloomberg 2015/05/24) (Bloomberg 07/30/2019). However, it still has a sizable amount of NPLs on its balance sheet and additional losses from its bank recapitalization efforts.

In the banking sector, bank regulators frequently play a crucial role, which may have an impact on the directors' and shareholders' supervision responsibilities. The board's incentive to monitor

may be hampered by regulator functions, which might be thought of as an active monetary force (Grove et al., 2011). In practice, regulators frequently act in the public's best interest and meddle in the operations of banks, which exacerbates problems with corporate governance. In January 2001, the Basel Committee on Banking Supervision unveiled a proposed Basel II Capital Accord. The idea follows three different trajectories, including an improved minimum bank capital requirement, stronger oversight procedures, and more open information disclosure by the institutions. The Committee is confident that using the Best Practices will promote development and financial stability (Barth et al., 2004).

Economic models make different predictions about how bank rules will affect bank stability and performance. According to one school of thought, neither private nor public organizations can effectively monitor the operations of complex banks in situations where information asymmetries frequently exist, and the degree of power displayed by the complex bank may harm competition and have a negative impact on policymaking. Another school of thought contends that the impact of information asymmetries is constrained and that looser regulations allow banks to maximize their economics of scope and hence deliver services that are more effective. It's interesting to note that empirical research has determined the potential impact of bank limitations on banking risk. Boyd et al. (1998) made the claim that in nations with lax deposit insurance, limits on bank practices, such as the minimum capital requirement, tend to improve social welfare. Furthermore, Klomp and Haan (2015) underline that supervisory oversight and banking laws greatly reduce banking risk. Additionally, they demonstrate that while liquidity limits have an impact on the risk of commercial and unlisted banks, bank restrictions tend to minimize risk in large, foreign-owned banks. Additionally, the regulatory environment and banking industry practices may have an impact on how well corporate governance structures perform (Mülbert, 2010; Ungureanu, 2008).

Better policies might be developed and put into effect by regulators, which would enhance banking operations and efficiency. In Nigeria, the Central Bank of Nigeria adopted measures to control the behaviour of Nigerian banks, including laws, regulations, and standards of professional ethics (Ajibo, 2015)

2.1.4 Impact of Monetary Policy

According to the (CBN, 2020), The fundamental goal of monetary policy during this time was to maintain price stability across inflation, exchange rates, and money market interest rates while supporting the recovery of output growth. The Bank's primary tool for communicating the stance and administration of monetary policy has remained to be the Monetary Policy Rate (MPR).

The maintenance of both the internal and external balance of payments has been the goal of monetary policy across time. But over time, the emphasis placed on methods and tools to accomplish those goals have evolved. The pursuit of monetary policy has been divided into two main periods, namely before and after 1986. While the second relies on market processes, the first phase focused on direct monetary controls. The administration of monetary policy would promote the financial system's resiliency. To maintain bank preferences within reasonable institutional constraints, the nation's economic managers and policymakers should provide a favorable business climate free of growth drags to eliminate elements that contribute to internal and external imbalance in bank books, policymakers should refrain from putting out ideas that distort the macroeconomic aggregates. To defend the practice of financial intermediation and ensure the promotion of openness in the conduct of regulation, the institutional quality should be improved overall. This would help Nigeria's banking sector become more resilient. The moral hazard issue that is displayed by the banks, can also be used to explain how monetary policy affects the risk-taking behavior of banks. Theoretically, it is understood that a typical bank will respond to information, and as a result, the degree of information exposure provided by the monetary authority may encourage banks' propensity for risk-taking. Unexpected monetary policy is intended to make economic actors more responsive and reactive, opening more potential for disruptive effects. A higher level of market predictability due to monetary authority's decisions in the future can encourage banks to take more risks because they are almost assured of the central bank's course of action.

The difficulties in formulating and implementing monetary policy are primarily related to the early identification of the financial and economic circumstances that require a change in the stance of monetary policy, the timing of necessary action, the type and scope of action to be taken, and most importantly the uncertainty and unpredictability of the likely outcomes of the action when taken. To track the course of monetary development in the economy, the central bank demands that other banks and financial institutions report on their operations on a regular basis. For the central bank to make an objective decision on what policy actions to take at any given time, it also needs data on developments in the real sectors of the economy.

2.1.5 Performance of the Nigerian Banks

In general, bank performance is defined as the accomplishment of the goals established by the company within the predetermined timeframe and with the least amount of expense possible while utilizing the available resources. For a manager, performance could include, for instance, profitability or competitiveness for the business or for the employee, the work environment, or

the caliber of services provided to clients. The variety of potential strategies led to a notion that was chosen because of the diversity of the groups that make up the organization. As with any function of control and management, performance measurement serves as a means of directing and inspiring an organization's players' conduct.

Measurement is the first step to improvement; thus they cannot progress unless there is a means to receive feedback on performance.

There are basically two ways to gauge a bank's success. The first kind is concerned with the outcomes (a financial measure), whereas the second type is concerned with the factors that influence the outcomes (a non-financial measure), such as quality, adaptability, resource use, and innovation. This states that measurement can be created around the ideas of outcomes and determinants as part of the performance. The financial performance of the Nigerian banking sector is the main subject of this study.

Profitability is a phrase used to describe the financial performance of deposit money banks, and it only has significance in the context of growing net assets. The ability of a business to provide a respectable profit on the owner's investment is known as profitability. Profitability, according to Li and Zou (2014), is a measure of a bank's ability to take on risk and/or raise capital, as well as an indicator of the bank's efficiency and management caliber. The ability of banks to produce fresh resources from their ongoing business operations over a specific time is measured by their net income and cash from operations (Aktan and Bulut, 2008).

