

IMPACT OF MONETARY POLICY REGIMES ON PERFORMANCE OF COMMERCIAL BANKS IN NIGERIA

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Abstract

This paper examined the impact of monetary policy Regimes on Performance of commercial banks in Nigeria. The paper used Descriptive and Ex-post Facto Research Design. It utilized time series data collected from Central Bank of Nigeria Bulletin. The study was divided into SAP Period (1986-1999) and Post SAP Period (2000 -2013). Eight Research Questions and eight Hypotheses were raised for the study. Regression and Pearson Product Moment Correlation technique were used to analyse the data collected while t-test statistic was employed in testing the hypotheses. Monetary Policy Rate was the independent variable while Total Assets Value, Deposit Mobilization, Loans and Advances and Credit to the Private Sector were the dependent variable in different regression equations. The study discovered that Monetary Policy Regimes during the SAP Period did not have significant impact on the Total Assets Value, Deposit Mobilization, Loans and Advances and Credit to the Private Sector. However, the study discovered that Monetary Policy Regimes during the Post SAP Period had significant impact on the Total Assets Value, Deposit Mobilization, Loans and Advances and Credit to the Private Sector respectively. The paper recommended that policy makers should administer the Monetary Policy Instruments to ensure they are effective in generating and invigorating the level of economic activity desired in the banking industry.

Key Words: Monetary Policy, Bank, Performance and Credits

Introduction

Commercial Banks are custodians of depositor's funds and operate by receiving cash deposits from the general public and loaning them out to the needy at statutorily allowed interest rates (Ngure, 2014). In a country where the financial sector is dominated by Commercial Banks, any failure in the sector has an immense implication on the economic growth of the country. This is due to the fact that any bankruptcy that could happen in the sector has a contagion effect that can lead to bank runs, crises and bring overall financial crisis and economic tribulations (IMF, 2001).

Banks play a major role in the economy through their economic function of financial intermediation that performs both a brokerage and a risk transformation function (**Hara, 1983**). Commercial Banks as financial Intermediaries perform financial intermediation function of mobilization and allocation of funds from the economic surplus (lenders) to the economic deficit unit (borrowers). This function is directly linked with banks profitability which encourages economic growth. According to **Wainaina (2013)**, profitability of banks has relationships with growth and development of the economy.

Deposit money banks are the most important savings and mobilization of financial resources and allocating them to productive investment and in return promote their performance **Victor (2013)**.

Interest rate however plays a vital role in how a bank makes money (**Haye, 2013**). **Hualan (1992)** found that interest rate is one of the most important factor that affect the bank

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financial performance. Interest rates are the reward paid by a borrower (debtor) to a lender (creditor) for the use of money for a period and they are expressed in a percentage, per annum (pa) to make them comparable. Interest rate are also quite often referred to as the price of money. **Corb (2012)** described interest rate as an economic tool used by the Central Bank to control inflation and boost economic development. Therefore poor decisions on an interest rate regime could spell doom for the financial system and the economy as a whole. Interest rate is a monetary policy tool used by the Central Bank of Nigeria to adjust the lending rates of financial institutions. **Giovanni (2006)** argued that high interest rate set by the Central Bank means that the other financial institution will have to charge high because they are all profit oriented. In Nigeria, since the inception of interest rates deregulation in 1986, the government has pursued a market-determined Interest rate regime, which does not permit a direct state intervention in the general direction of the economy (Adebisi and Babatope, 2004). Rasheed (2010) states that Nigerian economy saw different interest rates for different sectors in 1970's through the mid 1980 (regulated Regime). Preferential interest rates were therefore applied to encourage priority sectors such as agriculture and manufacturing.

