# Money Supply and Economic Growth in Nigeria

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**Abstract:** A study of this nature is always necessitated by the existence of certain problems. The major problem that trigged off this work is the recurrence of general price instability, persistent inflationary pressures and unemployment in the economy, in spite of the plethora of monetary policy measures adopted and applied over the years. There is also this problem of general feeling that a continuous annual rate of money increases will adversely increase the rate of price level which will directly lead to inflation, which may deny the intended effects of use of monetary policy measure to influence economic growth. This study practically examines the significant impact of money supply on the economic growth of Nigeria. Regression analysis was employed to forecast relationship and estimate the influence of each explanatory variables on the dependent variable over a period of thirty-four (34yrs) ranging from 1990 to 2023while the model therefore adopted Ordinary Least Square (OLS) method. The outcome of the study shows that money supply has significant impact on the economic growth of Nigeria; indicated that 1 unit increase in Broad Money Supplyled to 2.9 billion naira increases in Real GDP. From all indications, economic growth in Nigeria is presently inadequate to meet the need of the Nigerian populace. Thus, a greater emphasis should be on the implementation of sound monetary policies in coordination with prudent fiscal policies that will create macro-economic stability and growth of the economy.

**Keywords:** money supply, economic growth, inflationary pressure, currency depreciation, monetary policy.

#### 1. Introduction

Money supply is a basic macroeconomic element that influences economic growth in an economy by ensuring effective running of economic activities in both public and private sectors through liquidity availability. Through money supply, the private sectors are able to obtain credits to carry on businesses at a price being referred to as interest rate. Money supply is a monetary policy tool that is highly essential in boosting economic growth of a nation. On the other hands monetary policy is an important instrument used by Central Banks of countries to maintain economic stability and promote economic growth (Prasert, et. al., 2015) defines monetary policy as a tool at the disposal of the "Monetary Authorities" to influence the availability and cost of credit/money with the ultimate aim of achieving price stability. However, Monetary Authorities especially in the developing countries have a dual role of ensuring price stability and sustainable growth in an economy by employing instruments of monetary policy (Njimanted, et. al., 2016). On the other hands economic growth shows the percentage increase in GDP and is measured based on the fixed and the market prices.

The monetarists believe that money supply is a tool that gives boost to economic growth based on unexpected increase in money stock (Jawaid, et. al., 2011) while the Keynesians argue that money supply has a limited influence on economic growth (Twinoburyo, et. al., 2017). Scholars such as (Chipote, et. al., 2014; Kamaan, 2014; Inam, et. al., 2017) found that money supply exerts insignificant influence on economic growth thereby substantiating the Keynesian view. However, several other studies have established that money supply enhances economic growth of a nation (Prasertet, et. al., 2015; Mohamed Aslam, 2016) among others.

Money supply more or less influences or affects Economic growth positively or negatively. From 1959, there have been two major phases in the pursuit of monetary policy, namely: direct monetary control phase and the market mechanism phase. These phases were all aimed at regulating the supply and cost of money optimally such that certain desired national objectives (such as increased and sustainable output) were achieved. It has been observed that the quantity of money supplied in an Economy influences the Gross Domestic product or output overtime. Accordingly, this research work will investigate the technicalities involved in the regulation of the money supply in Nigeria.

A study of this nature is always necessitated by the existence of certain problems. The major problem that trigged off this work is the recurrence of general price instability, persistent inflationary pressures and unemployment in the economy, in spite of the plethora of monetary policy measures adopted and applied over the years. There is also this problem of general feeling that a continuous annual rate of money increases will adversely increase the rate of price level which will directly lead to inflation, which may deny the intended effects of use of monetary policy measure to influence economic growth thus, requiring a policy response. Recently, these inflationary pressures have succeeded in bringing about devaluation in Nigeria's currency value

as a result of expansionary measures of money supply Moses, et. al. (2018). It is on this assertion that this study practically examines the significant impact of money supply on the economic growth in Nigeria, while the following are the null research hypotheses ( $H_0$ ) in line with the research objectives and questions;

- i. Money supply has no significant impact on the economic growth in Nigeria.
- ii. Credit to the private sector has no significant impact on the economic growth in Nigeria.
- iii. Credit to State and local government has no significant effect on the economic growth.