There are several ways to measure a bank's financial performance, and the choosing of a particular performance indicator relies on the study's goals. Profit after tax (PAT), return on assets (ROA), return on equity (ROE), cost to income ratio (CIR), and net interest margin (NIM) are the performance measurements mentioned in the literature (Yuga, 2016). Therefore, selecting the optimal performance metric is a difficult undertaking (Ajayi and Ajayi, 2017). Therefore, depending on the type of stakeholders who examine the phrase, researching the idea of bank performance can sometimes produce different outcomes.

Such a diversity of viewpoints offers up new avenues for banking performance research, but this study highlights one traditional performance metric, Profit after Tax (PAT), which captures the bank management's willingness to take calculated risks in pursuit of a desired amount of profit.

2.2.1 Commercial Loan Theory

Adam Smith created the commercial loan theory, also known as the real bills doctrine theory, in England during the 18th century, according to Sanghani (2014); Taiwo, Achugamonu,

Adetiloye, Okoye, Agwu (2017); Ogundipe, Akintola and Olaoye (2020); According to the principle, a commercial bank should only give business entities short-term, self-liquidating, productive loans. Self-liquidating loans are those designed to pay for the manufacture of commodities and their progression through the many stages of manufacturing, storage, transportation, and distribution. The theory makes the premise that the central bank should lend to the banks on the security of short-term self-liquidating productive loans each time commercial banks make them. This ensures that the money supply for the overall economy and the level of liquidity for each bank are both suitable. There are several issues with this theory, including In ordinary economic circumstances, it assumes that loans self-liquidate, which is not always the case. Production and trade typically suffer during economic downturns, making it more challenging for the debtor to repay the loan when it comes due. Furthermore, a self-liquidating loan does not exist. If the purchased goods are not sold to customers, a loan made to a store is not self-liquidating.

2.2.2 Transactions Costs Theory

The anchor theory for this investigation was first created by Schwartz (1974). According to client's actual financial status or credit worthiness. Additionally, suppliers are better able to enforce credit payback and keep track of it. Compared to banking institutions, all these advantages could give suppliers a cost edge. Petersen and Rajan (1997) categorized the following three sources of cost advantage: information acquisition, buyer control, and salvaging value from existing assets. The first source of cost advantage can be explained by the fact that information on purchasers can be acquired by sellers during the regular course of business, which allows them to do so more quickly and at a cheaper cost. To put it another way, sellers typically visit consumers more frequently than financial institutions do, giving them a better knowledge of the client's status. Additionally, the frequency and size of the buyer's orders provide suppliers with a better idea of the client's situation.

2.2.3 Loan Pricing Theory

According to the theory of loan pricing, banks cannot always establish high interest rates since they must also take into account the issues of moral hazard and adverse selection because it is very difficult to predict the type of borrower at the beginning of a banking relationship (Stiglitz and Weiss, 1981; Ogundipe, Akintola and Olaoye, 2020). In the event that banks establish exceptionally high interest rates, the issue of adverse selection may arise as a result of the willingness of high-risk borrowers to accept these high rates. Due to their propensity to engage in high-risk endeavors or investments, borrowers are believed to pose a moral hazard in this situation (Chodecai, 2004; Ogundipe, Akintola and Olaoye, 2020).

2.2.4 Adverse Selection Theory

The adverse selection theory, first proposed by Akerlof in 1970 and further developed by Rothschild and Stiglitz in 1976, explains the situation where the likelihood of loan default rises with rising interest rates and borrower quality deteriorates as the cost of borrowing rises (Musara and Olawale, 2012). The theory is predicated on the idea that banks are uncertain when choosing credit-worthy borrowers from a pool of loan applicants with various ex-ante exposures to credit risk.

As a result, lenders are more inclined to lend to high-risk borrowers who aren't bothered about the stringent lending requirements and are more likely to default on their loans (Ezeoha, 2011). By improving knowledge of loan applicants, Pagano and Jappelli (1993) contend that information exchange lowers difficulties with adverse selection. Furthermore, Padilla and Pagano (2000) show that if banks share information about credit defaults, borrowers would be incentivized to put more effort into their projects even when they are fully aware that defaulting on a loan may result in increased interest rates or a loss of future access to credit.

2.3 Empirical Review

Numerous studies have been conducted on the impact of Nigeria's central bank on non-performing loans and bank performance. In this subsection, a few of these studies are briefly reviewed.

Ihegboro and Egbo (2021) looked at the relationship between the performance of Nigerian banks and non-performing loans. The outcome of the Vector Autoregressive Estimate (VAR) with a one-period lag length showed that the one-period lag of return on asset (ROA) has a negative and significant influence on the current ROA; non-performing loans have a positive and insignificant influence on ROA; loans and advances have a negative and insignificant influence on ROA; INTR is positively and insignificantly related to ROA. Based on their results, they advised the monetary authorities to swiftly implement effective risk management procedures that would decrease non-performing loans and so improve the efficiency of deposit money institutions. Sanju et al. (2021) looked into the impact of non-performing loans made by traditional banks in Nepal. Major commercial banks in Nepal make up the study's target population, and the data used for it came from the years 2015 to 2019. Multiple regression analysis was the method employed in this study's data analysis. Non-performing loans were the dependent variable in the study, and the independent/explanatory factors were Return on Asset (ROA), Capital Adequacy Ratio (CAR), Bank Size, GDP growth, and Inflation. According to the findings of their study, CAR has no discernible impact on the NPLs of banks, although ROA, Bank Size, GDP, and Inflation do. It illustrates that even though there were no major

changes in income growth, Nepalese banks grew significantly when GDP growth increased. Therefore, the NPLs of commercial banks are positively and significantly impacted by GDP growth. The study suggested that while making judgments on NPLs, bankers and governments should closely examine GDP growth.