The establishment of the African Banks Corporation (ABC) now First Bank and establishment of other banks gave rise to the emergence of lending activities of banks. The lending practice of the colonial banks which granted loans discriminately to foreigners gave rise to the agitation of indigenous banks. This was not without its attendant challenges. The government thereby introduced a regulated interest rate regime. The introduction of SAP thereby relaxed many of the stringent procedures. Okafor (2011) identified five major reform cluster periods namely; pre and post-Independence era (1958-1969), indigenization era (1970-1976), Okigbo Committee era (1977-1985), SAP era (1986-1999), and Democracy or fourth republic era (2000-2010). However the banking is presently regulated by the Banks and other Financial Institutions Act (2004 as amended). In light of this, the study tends to highlight the impact of interest rate regime on the banks performance in Nigeria during the SAP era (1986-1999), and Democracy or fourth republic era (2000-2010) and make comparison.

Nigerian Commercial Banks dominate the banking industry. Their loans and credits form a major share of the total credit to the private sector. However, they still face major issues in relation to government regulations, institutional difficulties and other inherent related risks. This study therefore intends to identify the impact of the monetary policy tools on the performance of the banking industry. This would be of great assistance to the regulators in forming a favorable interest rate regime that would meet the macro economic objectives in Nigeria.

Review of Related Literature

Conceptual Framework

Interest Rates

Gilchris, (2013) states that although it is difficult to determine the direction of the relationship between interest rates and profitability, studies confirm that interest rates instability affects Commercial Banks' financial performance while other studies give contradictory findings. The Central banks also lends Commercial Banks funds. Money borrowed from the Central Bank is to be repaid at a particular interest rate (Monetary Policy Rate). This makes Interest rate a powerful government regulatory tool for determining other interest rates in the banking industry. Hualan (1992) stated that interest rate is one of the most important factor that affects the bank financial performance. (Corb, 2012), argued that interest rate is an economic tool used by the Central Bank to control inflation and to boost economic development. (Ngugi, 2004), explained that low interest rates and small spread promote economic growth in big ways hence encouraged. Crowley (2007) and Ngure (2014) defined interest rates as the price a borrower pays for the use of money they borrow from a lender (financial institution) or fee paid on borrowed assets. Sayedi (2013) expressed

interest rate as the percentage rate over a period of one year. Karl et al., (2009) posits that interest rates are derived from macroeconomic factors which agree with Irungu (2013) that interest rates are major economic factors that influence the economic growth in an economy. Inflation and inflationary expectations can press interest rate upward which affects lending rates resulting to reduce credit demand and lending ability of Commercial Banks (Keynes, 2006). Irungu (2013) states that interest rate is the price of money. Interest rates can either be nominal or real. Nominal interest rate can be measured in naira terms, not in terms of goods. The nominal interest rate measures the yield in naira per year, per naira invested while the real interest rate is corrected for inflation and is calculated as the nominal interest rate minus the rate of inflation (Pandey, 1999).

Bank Profitability and Financial Performance

The profitability of a bank is determined by interior and exterior determinants (Sattar, 2014) which agrees with (Ongore, 2013; Al-Tamini et al., 2010). The interior determinants are called micro or bank specific determinants of profitability because they are initiated from bank accounts like balance sheet or profit and loss account. While on the other hand, the exterior determinants are the variables which are not in the control of banks' management such as monetary policy interest rates. Chen et al. (1986) explained that these macroeconomic factors are significant in explaining firm performance (profitability) and subsequent returns to investment. Gilchris, (2013) agrees that the financial performance is commonly measured by ratios such as Return on Equity, Return on Assets. There are many different mathematical measures to evaluate how well a company is using its resources to make profit (Irungu, 2013). Financial performance can be measured using the following techniques; operating income, earnings before interest and taxes, net asset value (Gilchris, 2013). Irungu (2013) described financial performance analysis as the process of identifying the financial strengths and weakness of the firm by properly establishing the relationship between the items of the balance sheet and profit and loss account. It's the process of identifying the relationship between the component parts of financial statements to ascertain an organization position, performance and prospects. Financial performance analysis can be undertaken by management, owners, creditors, investors (Chenn, 2011). Quarden (2004) argued that financial performance analysis helps in short term and long term forecasting and growth and can be identified with the help of financial ratios such as asset Utilization/efficiency ratios, deposit mobilization, loan performance, liquidity ratio, leverage/financial efficiency ratios, profitability ratios, solvency ratios and coverage ratios can be used to evaluate bank performance (Bekant, 2011). The performance of banks gives direction to shareholders in their decision making (Panayiotis et al., 2006). Wainaina, (2013) says the effect of macroeconomic factors in other sectors of the economy will always affect the banking sector and what goes on in the banking sector will affect the other sectors of the economy. Chen et al., (1986) maintains that these macro-economic factors are significant in explaining firm performance (profitability) and subsequent returns to investors. Gilchris (2013) agrees that financial performance is commonly measured by ratios such as return on equity, return on assets, return on capital, return on sales and operating margin. A firm has several objectives but profit maximization is said to be paramount among these (Damilola, 2007; KPMG, 2005; Raheman and Nasr, 2007). Profit is a tool for efficient resources allocation because it is the most appropriate measure of corporate performance under competitive market conditions (Pandey, 2005). Conceptually profit connotes the excess of revenue generated by a firm over its associated costs for an accounting period. Operationally the term profit is imprecise, as many variants exist. The term profit could refer to profit before tax, profit after tax, gross profit, net profit, profit per share, return on assets, among other variants (Damilola, 2007; Pandey, 2005). This imprecision has often posed decisional challenges to researchers who must select an appropriate variant to proxy profitability. However, the most commonly used

