

**EFFECT OF SELECTED MACROECONOMIC VARIABLES ON  
THE PERFORMANCE OF NIGERIA ECONOMY**

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## CERTIFICATION

This is to certify that this project titled: **EFFECT OF SELECTED MACROECONOMIC VARIABLES ON THE PERFORMANCE OF NIGERIA ECONOMY** was carried out by AREMU OLUWATOBILOBA MICHEAL with matriculation number 16020101013 in partial fulfilment of the requirements for the award of **BACHELOR SCIENCE DEGREE IN ACCOUNTING** in the department of Accounting and Finance, College of Humanities, Management and Social Sciences, Mountain Top University, Ogun State, Nigeria,

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## **DEDICATION**

This work is dedicated to God.

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## **ABSTRACT**

The study examined the effect of selected macroeconomic variables on the performance of Nigeria economy from 2000 and 2018 was examined in this study. Secondary data from quarterly economic report of Central Bank of Nigeria (CBN) was used in this study. Multiple regression analysis was used in analyzing the data of this study. Findings from the analysis revealed that there is a negative but weak correlation between inflation and Gross Domestic Product (GDP), proxy for economic growth. there is a positive and strong correlation between exchange rate and Gross Domestic Product (GDP), proxy for economic growth, it reveals that there is a positive but moderate correlation between lending rate and Gross Domestic Product (GDP), proxy for economic growth, it indicates that there is a positive and high correlation between money supply and Gross Domestic Product (GDP), proxy for economic growth. This study recommend that government of Nigeria should maintain a stable political land scape in order to facilitate a meaningful improvement in economic growth.

Keywords: Multiple regression, Gross Domestic Product, inflation, exchange rate, lending rate, money supply

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## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background to the Study

For what reason do a few nations go through quick abundance development in the only remaining century while others stay buried in neediness? For what reason do others have high inflation rates and others hold costs stable? For what reason do downturns and melancholies, repetitive times of declining compensation and expanding joblessness sway all nations? Also, how do government approaches decline the recurrence and force of the scenes recorded previously? Factors of macroeconomics, endeavors to address these inquiries and furthermore a few comparative inquiries. To comprehend the essentialness of these large scale financial components, what you have to do is perused the paper or tune in to the radio. We will see features, for example, declining pay development, obliging inflationary developments, or dropping stocks in recessionary feelings of trepidation. While these macroeconomic occasions can sound theoretical, they have an impact on our entire lives. Business administrators who predict interest for their items can figure how quick their customers' wages will develop. Senior residents living on ensured livelihoods questioning how quick rates can develop. New college understudies searching for occupations are sure that the economy is blasting and that organizations are recruiting. Since Status of the economy is troubling everybody.

Antwi et al (2013) thought that macroeconomic hypothesis has perceived different reasons that influence the development of a predefined country from the neoclassical Keynesian and the new development speculations. These factors thusly incorporate financing cost, unfamiliar direct venture, GDP per capita, speculation, normal assets, human resources, advancement, innovation, monetary arrangements, legislative components, unfamiliar help, exchange straightforwardness, institutional structure, political elements, atmosphere, socio-social variables, demography, and so on Financial development is the essential focal point of each nation's macroeconomic arrangement, and the Gross Domestic Product (GDP) is viewed as a center pointer of this monetary development. In the event that a country's GDP is rising quicker than its populace, it implies that that nation's GDP per capita is rising, it additionally suggests that individuals are living. Conditions are likewise being improved in that specific nation. The GDP of a nation is controlled by quantities of factors i.e conversion scale, unfamiliar direct venture, inflation, lending rates, family utilization and so

forth Regardless, it is exceptionally hazardous to neglect the example of money related development totally to the market powers as an outcome of the budgetary misfortune expected to emerge in the creation stage. Second, the Government's quality and its financial arrangements matter a lot. The fundamental scholars and opportune defenders of advancement financial aspects were of the view that progress ought to be disguised. Advancements on the planet's business sectors have exhibited that it is inconsequential for economies to stay isolated from the inexorably coordinating world, Essien and Bawa (2007), financial development is a key approach objective for every country. Specialists and strategy policymakers likewise expected to pick from or blend every one of the macroeconomic components while examining explicit financial administration issues. Monetary thriving, the Gross Domestic Product (GDP) intermediaries, has numerous favorable circumstances, remembering an improvement for the general personal satisfaction of the nation as determined per capita public riches, making the progression of cash simpler to accomplish, building up a timetable for the satisfaction of essential human requirements for a larger part of the populace.

