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The Effect of Monetary Policy on the Nigerian Banking Sector (1981–2023)

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ABSTRACT: This study examined the effect of monetary policy on the Nigeria banking sector over a period of 43 years between 1981 and 2023. Specifically, the study established the effect of inflation rate, money supply (M2), monetary policy rate (MPR) and exchange rate on the financial performance of the Nigeria banking sector. Secondary data were sourced from CBN statistical Bulletin for the period, 1981-2023. Being a time series data, multiple regression technique was employed. The findings of the study indicated that inflation rate, monetary policy rate and exchange were found to be statistically not significant. The study conclude that overall, the results underscore the importance of monetary policy instruments, particularly the MPR and money supply, in shaping banking sector dynamics in Nigeria. The study therefore recommends among others, that the Central Bank of Nigeria (CBN) should apply caution in raising policy rates. This is so because a relatively low or stable MPR can stimulate lending, encourage investment, and support overall banking profitability. More so, that government should maintain inflation rate at moderate levels, as excessive inflation could erode banks' asset values and customer deposits. The CBN should actively utilize open market operations and reserve requirements to promote optimal money supply levels that support bank lending and investment.

Keywords: Monetary policy, banking sector, inflation rate, exchange rate

1.0 INTRODUCTION

Monetary policy is a critical instrument of macroeconomic management employed by central banks to regulate money supply, control inflation, and stabilize the financial system. In Nigeria, the Central Bank of Nigeria (CBN) is statutorily empowered to formulate and implement monetary policy aimed at achieving sustainable economic growth and maintaining price and financial stability. As a stabilization policy, monetary policy involves the use of monetary policy instruments to regulate the volume, cost, availability and the direction of money and

credit in an economy to achieve some specific macroeconomic policy objective (Onigah, 2024; Yimka et al., 2020). Nnamdi et al (2021) opined that some of the macroeconomic objectives include price stability, full employment, sustainable economic growth, balance of payment equilibrium.

Ekwunife, Nduka, & Ogini (2022) posit that the banking sector, being the principal conduit for transmitting monetary policy decisions, is directly affected by changes in policy rates, liquidity conditions, and regulatory directives. The monetary instruments include bank rate, open market operation, reserve requirements etc. Scholarly works (Ndugbu & Okere, 2015; Alalade et al., 2020; Gimba et al., 2020; Osakwe, Ananwude & Nduka, 2019; Nduka, Atueyi, Osakwe, & Mbanefo, 2021; Gabriel, Afamefuna & Baridam, 2016) affirmed that economic activities are not directly affected by monetary policy instruments; instead, they work through their effects on the financial markets. Monetary policy affects economic activities through its effects on available resources in the banking sector.

From 1981 to 2023, Nigeria's monetary policy framework has evolved significantly, reflecting changes in the domestic economic landscape and the global financial environment. The early 1980s were characterized by a tightly controlled financial system, with fixed interest rates, directed credit policies, and limited competition among banks. However, the introduction of the Structural Adjustment Programme (SAP) in 1986 marked a turning point, ushering in an era of financial liberalization. This period saw the deregulation of interest and exchange rates, the proliferation of commercial banks, and heightened competition in the banking industry.

The liberalization of the financial sector, while initially stimulating growth, also exposed structural weaknesses and regulatory gaps. The 1990s witnessed a series of bank failures, arising from poor corporate governance, inadequate capitalization, and weak risk management practices. Consequently, the CBN adopted a more stringent monetary policy stance in the early 2000s, culminating in the banking consolidation reform of 2004–2005. This reform mandated a minimum capital base of ₦25 billion for banks, reducing the number of licensed banks from 89 to 25 and promoting stronger, more resilient institutions.

In the post-consolidation era, monetary policy continued to play a pivotal role in shaping the structure and performance of the banking sector. Instruments such as the Monetary Policy Rate (MPR), Cash Reserve

Ratio (CRR), Open Market Operations (OMO), and Liquidity Ratio were deployed to influence liquidity, control inflation, and guide credit allocation. The CBN also introduced intervention schemes to channel funds to critical sectors such as agriculture, manufacturing, and small and medium-sized enterprises (SMEs), thereby promoting financial inclusion and sectoral development (Monogbe, Nduka & Onwuka, 2017).

According to Nduka, Nwankwor & Egungwu (2024), between 2016 and 2023, Nigeria faced a series of macroeconomic shocks, including two recessions (2016 and 2020), rising inflation, exchange rate volatility, and the socio-economic impact of the COVID-19 pandemic. In response, the CBN adopted both expansionary and contractionary monetary policies at different intervals, depending on the prevailing economic conditions. The emergence of digital banking and fintech innovations further influenced the transmission of monetary policy, introducing new dynamics in credit delivery and liquidity management.

