Monetary Policy And Financial Performance: Empirical Evidence From Listed Deposit Money Banks In Nigeria

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Abstract

A thousand and one factors influence firm profitability and overall performance. This study looked at how monetary policies affected the performance of Nigeria's listed deposit money banks. The study's goal is to examine monetary policy instruments such as open market operations, cash reserve requirements, liquidity ratios, and interest rates to determine their impact on banks, whether significant or not, using return on assets as a performance metric. The purposive sampling technique was used to select five quoted deposit money banks in the financial services industry. The study's data came from CBN statistical bulletins and the annual reports of the companies studied, which ranged from 2012 to 2021. Using multiple linear regression and Pearson product correlation analysis, the hypotheses were tested to see if the null hypothesis was accepted or not. According to the study's findings, open market operations have no significant positive effect on the profitability of Nigeria's listed deposit money banks. Further research revealed that cash reserve ratios have a significant positive effect on the profitability of Nigeria's listed deposit money banks. Based on the findings, the study's main conclusion is that monetary policies have a significant influence on the profitability of Nigerian listed deposit money banks when they are pooled together. Among the recommendations was to extend monetary policy beyond OMO because it had no significant influence. According to the study, banks should maintain an adequate cash reserve ratio because it has a significant impact on performance. Deposit money banks should place a greater emphasis on financial performance factors over which they have direct control, such as capital adequacy, asset quality, management efficiency, earnings ability, and liquidity management.

Keywords: Cash Reserve Requirements, Monetary Policy, Open Market Operations, Performance, Return on Assets

1.0 Introduction

The financial sector is critical, and its importance in driving economic activity in every country, including Nigeria, cannot be overstated. According to Okpara (2009), banks are the primary hub of the public's financial savings, the heart of the payment system, the bodies endowed with the ability to create money and allocate financial resources through which monetary and credit policies are implemented. This obvious fact has made monetary policy instruments indispensable in driving the activities of the Nigerian economy. According to Okpara (2009), the success of monetary policy is heavily dependent on the health of the banking institutions that implement the policies. As a result of banks' central role in the economy, their activities must be closely monitored to ensure that they operate within the law, adopting necessary guidelines to ensure safe and sound practices so that the economy is not jeopardized. As a result, the government generally legislates through the apex bank, the Central Bank of Nigeria, to influence and/or directly control banks' activities to match the set objectives of the economy.

Banks' unique role as the engine of growth in any economy is widely recognized around the world. The extent to which banks extend credit to the general public for productive purposes both accelerates a country's economic growth and ensures the banking industry's long-term viability (Kolapo, Ayeni & Oke 2012). As a result, it has been widely observed in Nigeria and other developing countries that prudent monetary policies are the cornerstone of effective regulations and supervision for the growth of any country's banking industry (Sanusi, 2018).

Monetary policy is one of the most important players in any economic system. Monetary policy

is a major tool used by the monetary authority (Central Bank) to achieve a specific macroeconomic goal and shape a country's economic performance.

Its policies are intended to regulate and control the economy's money supply and credit situation. Monetary policy, according to Mishkin (2013), is the use of monetary instruments to regulate or control the volume, cost, availability, and direction of money and credit in an economy in order to achieve macroeconomic goals such as price stability, full employment, and sustainable economic growth. Other controls are also required to control the volume of money in circulation and to give domestic money a value (Akanbi & Ajagbe, 2012). Additional monetary policy objectives include ensuring a smooth business cycle, preventing financial crises, and stabilizing long-term interest rates and the real exchange rate (Mishra & Pradhan, 2008).

Deposit money banks dominate the banking industry in Nigeria. The banking industry's role in implementing monetary policies cannot be overstated. It should be noted that the instruments, which include, among other things, Open Market Operations, Cash Reserve Requirements, Discount Rates, Credit Ceilings, and so on, do not directly affect economic activities but have an impact on them through their effect on the resources available in the banking system. In practice, monetary policy serves as a check to address price stability concerns and stabilize the economy. Contractionary monetary policy measures are used during periods of high inflation to reduce the amount of money in circulation by increasing borrowing costs. People would naturally borrow less because loans would be more expensive. Spending and investment would also suffer a decline. Expansionary monetary policy, on the other hand, is implemented when economic conditions are poor in order to increase money circulation (Isaac & Akinwumi, 2019).