Nigeria's monetary improvement has not been completely valued and has been abused. Nigeria's whole financial achievement has been unsuitable since freedom in 1960. Regardless of the accessibility and speculation of huge unfamiliar trade, to a great extent because of its oil and gas holds, financial development has been languid and destitution rates have increased. Up to this point the primary difficulties looked by the Nigerian economy have brought about varieties in GDP. Is Nigeria's over-dependence on unrefined petroleum sends out? This has huge repercussions for the Nigerian economy since it is a profoundly serious oil field. For instance, due to its dependence (mono-economy) on raw petroleum sends out, the Nigerian economy was presented to the changes and impulses of the worldwide oil market, with the end goal that stuns in the homegrown economy were quickly felt at global oil costs.

In any case, the absence of satisfactory homegrown capital, reserve funds and speculation to help and support the area is a significant hindrance of financial development in the nation because of the uniqueness among investment funds and venture (Imimole and Imoughele (2012). Reserve funds gives plentiful speculation assets to arising nations (counting Nigeria) that help monetary development and creation. Expanded investment funds will prompt an expansion in capital arrangement and creation, which will prompt employment development and abatement unfamiliar

gaining by the public position. Low local saving rates amounts to low-development levels. After autonomy in 1960, the quick test that confronted the Nigerian economy was the way to increment strong financial development all together lessen outrageous destitution, improve medical services, conquered ignorance, uphold vote based and political consistency, upgrade the nature of the regular habitat, decrease the event of wrongdoing and viciousness, and become a venture end of decision for global capital, *ceteris paribus*. Long haul, wide based financial advancement is fundamental to Nigeria's pay development and to its capacity to turn into a significant exchanging and exchange accomplice the world. Cash gracefully and a low inflation rate are key elements for a high monetary development rate that is equipped for producing work openings, neediness decrease, higher per capita livelihoods and an expectation for everyday comforts that finishes in financial development (Phibian, 2010).

The achievement of this macroeconomic goal has been in vain in Nigeria for a number of years. It can be due to a lack of good understanding of the relationship between variables. It is therefore essential to consider the causal correlation between the supply of money and the price of production, as well as their relationship. Economic policies and economic goals tended to be deceptive and inconsistent as a result of mismanagement/misappropriation. Upward inflation, low living standards, youth unrest, militancy in the Nigerian Delta region, over-reliance on foreign institutions, inadequate Gross Domestic Product Index (GDP) infrastructural facilities and epileptic power supply, to name but a few. In other words, economic policies have not been effectively channeled to areas where they should have benefited Nigerian people the most. Fiscal policy is also expected to lead to higher macroeconomic goals such as economic growth, price stability, full employment and balance of payments. This cannot be done without adequate monitoring, the strengthening of intergovernmental fiscal coordination, the promotion of the macroeconomic stability of some factors, including the control of aggregates in fiscal policy.

## **1.2 Statement of the Problem**

It is completely obvious that the global financial crisis has caused harm to the global economy and that the Nigerian economy is no exception; we are operating in a dynamic and unpredictable environment where both micro-economic and macro-economic influences have an effect on the output of the economy impacting the country's gross domestic product. Against this context of slow economic development, complemented by weakening productivity signals, and Nigeria as an emerging economy categorized by substantial debt pressures, systemic imbalances and uncertainty, awareness of the factors behind Nigeria's economic growth and its causal relationship with growth has become important. In addition to its irregular volatility, Nigeria's economic development has been rather insubstantial. Economic observers have attributed Nigeria's poor economic growth to a variety of causes, such as recessive technology, macroeconomic, etc.

Policies, reliance on primary resources, demographic factors, socioeconomic circumstances, unfavorable initial conditions, poor facilities and unfavorable climate (Iyioha & Oriakhu 2002, Easterly & Levine 2001).

Despite multiple interventions aimed at alleviating the crisis, this dilemma continues. Nigeria had an average growth rate of 1.45% per capita income between 1960 and 1997, which was low compared to other countries such as South Korea 6.8%, Singapore 6.7%, Taiwan 6.1%, and Botswana 8%. Unfairness in wealth and opportunity ties has grown steadily and has negatively affected poverty decline. In recent years, the North-South rift has widened due to the Boko Haram rebellion and the lack of economic growth in the northern part of the country. The bulk of Nigeria's population is now in need, with no proper access to basic services and no gain from more inclusive growth policies.

The shortage of work prospects is fundamental to the country's high levels of poverty, ethnic discrimination and social and political turbulence. The very sad fact is that Nigeria's government has failed to see industrial growth as a fundamental requirement for sustainable change, accelerating the lack of sufficient domestic resources, saving and investing to fund and support manufacturing is a major obstacle to economic development in the country due to the gap between savings and expenditure (Imimole and Imoughele, 2012)

## **1.3 Objectives of the Study**

The broad objective of this study is to evaluate the effect of the following macroeconomic variables on the Nigerian economy. The study intends to;

- I. To determine the relationship between inflation rate and Nigerian economy.
- II. Access the relationship between foreign exchange rate and Nigerian economy.
- III. Evaluate the relationship between lending rate and Nigerian economy.
- IV. Determine the relationship between money supply and Nigerian economy.