Lawal et al. (2022) studied the impact of monetary policy on the performance of commercial banks in Nigeria and found out that monetary policy rate has positively affected the performance of commercial banks. However, studies (Umar et al*.,* 2022; Aginam & Obi-Nwosu, 2020; Osho & Adelalu, 2020; Ndugbu & Okere, 2015; Alalade et al*.,* 2020; Gimba *et al.,* 2020; Ajisafe et al, 2021; Olaifa, 2022; Andabai, et al*.,* 2019; Monogbe, Nduka, & Onwuka, 2017; Onwuteaka et al*.,* 2019; Ifunanya, Nduka, & Ogochukwu, 2021; Ngangah, Egungwu & Ndduka, 2025) cast doubt on monetary policy instruments efficacy overall performances of banks significantly.

Despite these developments, the effectiveness of monetary policy in Nigeria has been mixed. Therefore, this study seeks to explore effect of monetary policy on Nigeria banking sector (1991-2023) a need to undertake a comprehensive analysis of how monetary policy has influenced the Nigerian banking sector over the period 1981 to 2023.

Statement of the Problem

The Central Bank of Nigeria (CBN) has, over the years, implemented various monetary policy strategies aimed at promoting financial stability, controlling inflation, and encouraging credit expansion to support economic growth. However, despite these efforts, the Nigerian banking sector has continued to experience periodic instability, constrained credit delivery, high interest rate volatility, and vulnerability to macroeconomic shocks. Particularly, the responsiveness of banks to monetary policy signals has remained inconsistent, raising

concerns about the effectiveness and transmission of monetary policy instruments.

In the early decades (1981–2000), episodes of inflation, liquidity crises, and bank failures were partly attributed to ineffective monetary policy management and weak regulatory enforcement. Even after the banking consolidation reform of 2004–2005, which strengthened the capital base and institutional resilience of banks, credit to the private sector—especially to the real and productive sectors—has remained suboptimal. Moreover, post-2015 economic downturns, forex market distortions, and global shocks like COVID-19 further tested the robustness of monetary policy frameworks.

In recent years, the growing adoption of fintech and digital banking services has altered traditional banking models, challenging the conventional channels through which monetary policy operates. Yet, policy coordination between innovation-driven finance and traditional monetary regulation remains underdeveloped.

These dynamics point to a critical gap in understanding how monetary policy has affected the banking sector over the past four decades, and what structural or institutional limitations may have hindered its effectiveness. It is against this backdrop that this study seeks to investigate the effect of monetary policy on the Nigerian banking sector from 1981 to 2023.

Objectives of the Study

The main objective of this study is to examine the effect of monetary policy on the Nigerian banking sector between 1981 and 2023. The specific objectives are to:

1. Examine the effect of Inflation rate on banking sector in Nigeria.
2. Investigate the effect of monetary policy rate on banking sector in Nigeria.
3. Evaluate the effect of money supply on banking sector in Nigeria.
4. Examine how exchange rate affects banking sector in Nigeria.

2.0 LITERATURE REVIEW

Conceptual Review

Monetary Policy

Monetary policy has various definitions and concept applications. According to nmar et al. (2022) it is a deliberate action of the monetary authorities to influence the quantity, cost and availability of money or credit in the economy in order to achieve desired macroeconomic objectives of internal and external balances. This action of the monetary authority is usually carried out by changing the volume of money in circulation and the interest rate. It is not an exaggeration that the importance of money in economic life has made policy makers and other relevant stakeholders to accord special

recognition to the conduct of monetary policy. This policy application could either be expansionary or contractionary at any given time depending on the monetary authorities (Igharo *et al.,* 2020). Similarly, Ifunanya, Nduka, & Ogochukwu (2021) refers to it as specific action taken by the Central Bank to regulate the value, supply and cost of money in the economy with a view to achieving Governments macroeconomic objectives. In a nutshell, the. aims of monetary policy are basically to control inflation, maintain healthy balance of payments position in order to safe guard the external value of the national currency, and promote adequate and sustainable level of economic growth and development. Aside from the definition of monetary policy given by the authors above, Aderemi et al. (2019), express similar view that monetary policy is a major economic control tool which involves a number of measures for the purpose of regulating, controlling and managing the volume of money and credit in an economy so that sustainable economic growth and development could be stimulated, incorporating reforms to strengthen the economy (Tunde, Omotayo, Austin & Afamefuna, 2016)

Monetary policy refers to the actions taken by a country's central bank to regulate the money supply, interest rates, and credit availability to achieve macroeconomic objectives such as price stability, economic growth, full employment, and exchange rate stability. In Nigeria, the Central Bank of Nigeria (CBN) is responsible for formulating and implementing monetary policy through instruments like the Monetary Policy Rate (MPR), Cash Reserve Ratio (CRR), and Open Market Operations (OMO).