The Impact of Non-Performing Loans on Bank Performance in Nigeria: A Case Study of Selected Banks was researched by Abimbola (2020). The study made use of the validated ECM model (through assessments of residuals and least squares). The findings showed that non-performing loans had an impact on Banks' performance across the study period, although net interest margin and the ratio of deposits to loans each had a different effect. The report suggests, among other things, that deposit money institutions establish an efficient credit strategy that reflects flexible tenure, reorganization of credit terms, and conversion. This approach might assist in slowing the rate of non-performing loans, which would reduce the likelihood of default significantly as return on equity rose.

Abimbola (2020) investigated how non-performing loans affected Nigerian banks' performance. The confirmed ECM model was employed in the analysis (using the residual and least squares methods). The findings showed that, during the study period, non-performing loans had an impact on the bank's performance; however, the effects of the individual independent variables (net interest margin and deposit to loan) differed. The study suggests that deposit money institutions establish an efficient credit strategy that reflects flexible tenure, a restructuring of lending conditions, and conversion. By slowing the pace of nonperforming loans, this approach might significantly lower the likelihood of default as return on equity rises. Since the ratio of non-performing loans to total loans has a negative correlation with the performance of Nigerian banks, the study, among other things, recommended that the regulatory agency, such as the Central Bank of Nigeria and the Nigerian Deposit Insurance Corporation, formulate rules that will reduce the occurrence of Loans for which repayment of principal or interest has been overdue for three months or more. The report consequently advised banks to hire capable risk managers who consistently apply their expertise to lower the prevalence of non-performing loans in Nigerian banks. The report also suggested that banks in Nigeria always keep an eye on how the money they lend to their clients is used to prevent cash misappropriation incidents that could lead to non-performing loans.

With a focus on Access Bank, United Bank for Africa, and Union Bank of Nigeria Plc, Ozurumba B. A. (2016) examined the effects of non-performing loans on the performance of several Nigerian commercial banks between 2000 and 2013. Regarding the performance of banks as evaluated by Return on Assets and Return on Equity, this study carefully examined

the impact of non-performing loans, loan loss provisions, and loans and advances. Ordinary least squares and ratio analysis were used to analyze the data. According to the study's specific conclusion, return on asset and return on equity have negative relationships with non-performing loans and loan loss provisions, respectively, but have positive relationships with loans and advances. Therefore, it follows that the impacts of non-performing loans on Commercial Banks' performance are detrimental, cannot be understated, and constitute a serious threat to the Banks' ability to continue operating as corporations. Based on the research, it is advised that banks should maintain strict credit policies and that the Apex Bank and other regulatory bodies should closely monitor banks' lending activities.

The main causes of non-performing loans in the MINT (Mexico, Indonesia, Nigeria, and Turkey) economies were examined by Akinola and Mabutho (2016). Both static panel data and dynamic panel model analysis are employed in their investigation. The capital adequacy ratio, liquidity ratio, total bank credit, and return on assets appear to be important bank-specific predictors of non-performing loans in the four economies. Additionally, while there is a negative and significant correlation between non-performing loans and the return on assets, liquidity ratio, and capital adequacy ratio, there is a positive and extremely significant correlation between non-performing loans and the nominal exchange rate, money supply growth rate, total bank credit, and lending rate.

The institutional variable of corruption, which is shown to have a very high positive link with non-performing loans, is the last one.

The association between non-performing loans and bank performance in Nigeria from 1994 to 2014 was examined by Lydnon et al. in 2016. To evaluate the data gathered for the study from the CBN, NDIC, and annual reports of listed banks, the study used the ADF Unit Root test, descriptive statistics, and multiple regression techniques. The study's findings indicate that while substandard loans had a statistically negative negligible impact on return on capital employed, bad loans and dubious loans had a statistically negative significant impact. Their findings demonstrated that a high percentage of non-performing loans will negatively impact Nigerian banks' long-term performance.

Therefore, to lower the high proportion of non-performing loans in Nigeria's banking industry, it was advised the study that credit reporting agencies and supervising authorities be strengthened.

2.3.1 Gaps in the Literature

After reading the previous research on non-performing loans and their effect on deposit money banks in Nigeria, the topic has been thoroughly studied both domestically and globally because

they are a crucial element or phenomenon in the banking sector. However, very few studies have determined the long-term correlation between non-performing loans and indicators or measures of bank performance in the Nigerian environment. This study aims to close this knowledge gap.

2.4 Discussion and Conclusion

Understanding the notion of the role of the central bank the nonperforming loans and how it relates to bank performance is the first step in the literature review. The links between several scholarly definitions and conceptualizations and the study situation were examined. Additionally, the banking industry's non-performing loan factors and non-performing loan regulations were investigated. Additionally, a variety of earlier works of literature were examined to provide a greater grasp of the topic. The study's theoretical framework, which focuses on commercial loan theory, transaction cost theory, loan pricing theory, and adverse selection theory, was also identified. However, the adverse selection theory serves as the foundation for this work.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter goes to great length to explain the investigation's methods. Study methods might be considered to evaluate data pertaining to a certain research topic. In other words, it is the method for finding, selecting, organizing, and analysing data related to a subject. A research dissertation's section on research methodology gives the author and reader the chance to evaluate the study's overall validity and dependability. As a result, this chapter gives a general review of the research design, data gathering methods, sample size, population, and model formulation.