#### **1.4 Research Questions**

- I. What is the relationship between inflation rate and Nigeria economic growth?
- II. To what extent does exchange rate impact on Nigeria economic growth?
- III. How has interest lending rate affected Nigeria economic growth?
- IV. To what extent have money supply impacted on Nigeria economic growth?

#### **1.5 Research Hypotheses**

In the course of this study, the following research hypotheses stated in their null forms will be verified;

- Ho<sub>1</sub>: Inflation rate has no significant relationship with Nigeria economic growth.
- Ho<sub>2</sub>: Exchange rate has no significant relationship with Nigeria economic growth.
- Ho<sub>3</sub>: Lending rate has no significant relationship with Nigeria economic growth.
- Ho<sub>4</sub>: Money supply has no significant relationship with Nigeria economic growth.

#### **1.6 Significance of the Study**

The findings of this analysis are mutually empiric and technically important. Theoretically, the results of this report would favor economic policies and the public. The findings of this study will enable economic policy makers to understand the degree to which their policies on inflation, interest rate, exchange rate and money supply have influenced the country's economic well-being. The findings of the study will guide them in formulating better monetary policies, especially in the areas of inflation, interest rate, exchange rate, foreign direct investment for improved eco-friendly

conditions. The findings of the study will benefit those who wish to understand the essence of the relationship between inflation rate, interest rate, foreign direct investment currency and Nigeria's real gross domestic product.

Empirically, this study will contribute to the richness of review of the effect of microeconomic variables (inflation, interest rate and exchange rate) on Nigeria's economic growth. The analysis would update the economic growth relationship between microeconomic variables (inflation, interest rate, exchange rate and unemployment). More researchers in this area will find the study as a source of reference material. This analysis would help the government standardize interest rate, inflation rate, exchange rate and others with a view to ensuring macroeconomic continuity. This can be utilized by individuals to make decisions on the macro-economic environment to support the Nigerian market. Companies in the industry itself will know the economic conditions

Best for high efficiency, they would be able to analyze the best inflation, GDP, exchange rate and job factors that optimize their performance. In the same way, prospective researchers will find the thesis useful in terms of reference materials on the associated subject matter as well. This study can be used as a methodological review for other field researchers in other related fields. Finally, work can structure the reason for further research in this particular field. The assemblage and findings of this research would connect academics to the current body of knowledge.

### **1.7 Scope of the Study**

All data would be obtained for the period 2000 to 2018. This is to achieve better fit. The following data would be collected interest rate, inflation rate, exchange rate, GDP, per capita income.

### **1.8 Limitation of study**

The shortcomings of this analysis include data constraint, insufficient testing materials that include all-encompassing experiences on the topic in Nigeria, which include difficulties in interpreting the needed effects. Data problems are based on our lax data-keeping culture. In other situations, in order to resolve this challenge, the researcher would restrict the analysis to only four dependent variables, including inflation, exchange rate, interest rate and money supply, from 2000 to 2016.

### **1.9 Definition of Operational Terms**

**Interest Rate:** This is rate that is imposed for the utilization of money. An interest rate illustrated as an annual percentage of the principal.

**Inflation:** is the increase of the general price higher level of goods together with services in an economy after a while.

**Exchange rate:** The cost of any foreign-exchange arrangement for quick distribution. Generally known as "benchmark rates," "straight forward rates" or even "outright rates," spot prices are the costs that any kind of consumer plans to repay in a foreign currency in another currency.

**Gross domestic product (GDP):** The overall quantity of goods and services produced in a country at a given time estimated in monetary terms.

**Economic Growth:** This is an improvement in the amount of goods and services generated by the population over a period of time.

## CHAPTER 2

### LITERATURE REVIEW

#### 2.1 Preamble

This chapter would consider current research by academics relevant to macroeconomic factors and variables that assess economic growth. The literature review is structured in the following pattern: conceptual framework, theoretical foundations, and empirical review.

## **2.2 Conceptual Review**

Lipsey (1979) suggests that macro-economics looks at the environment from the broadest viewpoint and thus tests general developments in order to determine the overall stability of a particular country's economy. Macroeconomics is important to the administration of a nation and it is the government's duty to keep the economy stable so that micro-level operations can be carried out properly. Governments are in effect, regulating macroeconomics by releasing money and setting monetary policies.