Monetary Policy Rate (MPR)

The Monetary Policy Rate (MPR) is the benchmark interest rate set by the Central Bank of Nigeria (CBN) to influence overall interest rate levels in the economy. It represents the minimum rate at which the CBN lends to commercial banks and serves as a signaling instrument for short-term interest rate movements. The Central Bank of Nigeria is also ready to grant short term direct advances to commercial banks when they are liquid, similarly, the Central Bank of Nigeria rediscount eligible bills presented by commercial banks (Onuorah & Timothy, 2017; Akomolafe, et al*.,* 2015). Akinkpelumi, Monogbe & Nduka, 2017; Manasseh, Logan, Okanya, Nduka, Ede, Okeke, Lawal & Ugwu, 2025) asserts that changes in the MPR directly affect the cost of borrowing and lending across the financial system. A higher MPR typically discourages borrowing due to increased cost of funds, leading to a contraction in bank lending and investment activities, whereas a lower MPR is intended

to stimulate borrowing, credit expansion, and economic activity. Thus, the MPR plays a crucial role in shaping the liquidity and profitability of banks in Nigeria.

Money Supply (M2)

The Money Supply, particularly broad money (M2), encompasses currency in circulation, demand deposits, and quasi-money such as savings and time deposits. It represents the total stock of money available in the economy at a given time and serves as a core monetary policy variable used to regulate liquidity. An increase in money supply enhances the capacity of banks to create credit and support economic transactions, thereby improving the performance of the banking sector.

However, excessive money supply without corresponding economic output may lead to inflationary pressures, which can negatively impact banking stability and asset quality. Hence, the regulation of money supply is vital for maintaining a healthy and responsive banking system.

Inflation Rate

The Inflation Rate refers to the percentage change in the general price level of goods and services over a period of time, usually measured on an annual basis. As a key macroeconomic indicator, inflation is both an outcome and a determinant of monetary policy effectiveness. High inflation erodes the real value of financial assets and liabilities, distorts interest rate signals, and introduces uncertainty in the financial market. For banks, inflation can reduce the real returns on lending and deposit activities, increase default risks, and affect operational costs. Conversely, moderate and stable inflation provides a conducive environment for banking sector planning, investment, and intermediation functions. Therefore, inflation serves as an important transmission channel through which monetary policy affects banking performance.

Exchange Rate (NGN/USD)

The Exchange Rate represents the value of the Nigerian Naira in relation to foreign currencies, particularly the US Dollar. It plays a vital role in determining the external value of domestic financial assets, trade competitiveness, and capital flows. Monetary policy actions, such as changes in interest rates or reserve requirements, often influence exchange rate behavior. For the Nigerian banking sector, exchange rate stability is essential to maintain investor confidence, prevent capital flight, and manage foreign-denominated liabilities and assets. Persistent volatility in exchange rates can result in currency mismatch risks, revaluation losses, and increased uncertainty in banking

operations. Hence, the exchange rate acts as a moderating variable that shapes the overall impact of monetary policy on the banking sector.

Banking Sector Performance

The banking sector serves as a financial intermediary, mobilizing savings and channeling them into productive investments. It plays a critical role in credit creation, capital allocation, and liquidity management. In Nigeria, the sector comprises deposit money banks, development finance institutions, and emerging fintech-driven financial service providers.

Banking Sector Performance encompasses the financial soundness, efficiency, and resilience of banks in fulfilling their intermediation role. It is commonly measured through indicators such as Return on Assets (ROA), Return on Equity (ROE), credit to the private sector, liquidity ratios, and non-performing loan ratios. The performance of banks is significantly influenced by monetary policy conditions, which affect their access to funds, cost of capital, lending behavior, and risk exposure. A well-executed monetary policy enhances the operating environment for banks by promoting financial stability, lowering systemic risks, and supporting credit growth. On the other hand, restrictive or unpredictable monetary policy can reduce banking profitability, limit credit extension, and compromise asset quality. Thus, banking sector performance serves as the dependent variable reflecting the cumulative effects of monetary policy instruments and macroeconomic conditions over time.

Theoretical Framework

Theories of Monetary Policy

Quantity Theory of Money (QTM)

The Quantity Theory of Money (QTM), attributed to Fisher (1911), suggests a direct relationship between money supply and the general price level. The theory is based on the identity: $MV = PT$

where M is money supply, V is velocity of money, P is the price level, and T is the volume of transactions. According to this theory, increasing the money supply leads to a proportional increase in the price level, assuming velocity and output remain constant. Monetary policy that expands the money supply could lead to inflationary pressures, which influence interest rates and banking sector performance.