#### 2. Literature Review

### Theoretical Review Classical Monetary Theory

The classical theory of money in its original and crude form asserts that there is a direct and proportionate relationship between changes in the quantity of money and the general price level. The formulation of this crude theory posits that if money supply increases by 10%, then general prices would also increase by 10%. This formulation is also attributed to the writings of the French economist - Jean Bodin published about 1968. Later in 1952, David Hume madea better exposition of this quantity theory of money as cited in (Nzotta, 2004). The crude theory could be stated as follows: P = KM Where P = General price index K = Constant Proportionality, M = Money supply Where K = v/y V = Velocity of money; Y = real output Anyanwu, (2017) asserted that the classical economist did not introduce the role of money in their model in terms of its demand and supply. Instead, they introduced money by using quantity theory. In short, they related the level of an economy commodity prices to the quantity of money in the economy and the level of the prices, viz: the transactions formulations or the equation of exchange, and cash balances formulation or the Cambridge equation.

#### The Quantity Theory of Money

The classical quantity theory of money states that the price level is a function of the supply of money. Algebraically, MV=PT, where M, V, P and T are the supply of money, the velocity of money, price level and the volume of transactions (or real output) respectively. The equation tells us that the total money supply MV equals the total value of output PT in the economy (Jhingan, 2014). In this theory, the classical economists believe in the long-run economy, where full employment is attained. They recognized the existence of unemployment in the event of a downward rigidity of money wages. Such a situation could be corrected by an expansionary monetary policy. Suppose the monetary authority increases the money supply, given the velocity of money and the level of real output, with the income in the money supply, liquidity rises with the people who increase the demand for goods and services, this, in turn, raises the price level. The rise in price level reduces the real wage which provides incentives for employers to expand employment and output towards the full employment level.

#### **Empirical Reviews**

Wahab, et. al. (2025) examined the interplay between money supply, exchange rate, and economic growth in Nigeria over a period of 20 years. The study revealed that exchange rate has positive and significant influence on the economic growth in Nigeria measured with LGDP. The result was not consistent with the negative a priori expectation. Also, the result obtained shows that the relationship between money supply and gross domestic product in Nigeria is positive but insignificant. The study, therefore, recommends that regulators should hand down regulations that control the supplies of money in the circulation and that government should put on policy implementation that will ensure the stability of naira value.

Bajrami, et. al. (2025) used panel data analysis to investigate the relationship between economic growth and some selected macroeconomic variables such as the money supply, inflation, foreign direct investment (FDI), and government spending. The findings emphasised the importance of monetary policy, inflation management, and attracting foreign direct investment in encouraging long-term economic growth, while government spending appears to have less influence in the short run. These findings offer policymakers evidence-based recommendations for developing effective economic strategies.

Asongo, et. al. (2024) examined the impact of broad money supply on economic growth using sub-Saharan Africa as a focal point covering the period from 1995 to 2021 on data generated from World Development Indicator. The study revealed that broad money supply exhibits a positive and statistically significant relationship, at one percent level of significance, with economic growth in Sub-Saharan Africa both in the short-run and in the long-run within the study period. The study concluded that sub-Saharan African countries could effectively use broad money supply to improve economic growth which ultimately lead to wellbeing of the citizens.

Alasala, et. al. (2024) studied interactions between money supply, banking and economic growth for effective policy interventions and business decisions. Based on annual data for the time period (2004-2021), descriptive analysis, correlations, causality tests and panel data regressions are analyzed for a sample from India, Saudi Arabia and UAE to draw conclusions. The results favored the 'intermediation theory' and were contrary to the 'credit creation' theory of banking. It was observed that the GDP of a country can be efficiently explained by financial soundness, broad money, loans and deposits for a country. Also, that the GDP of a country influences banking loans and deposits but not vice versa. The monetary policy of the sample was questioned by the finding that GDP causes banking loans and banking deposits but not vice versa.

Saeed (2022) analyzed the effect of price and money supply on GDP growth in Ghana using a forty-year time series data from 1980 to 2020. The results indicated that past year income and price level have negative and statistically significant effects on current year output. However, long-run estimates of the co-integrating vector shows that supply of money does not have statistically significant effect on GDP. This result is corroborated by the outcome of the cumulative orthogonal impulse response function. The study robustly concluded on bidirectional relationship between inflation and money supply. As a policy recommendation, this study proposed that the Bank of Ghana pays critical attention to the monetary policy rate since it is the channel through which the central bank targets inflation in order to achieve price stability and sustained output growth.