### **2.2.1 Inflation Rate**

Inflation has numerous monetary ramifications for an economy, and most low inflation nations are attempting to support steady, fast financial development. Inflation expands the value level of items, administrations and different causes, causing financial troubles for a district. It instigates the debilitating of the purchasing influence of cash, with the end goal that the value of cash frequently decreases simultaneously. This expansion in costs and the fall in the estimation of money brought about by inflation have affected the improvement of the economy. Higher inflation likewise causes high interest rates, and since interest rates ordinarily move counter to GDP, higher interest rates lead to a slump in the nation's financial development, and the other way around.

#### **a. Types of Inflation**

Inflation can be classified into four forms based on its severity. They're as follows:

##### **i. Creeping Inflation**

This happens when the cost increment is truly late. A continued normal value development of under 3% every year comes into this reach. Such value rises are seen to be sound and fundamental for financial turn of events.

##### **ii. Walking Inflation**

Walking inflation occurs as costs increment gradually and yearly inflation is a solitary digit. This happens where the cost increment is among 3 and under 10% in the



transitional reach. Inflation in light of current circumstances is an alert sign to the government to direct it before it transforms into running inflation.

**iii. Running Inflation**

This occurs as costs increment consistently at a rate of somewhere in the range of 10% and 20% every year. This kind has huge hindering outcomes on poor people and working classes. Its control calls for exacting money related and fiscal approaches.

**iv. Hyperinflation**

This may prompt a situation in which the inflation rate will not, at this point be quantifiable and totally wild. Costs could grow a ton consistently. Such a condition brings about the total breakdown of the financial framework because of the progressing reduction of the purchasing intensity of money.

**b. Causes of Inflation**

There are essentially two factors of inflation which are as follows:

**i. Demand-Push Inflation**

This is ascribed to an ascent in the states of creation. They may either expand the occasion to buy products or increment the longing to do as such.

**ii. Cost-Push Inflation**

It rises out of something that permits the states of gracefully to debilitate. Any of these reasons remember an ascent for the rate of assembling, an expansion in government charges and a decrease in the measure of merchandise made.

**2.2.2 Exchange Rates**

According to McDonald (1990), the exchange rate is simply the foreign currency price that joins the foreign currency market. The persistent deterioration of the exchange rate is related to global economic variables such as inflation, GDP growth and the ratio of the fiscal deficit to GDP. The

unclear hypothesis that emerges from the pattern study is that exchange-rate fluctuations trigger inflation and there is some correlation between exchange-rate movements and economic development. Odusola and Akinlo (2001) explored the relation between exchange rate, inflation and production in Nigeria. In addition, production and parallel exchange rates have been important determinants of the inflation dynamics in Nigeria. Currency exchange rate is therefore a correlation between domestic and international prices of goods and services (Oloba and Abogan, 2013). They also noted that the exchange rate might either appreciate or depreciate. Exchange rate appreciation happens when less unit of domestic currency is exchanged for a foreign currency unit while exchange rate depreciation occurs when more unit of domestic currency is exchanged for a foreign currency unit

The nominal exchange rate is the amount of local currency units to be disbursed in order to acquire a foreign currency unit. As long as international currencies are concerned, the nominal exchange rate is also the domestic product. It's labelled with an E. In the case of domestic goods, the actual exchange rate is the total value of foreign goods. In other words, this is the price-adjusted exchange rate. It is defined as being;

$$e = E p^* / p$$

Where E= nominal exchange rate

$p^*$ =foreign price

p=domestic price

### **2.2.3 Lending Rate**

Interest rates (macroeconomic variable) alongside money related totals are the needs of Nigeria's financial policy. Amah (2005) is of the view that the interest rate is known as the renting expense for the borrower's utilization of the advance or the discount of the borrower's payment. It can likewise be viewed as the cost of cash and as each other value exertion to execute a proportioning function available by advancing the dissemination of scant credit flexibly among the many clashing requests for it. In the event that the interest rate owed by banks to contributors is raised, borrowers will belittle the banks as fewer and fewer speculators partake in the financial exchange.

This will prompt a decrease in capital interest in the economy. Monetary development and improvement will hence be diminished, as the portion of capital assets assumes a critical part in deciding the rate of yield of the country. Interest rates can be either ostensible or genuine.

The ostensible interest rate ought to be determined as far as naira and not as far as items. The ostensible interest rate figures the yearly yield in naira, per naira acquired, while the real interest rate is changed for inflation and is estimated as the ostensible interest rate less the inflation rate (Pandey, 1999). A positive genuine interest rate implies that ostensible interest rates are above inflation, while a negative genuine interest rate is an immediate impression of high inflation. Moderately sure genuine interest rates are ideal, as exorbitantly high genuine interest rates can make tension among borrowers just as compel venture spending.