Aside from their role as financial intermediaries, banks, like any other private sector enterprise, seek to maximize profits while also maintaining liquidity and solvency. Profitability is critical for deposit money banks because it demonstrates good performance and progress to the public, generating a high level of trust in the bank and in the eyes of the public. Monetary policy is an important economic management tool that governments use to shape and direct economic performance. Central banks influence the rate of money supply, the level of interest rates, credit availability, and liquidity creation from the hand of the Deposit Money Bank by manipulating monetary policy instruments. These factors, in turn, can cause monetary imbalances in the economy by influencing total output, employment, consumption, imports, exports, investment, government spending, income, and price levels.

Historically, monetary policy in Nigeria has been conducted in two phases: the pre-Structural Adjustment Programme (SAP) period and the post-SAP period. Prior to the implementation of SAP in 1986, the Central Bank of Nigeria's (CBN) monetary policy framework emphasized direct monetary policy control, such as credit ceilings. However, when it came to the implementation of SAP, the CBN emphasized and continues to rely on an indirect approach based on the use of market instruments such as Open Market Operations and Moral Suasion in monetary management.

The primary goal of this study was to investigate the impact of monetary policies on the performance of Nigerian deposit money banks. However, the specific goals are:

1. Determine the impact of monetary policy on the return on assets of Nigerian deposit money banks.
2. To assess the impact of monetary policy on the return on assets of Nigerian deposit money banks.

Deposit money banks make a profit by investing their customers' deposits in a variety of short-term and long-term investments. However, the majority of such deposits are used to make loans. In other words, deposit money banks typically mobilize savings and extend loans and advances to their numerous customers while keeping three guiding principles in mind: profitability, liquidity, and safety (Okoye & Eze, 2013). Many factors influence deposit money banks' lending decisions, including the current interest rate, the volume of deposits, the level of domestic and foreign investment, the banks' liquidity ratio, prestige, and public recognition, among others (Olokoyo, 2012). From its inception until 1992, the CBN adopted and implemented direct monetary policy. When industrialized countries began to migrate toward the implementation of market mechanisms for monetary policy implementation in the late 1970s, the use of indirect instruments of monetary control became more widespread (Ogbeifun & Akinola, 2019)

2.0 Literature Review

Conceptual Review
Concept of Bank's Profitability and Performance

Sattar and Khan (2014) state that interior and exterior determinants determine a bank's profitability, which agrees with Ongore and Kusa (2013) and Al-Tamimi, Miniaoui, and Elkelish

(2015). Because they are initiated from bank accounts such as the statement of financial position or the statement of comprehensive income, the interior determinants are referred to as micro or bank specific determinants of profitability. Exterior determinants, on the other hand, are variables over which bank management has no control, such as monetary policy interest rates. According to Chen, Roll, and Ross (1986), these macroeconomic factors are important in explaining firm performance (profitability) and subsequent returns on investment.

According to Muhammad, Asif, Ammar and Toquer (2013), financial performance is commonly measured by ratios such as Return on Equity and Return on Assets. Operating income, earnings before interest and taxes, and net asset value can all be used to assess financial performance. There are numerous mathematical measures that can be used to assess how effectively a company uses its resources to generate profit. Financial performance analysis, according to Irungu (2013), is the process of identifying the firm's financial strengths and weaknesses by properly establishing the relationship between the items of the statement of financial position and the statement of financial position. Management, owners, creditors, and investors can all conduct financial performance analyses (Chen, 2011).

The performance of banks influences the decisions of shareholders. Profit maximization is said to be the most important goal of a business (Damilola, 2007). Under competitive market conditions, profit is one of the most appropriate measures of corporate performance (Pandey, 2010). Profit is defined as the excess of a company's revenue over its associated costs for an accounting period. Profit is not a precise operational term because there are numerous variants. Profit before tax, profit after tax, gross profit, net profit, profit per share, return on assets, and other variations are all possible (Pandey, 2010).

This imprecision has frequently presented researchers with decisional challenges, as they must choose an appropriate variant to proxy profitability and performance. However, the most commonly used variants as appropriate profitability measures include gross operating profit, net operating profit, and return on assets (Teruel & Solano, 2006; Raheman & Nasr, 2007).