3.1 Research Design

According to Burns & Grove (2001:223), Research design helps the researcher plan and carry out the study in a way that would help the researcher obtain desired results, raising the possibility of receiving data that could be related to the real scenario. In other words, the research design is the strategy for carrying out the study that maximizes control over factors that could compromise the validity of the results. The study will make use of secondary data and an ex-post facto research design. In other words, the research design is the blueprint for conducting the study that maximizes control over factors that could interfere with the validity of the findings.

3.2 Population and Sample size of the Study

This dissertation's sole subject is a time series analysis of the Nigerian banking industry. The population of the study, which also includes data on their return on assets, non-performing loans, lending rate, and net interest margin, includes the whole Nigerian banking sector. The sample size of this study's analysis of return on assets, non-performing loans, lending rate, and net interest margin includes the 33 banks that the Central Bank of Nigeria granted a license to operate in Nigeria between 2000 and 2020.

3.4 Method of Data Collection

In this study, secondary data were typically used. These data come from the entire banking industry and have been collected over time series. Data on the Bank Lending Rate (BLR), Non-Performing Loans (NPL), Return on Assets (ROA), and Net Interest Margin are a result (NIM). yearly data bulletins from the Central Bank of Nigeria (CBN) and audited published Annual Reports.

3.5 Method of Data Analysis

Inferential and descriptive statistical analyses were both used in this study. As in the studies by Foyeke et al. (2016), Tolulope et al. (2016), Kurawa and Ahmed (2020), and the Hausman test will be used as the statistical technique for this investigation (2018). The quantitative research approach is essentially a type of educational research that specifies what is to be studied, asks precise, focused questions tries to gather quantifiable data from respondents most likely a sizable number of people. Analysing these numbers using statistics, and conducting an inquiry in an objective, unbiased manner (Fischler, 2017). Collecting numerical data that can be evaluated through statistical analysis is the main component of the quantitative research technique. Performance evaluations are one type of appropriate data collection methodology. The most common application of multiple regression is this form. This technique allows us to quantify the unique variance in the dependent variable that each independent variable accounts for. The information acquired is known as hard data. Based on the nature of this study, the Standard Multiple Regression research design was selected as the best alternative. In a standard multiple regression, all our independent or predictor variables are simultaneously entered into the model or equation. This analysis which comprises Model Summary, Coefficients, ANOVA, and collinearity statistics, amongst others. A standard multiple regression model was used to specify the relationship between the dependent variable and the independent variable. Going by the multiple regression method, it is of utmost importance to ensure that data that will be analyzed can be examined using multiple regression. It is only appropriate to use multiple regression if our data "passes" the assumptions that are required for multiple regression in other to ascertain a valid outcome. Some of the assumptions that must be met before carrying out our analysis are:

Multi-collinearity: The data must not show multicollinearity, which occurs when you have two or more independent variables that are highly correlated with each other. This leads to problems with understanding which independent variable contributes to the variance explained in the dependent variable, as well as technical issues in calculating a multiple regression model.

- There should be no significant outliers, high leverage points or highly influential points. Outliers, leverage, and influential points are different terms used to represent observations in your data set that are in some way unusual when you wish to perform a multiple regression analysis. These different classifications of unusual points reflect the different impacts they have on the regression line.
- The need to check that the residuals are approximately normally distributed. Two common methods to check this assumption include using a histogram (with a superimposed normal curve) and a Normal P-P Plot or a Normal Q-Q Plot of the studentized residuals. Which will be practically shown in the appendix.
- There needs to be a linear relationship between the dependent variable and each of our independent variables, and the dependent variable and the independent variables, collectively. Whilst there are several ways to check for these linear relationships, in this study, we will be creating scatterplots and partial regression plots using SPSS Statistics, and then visually inspecting these scatterplots and partial regression plots to check for linearity.

Decision Making Criteria

In analyzing our linear regression results to be used in verifying the theoretical and statistical validity of our coefficients, the criteria for decision-making will be examined the following:

- **The Sign and Magnitude of Regression Coefficient:** The sign expectation is the economic a priori condition set by economic theory and usually refers to the sign and size of parameters of economic relationships. Parameters in the model are expected to have signs and sizes that conform to economic theory, if they do, they are accepted, otherwise, they are rejected. Unless there is an explanation to believe that in this instance the principles of economic theory do not hold.
- **The Co-efficient of Determination (R^2):** It is a measure of the goodness of fit of a model. It simply tells us about the total variation in the independent variable that is attributed to

changes in the explanatory variable. Put differently, R^2 shows the percent of the total variation of the dependent variable that can be explained by the independent variable.