Interest rates are extremely various, so they are now and again alluded to as Interest Rate Structure. In a liberated economy, interest rate rates will change starting with one bank then onto the next, yet on account of a controlled interest rate framework, the contrary will be the situation. Also, interest rates are the renting charges on the utilization of credit by lenders and the profit for the splitting of liquidity by borrowers. As different costs, interest rates assume a proportioning function by circulating a modest quantity of credit to an assortment of contending requests. The primary motivation behind interest rates is to help influence monetary capital and to guarantee the compelling utilization of these assets in the quest for financial development and advancement. Interest rates impact the level of utilization, from one perspective, and the level and recurrence of sparing, on the other. Altogether, interest rates are useful in deciding money related market conditions and are an essential instrument of financial policy. Commonly, as the interest rate framework changes, the resultant relative rate of return will cause changes in the arrangement of resources of the two banks and non-banks (Holland, 1984; Akani, 2013). The way and degree of movements in market interest rates are in this manner of essential significance to monetary specialists and chiefs.

Essien and Co (1996) outlined the various types of interest rates that are of special significance to economic governance.

### 2.2.3.1 Types of lending rate

- a. Deposit cost: This is the amount at which banks compensate consumer's deposits on capital they borrow from their clients.
- b. Pure Interest rate: That is the preferred amount of time between current and potential use. This means that it is limited to the reward for waiting that riskless investment in the economy promises
- c. Monetary Policy Rate (MPR): It is the average interest rate which will determine interest rates for banks.

## 2.2.4 Gross Domestic Product (GDP)

Kamran et al (2014) maintains that the Gross Domestic Product (GDP) is defined as the total market charge for all finished goods and services produced in the country in a single year. We also assume that GDP is calculated as follows: the net exchange rate of all finished goods and services produced in a country in a given year and is proportional to the total output, investment and budget expenditure plus the volume of exports – the sum of imports. They also noted that the historical assessment of GDP is very useful. Aslanov et al (2010) describe the Gross Domestic Product (GDP) as the amount of all final services and goods generated in the country at that time.

Ezenwa(2016) opines that Gross Domestic Product(GDP), employment ratio, National Income, Overall Market Capitalization, All share price index, interest rate, inflation rate are examples of economic metrics that can be used to assess success in the Nigerian economy. GDP is the total quantity of goods and services produced in a given region, calculated in terms of Naira (Ezenwa, 2016). For instance, every part of the economy contributes to GDP, but the oil and gas industry in Nigeria makes the largest contribution. Juwah (2011) points out that the telecommunications sector is now significantly contributing to the (GDP), which has been dominated by the oil and gas market so far.

### 2.2.4.1 Approaches to Measuring Gross Domestic Product

There are three generally accepted ways to calculate Gross Domestic Product. They are as follows:

- a. Product Approach
- b. Expenditure Approach
- c. Income Approach

**a. Product Approach**

It is also called the output approach. It is the sum of market value of all final goods/services. It measures GDP as the difference between value of output less the value of goods and services used in producing these outputs during an accounting period.

Suppose there are N goods with quantities Q1, Q2.....QN and unit prices P1, P2.....PN, respectively. Then GDP is calculated as:  $GDP = P1Q1 + P2Q2 + PNQN$

**b. Expenditure Approach**

It gauges the last employments of the delivered yield as the amount of conclusive utilization, net capital development and fares less imports.

Components of Gross Domestic Product

- i. Consumption (C)
- ii. Investment (I)
- iii. Government Spending's (G)
- iv. Net Exports (X-M)

**i. Consumption (C)**

It incorporates: durable products, non-durable merchandise and services which are; food, family units, clinical costs, lease, fuel and so forth

**ii. Investment (I)**

It remembers spending for capital equipment (for example machines, apparatuses), structures (manufacturing plants, places of business, houses), inventories (merchandise delivered yet not yet sold).

### iii. Government Spending's (G)

It is all spending on the goods and services purchased by government at the federal, state and local levels. It includes: Investment Expenditure by Government, Purchases of weapons for military, salaries of Public Servants etc.

### iv. Net Exports (X-M)

It includes Gross Exports (X), all goods and services produced for overseas consumption, Gross Imports (M), any goods or services imported for consumption. Exports represent foreign spending on the economy's goods and services. Imports are parts of Consumption, Investment and Government Spending's that are spent on products and ventures created abroad.

These components add up to GDP (denoted by Y):  $Y = C + I + G + (X-M)$

### c. Income Approach

estimates GDP as the amount of the factor earnings generated to the economy that is by including a wide range of factor wages generated in the creation cycle, for example,

- i. Wages and pay rates, rewards and other remuneration payable to representatives.
- ii. Taxes on items and creation payable to the government.
- iii. Operating surplus for the makers.

According to this approach,  $GDP = \text{wage (income for labour)} + \text{rent (income for land)} + \text{interest (income for capital)} + \text{profit (income for firms)}$ .