Concept of Monetary Policy in Nigeria

Monetary policy is simply any policy measure implemented by the government or central bank to control the cost, availability, and supply of credit. It is frequently aimed at inflation, interest rates,

domestic price stability, and general trust in the currency, all of which are required for the economy to grow sustainably. According to Onyeiwu (2012), monetary policy is a method of economic management used to achieve long-term economic growth and development. He claimed that nations have been pursuing this goal since Adam Smith's time. Monetary policy has been used in Nigeria since the Central Bank Act of 1958, when the Central Bank of Nigeria was given the responsibility of formulating and implementing monetary policy. The CBN's ability to pursue effective monetary policy in a globalized and rapidly integrated financial market environment is dependent on a number of factors, including institutional structure, an appropriate legal framework, and a conducive political environment that allows the Bank to make decisions autonomously. The degree of coordination between monetary and fiscal policies to ensure consistency, high quality and timely information to the Central Bank of Nigeria and the overall macroeconomic environment are also huge factors.

Nnanna (2001) observed that, while monetary management in Nigeria has been relatively more successful during the period of financial sector reform, which is characterized by the use of indirect rather than direct monetary policy tools, the effectiveness of monetary policy has been undermined by the effects of fiscal dominance, political interference, and the legal environment in which it operates.

According to Busari, Omoke, and Adesoye (2002), monetary policy stabilizes the economy better than a fixed exchange rate system and stimulates growth better under a flexible rate regime. Although it is accompanied by severe depreciation, which may destabilize the economy, monetary policy would better stabilize the economy if it is used to directly target inflation rather than directly stimulate growth. Other policy measures and instruments, he advised, are required to supplement monetary policy in macroeconomic stabilization.

Monetary policy objectives change depending on the economy in question. In general, Nigeria's Monetary Policy has the following main objectives:

To ensure price stability: This is very similar to 'inflation control,' because inflation refers to a general high level of increase in the prices of goods and services. According to Ibeabuchi (2007), inflation reduces real disposable income and, as a result, the purchasing power of money.

To facilitate full employment: This is a state in which labor, plant, and capital are engaged at a

tolerable capacity in order to achieve predetermined goals.

To achieve rapid economic growth and development: Economic growth and development entail a quantitative and qualitative increase in the total quantity of goods and services produced in the economy over a specific time period, typically a year.

To ensure payment balance equilibrium: this entails achieving a balance between total receipts and total payments and avoiding a chronic surplus or deficit in the balance of payments (2013)

Open Market Operations: The Central Bank buys and sells securities in the open market to the banking and non-banking public. Treasury Bills are one type of security. When the Central Bank sells securities, it reduces the supply of reserves; when it buys them back by redeeming them it increases the supply of reserves to the Deposit Money Banks, thereby influencing the supply of money (Solomon, 2012).

Cash Reserve Requirements: According to Solomon (2012), the Central Bank can manipulate the reserve requirement to reduce deposit money banks' ability to make public loans by simply increasing the ratio or to improve their lending position by simply decreasing the ratio. One of the most powerful monetary control tools is the reserve requirement (CBN). A change in the required reserve ratio alters the ratio by which the banking system can increase deposits via the multiplier effect. When the required reserve ratio rises, the multiplier falls, reducing the banking system's liquidity position. It is also known as primary reserve.

Nigerian Monetary Policy Implementation Issues

Despite recent monetary policy successes, it is acknowledged that challenges still exist (Ibeabuchi, 2007). They are as follows:

Dominance in Finance: Another serious challenge to the conduct of monetary policy is the continued fiscal dominance brought about by the three tiers of government's expansionary fiscal operations.

Liquidity Surge: Given the cash-based nature of the economy, this has been one of the major challenges of monetary policy in Nigeria. Furthermore, the expansionary nature of fiscal policy has continued to limit the impact of monetary policy.

Monetary Policy Instruments are Insufficient: Only a few of the previously mentioned monetary policy instruments are in use in Nigeria, and they are not fully acknowledged. This has limited their impact, making it difficult to achieve the desired results.

Financing Real Sector Investments: Because the CBN has a dual mandate, monetary policy must be tailored to encourage real sector lending. With the large capital base at banks' disposal, it is envisaged that the required capacity would be available to finance long-term investments in the real sector in such areas as power plant, telecommunication, oil and gas, railway, etc. Monetary policy must, however, be such that enables this to happen.