Keynesian Monetary Theory

Proposed by Keynes (1936), this theory posits that monetary policy affects aggregate

demand by influencing interest rates, which in turn affect investment and consumption. Keynes emphasized that money demand is driven by transaction, precautionary, and speculative motives. He also introduced the concept of a "liquidity trap" - a situation where monetary policy becomes ineffective because interest rates are already very low. During economic downturns, such as the Nigerian recession of 2016 and the COVID-19 crisis in 2020, this theory explains the limited effectiveness of traditional monetary policy tools.

Monetarist Theory

Friedman (1956) argued that inflation is fundamentally a monetary phenomenon and that monetary stability is essential for economic stability. Monetarists advocate a rules-based approach to money supply control and warn against the destabilizing effects of discretionary monetary policy. In the Nigerian context, periods of inflation and policy volatility support the monetarist emphasis on monetary control and predictability.

Loanable Funds Theory

Originally introduced by Wicksell (1898) and later developed by Robertson (1934), this theory explains interest rate determination through the supply and demand for loanable funds. An increase in savings raises the supply of funds and lowers interest rates, while increased investment demand pushes rates higher. Nigerian banks act as financial intermediaries between savers and borrowers, and their lending capacity is influenced by monetary policy instruments like the Cash Reserve Ratio (CRR) and Monetary Policy Rate (MPR).

Interest Rate Channel of Monetary Transmission

Emerging from the IS-LM model, this theory explains how central banks influence real economic activity by adjusting nominal interest rates (Mishkin, 1996). Changes in the policy rate affect market rates, thereby influencing consumption, investment, and banking activity. The Central Bank of Nigeria (CBN) frequently adjusts the MPR to guide lending rates, which directly impacts banks' credit creation and profitability.

The Credit Channel Theory of Monetary Policy Transmission

This study is anchored on the Credit Channel Theory of Monetary Policy Transmission as developed by Bernanke and Gertler (1989). The Credit Channel Theory is an extension of the traditional interest rate channel of monetary policy. While the classical view emphasizes the effect of monetary policy on interest rates and aggregate demand, Bernanke and Gertler argue that monetary

policy also works through its effect on the availability and cost of credit, especially in economies with imperfect financial markets - like Nigeria.

The theory posits that monetary policy impacts the economy not only through interest rates but also through the availability of credit by financial intermediaries. It emphasizes the bank lending channel, where monetary tightening policy reduces bank reserves, limiting their ability to lend, particularly to small and medium-sized enterprises (SMEs) that are more dependent on banks, and, the balance sheet channel, where higher interest rates reduce asset values and weaken borrowers' financial conditions, making banks more risk-averse. Given that Nigeria's financial system is predominantly bank-based, this theory aptly explains the dynamics through which monetary policy affects the banking sector, particularly in areas such as loan performance, liquidity, and profitability.

Empirical Review

Gimba et al (2020) did a study that examines the effect of monetary policy on the performance of listed deposit money banks in Nigeria from 2006-2018. The study used Panel time series data were extracted based on the variables used in the study. Net profit margin (NPM) as the dependent variable, while liquidity ratio (LQR), Interest Rate (INR), Loan to deposit ratio (LDR) and cash reserve ratio (CRR) as independent proxies to measure monetary policy. The findings show that monetary policy has significant effect on the performance of listed deposit money banks in Nigeria. Based on the result, it was concluded that liquidity ratio and loan to deposit are significant on net profit margin, likewise interest rate and cash reserve ratio were insignificant on net profit margin. Therefore, the effect of monetary policy on the Nigeria commercial banks as an engine for controlling inflation, unemployment etc. is geared towards finding a positive and constructive role for the economy.

Yimka et al (2020) investigated the effects of monetary policy on the financial performance of deposit money banks in Nigeria. The study used data from the period 1984 to 2018; all deposit money banks as captured by the Central Bank of Nigeria Statistical Bulletin were considered. The effect of liquidity ratio, lending rate, loan to deposit ratio and cash reserve ratio were examined on the financial performance of deposit money banks measured by their net worth and total credits. The data was analyzed using the ordinary least square method and the Autoregressive Distributed Lag. A short run model of net worth and long run model for both the log of net worth and the log of total credits were estimated. The results revealed that in the long run,

monetary policy variables including liquidity ratio, lending rate, loans to deposit ratio and cash reserve ratio had no significant effect on the log of net worth. However in the short run, variations in the liquidity ratio, loans to deposit ratio and the cash reserve ratio for previous years had significant effect on the log of net worth in the current year. The cash reserve ratio had a negative significant effect in the long run.