Omankhanlen, et. al. (2022) investigated effect of money supply on economic growth in Nigeria between 1990 and 2018. The empirical results showed that money supply components jointly enhance economic growth while the individuality of money supply indicators depicts different consequences. The government, in formulating monetary policy, must be aware of the fact that the economic growth responds more favorably to an increase in the money supply. The government must also be conscious of the relationship between the interest rate and credit to private sectors and the purpose in enhancing economic growth. Therefore, the study recommended that the Central Bank of Nigeria, should try to understand the role of money supply in enhancing economic growth and come up with monetary policies that will enable money supply to drive the economy properly in order to achieve economic growth.

Matres, et. al. (2021) investigated the impact of money supply on economic growth rate, inflation rate, exchange rate and real interest rate. We used a panel of 217 countries from 1960 to 2020 and four different models to address these questions. The empirical results support the quantity theory of money. In addition, the study found evidence for a negative relationship between real interest rate and inflation and between money supply and real interest rate. Finally, our results show that lagged money growth rate is positively correlated with GDP growth rate but money growth rate is negatively correlated with GDP growth rate.

Opata, et. al. (2021) examined the impact of money supply on economic growth in Nigeria, 1986-2019. The study found out that broad money supply and ratio of Private sector credit to GDP has positive and significant impact on economic growth in Nigeria. The study recommended that The CBN should be made more effective in its monetary management by making all financial markets organized so as to accentuate the effects of monetary policy variables like Broad money supply. This promotes real GDP in Nigeria. The government should encourage monetary authorities like the Central Bank of Nigeria to build a conducive and enabling environment for friendly interest rates so that prospective investors can increase their investment and raise the nation's production capacity. This can be achieved through low unremunerated reserve requirements and adequate physical and financial infrastructure to remove the impediments that lead to the gap between the savings and lending rate. This is because the interest rate is the stimulating factor in savings and investment decisions in the economy. Attempts should be made by the government to improve on its infrastructure in order to reduce cost of production and increase exportation so as to achieve the objective of naira devaluation. This adds to the country's national income and in general promotes the real GDP.

Onwuteaka, et. al. (2019) examined the impact of monetary policy on economic growth in Nigeria using secondary data from the Central Bank of Nigeria statistical bulletin covering the period 1980-2017. Estimates of the model were calculated using a multiple econometric model of the ordinary least square to determine the impact of money supply, credit in the economy, interest rate on credit, infrastructure, inflation rate, external debt, price index on Nigerian development. The findings show that money supply, interest rate on credit, infrastructure and external debt have been statistically important in explaining its effect on economic development, while other variables used in the analysis have all been found to be statistically insignificant in explaining the growth rate of the Nigerian economy.

Ayodeji, et. al. (2018) analyzed the effect of monetary policy on economic growth in Nigeria by developing a model capable of investigating how government monetary policy has influenced economic growth through a multi-variable regression study. Error Correction Model has been implemented in order to provide a parsimonious model. As a result, two variables (money supply and exchange rate) had a positive but relatively negligible effect on economic development.

Ufoeze, et. al. (2018) investigated the impact of monetary policy on economic growth in Nigeria by using natural GDP logs as dependent variables against explanatory monetary policy variables: monetary policy rate, money supply, exchange rate, lending rate and market-controlled investment for the period 1986 to 2016. The research followed the Ordinary Least Squared technique and also carried out root and co-integration tests for the unit. The analysis showed that there is a long-term relationship between the variables. Moreover, the key results of this study have shown that monetary policy rates, interest rates and investment have a substantial positive impact on Nigeria's economic development.

#### 3. Research Methodology

The research design adopted for this study is *Ex-post facto* research design with a longitudinal time horizon. This design forms the basis upon which the research was carried out. Ex-post facto research design generated data that were already put in place and are not subject to the manipulation of the researcher. Therefore, this design is used because it allows for easy collection of secondary data without influences. The population of a study is the entire universe, objects which a researcher proposes to research on with a view to making findings. Every item in the population is a sampling frame. Thus, by the nature of this study, the population of the study is the entire variables intend to use in determine the impact of money supply on the Nigeria economy growth. However, the period of the study will be from 1990 to 2024, thirty-five (35) consecutive years. This period is lengthily enough to ensure adequate analysis and generalization of findings to the study.