Money and Capital Markets are Underdeveloped: There is a lack of a well-developed money and capital market. The money market is the primary buyer of government securities, and when it is underdeveloped, it is unable to absorb the series of securities released by the government or the CBN and thus cannot perform the role that is expected of it.

Reduced Spread between Savings and Lending Rates: The challenge of narrowing the spread between savings and lending rates remains for monetary policy. Recent reforms have resulted in some improvements, but there is still room for improvement, and this should be a key policy concern in the coming years.

Theoretical Review

Keynesian Theory

Keynesian Economics is a theory that holds that the government should increase demand to stimulate growth, thus supporting expansionary fiscal policy. Monetary policy, according to Keynesian economists, works primarily through interest rates. The Keynesian Revolution began in 1936, when John Maynard Keynes published his "General Theory of Employment, Interest, and Money." A decrease in interest rates may encourage investment. Increased investments raise the level of income or output via the multiplier, potentially stimulating economic activity. Thus, monetary policy affects economic activity indirectly through their impact on interest rates and investment

In simple terms, Keynesians' monetary mechanism emphasizes the role of money, but it involves an

indirect linkage of money with aggregate demand via the interest rate, as shown symbolically below:

$\downarrow OMO \rightarrow \downarrow R \rightarrow \uparrow MS \rightarrow \downarrow r \rightarrow I \rightarrow \uparrow GNP$

Where, OMO = Open Market Operation

R = Commercial Bank Reserve

MS = Stock of Money

r = Interest Rate

I = Investment

GNP = Gross National Product

On a more analytical note, if the economy is initially in equilibrium and the Central Bank of Nigeria (CBN) purchases government securities in the open market, this Open Market Operation (OMO) will increase deposit money bank reserves and raise bank reserves. The bank then works to restore the desired ratio by making new loans or increasing bank credit in other ways. Such new loans generate new demand deposits, expanding the money supply (MS). The general level of interest rates falls as the money supply expands. Falling interest rates affect the performance of deposit money banks, which in turn stimulates investment given businessmen's expected profit. The induced investment expenditure causes subsequent rounds of GNP final demand spending to increase by a multiple of the initial investment change. A decrease in the money supply, on the other hand, causes the general level of interest rates ® to rise or increase, increasing the profitability of deposit money banks (Jhingan, 2005).

Monetarism/Neo-Classical Theory

Milton Friedman proposed the monetarist theory in 1956 in response to criticism of the Keynesian theory. Friedman effectively conversed the role of monetary policy, which of course influences the volume, cost, and direction of money supply. Friedman's position is that inflation is always a monetary phenomenon. He recognizes that increasing the money supply can reduce unemployment in the short run but can also cause inflation, so monetary authorities should increase the money supply with caution (Onyemaechi, 2005). According to Monetarist Theory, changes in the money supply have a significant impact on national output in the short run and on price levels over longer time periods.

Monetarists such as Friedman emphasized the importance of money supply in determining the health of the economy. To promote a consistent growth rate, the money supply should grow at a fixed rate rather than being regulated and altered by the monetary authority. Friedman also argued that because money supply is substitutive not only for bonds but also for a wide range of goods and services, changes in money supply will have both direct and indirect effects on spending and investment. The monetarist introduces a new factor into the determination of interest rates: price expectation; an increase in money supply has a liquidity effect on income and price effect.

Symbolically, the monetarist conception of money transmission mechanism can be summarized below:

$\uparrow OMO \rightarrow \uparrow MS \rightarrow Spending \rightarrow \uparrow GNP$

The monetarist case is based on the old quantity theory of money. If the velocity of money in circulation remains constant, changes in the money supply will have a direct impact on prices and output or income (GNP). According to Friedman and Schwartz (1963), an expansive Open Market Operation by the Central Bank increases the stock of money, which leads to an increase in deposit money banks' reserves and ability to create credit, and thus increases the money supply via the multiplier effect. Banks and non-bank organizations purchase securities sold by the Central Bank in order to reduce the amount of money in their portfolios, thereby stimulating activity in the real sector. Tobin (1978) supports this viewpoint by looking at the transmission effect in terms of asset portfolio choice, which shows that monetary policy causes asset switching between equity, bonds, commercial paper, and bank deposits. According to him, tight monetary policy affects liquidity and banks' ability to lend, limiting loans to prime borrowers and business firms to the exclusion of mortgages and consumption spending, thereby contracting effective demand and investment.