variants as appropriate measure of profitability include Gross operating profit, Net operating profit, Return on Assets (Deloof, 2003; Teruel and Solano, 2006; Lazaridis and Tryfonidis, 2005; Raheman and Nasr, 2007). According to Okafor (2011) the profitability performance also can be accessed from both book value and market value perspectives.

Effect of Interest rate on Financial Performance

Financial performance is an indicator of how profitable a company is relative to its total assets (Irungu, 2013). Financial performance can be measured by Return on Asset (ROA). ROA is measured by dividing the net income by average total assets. Return on Assets formula looks at the ability of a company to utilize its assets to gain a net profit (Kiarie, 2011). Both the IMF report and Federal Reserve paper suggests possible effects of interest increases to net interest margin, balance sheet structure and values of interest sensitive assets and liabilities. If there is a steeping of the yield curve, the net interest margin would be expected to increase. Higher interest rate can result in slower economic growth and development because of high capital costs and defaults by individuals and firms who borrow from banks (Papa, 2014). Interest rates impact bank earnings through net interest margins/ net interest income which is a key factor driving bank earnings and stock performance (Hayes, 2013). When rates rise, banks NIM/NET 11 tend to decline and vice versa. Interest rates are also a key driver of loan yields (Hayes, 2013). Loan yields are generally from market interest rate. Higher rates at a measured pace are generally a positive for banks given the uplift to asset yield, deposit margin, along with generally improving macro conditions. Unexpected movements in rates and the yield curve can be negative for banks balance sheet, more specially, result in unrealized losses in accumulated other comprehensive income.

Theoretical Framework

The Theoretical framework is guided by the work of Bekaert (1998) which tries to analyze the influence of interest rates on bank performance. This section considers theories such as loan Pricing theory, firm characteristic theory, theory of multiple lending, the signaling approach, credit market theory, classical theory of interest.

Loan Pricing Theory

Banks cannot always set high interest rates. Banks should consider adverse selection and moral hazard because it is difficult to determine the borrower type at the start of the banking relationship (Stiglitz and Weiss, 1981). If interest rates are too high, it might cause adverse selection problems because only high risk borrowers are willing to borrow. Once they receive the loans they may develop moral hazard behavior since they are likely to take highly risky projects (Chodecai, 2004)

Loanable Funds Theory

This theory synthesizes both the monetary and non-monetary impact of the problem (saving and investment process) (Wensheng, et al., 2002). It assumes that interest rates are determined by supply of loanable funds and demand for credit. It recognizes that money can play a disturbing role in the saving and investment processes and thereby causes variations in the level of income. The theory suggests that interest rates equate the demand and supply of loanable funds. Loanable funds are the sum of money supplied and demanded at any time in the money market. Loanable funds theory has implications on banks savers and borrowers and each side is well compensated at equilibrium, Interest rate should be structured in a way every party feel comfortable (Emmanuelle, 2013)