- **Adjusted Coefficient of Determination (\hat{R}^2):** There is a problem when using the R^2 because it does not take into consideration the loss of a degree of freedom. Due to this weakness, we use the adjusted coefficient of determination (\hat{R}^2). This is because it accounts for the loss in the degree of freedom as more explanatory values are added. Therefore, both R^2 and adjusted \hat{R}^2 will be used in measuring the goodness of fit of our regression.
- **The F-statistics:** This is used to test the overall significance of a model. It involves the ratio of 2 independent estimates of variance. The regression equation is adequate if the f-statistic gives a value higher than the appropriate table f-statistic, but if the calculated f-statistic is less than the appropriate table figure (at the chosen level of significance) found from the f-table with k-1 and N-K degree of freedom, then the regression will be significant.
- **Durbin Watson test:** Durbin-Watson (DW) Test: It is used to test for the degree of autocorrelation of residuals in the model, particularly, first order autocorrelation. It is given as: $DW = 2(1 - \rho)$ Where ρ is the autocorrelation coefficient. The Durbin-Watson (DW) test statistic takes values between 0 and 4 since the autocorrelation coefficient only takes the values between -1 and +1. Hence when the autocorrelation coefficient equals 0, the DW test statistic equals 2. If $DW > 2$, we have an indication of a negative autocorrelation and if $DW < 2$ we would have an indication of a positive autocorrelation. The hypothesis is stated as
 - H_0 : There is no autocorrelation between the disturbance terms
 - H_1 : There is a presence of autocorrelation.
- **The T-test:** It is used to determine the statistical significance of parameter estimates. The t-statistics will be given in parenthesis beneath its parameter estimates. A two-tailed test would be carried out at 5% level of significance. When the calculated t-value is less than the table t-value, the parameter is not statistically significant and vice-versa.

3.6 Model Specification

In this study, we will be adopting a standard multiple regression model which is aimed at achieving the stated objectives of the research. The variables to be used in the models are Bank Lending Rate (BLR), Non-Performing Loans (NPL), Net Interest Margin (NIM), and Return

on Assets (ROA) which is adopted as a proxy for the role of the Central Bank in regulating the non-performing loans and performance of Nigerian Banks.

The linear regression model could be expressed as:

$$ROA = F(NPL, BLR, NIM) \dots\dots\dots \text{Model 1}$$

The mathematical model may be stated as follows:

$$ROA = \beta_0 + \beta_1NPL + \beta_2BLR + \beta_3NIM \dots\dots\dots \text{Model 2}$$

The econometric model could be expressed as:

$$ROA = \beta_0 + \beta_1NPL + \beta_2BLR + \beta_3NIM + \mu_i \dots\dots\dots \text{Model 3}$$

Where:

ROA = Return on Asset

NPL = Non-performance Loan

BLR = Bank Lending Rate

NIM = Net Interest Margin

F = functional relationship

μ = stochastic Disturbance (error term)

$\beta_1 - \beta_3$ = Regression coefficients.

β_0 = Intercept of the function (constant term)

3.6.1 Analytical Variables:

Dependent Variable:

Return on Assets (ROA): Return on Assets (ROA) is a financial ratio that shows how profitable a company is in comparison to its total assets. Utilizing a company's net income and average assets, the metric is frequently stated as a percentage. A company that has a greater ROA is more effective and efficient at managing its balance sheet to produce profits, whereas one with a lower ROA has room for development.

Independent Variables:

Non-Performance Loans (NPL): These are loans that, in violation of the terms and conditions of the loan contract, have been outstanding for a long time, both in terms of principal and

interest. As a result, the quantity of non-performing loans indicates the caliber of bank assets (Tseganesh, 2012).

Net Interest Margin (NIM): One of the main economic factors affecting net present costs and present costs is lending rates. The difference in interest rates between the cost of short-term borrowing and the return on long-term lending is a measure of profitability. The cost of loans charged to borrowers is increased by the interest rate spread, which has an impact on banks' performing assets (Joseph, 2011). While net interest margin is a measurement of the gap between the amount of interest given to depositors in relation to the value of their (interest-earning) assets and the amount of interest income received by commercial banks.

Bank Lending Rate (BLR): The amount charged by lenders for a specific period expressed as a percentage of the amount lent or deposited is known as the lending rate or interest rate. The length of time over which the amount is deposited or lent determines the total interest on the principal amount.

3.7 A priori expectations

On non-performing loans and the performance of the Nigerian banking sector, the Central Bank of Nigeria's role is anticipated to have both positive and negative effects. This is because when the Central Bank of Nigeria appropriately controls the affairs of Nigerian banks, this will lower the number of non-performing banks, but when handled incorrectly, it will have a negative impact. As a result, all the coefficients and the coefficients $\beta_1 - \beta_3 > 0$ are anticipated to have a positive or negative sign. Therefore, the Decision rule: $H_01-H_03: p < 0.05$, rejects the null hypothesis and accepts the alternative hypothesis

3.8 Ethical Consideration

The researcher must use data obtained through the study instrument rather than engaging in any type of manipulation, such as changing designs or processes, retaining data, or manipulating data, to maintain their ethical integrity. The objective is to reach a statistical conclusion using information gleaned from Central Bank of Nigeria (CBN) annual data bulletins and audited published Annual Reports.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

4.0 Introduction

This chapter presents the analysis of data obtained and the regression results of the models specified in the previous chapter. This is meant to empirically estimate the coefficient of the models in order to give an in-depth insight into the role of the central Bank in regulating non-performing loans and the Nigerian bank's performance. In order to obtain the result and draw out conclusive remarks the statistical package for social sciences (SPSS) Version, 20 will be used in running the regression.

4.1 Distribution of Inferential Statistical Results

From the secondary data sourced from CBN, NDIC, and other online sources, the following regression result is gotten with the aid of a statistical package for social sciences the table 4.1 in the appendix shows all requested variables entered in the first column while requested variables removed in the second column. The third column contains the method entered for the variable as formulated by SPSS which can be found in the appendix.