Theoretical Framework

This study was based on the ideology of monetarism theory, which is an economic concept that contends that changes in the money supply are the most important determinants of the rate of economic growth, the behavior of the business cycle, and the actions of firms.

Empirical Review

According to Nwankwor, Ikeora, and Ogini (2022) in their study titled effect of monetary policy on manufacturing sector output in Nigeria. Time series data covering 33 years, from 1987 to 2019 was employed. Descriptive statistics were used to explain the nature of the variables used for the analyses. The data were subjected to Augmented Dickey Fuller Stationarity Test. The results showed that all the variables have stationarity at level 1(0).

Thus, the most suitable tool of regression used is the ordinary Least Square which was employed for the analysis. The findings among others revealed that money supply; monetary policy rate and treasury bill rate have positive significant policy effects on manufacturing sector output in Nigerian while cash reserve ratio had negative and insignificant policy effect on manufacturing sector output in Nigeria. The study therefore concludes that monetary policies have positive and significant effect on manufacturing sector output in Nigeria. The study recommended amongst others that the Central Bank of Nigeria should employ an expansionary monetary policy that can increase the money supply to the real sectors to boost economic development in Nigeria.

In a micro-panel analysis, Akomolafe, Danladi, Babalola, and Abah (2015) investigated the impact of monetary policy on commercial bank performance in Nigeria. The interest rate and money supply were used as proxies for monetary policy, while profit before tax (PBT) was used to measure the performance of commercial banks. The analysis used pooled regression, fixed effect regression, and random effect regression. The Hausman test, on the other hand, revealed that fixed effect regression is the most appropriate. The findings indicate a positive relationship between bank profits and monetary policies as measured by money supply and interest rate. However, at 1% and 5%, interest rates were not statistically significant. As a result, this study suggests that the monetary authority examine interest rate policy in a way that is favorable to loan advancement in the country.

Obidike, Ejeh, and Ugwuegbe (2015) investigated the impact of interest rate spreads on the performance of Nigeria's banking industry from 1986 to 2012. The data generated by the CBN statistical Bulletin and the World Bank online data base were analyzed using the OLS method of estimation. The co-integration test reveals that the variables under consideration have a long-run relationship. The results show that interest rate spreads have a negative and significant long-run impact on bank performance. In the long run, the exchange rate and GDP were found to have a positive and significant impact on bank performance in Nigeria. In the short run, however, interest rate spreads have a negative but insignificant impact on bank performance in Nigeria.

Ajisafe and Folorunso (2002) used co-integration, error correction modeling techniques, and annual series to examine the effectiveness of monetary and fiscal policies on economic activity in Nigeria from 1970 to 1998. According to the study, monetary policy has a greater impact on economic activity in Nigeria than fiscal policy. It went on to conclude that the government's emphasis on fiscal action has resulted in greater distortion in the Nigerian economy. In his paper, Heuvel (2005) argued that monetary policy influences bank lending through two channels. According to him, lowering bank reserves reduces the extent to which banks can accept receivable deposits if reserve requirements are binding. If banks cannot easily switch to alternative forms of finance or liquidate assets other than loans, the decrease in reservable liabilities will cause them to reduce lending.

Between 1998 and 2004, Amidu and Wolfe (2008) investigated the impact of monetary policy on bank lending in Ghana. According to the study, Ghanaian banks' lending behavior was significantly influenced by the country's economic support and changes in the money supply. Their findings also support previous research that the Central Bank's prime rate and inflation rate have a negative impact on bank lending. The prime rate was found to be statistically significant, whereas inflation was found to be insignificant. Based on the firm level characteristics, their study revealed that bank size and liquidity significantly influence bank's ability to extend credit when demanded.

Folawewo and Osinubi (2006) analyzed the efficacy of monetary policy in controlling inflation rate and exchange instability. The analysis performed was based on a rational expectation framework that incorporates the fiscal role of exchange rate. Using quarterly data spanning over 1980 to 2000 and applying times series test on the data used, the study showed that the effect of monetary policy towards influencing the finance of government fiscal deficit through the determination of the inflation-tax rate affects both the rate of inflation and exchange rate, thereby causing volatility in their rates. The study discovered that inflation affects volatility in both its own rate and the rate of real exchange.