Afolabi et al. (2018) investigated the relationship that exists between monetary policy instruments and Deposit Money Banks Loans and Advances in Nigeria. An annual time series data covering a period of 36years from 1981-2016 were sourced from CBN. The relationship between monetary policy and credit creation of Deposit Money Banks was captured by monetary policy variables and structural changes in monetary policy. The study employed Toda and Yamamoto granger non-causality model to examine the relationship existing between Deposit Money Banks loan and advances and monetary policy variables in Nigeria. The findings revealed that structural changes in monetary policy system exerted positive significant impact on loan and advances of Deposit Money Banks in Nigeria findings also revealed bidirectional relationship existing between MPR and loan and advances of Deposit Money Banks in Nigeria.

Ayomi et al. (2021) ascertained the monetary policy instruments of the Central Bank of Nigeria (CBN) during and after the bank consolidation exercise (2000 – 2016) and determine the effects of these policies on the financial performance of deposit money banks (DMBs) in Nigeria. An Autoregressive Lag Model (ADL) analysis of secondary data obtained from the CBN Statistical Bulletin, 2016 shows that monetary policies of the CBN had a significant effect on the performance of DMBs in the short-run but an insignificant effect in the long- run. It is recommended that the CBN should intensifies its monetary policy strategies in controlling the activities of money deposit banks in the short run as this policy has been found effective. However, in the long run, CBN should make use of other regulatory tools to control the activities of deposit money banks for the achievement of macroeconomic objectives.

Olaifa (2022) examined the effect of monetary policy instruments on banking sector credits in Nigeria using three price-based monetary policy tools including monetary policy rate, cash reserve ratio, Treasury bill rate while liquidity ratio was also introduced as a control variable. Data analyses involved Augmented Dicker-Fuller unit roots test, Johansson co-integration test, Vector Error Correction model and Impulse

Response Function. The Cointegration result showed that there is long run relationship between monetary policy tools and bank credit such that MPR and LIQ has significant positive long run effects while TBR and CRR had significant negative long run effects on bank credit in Nigeria. The Vector Error Correction Mechanism showed that monetary policy in Nigeria is a reliable short-term mechanism for controlling the banks in Nigeria vis-à-vis financial intermediation functions. The impulse response function has shown that all the monetary policy variables (MPR, CRR, TBR and LIQ) have negative effects on bank propensity to grant credit in Nigeria. The study generally recommends that price-based monetary policy tools should be used in short term regulation stance of the government.

Ogbeifun and Akinola (2019) evaluated effect of money supply on the performance of Deposit Money Banks in Nigeria; the significant impact of monetary policy rate on Deposit Money Banks' Performance; to investigate the influence of Cash reserve ratio on Deposit Money Banks' Performance. Data were obtained from the Central Bank of Nigeria Statistical Bulletin. The multiple regression analysis (OLS) was used to test the impact of monetary policy tools on the performance of deposit money banks in Nigeria. The result shows that the monetary policy variables have positive relationship on performance of Nigerian Deposit Money Banks except Money Supply and Liquidity Ratio. The study concluded that monetary policy tools have no significant effect on the financial performance of commercial banks in Nigeria. The study then recommends that commercial banks should put more emphasis on the internal factors (capital adequacy, asset quality, management efficiency, earnings ability and liquidity management) to financial performance.

Also, Aginam and Obi-Nwosu (2020) examined the effect of monetary policy on banks performance in Nigeria**.** The variables of monetary policy rate, liquidity ratio, broad money supply and interest rate were regressed on return on equity (ROE) for the period of 30 years (1987- 2017). Econometric techniques, including Augmented Dicker Fuller and Philip Perron tests for unit roots and Ordinary Least Square (OLS) were employed for the analysis. The result of the study indicates that monetary policy rate**,** liquidity ratio and broad money supply have positive and significant effect on return on equity (ROE) while interest rate has negative and insignificant effect on return on equity (ROE) within the period under review. The study thus concludes that monetary policy can be used to influence the performance of deposit money banks in Nigeria.

Umar et al. (2022) analyzes the effect of monetary policy on the performance of deposit money banks in Nigeria. This research was based on secondary source of data extracted out from CBN statistical bulletin and Index mundi. The Autoregressive Distributed Lag (ARDL) approach to cointegration was applied to achieve the objective. The empirical results revealed that both in the long run and short run, bank lending rate (BLR) has been found to have a significant positive impact on banks loans and advances (BLA), This means that (BLR) has significant positive impact on the performance of deposit money banks in Nigeria. While liquidity rate (LR) has significant impact in the long run but has no significant impact in the short run likewise interest rate (IR) has no significant impact in the long run but in the short run has significant and positive impact on the performance of deposit money banks. The study concluded that increasing the interest rate can equally lead to improve performance in the short run as this can motivate customers to save more but this effect will neutralize in the long run.