Model Summary

Model	R	R Square	Adjusted R Square	Std. The error in the Estimate	Durbin-Watson
1	0.747	0.558	0.469	0.1223325	0.664

a. Predictors: (constant), BLR, NIMG, NPL

b. Dependent Variable: ROA

Coefficient of Determination (R^2)/Adjusted R^2

From the result of the model summary analysis in the table above, we have the coefficient of determination (R^2) to be $R^2 = 0.558$, and the Adjusted R^2 as 0.469 . we use this to measure the variability of non-performing loans in Nigerian Banks. This implies the mix of independent variables (banking lending rate, Net Interest Margin, Non-performing loans) explains approximately 47% of the impact of the central Bank in regulating non-performing loans and the performances of the Banks in Nigeria. It, therefore, goes without saying that other factors not captured by the stochastic error term (μ) in the mode explain about 53.8%. of course the low value of the R^2 buttresses, not so much of our independent variables as against the variation of our dependent variables. i.e the independent variables have low explanatory power and the adjusted R^2 further affirms. The Durbin Watson statistics of 0.664 shows that the presence of autocorrelation in the model is inconclusive as the Durbin Watson statistics fall under the positive side of the inconclusive region.

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.283	3	0.094	6.31	0.006
	Residual	0.224	15	0.015		
	Total	0.508	18			

The F-statistics in the ANOVA table are used to test for the overall significance of the entire model. The regression result gave F-calculated to be 6.310, and the tabulated value at conventional df (3, 15). We can see that the significance value is 0.006 (i.e., $p = .006$), which is significant at 5 percent. Therefore, there is a statistically significant difference in our model. This indicates that the combined effect of independent variables is significant.

P-value/ Sig value: Generally, a 95% confidence interval is chosen for the study, meaning the level of significance used for this research is 5%. Thus the p-value should be less than 0.05. In the above table, the P-value is .006. Which further asserts that our result is statistically significant.

Alternatively, the p-value test will be used. The null hypothesis is to be rejected if the probability at which the t-value is significant is less than the chosen level of significance, otherwise, the alternative hypothesis will be accepted.

- If the probability (Sig) < 0.05, we will reject the null hypothesis and fail to reject the alternative hypothesis
- If the probability (Sig) > 0.05, we will fail to reject the null hypothesis and reject the alternative hypothesis

Coefficients										
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Coefficients		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	-1.116	0.232		-4.816	0	-1.61	-0.622		
	NPL	0.262	0.197	0.266	1.328	0.204	-0.158	0.682	0.737	1.356
	NIM	0.792	0.263	0.587	3.015	0.009	0.232	1.351	0.777	1.287
	BLR	0.003	0.005	0.108	0.606	0.553	-0.007	0.013	0.933	1.072

The objective of this study as earlier stated in the introductory chapter is to ascertain the impact non-performing loans have on bank performances of Banks in Nigeria... The model drawn to capture the objective as indicated in chapter three is;

$$ROA = \beta_0 + \beta_1 NPL + \beta_2 BLR + \beta_3 NIMG + \mu_i$$

Therefore, From Equation (3)

$$\text{ROA} = -1.116 + .262 (\text{NPL}) + .792 (\text{NIMG}) + .003 (\text{BLR}) + \mu$$

It can be deduced from the result obtained that the constant parameter, in the long run, is negative. This implies that if all the explanatory variables are held constant, ROA will decrease by -1.116 units.

The slope coefficient of NPL is .262, which suggests a positive relationship between the ROA and NPL in such a way that, if NPL should increase by a unit, ROA will be affected and it will increase by .262 units and vice-versa provided that the effects of NIMG & BLR are held constant. The Prob-Value for NPL is .204 which implies that BLR is statistically insignificant at a 5% level of significance. This, therefore, means that we reject the null hypothesis and further conclude that there is a statistical significance between our dependent variable ROA and our independent variable NPL.

The slope coefficient of NIMG is .792, which suggests a positive relationship between the ROA and NIMG in such a way that, if NIMG should increase by a unit, ROA will be affected and it will increase by .792 units and vice-versa provided that the effects of BLR & NPL are held constant. The Prob-Value for NIMG is .587 which implies that NIMG is statistically significant at 5% level of significance. This therefore means that we reject the null hypothesis and further conclude that there is a statistical significance between our dependent variable ROA and our independent variable NIMG.

The slope coefficient of BLR is 0.003, which suggests a positive relationship between the ROA and BLR in such a way that, if BLR should increase by a unit, ROA will be affected and it will increase by 0.003 units and vice-versa provided that the effects of NPL & NIMG are held constant. The Prob-Value for BLR is .108 which implies that BLR is statistically insignificant at a 5% level of significance. This, therefore, means that we reject the null hypothesis and further conclude that there is a statistical significance between our dependent variable ROA and our independent variable BLR.

Collinearity Statistics

Variable Inflation Factor (VIF)/Tolerance:

The strength of the correlation between our independent variables are determined by the Variable Inflation Factors (VIF). It's calculated by regressing one variable against all others.

-VIF begins at 1 and has no limit.

-There is no association between the independent variable and the other variables when the VIF value is 1.

-When the VIF is greater than 5 or 10, there is a lot of multi-collinearity between one independent variable and the others. However, It is recommended that the VIF should not be

greater than 10 (1/minimum tolerance level = 0.10 = 10). Therefore the VIF implies that the standard errors associated with the unstandardized Beta weight are 1.356, 1.287 and 1.072, respectively. Going by these results, we can boldly say that our data were multi-collinearity free. And the Tolerance for each variable .737, .777, and .933 respectively, which are all lesser than .25 further affirms it.