Between 1995 and 2000, Punita and Somaiya (2006) investigated the impact of monetary policy on the profitability of Indian banks. The monetary variables were the bank rate, lending rates, Cash Reserve Ratio, and statutory rate, and each independently regressed on bank profitability. Lending rates were discovered to have a positive and significant influence on bank profitability, implying that a decrease in lending rates will reduce bank profitability. Banks' Cash Reserve Ratio and Statutory Rate were also found to have a negative impact on their profitability. When the lending rate, bank Cash Reserve Ratio, and statutory rate were combined to explain the relationship between bank profitability and

monetary policy instrument in the private sector, their findings were the same.

Okoye and Udeh (2009) examined the impact of monetary policy on corporate profitability in Nigeria's banking sector. To carry out the investigations, the study used regression analysis. The data for the study were secondary data, and the study developed four models that are expected to forecast the future profits of the banks studied. The findings indicated that monetary policy has limited corporate profitability in Nigerian banks. As a result, one of the key recommendations was that the monetary authorities strictly adhere to deregulation.

Amassoma, Wosa, and Olaiya (2011) investigated monetary policy development and the impact of monetary policy on macroeconomic variables in Nigeria from 1986 to 2009. Using the simplified Ordinary Least Squares technique in conjunction with the unit root and co-integration tests, they discovered that monetary policy has seen the implementation of various policy initiatives, resulting in sustained improvement over time. As a result, one of the key recommendations was for the monetary authorities to strictly follow deregulation.

From 1986 to 2009, Amassoma, Wosa, and Olaiya (2011) investigated monetary policy development and the impact of monetary policy on macroeconomic variables in Nigeria. They discovered that monetary policy has seen the implementation of various policy initiatives, resulting in sustained improvement over time, using the simplified Ordinary Least Squares technique in conjunction with the unit root and co-integration tests.

Nguyen, Vu and Le (2017) investigated the impact of monetary policy on commercial banks' profit in Vietnam. Data were collected from 20 commercial banks doing business in Vietnam's banking market for the period 2007 to 2014, panel data was used for the regression. Monetary base (MB), discount rate (DIS) and required reserve ratio (RRR) were used as proxies for monetary policy. Profit before tax was used to represent commercial banks' performance. The results showed that there is a positive relationship between banks' profits and monetary policies.

Osakwe, Ibenta, and Ezeabasili, (2019) examined the effect of monetary policy on the performance of the manufacturing sector in Nigeria. By applying the Autoregressive Distributive Lag (ARDL) model, the study revealed that monetary policy has a significant positive effect on the manufacturing sector output in Nigeria. Furthermore, Uju and Ogochukwu, (2021) examined the effect of monetary policy onindustrial growth in Nigeria

using an annual time series dataset from1986 to 2019. By applying Ordinary Least Square (OLS) regression, the findings suggested that open market operation and cash reserve have a significant positive effect on industrial growth, while monetary policy rate has a significant negative effect on industrial sector growth.

Adesina, Nwidobie and Amadi (2018) conducted the study monetary policy and banking sector performance. The study revealed that in the short run, monetary policy has a significant positive effect on banking sector performance while in the long run, monetary policy has no significant influence on the performance of the banking sector. Additionally, Gimba, Vicent and Oyedokun (2020) analyzed the effect of monetary policy on the financial performance of listed deposit money banks in Nigeria from 2006 to 2018. They revealed that monetary policy has a significant positive effect on the performance of listed deposit money banks.

Oparah and James (2019) examined the influence of monetary policy on financial stability in the Nigerian banking industry for the period 2008 to 2016. The study revealed that monetary policy has a significant positive influence on the financial stability of the banking sector. In addition, Okwudili (2021) examined the effect of monetary policy on the financial performance of twelve listed deposit money banks in Nigeria from 2010 to 2019. They revealed that the loan deposit ratio has a significant positive effect on financial performance while the loan to asset ratio has a significant negative effect on banking sector performance. The study further revealed that the CBN lending rate has no significant effect on banking sector performance.