#### **Model Specification**

Econometric model specification adopted in this study is premised on the choice of variables used in previous studies. In this study, the model used based on the above is of the mathematical form and estimated to draw conclusion from the findings of our study. The functional and econometric relationship between the dependent variable and the independent variables are seen in the equation below: The auto regressive distributed lag (ARDL) Econometric model was used

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\begin{array}{l} R\bar{G}DP=f\left(M1,M2,CPS,CSLG,INTR,EXR\text{ and }INFL\right). \qquad \qquad (1)\\ LogRGDP=\beta0+\beta_1logM1+\beta_2logM2+\beta_3logINTR+\beta_4logEXR+\beta_5logINFL+\mu. \qquad \qquad (2)\\ Log\ RGDP=\beta0+\beta_1logCPS+\beta_2logINTR+\beta_3logEXR+\beta_4logINFL+\mu. \qquad \qquad (3)\\ Log\ RGDP=\beta0+\beta_1logCSLG+\beta_2logINTR+\beta_3logEXR+\beta_4logINFL+\mu. \qquad \qquad (4)\\ Where: \end{array}
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RGDP = Real Gross Domestic Product (dependent variable);

M1 = Narrow Money Supply (independent variable);

M2 = Broad Money Supply (independent variable);

CPS = Credit to Private Sector (independent variable);

CSLG = Credit to State and Local Government (independent variable);

INTR= Interest Rate (control independent variable);

EXR= Exchange Rate (control independent variable); and

INF= Inflation rate (control independent control variable).

 $\beta 0 = Constant;$ 

 $\beta 1 - \beta 5$  = Regression coefficients;

 $\mu$  = Error term.

On the a priori, we expect;  $\beta 1 > 0$ ,  $\beta 2 > 0$ ,  $\beta 3 > 0$ ,  $\beta 4 > 0$ .

## 4. Data Analysis and Presentation of Results

Table 4.1: Unit Root Test Using ADF and Philip-Perron 1990-2023.

Variables	ADF-Statistic	Critical Values	Order of Integration
RGDP	-18.31535 (0.0000)	5% = -1.951332	Stationary at Level I(0)
INFL	-9.797882 (0.0000)	5% = -3.580623	Stationary at Level I(0)
INTR	-3.110801 (0.0354)	5% = -2.954021	Stationary at Level I(0)
CPS	-4.266203 (0.0010)	5% = -3.562882	Stationary at Level I(0)
CSLG	-7.415075 (0.0000)	5% = -3.580623	Stationary at Level I(0)
EXR	-4.670350 (0.0008)	5% = -2.960411	Stationary at Level I(0)
M1	-3.000578 (0.0118)	5% = -1.953858	Stationary at Level I(0)
M2	-5.441406 (0.0000)	5% = -2.963972	Stationary at Level I(0)

Source: E-view Statistical Software Version 10.0; Analyzed, 2025.

The results of the Stationary (unit root) test indicate that all variables involves GDP, M1, M2, INTR, CPS, CSLG, INFL and EXR were stationary at Level I(0) order of integration none with the use of Augmented Dickey-Fuller (ADF) and Philip-Perron (PP). Therefore, since all the variables were stationary at levels. Hence, this implies that the data used for the analysis were in good shape and valid for the study, since they were all stationary indicated that there was no spurious in the data collected.

#### **Discussion of Findings**

In the course of the research findings, Null hypothesis  $(H_0)$  and Alternative hypotheses  $(H_1)$  were formulated using ordinary least square (OLS) for the multiple regression analysis tests as statistical techniques in order to guide decisions on the area of inquiry. Based on the specific objectives and hypotheses tested, the findings emanating from the study are summarized as follows:

- i. It was reported from the result of the analysis in hypothesis one (1) that money supply has significant impact on the economic growth of Nigeria, as indicated that 1 unit increase in Broad Money Supply, and Exchange Rate led to 2.9 billion naira and 91.5% increases in Real GDP at the (P-value < 0.05%). While 1 unit increase in Narrow Money Supply, Interest Rate, and Inflation Rate led to -30.2 billion naira, -1193.5%, and -118.2% respectively decreases in Real GDP.
- ii. Research hypothesis two (2), revealed that there is significant impact of credit to private sector on the economic growth in Nigeria, as it shows that 1 unit increase in Credit to Private Sector, and Exchange Rate led to 3.7 billion naira and 63.1% increases in Real GDP at the (P-value < 0.05%). While 1 unit increase in Interest Rate, and Inflation Rate led to -892.8% and -90.6% decreases in Real GDP at the (P-value > 0.05%) significant level.
- iii. Lastly, hypothesis three (3) of the research study revealed that there are relative effects of credit to state and local government on the economic growth in Nigeria as explanatory variables indicated 1 unit increase in Credit to State and Local Government and 1 unit increase in Exchange Rate at \$1USD/Naira will led to 43.6 billion naira and 121.7% increase in GDP and 1 unit decrease Interest Rate led to 2058.1% increases in Real GDP at the (P-value < 0.05%), while 1 unit increase in inflation Rate led to 136.6% decreases in Real GDPat the (P-value > 0.05%) significant level.