T-statistics

In order to test the individual significance of the explanatory variables, we make use of a t-test. It follows t-distribution with n-k degrees of freedom. At (5%) level of significance, the critical t- value for the regression is given as 1.721, and the calculated t – values for the model for BLR, NIM& NPL are .1328, 3.015, and .606 respectively as seen in Table 4.4. This suggests that all independent variables BLR, NIM, and NPL are statistically significant and therefore have a significant impact on the ROA due to their positive signs. Since the calculated value of EMS is greater than the tabulated value, we reject our null hypothesis (H₀) and fail to reject the alternative hypothesis (H₁) as formulated in the introductory chapter, which implies that Emission has a significant effect on ROA.

Residuals Statistics					
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	-0.784734	-0.216969	-0.406491	0.125449	19
Std. Predicted Value	-3.015	1.511	0	1	19
Standard Error of Predicted Value	0.029	0.092	0.054	0.017	19
Adjusted Predicted Value	-0.623313	-0.199796	-0.405775	0.111064	19
Residual	-0.179751	0.171814	0.00E+00	0.111674	19
Std. Residual	-1.469	1.404	0	0.913	19
Stud. Residual	-1.601	1.46	-0.002	1.044	19
Deleted Residual	-0.285649	0.245427	-0.000716	0.151517	19
Stud. Deleted Residual	-1.699	1.523	-0.003	1.075	19
Mahal. Distance	0.098	9.224	2.842	2.476	19
Cook's Distance	0	0.77	0.105	0.201	19
Centered Leverage Value	0.005	0.512	0.158	0.138	19

a. Dependent Variable: RO

Cooks Distance: As explained in the previous chapter, the cooks distance (cook's D) is a statistic that measures the relative influence of each individual case in a sample of data on the results of a regression analysis. A cook's D that is equal to or greater than one calls for utmost concern, with the aid of the statistical package (SPSS) we produced residual statistics and also calculated the cook's D value where Minimum value = .000 while Maximum value = .770. None of them are greater than 1 as indicated in Table above, therefore we are confident that there are no outlying residuals and we can also conclude that none of our residuals were poorly predicted.

4.2 Discussion of Findings

In terms of critically analyzing the role of the central bank in regulating the non-performing Loans and performances of the Nigerian banking system, The Central bank's role in regulating the non-performing was shown to be a crucial determinant in determining the profitability and performance level of banks in Nigeria, according to the findings of the study. The analysis of variance confirmed this, revealing a high correlation and significant link between the dependent and each of our explanatory variables. Furthermore, the regression model revealed that the dependent variables in the model explained 53 percent of the independent variables. Other factors that could not have contributed to the determination of our variables in the model were represented by the remaining percentage. The p-value (.006) was larger than the level of significance of 0.05 in the analysis of variance, indicating that the model was significant in predicting these effects in Nigeria. Furthermore, the F-calculated value (6.310) was higher than the tabulated value at conventional df (3, 15). According to the coefficients, all independent factors, including Bank lending rate, Net Interest Margin, and non-performance loans, had a positive but statistically insignificant impact on Return on Asset.

CHAPTER FIVE

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

This dissertation studied the critical role of the Central Bank in regulating non-performing loans and the performance of banks in Nigeria. The main goal of this study is to investigate how proper regulation can influence the non-performing loans and performance of the Nigerian banking system to accomplish this investigation, the study adopted a standard multiple regression analysis research method from 2000 through 2021 (21 years). Secondary data was obtained from the Nigerian Central Bank, the Nigeria Deposit Insurance Corporation, and other web sources for the study. In addition, there is a need to continuously strengthen the internal control methods of banks to suitably manage credit risk assessment. All credit reporting agencies and supervising authorities have to ensure compliance with Consumer Protection rules, particularly as it relates to Bank Charges. Financial institutions ought to start thinking about using movable assets as collateral instead of immovable ones. Credit management will be greatly impacted in a favorable way by this. The acquired data were analyzed using social scientific analytical methods, namely SPSS version 20, to get inferential statistics. Inferential statistics analysis, which included regression analysis to identify the link between the independent variables and the dependent variable measurements, was also employed in the research.

The outcome demonstrates that the central bank's participation in managing non-performing loans resulted in the cancellation of various banking licenses throughout the history of Nigerian banking due to the failure to recoup loans and advances given to consumers. At the moment, AMCON is storing toxic assets worth around N6.7 trillion that it bought from Nigerian banks that were overextended and provided them with a lifeline through liquidity injection. Additionally, several banks were recently given an N800 billion bailout due to a distress deadlock brought on by non-performing assets and the resulting illiquidity, which forced the central bank's takeover.

The outcome demonstrates that the central bank's role in supervising Nigerian banks, particularly in a growing nation like Nigeria, could significantly lower non-performing loans (NPLs). To reduce the occurrence of non-performing loans, they should closely adhere to regulatory regulations when conducting their loan administration duties. The CBN should also work to end the culture of impunity by ensuring that bank directors, managers, and credit officers are held accountable for instances of unethical and improper approval of loans and advances to delinquent clients as they set the institution's loan policy. In order to prevent the

buildup of poor credit, which is impeding banks' performance, the report also advocated the establishment of a special court that will swiftly decide cases involving loan default and recovery.