Empirical Review

Gertler and Gilchrist (1994) conducted a study that specifically looked at how bank business lending responds to monetary policy tightening. They found that banks' lending does not decline when policy is tightened. They concluded that the entire decline in total lending comes from a reduction in consumer and real estate loans. In contrast to Gertler and Gilchrist (1994) study, Kashyap and Stein (1995) found evidence that banks' lending may respond to a tightening

of monetary policy. They found that when policy is tightened, both total loans and business loans at small banks fall, while loans at large banks are unaffected. The differential in the response of small banks may indicate they have less access to alternative funding sources than large banks and so are less able to avoid the loss of core deposits when policy is tightened.

Amidu and Wolfe (2008) examined the constrained implication of monetary policy on bank lending in Ghana between 1998 and 2004. Their study revealed that Ghanaian banks' lending behavior is affected significantly by the country's economic support and change in money supply. Their findings also support the finding of previous studies that the Central Bank prime rate and inflation rate negatively affect bank lending. Prime rate was found statistically significant while inflation was 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.

Gavin (2010) studied the factors affecting banking sector interest rate spread in Kenya. The study sought to investigate the factors responsible for interest rate spread in Kenya Commercial Banks. The study adopted a descriptive and quantitative research design on a sample of 15 Commercial Banks in Kenya which accounted 85 percent of all the loans disbursed between 2002 and 2009. The study used secondary data obtained from the banking survey publication. The study found out that capital adequacy ratio, treasury bills rate and discount rate have a significant impact on interest rate spreads.

Ngugi and Kabubu (1998) studied financial sector reforms and interest rate liberalization. It aimed at exploring the sequencing and actions taken in the liberalization process in Kenya. The study investigated the interest rate levels, spreads and determining factors as an indicator too financial performance in response to the process. The sample size was 20 banks in Kenya. The data source included the Central Banks reports. It found that the financial system was still characterized by repression factors such as negative interest rates, inefficiency and underdeveloped financial markets.

Felicia (2011) studied the determinants of Commercial Banks' lending behavior in the Nigerian context. The study aimed to test and confirm the effectiveness of the common determinants of Commercial Banks' lending behavior and how it affects the lending behavior of Commercial Banks in Nigeria. The model regressed the Commercial Banks loan advance with other determinant variable such as Volume of Deposits (Vd), Investment Portfolio (Ip), Lending Rate (Ir), Stipulated Cash Reserve Ratio (Rr) and Liquidity Ratio (Lr) for the period 1980-2005. The model hypothesizes there is a functional relationship between the dependent and independent variables and were found to have a significant relationship.

Nwakanma (2013) examined the impact of interest rate reform on the financial intermediation function of the Commercial Banks in Nigeria using the dummy variables approach to Chow test for structural stability. The cointegration and error correlation model were used to capture both the long run and the short run dynamics. The empirical results reveal that though the intermediation function of the Commercial Banks has significantly improved as a result of the deregulation of interest rates, it has not translated into improved standard of living of the populace as the incidence of poverty is still on the increase. Also the results show that lending rates do not influence demand for domestic credits in Nigeria unlike deposit rates which proved to be a major determinant for the amount of credit extended by the Commercial Banks. They concluded that though interest rates deregulation has improved credit extension to the domestic economy, the link between interest rates, domestic credit extension and economic growth is not automatic. They recommended a partial deregulation of interest rates that will ensure concessionary interest rates to the productive sector of the economy.