#### Conclusion

Based on the findings above, we hereby conclude that Nigeria must realize that money plays a critical role in economic growth. Therefore, isolating the impact of monetary policy on economic growth is quite difficult because the pursuit of monetary stability is also one of the conditions for attaining a long term and overall sustainable growth of the economy. From all indications, economic growth in Nigeria is presently inadequate to meet the need of the Nigerian populace. Thus, greater emphasis should be on the implementation of sound monetary policies in coordination with prudent fiscal policies that will create macro-economic stability thereby ensuring a sustainable growth of the economy. However, a good growth performance of the economy will be largely due to a positive interplay of economic, political, social and institutional factors that will serve to transform monetary policies effectively into achieving sustainable growth that will augur well for the welfare of all members of the citizenry.

#### Recommendations

Given this, the following recommendations are put forwards to support the literature reviews and findings in this study;

- i. Study recommends expansionary monetary policy in order to achieve growth. However, greater emphasis should be on the improvement of monetary policies, instruments and institutions in Nigeria to ensure effective and efficient monetary system.
- ii. Government should introduce a specification of the financial structure that is richer than the existing ones, recognizing the positive effect of a stable monetary policy.
- iii. Attempts should be made by the government to improve on its infrastructure in order to reduce cost of production and increase exportation so as to achieve the objective of naira devaluation. This adds to the country's national income and in general promotes the real GDP.
- iv. The monetary authorities should develop a money stable policy that would propel the economy towards a positive end.
- v. Government should formulate policy that is aimed at raising broad money supply so that by so doing it would encourage capital flight into the country and increase real GDP since its coefficient is quite higher.
- vi. Government should intensify its effort in pursuing the policies that are anti-inflationary in nature such that its monetary policy objective will not be derailed.

vii. The CBN should also look into the transmission mechanisms of money supply in order to determine its lag effects on economic growth.