### 2.2.5 Economic Growth

The long-term framework to understand growth is built on two key theories regarding potential sources of growth. These are the growth theory and the growth accounting theory. The theory of development deals with the theoretical simulation of the relationship between supply factor production, savings and capital creation.

Three influxes of interest have presently arisen in contemplating financial development. The main wave is related with the work of Sir F. Harrods (1900-1978) and E. Domar (1914-1997) in what was termed the "Harrods – Domar Model". The theory presupposed that growth depended on a country's savings rate, capital/output ratio, and capital depreciation. This hypothesis has been

condemned for three reasons. Initially, it focuses on the supposition of exogeneity for every key boundary. Besides, it overlooks specialized change, and in conclusion, it doesn't take into consideration consistent losses when one factor grows comparative with another (Essien 2002) and Woodford 2000.

The second began with the neoclassical (Solow) model, with the enclosure of considerations that development reflected specialized advancement and key data sources, (labour and capital). It allowed for diminishing returns, perfect competition but not externalities. In the neoclassical growth process, savings were expected in incrementing capital stock, capital accumulation had limits to ensure diminishing marginal returns, and capital per unit of labour was limited. It hypothesizes that development likewise relied upon the rate of populace development, and that development rate among nations should join over the long haul to a steady state. Regardless of the alterations, the essential issues related with the neoclassical reasoning are that it scarcely clarifies the wellsprings of specialized change (Essien and Bawa, 2007).

The third is the newer alternative growth theory, which entrances a diverse body of theoretical and empirical work that emerged in the 1980s. This is the endogenous growth theory. This hypothesis differentiated itself from the neoclassical model of development by underlining that economic growth was the product of an internal structure and not the consequence of factors that impeded it from outside. Its central idea was that the near causes of economic growth were efforts to economize, knowledge accumulation, and capital accumulation. According to this theory, anything that enhances economic efficiency is also good for growth. Thus this theoretical framework indigenized technological process through “learning by doing” or “innovation processes”. It also introduced human capital, governance and institutions in the overall growth objectives Romers, 1994 and Essien, 2002).

The newer growth theory (endogenous theory) fits the real world perfectly well and has important policy implications. This is because it traces growth of output per capita to two main sources: savings and efficiency. An important economic policy implication of this thinking is that of achieving economic stability with low inflation and positive (real) interest rate that spurs saving, which is good for growth, Contessi et al (2009). Therefore anything which increases efficiency and savings is good for growth. In the following segment this position is further discussed in depth.

## **2.3 Theoretical Review**

Here we will study several hypotheses related to macroeconomic factors and economic growth. The theories of macroeconomic thoughts which are the classical and Keynesian theories are the most appropriate in this study but the theory of endogenous growth will be used as a wrap-up for the theoretical examination.

#### **a. The AK Model**

The AK model by Arrow (1962) stresses the chance of efficiency relying upon yield per laborer. This suggests that innovative advancement can happen, however unintended, by “learning by doing”. Technological progress in the AK model is modelled as the difference in the initial productivity of the factor before learning by doing and the productivity of the factor after learning by doing-which will be higher.

The AK model is very in its postulates of what drives economic growth with the neoclassical growth model. In the AK neoclassical growth model, economic growth is induced by savings and capital accumulation, whereas in the AK model, economic growth is induced by savings, capital accumulation and efficiency. Efficiency is defined as the increase in the productivity of factor inputs by “learning by doing”.

#### **b. The Keynesian Theory**

Keynesian economics is an economic theory of total spending in the economy and its effects on output and [inflation](#). Keynesian economics was developed by the British [economist John Maynard Keynes](#) during the 1930s in an attempt to understand the [Great Depression](#). Essentially, it came into being at the time when policymakers and economists were concerned about classic market forces' inability to restore full employment equilibrium years after the First World War. Keynes has a common idea about how interest rate functions in an economy. Keynesian economics was later used to allude to the to the idea of achieving optimum economic output – and avoiding economic slumps – through manipulating aggregate demand by policy political stability and economic stimulus policies. Keynesian economics is regarded as a "demand-side" theory which focuses on short-term economic changes. A modern approach to look at spending, revenue and



inflation. Classical economic thought previously held that recurrent swings in business and financial yield would be humble and self-customizable. According to this classical principle, if overall demand in the economy drops, a fall in prices and incomes would precipitate the ensuing collapse in productivity and employment. A lower level of inflation and salaries will encourage businesses to invest in resources and hire more workers, increase work production and restore productivity. However this hypothesis was severely tested by the depth and severity of the Great Depression.