Udeh (2015) examined the impact of monetary policy instruments on profitability of Commercial Banks in Nigeria using the Zenith Bank Plc experience. The study utilized descriptive research design using time series data collected from published financial

statements of Zenith Bank Plc and Central Bank of Nigeria Bulletin from 2005 to 2012. The study used Pearson Product Moment Correlation technique to analyze the data collected while t-test statistic was employed in testing the hypotheses. They discovered that cash reserve ratio, liquidity ratio and interest rate did not have significant impact on the profit before tax of Zenith Bank Plc. However, minimum rediscount rate was found to have significant effect on the profit before tax of the bank. The paper concluded that a good number of monetary policy instruments do not impact significantly on profitability of Commercial Banks in Nigeria

Okoye and Eze (2013), examined the impact of bank lending rate on the performance of Nigerian Deposit Money Banks between 2000 and 2010. It specifically determined the effects of lending rate and monetary policy rate on the performance of Nigerian Deposit Money Banks and analyzed how bank lending rate policy affects the performance of Nigerian deposit money banks. The result confirmed that the lending rate and monetary policy rate have significant and positive effects on the performance of Nigerian deposit money banks. The implication of this is that lending rate and monetary policy rate are true parameter of measuring bank performance. The results agreed with Udeh (2015) that minimum rediscount rate was found to have significant effect on the profit before tax of the bank.

Enyioko (2012) examined the performance of banks in Nigeria based on the interest rate policies of the banks. The study investigated 2 Nigerian banks. Regression and error correction methods were used to analyze the relationship between interest rate and bank performance. The study found that interest rate policies have not improved the overall performances of the banks significantly.

Methodology

The research design employed Descriptive and Ex-post facto Research Design. Descriptive research design method helps in gathering information about the existing status of the phenomena in order to describe what exists in respect to variables. According to Coopers and Schindler (2008) descriptive studies are more formalized and typically structured with clearly stated hypotheses or investigative questions. This method is used because it addresses the objective of the study in investigating the relationship between the variables of the study. (Kothari, 2008). A census design was also applied where all the Commercial Banks were studied. A census is a collection of information from all units in the population or a complete enumeration of the population. A census design is used where the population is small and manageable (Mugenda&Mugenda, 2003). Regression and correlation analysis was used to determine the relationship between Monetary Policy Interest Rate and Performance of Commercial Banks. The study used time series data.

Analysis and Discussion

Research Question 1a: Did Monetary Policy Interest Rate have any significant impact on financial performance of Commercial Banks during the SAP period.

Table 1a. Showing the Regression Analysis between Monetary Policy Interest Rate and Total Asset Value of Commercial Banks during the SAP period (1986-1999)

Coefficients^a

| Model | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
|--------------------------|-----------------------------|------------|---------------------------|------|------|
| | B | Std. Error | Beta | | |
| 1 (Constant) | 232.346 | 355.541 | | .653 | .526 |
| MONETARY POLICY RATE (%) | 4.766 | 22.296 | .062 | .214 | .834 |

a. Dependent Variable: TOTAL ASSET VALUE (^b)

Source: Research Findings

The model developed from the coefficient in Table 1 is;

$$TAV_{sap} = f(MPR)$$

Therefore the regression Model

$$TAV_{sap} = \alpha + \beta(MPR) + \epsilon$$

Therefore;

$$TAV_{sap} = 232.346 + 4.766(MPR)$$

This model explains that MPR has a positive coefficient (4.766) and therefore an increase in MPR would likely lead to an increase in Total Asset Value. It explains that an increase in 1percent MPR would likely increase Total Asset Value by 4.766 (Billion Naira). However, the relationship shows a weak (not significant) correlation of 0.062 or 6.20%. The relationship is also not significant at a 5% and 10% probability level as evidenced by the student t test. Also P-Value (0.834) > 0.05 shows the relationship is not significant at a 5% probability level. Therefore, from our analysis, we conclude that MPR during the SAP Period had no significant impact on banking performance in Nigeria.

Research Question 1b. Did Monetary Policy Interest Rate have any significant impact on financial performance of Commercial Banks during the P-SAP period.