Olaoye et al (2018) examines the effects of monetary policy on banks performance in Nigeria. Specifically, it examines the effect of interest rates on deposit money banks profit; it assessed the effect of central bank rate on deposit money banks profit and evaluated the effect of foreign exchange rate on deposit money banks profit. Secondary data was used for the purpose of this paper which was sourced from CBN Statistical Bulletin for the period of 1988 to 2015.Descriptive statistics was used to show the trends of monetary policy variables such as deposit banks interest rates, central banks rates and foreign exchange rates. Ordinary least Square regression was used to examine the impacts of monetary policy variables on deposit money banks' profits. The results show that foreign exchange rates and cash reserves ratio had negative impacts on deposit money banks profit were respectively. Furthermore, the results show deposit money banks interest rates had positive and significant impacts on deposit money banks profit. It was concluded that monetary policy affects banks performance in the Nigerian Economy.

Summary of Literature Review

The review establishes that monetary policy significantly influences the banking sector, particularly through interest rates, credit supply, and liquidity control. However, the magnitude and direction of this influence depend on the policy framework, regulatory capacity, and macroeconomic environment.

From the foregoing, it can be deduced that there is a relationship between monetary policy and bank performance. This

preponderance empirical position of scholars is not without challenge considering the prevalence of macroeconomic vices and the present state of the Nigeria economy despite the claim of significant relationship or impact of monetary policy on banks' performance. The question therefore remains: "could the period of performance be attributed to appropriate monetary policy or could the period of economic down-turn be blamed on factors other than monetary policy inefficiencies? For Nigeria, challenges such as fiscal dominance, political interference, and technological disruption have complicated the monetary policy - banking sector relationship. This study, therefore, builds on existing knowledge by offering a longitudinal analysis and integrating the role of fintech innovations in policy effectiveness.

Gaps in the Literature

1. Most studies focus on short- to medium-term impacts, with limited longitudinal studies spanning multiple policy regimes.
2. Few works adequately integrate fintech innovation as a variable affecting monetary policy effectiveness.
3. There is a lack of comprehensive research that spans both the regulatory evolution and innovation-driven transformation of the Nigerian banking sector from 1981 to 2023.

3.0 METHODOLOGY

This study adopts the ex post facto research design. It involves the use of historical data. The data for this study is obtained mainly from secondary sources; particularly from Central Bank of Nigeria (CBN) publications such as the CBN Statistical Bulletin. The data used cover from 1999-2022. The time-series data were taken for the period between 1981 and 2023. Variables of the study consist banking sector performance, monetary policy rate (MPR), Money supply (M2), Inflation rate, and exchange rate. Analytically, this study adopts an econometric method of regression analysis, Multiple Linear Regression model was employed to test the data. Specifically, the regression technique employed in the study is the ordinary least square (OLS). In addition, the Pearson Product Correlation Test and direction of causality among these variables is ascertained using the Granger Causality test. Some parametric diagnostic tests were performed to validate the regression results. The tests are normality test, multicollinearity (using correlation matrix) tests, serial correlation (Durbin-Watson) test, and heteroscedasticity (using Breusch-Pagan) test. Data collected for the study was tested using the computer software E-views 9.

The model specified for this study is adapted from the empirical work of Chima et al (2022) who studied the effect of monetary

policy on manufacturing sector performance in Nigeria. The model is stated thus:

MOP= (BSC, REXR, LINTR, MS) ---------- (1)

Where

MOP = Manufacturing Performance

BSC = Banking Sector Credit

REXR = Real Exchange Rate

LINTR= Lending Interest Rate

MS = Money Supply

The model was modified to enable us look at the topic from another dimension. Thus we state our modified model as:

BSF= f (INF, MPR, LOG MS, EXCH) ---------- (2)

BSF = Banking sector performance

INF= Inflation rate

MPR=Monetary policy rate

MS = Broad Money supply (M2)

EXCH = Exchange rate

μ= error term

The above equation can be put in an econometric form as;

$$LBSF=b_0 + b_1 LINF + b_2 LMPR + b_3 LMS + b_4 LEXCH + \mu \quad \text{---------- (3)}$$

Where;

β_0 and μ are the constant and error terms respectively while β_1, β_2, β_3, „ and β_4 are the coefficients of banking sector performance, interest rate, inflation and money supply respectively F= functional notation.