### **c. Endogenous Growth Theory**

Endogenous growth theory is an economic theory that argues that the direct result of internal processes is that economic growth is generated from within a system. More precisely, the theory states that the enhancement of the human resources of a country can contribute to economic growth by the advancement of new modes of technology and productive and efficient means of production. The theory of endogenous growth maintains that economic growth is primarily the result of internal forces, rather than external ones. It argues that productivity improvements can be directly linked to faster innovation and more investment in human capital by governments and private sector institutions. The theory of endogenous growth offered a fresh perspective about what engineers' economic growth. It argued that a sustained rate of growth is determined not by global, uncontrollable factors, but by internal mechanisms such as human capital, creativity, and investment resources, which contradict the view of neoclassical economics. Endogenous growth economists conclude that efficiency increases can be specifically linked to greater progress and more human resource expenditures. As such, they advocate the promotion of innovation initiatives by government and private sector institutions and offer incentives for individuals and businesses to be more creative;

The endogenous theory of growth or the new theory of growth, indigenize the rate of technological progress. It traces the per capita rate of output growth to two major sources-savings and efficiency. It also argues that policy measures can impact an economy's long-term growth rate, even if they do not change the savings rate that is disaggregated. Thus countries with high level of efficiency, appropriate economic system, sound, economic policy, tend to grow more rapidly (Romer, 1994).

Rapid growth rates are associated with country with efficient economic system and prestige (Lewis, 1978). This new reasoning is significant for nations in an integrated course of action or considering framing a monetary association, and subsequently suitably clarifies why nations financial developments are unique (Essien & Bawa, 2007).

Several authors like Akitoby et al (2004) and Grossman, (1991) have inspected the function of innovative advancement or absolute factor efficiency (TFP) in improving development and have affirmed it to be a significant clarification for the distinctions in monetary execution across nations. It explains the poor growth performance of developing economies, especially the sub-Saharan Africa, and explained why the advanced countries have been getting richer.

Generally drawing a conclusion on understanding growth and its metrics, it appears from all the literature surveys above that overall growth must be "endogenous," meaning that growth must respond to economic factors such as those produced by unique economic and political systems or specific economic policies. Whatever a nation does to become more effective, it will also help it expand faster, and these aspects are also known to be its growth indicators or determinants. (Romer, 1994).

### **2.3.1 Theoretical Framework**

#### **Solow Growth Model**

The theoretical framework for this study is based on the Solow Growth Model, developed by Nobel Prize-winning economist Robert Solow. It was the first neoclassical growth model and was built on the Keynesian Harrod-Domar model. The Solow model is the basis of the current theory of economic development. The Solow Growth Model is an economic development model that analyses changes in the level of production in the economy overtime due to changes in the population growth rate, the rate of savings and the pace of technical advancement. The Solow model believes that a continuous rise in capital spending raises the rate of growth only briefly when the ratio of capital to labour increases. However the marginal product of additional capital

units will decline and therefore the economy returns to a long-term growth path, with real GDP rising at the same pace as labour force growth plus a factor representing increased productivity. Neo-classical economists believe that to raise the trend rate of growth requires an increase in the labour supply plus a higher level of productivity of labour and capital.

Solor builds his model around the following assumptions:

1. One composite product is created.
2. Output is viewed as net yield subsequent to offering leeway for the deterioration of capital.
3. There are steady re-visitations of scale. As such, the creation work is homogenous of the primary degree.
4. The two components of creation, work and capital are paid by their minor actual productivities.
5. Prices and wages are adaptable.
6. There is never-ending full work of work.
7. There is additionally full work of the accessible load of capital.
8. Labour and capital are substitutable for one another.
9. There is unbiased specialized advancement.
10. The sparing proportion is consistent.

## **2.4 Empirical Review**

This segment deals with the study of previous empiric studies undertaken by Nigerian and international academics. The essence is to help me to recognise weaknesses in research designs, analytical techniques and research outcomes as it applies to the present study in order to be consistent with the aims set out in this study to be accomplished. Economic growth raises national wages, GDP and decreases unemployment. Over the past few decades, the interaction between economic growth and macroeconomic factors has become a crucial topic for researchers.

Uwakaeme (2015) in his research on Economic Development in Nigeria: Empirical Investigation of Determinants and Causal Links (1980 – 2012) followed a quantitative method by performing Johansen Co-integration and Granger Causality tests for the period 1980 to 2012 for the

interpretation of the data collected. The findings revealed that there is a strong and important long-term association between economic growth (GDP) and some chosen economic growth metrics, including foreign direct investment, the productivity index (industrial) and stock market capitalisation, which have demonstrated that they are the key determinants of growth. Others (inflation and excessive government fiscal deficit) have a strong negative association with economic growth, which means that they are restricting the growth of the economy. This is the directions of causality between economic growth and the selected determinants were established to be mixed – unidirectional, bilateral and independent.