Table 1b. Showing the Regression Analysis between Monetary Policy and Total Asset Value of Commercial Banks for the Post SAP Period (2000-2013)

Coefficients^a

| Model | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
|----------------------|-----------------------------|------------|---------------------------|--------|------|
| | B | Std. Error | Beta | | |
| 1 (Constant) | 30.128 | 6.188 | | 4.869 | .000 |
| MONETARY POLICY RATE | -1.644 | .493 | -.679 | -3.332 | .005 |

a. Dependent Variable: TOTAL ASSET VALUE (P-SAP) (N'tr)

The model developed from the coefficient in Table 2 is;

$$TAV_{p-sap} = f(MPR)$$

Therefore the regression Model

$$TAV_{p-sap} = \alpha + \beta(MPR) + \epsilon$$

Therefore;

$$TAV_{p-sap} = 30.128 - 1.644(MPR)$$

This model explains that MPR has a negative coefficient (-1.644) and therefore an increase in MPR would likely lead to a decrease in Total Asset Value. It explains that an increase in 1percent MPR would likely decrease Total Asset Value by 1.644 (Trillion Naira)

The relationship shows a strong, significant correlation of 0.679 or 67.9%. Also P-Value (0.005) < 0.05 shows the relationship is also significant at a 5% probability level. Therefore, from our analysis, we conclude that MPR during the Post SAP Period had a significant impact on banking performance in Nigeria.

Research Question 2a. Did Monetary Policy Interest Rate have any significant impact on Deposit Mobilization of Commercial Banks during the SAP period.

Table 2a. Showing the Regression Analysis between Monetary Policy Interest Rate and Deposit Mobilization of Commercial Banks for the SAP Period (1986-1999)

Coefficients^a

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|-------|--------------------------|-----------------------------|------------|---------------------------|------|------|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 106.787 | 159.573 | | .669 | .516 |
| | MONETARY POLICY RATE (%) | 2.194 | 10.007 | .063 | .219 | .830 |

a. Dependent Variable: DEPOSIT MOBILIZATION (^b)

The model developed from the coefficient in Table 1b is;

$$DpM_{SAP} = f(MPR)$$

Therefore the regression Model

$$DpM_{SAP} = \alpha + \beta(MPR) + \epsilon$$

Therefore;

$$DpM_{SAP} = 106.787 + 2.194(MPR)$$

This model explains that MPR has a positive coefficient (+2.194) and therefore an increase in MPR would likely lead to an increase in Deposit Mobilization. It explains that an increase in 1percent MPR would likely increase Deposit Mobilization by 2.194(Billion Naira)

The relationship shows a weak correlation of 0.063 or 6.3%. Also P-Value (0.830) > 0.05 shows the relationship is not significant at a 5% probability level.

Therefore, from our analysis, we conclude that MPR during the SAP Period had no significant impact on Deposit Mobilization in Nigeria.

Research Question 2b. Did Monetary Policy Interest Rate have any significant impact on Deposit Mobilization of Commercial Banks during the P-SAP period?

Table 2b. Showing the Regression Analysis between Monetary Policy and Deposit Mobilization of Commercial Banks for the Post SAP Period (2000-2013)

Coefficients^a

| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
|-------|------------------------|-----------------------------|------------|---------------------------|--------|------|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 16490.014 | 3876.270 | | 4.254 | .001 |
| | MONETARY POLICY RATE P | -889.342 | 310.753 | -.637 | -2.862 | .014 |

a. Dependent Variable: DEPOSIT MOBILIZATION (^b)

Source: Research Findings

The model developed from the coefficient in Table 2b is;

$$DpM_{P-SAP} = f(MPR)$$

Therefore the regression Model

$$DpM_{P-SAP} = \alpha + \beta(MPR) + \epsilon$$

Therefore; $DpM_{P-SAP} = 16490.014 - 889.342 (MPR)$

This model explains that MPR has a negative coefficient (- 889.342) and therefore an increase in MPR would likely lead to a decrease in Deposit Mobilization. It explains that an increase in 1percent MPR would likely decrease Deposit Mobilization by 889.342 (Billion

Naira). The relationship shows a strong correlation of 0.637 or 63.7%. Also P-Value (0.014) > 0.05 shows the relationship is significant at a 5% probability level. Therefore, from our analysis, we conclude that MPR during the Post SAP Period had a significant impact on Deposit Mobilization in Nigeria.