5.1 RECOMMENDATION

The report recommends that the central bank of Nigeria guarantee that bank management employs effective and efficient risk management techniques to help prevent potential loan defaulters from receiving credit due to the statistical insignificance of non-performing loans on Nigerian banks. In order to identify all problematic clients and make well-informed decisions about loan provision, the report urges Nigerian banks to use credit reference bureau information while processing a borrower's credit application. Due diligence could help the bank lower the risk of defaulting on loans at the right time and increase profitability.

According to the analysis, there is no statistically significant correlation between non-performing loans and the success of Nigerian banks. The research also contends that Nigeria's central bank should encourage Nigerian banks to diversify their sources of income outside of lending facilities.

The report concludes by recommending further research be conducted on additional factors that affect the central bank of Nigeria's ability to control non-performing loans in Nigeria in order to widen the scope of the current study. Similar studies should be carried out to include more variables that have an impact on how the Central Bank of Nigeria regulates non-performing loans and the performances of the banks because the study was limited to only four factors (bank lending rate, net interest margin, and return on asset (proxy for non-performing loan)).

5.2 Limitation of the Study

The main obstacle encountered in carrying out this investigation was time. The number of samples taken was the 33 licensed banks in Nigeria and the time frame examined was both impacted by this. Additionally, only the Nigerian banking industry is included in the analysis. Despite the fact that the Central Bank of Nigeria also oversees other financial sectors in Nigeria, this has an impact on the application of this document.

5.3 Self-Reflection

Because of the significance of the Central Bank of Nigeria's vision, which states that its goal is to be proactive in providing a stable framework for the economic development of Nigeria through the effective, efficient, and transparent implementation of monetary and exchange rate policy and management of the financial sector, I became interested in non-performing loans

and bank performance during my MSc program and hope to continue this dissertation in my Ph.D. program.

While analyzing Nigerian banks, I also learned that the country's economy is among the fastest-growing in the world and that Nigerian banks are emergent in nature. Business owners, investors, and the economy can all benefit more from good regulation and attention.

Use of Sources: I read a lot of scholarly journals and books in the early phases of my research to fully grasp how the central bank controls non-performing loans in the Nigerian banking system. The school library contains a sizable number of reading materials on this topic. However, as I understood the research question and objectives, I began devoting more time to researching the present non-performing loan situation. During my time reading the literature, I came to the conclusion that the management of any bank that wishes to expand cannot and should not disregard non-performing loans as immaterial.

Research Skills: Since I hadn't done research of this scope before, this was unexplored terrain for me as a researcher. Nevertheless, I saw it as an opportunity to grow as a researcher.

Own Learning: At first, I had a lot of trouble comprehending and picking up this new way of learning, but now I realize that I am a good observer. This made it possible for me to complete other assignments successfully. I've improved my ability to think critically, use logic, be meticulous when conducting research, and avoid drawing hasty judgments.

Time Management: My MSc program places a lot of emphasis on time management. I've worked on numerous tasks and projects. I was also working a part-time job at the time. I have greatly benefited from all of these opportunities to improve my time management abilities. In order to accomplish my work within the allotted time, I strategically prioritized my work and planned out the research by dividing tasks down into smaller ones.

In conclusion, the entire MSc program has substantially aided my development as a professional. I faced a few difficulties despite having two years of job experience, but I overcame them by remaining steadfast and having faith. This remarkable experience will continue to be a great advantage for me.

Appendix

REGRESSION

```

/MISSING LISTWISE
/STATISTICS COEFF OUTS CI(95) R ANOVA COLLIN TOL
/CRITERIA=PIN (.05) POUT(.10)
/NO ORIGIN
/DEPENDENT ROA
/METHOD=ENTER NPL NIMG BLR
/SCATTERPLOT=(*ZRESID ,*ZPRED)
/RESIDUALS DURBIN HISTOGRAM(ZRESID) NORMPROB(ZRESID)
/SAVE COOK.

```

[DataSet1]

Table 4.1

Variables Entered/Removed

Model	Variables Entered	Variables Removed	Method
1	BLR, NIMG, NPL	.	Enter

- a. Dependent Variable: ROA
- b. All requested variables entered.

Table 4.2

Model Summary

Model	R	R Square	Adjusted Square	R	Std. The error in the Estimate	Durbin-Watson
1	.747 ^a	.558	.469		.1223325	.664

- a. Predictors: (Constant), BLR, NIMG, NPL
- b. Dependent Variable: ROA

YEAR	NPL	ROA	NIM	BLR
2000	1.354108	0.457882	10.60030	1.140888642
2001	1.294466	0.614897	10.34290	12.1387025
2002	1.330414	0.5302	12.12020	3.023542275
2003	1.311754	0.401401	10.92310	9.935713387
2004	1.334454	0.374748	7.53301	-2.60484706
2005	1.334454	0.392697	7.30181	1.593680481
2006	0.968483	0.403121	6.83120	5.627968049
2007	0.977724	0.567026	7.08905	9.187171228
2008	0.856729	0.521138	7.19920	6.684908635
2009	1.571126	0.581153	6.84797	18.18000167
2010	1.304059	0.528917	6.64850	1.067736064
2011	0.761176	-1.04576	8.97230	5.685579859
2012	0.569374	0.511883	8.87508	6.224808614
2013	0.5302	0.361728	7.70212	11.20162222
2014	0.471292	0.367356	7.12440	11.35621303
2015	0.686636	0.230449	6.84022	13.59615325
2016	1.107888	0.260071	5.60158	6.686233617
2017	1.170555	0.336932	7.93377	5.790566873
2018				6.055977154
2019				4.522188497
2020			4.03540	5.371280212

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