#### References

- [1]. Ahuja, H. L (2010). *Macroeconomic (Theory and Policy)*. Sixteen Revised Edition S. Chand Company Ltd,7361, Ram Nagar, New Delhi.
- [2]. Ayodeji, A., & Oluwole, A. (2018). Impact of monetary policy on economic growth in Nigeria. *Open Access Library Journal*, 5(e4320), 1-13. [6] CBN (1992).
- [3]. Afolabi, O.L. (1999). Monetary Economics. Lagos: Heinemann, Educational Book Plc.
- [4]. Anyanwu, J.C. (2017): Nigerian Public Finance. Onitsha: Joanee Educational Publishers Ltd.
- [5]. Bajrami, R., Tafa, S., Gashi, A., & Hashani, M. (2025). Analysing the impact of money supply on economic growth: A panel regression approach for Western Balkan countries (2000-2023). *Regional Science Policy and Practice*, 17(2025).
- [6]. Central Bank of Nigeria, (2016). "Monetary Policy Department What is monetary policy?" Monetary Policy Series, CBN/MPD/Series/01/2016;1-2
- [7]. Central Bank of Nigeria (2020). The interest rate development. Economic report First Quarter 2020.
- [8]. Iklide, S.1. & Alawode, A.A. (1993). Financial sector Reforms, Macro Economic instability and the order of Economic liberalization. Abuja: AERC Klarkshop paper.
- [9]. Jawaid, S.T., Quadri, F.S., and Ali, N. (2011).Monetary-fiscal-trade policy and economic growth Pakistan: Time series empirical investigation. *International Journal of Economics and Financial Issues*, 1(3) 133
- [10]. Jhingan, M.L. (1986). Money, Banking, international Trade and Public finance. Delhi: konorla publisher.
- [11]. Johansen, S. and K. Juselious (1991) Testing Structural Hypothesis In a Multivariate Cointegration Analysis of PPP and UIP for U.K. *Journal of Econometrics*. 55:211-214.
- [12]. Macallam, B.T. (1980). Relational Expectations and macroeconomic stabilization policy. *Journal of Money, Credit and Banking*, 12 (2): 716-746.
- [13]. Mohamed Aslam, A.L.(2016). "Impact of money supply on Sri Lankan Economy: An econometric Analysis". International Letters of Social and Humanistic Sciences, 67, 11-17
- [14]. Njimanted, F.G., Akume, D., and Mukete, E.M. (2016). The impact of key monetary variables on the economic growth of the CEMAC Zone. *Expert Journal of Economics*, 4(2), 54-67.
- [15]. Nnanna, O.J. (2001). Monetary policy framework in Africa: The Nigeria experience. South African Reserve Bank Conference.
- [16]. Nwosa, P. (2016). "Impact of macroeconomic policies on poverty and unemployment rates in Nigeria, Implications for attaining inclusive growth". Acta Univ Danubius. Economica, 12, 114-126.
- [17]. Nzotta, S.N. (2004). Money, Banking and Finance. Owerri; Hudson-Jude.
- [18]. Odumusor, C.J. (2015). Impact of money supply on the growth of the Nigerian economy, 1976 2015. *IOSR Journal of Economics and Finance (IOSR-JEF) e-ISSN: 2321-5933, 10(1), 30-46.*
- [19]. Olowofeso, E. O., Adeleke, A.O., & Udoji, A.O. (2015). Impact of private sector credit on economic growth in Nigeria. *CBN Journal of Applied Statistics*, 6(2), 81-101.
- [20]. Oke F. (2017). "Effect of Interest Rate on the Performance of Nigerian deposit Money Banks". International Journal of finance and Management. 2017; 2:134-143.
- [21]. Onyeiwu, C. (2012). Monetary Policy and Economic Growth of Nigeria. *Journal of Economics and Sustainable Development*, 3(7), 62
- [22]. Onwuteaka, I.O., & Pius-Vincent, M.I. (2019). Effect of monetary policy on economic growth in Nigeria. *International Journal of Trend in Scientific Research and Development*, 3 590- 597.
- [23]. Omankhanlen, A.E, Samuel-Hope, D.C., &Ehikioya, B.I. (2022). The impact of money supply on economic growth in Nigeria. *Journal of Management Information and Decision Sciences*, 25(S4), 1-14.
- [24]. Omodero, C. (2019). Effect of money supply on economic growth: A comparative study of Nigeria and Ghana. *International Journal of Social Science Studies*, 7(3).
- [25]. Ogikhonon, H. & Dimowo, F.A. (1997). The structure of the Nigerian Economy. Awka: Joanne Educational publishers Ltd.
- [26]. Owoje, O. & Onofowora, A.O. (2007). M2 Targeting, money Demand and Real GDP brought in Nigeria. *Journal of Business and public Affair*, (12): 25-34.
- [27]. Prasert, C., Kanchana, C., Chukiat, C., and Monekeo, K. (2015). "Money supply influencing on Economic growth-wide phenomena of AEC open region". Procedia Economics and Finance, 24(2015), 108-115.https://doi.org/10.1016/S2212-5671(15)00626-7

- [28]. Saleem, F., Z. Haider, ,S. Shoukat, ,S. Shafiq, A. Zahid, A. Shahzad, and W. Hassan (2014). "Determinants of Inflation in Pakistan" Interdisciplinary Journal of Contemporary Research in Business 4(9)
- [29]. Tejvan, P. (2017). Monetarist Theory of Inflation. Economics help.
- [30]. Taylor, J.B. (1979). *Improvement in monetary policy and implications for Nigeria*. Awka: Joanne Educational publishers Ltd.
- [31]. Twinoburyo, E.N., and Odhiambo, N.M. (2017). Monetary policy and economic growth: A review of International Literature. *Journal of Central Banking Theory and Practice*, 2, 123-137.
- [32]. Ufoeze, L.O., Odimgbe, S.O., Ezeabalisi, V.N. Alajekwu, U.B. (2018). "Effect of monetary policy on economic growth in Nigeria: An empirical investigation". Annals of Spiru Haret University Economic Series, 18(1).
- [33]. Wahab, A. A., &Adelowotan, M. O. (2025). Impact of money supply and exchange rate on economic growth in Nigeria. *Conference Paper*, 183-201.
- [34]. World Bank (2020). "Nigeria Real Interest Rate Actual Values, Historical Data, Forecasts and Projections". World Bank on November of 2020.
- [35]. Yaqub, J. O. (2018). Exchange Rate Changes and Output Performance in Nigeria: A sectorial Analysis. *Pakistian Journal of Social Sciences*, 7(5): 12-19.
- [36]. Yien, L.C., Abdullah, H., & Azam, M. (2017). Monetary policy inclusive growth: Empirical evidence from Malaysia. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 7, 225-235.