Research Question 3a. Did Monetary Policy Interest Rate have any significant impact on Loans and Advances of Commercial Banks in Nigeria during the SAP period?

Table 3a. Showing the Regression Analysis between Monetary Policy Interest Rate and Loans and Advances of Commercial Banks in Nigeria for the SAP Period (1986-1999)

| Coefficients ^a | | | | | | |
|---------------------------|--------------------------|-----------------------------|------------|---------------------------|-------|------|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 139.095 | 146.148 | | .952 | .360 |
| | MONETARY POLICY RATE (%) | -1.602 | 9.165 | -.050 | -.175 | .864 |

a. Dependent Variable: LOANS AND ADVANCES (N'b)

The model developed from the coefficient in Table 3a is;

$$LAd_{SAP} = f(MPR)$$

Therefore the regression Model

$$LAd_{SAP} = \alpha + \beta(MPR) + \epsilon$$

Therefore; $LAd_{SAP} = 139.095 - 1.602(MPR)$

This model explains that MPR has a negative coefficient (-1.602) and therefore an increase in MPR would likely lead to a decrease in Loans and Advance. It explains that an increase in 1percent MPR would likely decrease Loans and Advance by 1.602(Billion Naira). However, the relationship shows a weak correlation of 0.05 or 5.0 percent (%).Also P-Value (0.864) > 0.05 shows the relationship is not significant at a 5% probability level. Therefore, from our analysis, we conclude that MPR during the SAP Period had no significant impact on Loans and Advance of Commercial Banks in Nigeria.

Research Question 3b: Did Monetary Policy Interest Rate have any significant impact on Loans and Advances of Commercial Banks in Nigeria during the P-SAP period.

Table 3b. Showing the Regression Analysis between Monetary Policy Interest Rate and Loans and Advances of Commercial Banks in Nigeria during the P-SAP Period (2000-2013)

| Coefficients ^a | | | | | | |
|---------------------------|------------------------|-----------------------------|------------|---------------------------|--------|------|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 13542.636 | 2484.501 | | 5.451 | .000 |
| | MONETARY POLICY RATE P | -745.898 | 199.178 | -.734 | -3.745 | .003 |

a. Dependent Variable: LOANS AND ADVANCES (^b)

Source: Research Findings

The model developed from the coefficient in Table 3a is;

$$LAd_{P-SAP} = f(MPR)$$

Therefore the regression Model

$$LAd_{P-SAP} = \alpha + \beta(MPR) + \epsilon$$

Therefore; $LAd_{P-SAP} = 13542.636 - 745.898(MPR)$

This model explains that MPR has a negative coefficient (-745.898) and therefore an increase in MPR would likely lead to a decrease in Loans and Advance. It explains that an increase in 1percent MPR would likely decrease Loans and Advance by 745.898(Billion Naira). The relationship shows a very strong (significant) correlation of 0.734 or 73.4 percent. Also P-Value (0.003) < 0.05 shows the relationship is significant at a 5% probability level. Therefore, from our analysis, we conclude that MPR during the P-SAP Period had significant impact on Loans and Advance of Commercial Banks in Nigeria.

Research Question 4a. Did Monetary Policy Interest Rate have any significant impact on Commercial Banks' Credit to the Private Sector in Nigeria during the SAP period.

Table 4a. Showing the Regression Analysis between Monetary Policy Interest Rate and Commercial Banks' Credit to the Private Sector in Nigeria during the SAP Period (1986-1999)

Coefficients^a

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|--------------------------|-----------------------------|------------|---------------------------|-------|------|
| | B | Std. Error | Beta | | |
| 1 (Constant) | 410712.585 | 196843.041 | | 2.086 | .082 |
| MONETARY POLICY RATE (%) | -10746.522 | 11763.553 | -.349 | -.914 | .396 |

a. Dependent Variable: CREDIT TO THE PRIVATE SECTOR (N'm)

The model developed from the coefficient in Table 3a is; $CrP_{SAP} = f(MPR)$

Therefore the regression Model $CrP_{SAP} = \alpha + \beta(MPR) + \epsilon$

Therefore; $CrP_{SAP} = 410712.585 - 10746.522(MPR)$

This model explains that MPR has a negative coefficient (-10746.522) and therefore an increase in MPR would likely lead to a decrease in Credit to the Private Sector. It explains that an increase in 1percent MPR would likely decrease Credit to the Private Sector by 10746.522(Million Naira). However, the relationship shows a negative and weak correlation of 0.349 or 34.9 percent. Also P-Value (0.396) > 0.05 shows the relationship is not significant at a 5% probability level.