Mbabazize, Turyareeba, Ainomugisha and Rumanzi, (2020) analyzed the influence of monetary policy on the profitability of commercial banks in Uganda using an annual dataset from 2010 to 2018. By employing the System Generalized Method of Moments (GMM) model, the study revealed that the lending rate has a significant positive effect on the profitability of the banking sector while inflation has a significant negative effect on the banks' performance.

Ufoeze, Odimgbe, Ezeabalisi and Alajekwu, (2018) examined the impact of monetary policy on economic growth in Nigeria using an annual dataset from 1986 to 2016. They applied Ordinary Least Squared (OLS) regression and revealed that money supply has a significant positive effect on growth while monetary policy rate and investment have no significant influence on economic growth. Igharo, Osabohien, Onyemariechi, and Ibidapo, (2020) estimated the effect of monetary policy

transmission mechanism and innovation in the banking system on economic growth in Nigeria from 1981 to 2015. They applied the ARDL model and found that monetary policy has not been effective and also supervisory and intermediary financial institutions lack dependence due to frequent government interventions.

Finally, Osmond, Egbulonu and Emerenini (2015) examined the effect of monetary policy on manufacturing in Nigeria using an annual dataset from 1981 to 2012. By applying the Johansen cointegration test and error correction model (ECM), the results revealed that money supply and credit to the private sector exert a significant positive influence on the manufacturing sector in Nigeria.

3.0 Methodology

The study adopted the *ex post facto* research design approach in evaluating the impact of monetary policy on the performance of deposit money banks in Nigeria. Secondary sources of data were adopted in the course of this study extracted from CBN Statistical Bulletins and the audited financial statements of the listed deposit money banks in Nigeria for the period under study. The population is all the listed deposit money banks in Nigeria including the ones that have existed for a long time and the ones that are relatively new in the sector. This study analyzed the performance and financial statements of five top banks namely: First Bank, Zenith Bank, United Bank of Africa, Access Bank and Guaranty Trust Bank using purposive sampling technique. The study covered a period of 10 years, 2012 to 2021. They have been selected based on their market price per share position at the time of the study. This is due to the difficulty and complexity in covering all the banks.

Model Specification

The relation is expressed mathematically thus:
ROA = f (OMO, CRR) …………………………….. (1)
This is further written as a regression equation thus:
$ROA = \acute{a}1 + \beta1OMO + \beta2CRR + \lambda$ ………… (1.1)
Where ROA = Return on Assets
OMO = Open Market Operations
CRR = Cash Reserve Requirements
$\acute{a}$, is a constant; while $\beta1$, $\beta2$, represent coefficients of determination and λ is the error term.

4.0 Results, Interpretation and Discussion of Findings

Table 4.1 Descriptive Statistics

	ROA	OMO	CRR
Mean	0.023568	13.95840	0.148800
Median	0.020825	15.01401	0.160000
Maximum	0.061537	15.98462	0.225000
Minimum	-0.009898	9.069423	0.013000
Standard Deviation	0.014505	2.351127	0.073004
Skewness	0.567927	-1.086898	-0.425918
Kurtosis	3.311460	2.795471	1.837176
Jarque-Bera	2.889937	7.945376	4.328713
Probability	0.235754	0.018823	0.114824
Sum	1.178395	558.3360	7.440000
Sum Sq. Dev.	0.010309	215.5842	0.261148

Source: Authors' Computation (2022) Using E-views 9

Table 4.1 above shows the statistical attributes of the variables of the study. ROA has a mean of 2% with corresponding minimum and maximum values of -1% and 6% respectively. Log of open market operation has a mean value of 14 and ranges from 9 to 16. Cash reserve ratio is averaged 15% and ranges from 1% to 23%. Open market operation is the variable with the highest standard deviation.

Table 4.2 Correlation Analysis

	ROA	LOMO	CRR
ROA	1.000000		
LOMO	-0.119048	1.000000	
CRR	0.257792	-0.696401	1.000000

Source: Authors' Computation (2022) Using E-views 9

Table 4.2 above shows the association among the variables. ROA has a negative correlation of -12%. This shows a weak association between ROA and open market operation. Cash reserve ratio as a positive correlation of 26% with ROA. None of the variables has a correlation coefficient that is the neighborhood of 82% this is an indication of no multi co linearity.