4.0 RESULTS AND DISCUSSION

Unit Root Test

The first stage of co-integration and Error Correction Model is to test for unit root, the whole analysis then proceed from it. Konya (2004) maintains that there exists unit root in most macroeconomics time series. Therefore, it is necessary to analyze whether the series are stationary or not whenever time series data are involved. The presence of unit root implies that the time series under investigation is non-stationary, the absence of a unit roots shows that stochastic process is stationary. The augmented Dickey-Fuller (ADF) test would be employed in this test

Tables 4.1 Unit Root Result

Variable	ADF	Integration	Significance
BF	-4.039230	I (1)	1%
INF	-7.034807	I (1)	1%
MPR	-5.270995	1 (1)	1%
MS	-4.662953	I (1)	1%
EXR	-5.178786	I (1)	1%

Source: Author's computation using e-view version 10

Following the result of ADF test above it is observed that none of the variables are stationary at level, but the entire variables become stationary at 1st difference.

Co-integration analysis

The aim of co-integration analysis is to determine the long-run equilibrium relationship between the variables. Co-integration exists among the variables if they are integrated of the same order. The implication of this analysis is that deviation or drift may occur between the variables but this is temporary as equilibrium hold in the long run for them. In this study we used the Johansen co integration approach to examine the existence of long-run relationship between the variables of interest. Below is the summary of co integration results.

Table 4.2 Co-integration result test

Unrestricted Co-Integration Rank Test (Trace)

Hypothesized No of CE(s)	**Eigen value**	**Trace static**	**0.05 critical value**	**Prob****
None *	0.950059	168.0452	88.80380	0.0000
At most 1*	0.779244	84.13182	63.87610	0.0004
At most 2*	0.541304	41.83230	42.91525	0.0639
At most 3*	0.333855	20.01000	25.87211	0.2254
At most 4*	0.265375	8.635061	12.51798	0.2041

Source: Author's computation using E-view version 9

Trace test indicates 3 co-integrating eqn(s) as the 0.05 level* denotes rejection of the hypothesis at the 0.05 level ** mackinnon-Haug-Michelis (1999) P – value.

Unrestricted co-integration Rank Test (Maximum Eigen value)

Hypothesized No of CE(s)	Eigen value	Trace static	0.05 critical value	Prob
None *	0.950059	83.91337	38.33101	0.0000
At most 1*	0.779244	42.29951	32.11832	0.0021
At most 2*	0.541304	21.82230	25.82321	0.1548
At most 3*	0.333855	11.37494	19.38704	0.4754
At most 4*	0.265375	8.635061	12.51798	0.2041

Source: Author's computation using e-view version 9, 2025

Max-Eigen value test indicates 2 co-integrating equ(s) at the 0.5 level* denotes rejection of the hypothesis at the 0.05 level **mackinnon-Haug-michelis (1999) P-values. Max-Eigen value and trace test indicates 4 & 5 co-integrating equations respectively at the 0.05 level. This suggests a long run equilibrium relationship among the variables. Co-integration is a pre-requisite for error correction mechanism following the result of co-integration, there is a long-run equilibrium relationship among the variables, hence, we can move over to error correction mechanism.

Presentation of Regression Result

Table 4..5 Error Correction Model Result

Variable	Coefficient	Std Error	T-statistics	Prob
C	1.329684	0.160529	8.283145	0.0000
INFL	0.045380	0.032745	1.385877	0.1785
MPR	-0.001844	0.007411	-2.248843	0.0056
LMS	0.807644	0.046312	3.743903	0.0000
EXR	-0.059950	0.064302	-0.932329	0.3605
ECM(-1)	-0.830707	0.124143	-6.691554	0.0000

Source: Author's computation using e-view version 9,

R –Square	0.876137
Adjusted R-squared	0.865332
F-Statistics	123.7751
Durbin-Watson stat	1.91990
Prob (F-statistics)	0.000000

DISCUSSION OF FINDINGS

The value of the R-square and the adjusted R-square in table 4.3 show that the explanatory variables are robust in explaining variation in the dependent variables (AGO), given their values as 0.876137 and 0.865332 respectively. The F-statistics measures the overall

significance of the explanatory parameter. From the result report in table 4.3 above, our computed value of f-statistics is 123.7751, while its probability is 0.0000, given this value we reject the null hypothesis and accept the alternative hypothesis which state that there is a significant relationship between the variance of estimated regression model.
A' priori criteria which is used to determine the existing economic theories and indicates the sign of the economic parameter under consideration. From the estimated regression model it was obtained from the coefficient Column that all the variables conform to a'priori expectation ranging from monetary policy rate, money supply, and exchange rate all have positive sign as expected, while inflation did not have expected negative sign. This further suggests that increase in any of former variables increase the bank profitability while an increase in inflation would lead to a decline in bank profitability, all at a given percentage respectively.