Therefore, from our analysis, we conclude that MPR had no significant impact on Commercial Banks' Credit to the Private Sector in Nigeria during the SAP Period.

Research Question 4b. Did Monetary Policy Interest Rate have any significant impact on Commercial Banks' Credit to the Private Sector in Nigeria during the P-SAP period.

**Table 4b. Showing the Regression Analysis between Monetary Policy Interest Rate and Commercial Banks' Credit to the Private Sector in Nigeria during the P-SAP Period (2000-2013)
Coefficients^a**

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|----------------------|-----------------------------|------------|---------------------------|--------|------|
| | B | Std. Error | Beta | | |
| 1 (Constant) | 15561.541 | 3087.421 | | 5.040 | .000 |
| MONETARY POLICY RATE | -862.572 | 247.513 | -.709 | -3.485 | .005 |

a. Dependent Variable: CREDIT TO PRIVATE SECTOR (N'b)

The model developed from the coefficient in Table 4b is; $CrP_{P-SAP} = f(MPR)$

Therefore the regression Model $CrP_{P-SAP} = \alpha + \beta(MPR) + \epsilon$

Therefore; $CrP_{P-SAP} = 15561.541 - 862.572(MPR)$

This model explains that MPR has a negative coefficient (-862.572) and therefore an increase in MPR would likely lead to a decrease in Credit to the Private Sector. It explains that an increase in 1percent MPR would likely decrease Credit to the Private Sector by 862.572(Billion Naira). However, the relationship shows a negative and strong(significant) correlation of -0.709 or 70.9 percent. Also P-Value (0.005) < 0.05 shows the relationship is significant at a 5% probability level.

Therefore, from our analysis, we conclude that MPR had a significant impact on Commercial Banks' Credit to the Private Sector in Nigeria during the SAP Period.

Discussion of Result

The study sought to determine the impact of monetary policy regimes on bank performances during the SAP and Post SAP era. The study found;

1. That MPR had no significant impact on banking performance in Nigeria during the SAP Period.
2. That MPR had no significant impact on Deposit Mobilization in Nigeria during the SAP Period.
3. That MPR had no significant impact on Loans and Advance of Commercial Banks in Nigeria during the SAP Period.
4. That MPR had no significant impact on Commercial Banks' Credit to the Private Sector in Nigeria during the SAP Period.

This study agrees with Udeh (2015) who found that a good number of monetary policy instruments do not impact significantly on profitability of Commercial Banks in Nigeria. The findings however agreed with Enyioko (2012) that interest rate policies have not improved the overall performances of the banks significantly.

Findings

The study however found;

1. That MPR during the Post SAP Period had a significant impact on banking performance in Nigeria.
2. That MPR during the Post SAP Period had a significant impact on Deposit Mobilization in Nigeria.
3. That MPR during the P-SAP Period had significant impact on Loans and Advance of Commercial Banks in Nigeria
4. That MPR had a significant impact on Commercial Banks' Credit to the Private Sector in Nigeria during the SAP Period.

The findings of this study also agrees with Okoye and Eze (2013) who found out that lending rate and Monetary Policy rate have significant and positive effects on the performance of Nigeria Deposit Money Banks.

Recommendation

Based on the findings of the study the following recommendations are put forward. First, that Monetary Policy Rate as a policy instrument alone may not be effective in generating and invigorating the level of economic activity desired in the banking industry. Also, policy makers should administer the Monetary Policy Instruments to ensure they are effective in generating and invigorating the level of economic activity desired in the banking industry.

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