Regression Result

Table 4.3: Monetary Policy and ROA

	Pooled OLS Estimation			Fixed Effect			Random Effect		
Regressors	Coeff	t-stat	p-val	Coeff	t-stat	p-val	Coeff	t-stat	p-val
C	-0.130091	-1.619997	0.1142	-0.130091	-2.678792	0.0117	-0.130091	-2.666897	0.0115
LOMO	0.001161	0.769496	0.4468	0.001161	1.272421	0.2127	0.001161	1.272421	0.2116
CRR	0.103165	1.688646	0.1002	0.103165	2.792308	0.0089	0.103165	2.792308	0.0084
R-square	0.173277					0.732204			0.364312
Adj.R-square	0.078794					0.663095			0.291662
F-stat	1.833956					10.59496			5.014624
Prob J-stat	0.144331					0.000001			0.002658
Durbin Watson	0.606006					1.870823			1.657015
Hausman Test	0.0000	1	1.000						

Source: Authors' Computation (2022) Using E-views 9

Table 4.3 shows that random effect regression is the best estimation technique for testing the hypothesis as it relates to tax planning and profitability as measured by ROA. The random effect has a constant of -0.130091, indicating that there are no monetary policy measures. ROA will still fall by nearly 13%. In terms of the effect of open market operations on ROA, it was discovered that open market operations have no significant positive effect on ROA in Nigerian quoted banks. This finding is consistent with Mulwa (2014), who found that open market operations had no significant impact on the profitability of Kenyan commercial banks. Furthermore, the cash reserve ratio has a significant positive effect on the profitability of Nigerian deposit money banks. This statistically significant effect suggests that a higher cash reserve ratio contributes to higher profitability in Nigerian deposit money banks. This is possible because liquidity is one of the most important variables influencing bank performance. This finding contradicts the findings of Nguyen, Vu, and Le (2017) and Udeh (2015), who found no significant effect of liquidity ratio on deposit money bank profitability in Nigeria and no significant positive effect of reserve ratio on profitability of Vietnam banks. The adjusted R-square of 0.291662 indicates that monetary policy variables account for nearly 29% of the variation in ROA, while the remaining 71% is due to other factors not captured in this study. The F-statistics are highly significant, indicating the model's overall fitness into the equation. Because it is close to two, the Durbin Watson statistics of 1.657015 indicate that there is no autocorrelation.

Findings: In terms of the effect of OMO on the performance of Nigerian quoted money deposit banks, it was discovered that there is no significant positive effect of OMO on performance. As a result, we accept H01, which states that Open Market Operations have no significant positive effect on the performance of Nigerian listed deposit money banks. This finding is consistent with Mulwa (2014), who found that Open Market Operations had no significant effect on the profitability of Kenyan commercial banks.

5.0 Conclusion and Recommendations

The study looked at the impact of monetary policies on the performance of Nigeria's listed deposit money banks. It was discovered that open market operations have no significant positive impact on the performance of Nigerian listed deposit money banks. Furthermore, the cash reserve ratio, liquidity ratio, and interest rate all have a significant positive effect on the performance of Nigerian deposit money banks. Based on the findings, the study's main conclusion is that monetary policies have a significant influence on the performance of Nigerian listed deposit money banks when they are pooled together.

Following the findings, the following recommendations were made:

1. Open market operations: We discovered that open market operations have no significant positive impact on the performance of Nigerian quoted deposit money banks. As a result, we believe that banks should broaden their monetary policy focus beyond open market operations, as it has no significant impact on performance.

2. Cash reserve ratio: We discovered that the cash reserve ratio has a significant positive impact on performance. We advise banks to maintain an adequate cash reserve ratio because it has a significant impact on performance. This is necessary because cash reserves can help banks operate during difficult times.

3. Make a deposit Banks should place a greater emphasis on financial performance factors over which they have direct control, such as capital adequacy, asset quality, management efficiency, earnings ability and liquidity management.

Contribution to Knowledge

The study contributed to the empirical debate in the literature by modeling the relationship between monetary policy and performance empirical evidence from listed deposit money banks in Nigeria. Most empirical literature has not been founded on this, as most studies in Nigeria have primarily focused on the effect of monetary policy on economic growth. It should be noted that ROA is used to measure performance.

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