T-statistics, this is the measure used to determine the individual statistical significance of the variables in the model. From the model it was obtained that the monetary policy rate and money supply in Nigeria were statistically significant at 5%, inflation rate and exchange rate were statistically insignificant, however, this implies that the monetary policies contribute significantly to bank profitability in Nigeria.

The Durbin-Watson statistics is used to test for the presence or otherwise of autocorrelation in our model. When the value of Durbin-Watson is closer or a little bit above 2, it means the absence of autocorrelation amongst the explanatory parameter (Koutsoyannis 1997) from the table 4.3 above, it was obtained that our Durbin-Watson result is (1.9), this satisfy the above stated condition. This means the absence of autocorrelation among the explanatory variables.

The error correction model term ECM (-1) of about -0.83% is significant with the expected negative sign. A significant error term with the right sign indicates strong feedback effect of deviation of bank profitability from its

long-run growth path. The coefficient of the error term is -0.830707 this shows that about 83% of the discrepancies between the actual and the equilibrium value of the agricultural output is corrected in each period (annually)

Validating the Research Hypotheses

The research hypotheses is based on relevant statistics from the regression result, stated in the null.

Ho_1: Inflation rate does not have significant effect on bank profitability in Nigeria

From the regression result we discovered that in the t-statistics inflation is 1.385877 while its probability is 0.1785. Since its probability is greater than 0.05 desired level of significance we reject the alternative hypothesis and accept the null hypothesis, we therefore conclude in favor of null hypothesis which states that inflation rate has no significant impact on bank profitability in Nigeria.

Ho_2: Monetary policy rate has no significant effect on bank profitability in Nigeria

From the regression result we discovered that in the t-statistics interest rate is -2.248843 while its probability is 0.0056 Since its probability is less than 0.05 desired level of significance, we reject the null hypothesis and accept the alternative hypothesis, we therefore conclude in favour of alternative hypothesis which states that monetary policy rate has significant effect on bank profitability in Nigeria.

Ho_3: Money supply has no significant effect on bank profitability in Nigeria

From the regression result we discovered that in the t-statistics money supply is 3.743903 is while its probability is 0.000 Since its probability is less than 0.05 desired level of significance, we reject the null hypothesis and accept the alternative hypothesis, we therefore conclude in favour of alternative hypothesis which states that money supply has significant effect on bank profitability in Nigeria.

Ho_4: Exchange rate has no significant effect on bank profitability in Nigeria

Drawing inference from the t-statistics Column for exchange rate which is -0.9323329 while its probability is 0.3605 since its probability is greater than 0.05 desired level of significance, we accept the null hypothesis and reject the alternative hypothesis, we therefore conclude in favour of null hypothesis which states that exchange rate has no significant effect on bank profitability in Nigeria

5.0 CONCLUSIONS

This study investigated the effect of monetary policy on the performance of the Nigerian banking sector, focusing on key indicators such as the Monetary Policy Rate (MPR), money supply, inflation rate, and exchange rate. Based on the regression results, the findings reveal that the Monetary Policy Rate (t = -2.248843, p = 0.0056) has a statistically significant negative impact on banking sector performance. This suggests that increases in the MPR, which raises the cost of borrowing, tend to dampen bank profitability and lending activity. Conversely, money supply (t = 3.743903, p = 0.000) exhibits a strong, positive, and statistically significant relationship with banking sector performance. This indicates that an increase in money supply enhances liquidity and facilitates greater financial intermediation by banks. Inflation rate (t = 1.385877, p = 0.1785) and exchange rate (t = -0.9323329, p = 0.3605), however, were not found to be statistically significant at conventional levels. While the inflation rate displayed a positive sign and the exchange rate a negative one, their limited statistical significance suggests that their direct effects on banking sector performance during the study period were not robust. Overall, the results underscore the importance of monetary policy instruments, particularly the MPR and money supply, in shaping banking sector dynamics in Nigeria.

Following from the findings and in line with objectives, the study made the following recommendations

1, In light of the significant negative impact of the MPR on banking sector performance, the Central Bank of Nigeria (CBN) should apply caution in raising policy rates. A relatively low or stable MPR can stimulate lending, encourage investment, and support overall banking profitability.

2. The strong positive influence of money supply on the banking sector suggests the need for policies that ensure adequate liquidity in the financial system. The CBN should actively utilize open market operations and reserve requirements to promote optimal money supply levels that support bank lending and investment.

3. Although inflation is not statistically significant, it remains an important macroeconomic variable. The government should maintain inflation at moderate levels, as excessive inflation could erode banks' asset values and customer deposits.

4. Despite its insignificant effect, exchange rate volatility can increase uncertainty in foreign exchange transactions and banking operations. The CBN should aim for a more stable exchange rate regime, supported by strong foreign reserves and sound fiscal policies.

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