Hussain et al (2016) analyzed the effect of macro-economic factors on GDP: facts from Pakistan. The macroeconomic indicators used were inflation, the actual exchange rate and the interest rate. For the period 1980 to 2011, thirty-two years of time series data were collected from the websites of the State Bank of Pakistan and the World Bank. Multiple regression analysis and descriptive statistics were implemented for their data analysis. The study showed that inflation rate, interest rate and exchange rate had a major influence on GDP. The inflation rate and the interest rate had a negative impact on GDP, while the exchange rate had a positive effect on GDP. Data and review indicated that the government should follow a tight monetary policy due to inflation, as the results indicate that inflation has a major but negative impact on GDP.

Ogunmuyiwa and Ekone (2010) investigated the impact of money supply on economic growth in Nigeria using annual data from 1980 to 2006. Applying Econometric technique (Ordinary Least Squares (OLS), Granger Causality test and Error correction Model), the results revealed that although money supply is positively related to growth, the result is however insignificant in the case of GDP growth rates on the choice between contractionary and expansionary money supply. Related studies in Nigeria that find a promising association between money supply and economic development include: Ojo (1993); Odedokun (1996); Okedokun (1998); Owoye and Onafowora (2007); and Saidu (2007).

Adeku (2003) analyzed the influence of exchange rate volatility on gross domestic product [-p in Nigeria using the Exponential Generalized Autoregressive Conditional Heteroscedasticity (EGARCH) methodology to determine the relationship between exchange rate volatility and GDP growth rate in Senegal using time series data from 1990 to 2000. The study suggested that there is

a negative relationship between exchange rate volatility and GDP, i.e. local currency depreciation leads to long-term GDP growth.

Kamo (2012) observed that interest rates had an insignificant correlation with economic development in Nigeria using the OLS regression methodology for data analysis. Data were obtained from 1987 to 2009. On the other hand, Babalola, Oladepo, Danladi, Akomolade and Ajiboye (2015) found that inflation and interest rates had a negative impact on economic development by using 1981-2014 as the sample period with data gathered from the Central Bank of Nigeria.

Olusegun (2011) looked at the global financial crisis and how the macroeconomic trends impact Nigeria's economy, the analysis used data from 1969-2009, the study concentrated on money supply, public spending, exchange rate, inflation and lending rate as a macro-economic dynamic, while actual gross domestic product was used as a surrogate for countries' financial crises, and Olusegun (2011) used vector auto regression. The study advises that there is a need to encourage and provide incentives for private individuals and organizations in the region, which will help to fuel investment that will eventually lead to growth.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Preamble**

This chapter concerns the architecture as well as the procedures for carrying out this report. The following methods are followed: study design, data sources, data collection process and data processing method. Methodology defines the methods to be adopted to accomplish the goals and aims of the study (Ogolo, 2012). Accordingly, this chapter details the tool and technique used for this study. It addresses test architecture, study location, study population, sample size and sampling

methodology, data collection source, data collection instrument, data analysis system and model specification.

### **3.2 Research Design**

The research design implemented for this thesis is the time-serial Ex-post Facto design and empirical research style. Ex post facto was introduced in the study as it permitted the matching of data to any dependent variable with attributes that already exist. In doing so, reports from the Central Bank of Nigeria (CBN) statistical bulletin, the National Bureau of Statistics website, the World Bank website, the World Bank's performance predictor database, textbooks, magazines, seminar papers and the Internet, among others, were used as means of knowledge search and data classification where appropriate.

### **3.3 Sources of Data.**

Only secondary data will be derived from this analysis. Data would be collected from the Central Bank of Nigeria (CBN) statistical bulletin, the National Bureau of Statistics website, the World Bank website, the World Bank's performance measure index, textbooks, magazines, seminar articles and the internet, among others.

### **3.4 Method of Data Collection**

Secondary methods are the process by which data is obtained and sampled to promote this analysis. Primary data used for literature is extracted from journal articles published and unpublished journals, internet tools, textbooks, and library searches. A selection of observations from the annual time series covering the period 2000 to 2018 has been used. Most of the series is taken from the Central Bank of Nigeria (CBN) statistical bulletin, the National Bureau of Statistics website, the World Bank website, and the World Bank's performance predictor index. The following data will be collected: interest rate, inflation rate, exchange rate, GDP.

### **3.5 Method of Data Analysis**

The researcher used the Statistical Package for Social Sciences (SPSS) to analyze the data to produce a multiple regression analysis. Multiple regression analysis was used to evaluate the relationship between independent variables and dependent variables.

### 3.6 Model Specifications

The data obtained in this study will be analyzed using multiple regression analysis as the key statistical method of the study. The descriptive equation to be used in this analysis for the situation of four independent variables is as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon.$$

Where  $X_1$ ,  $X_2$ ,  $X_3$  are independent variables that will represent macro-economic variables, and  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$  are variability coefficients generated between independent variables and corresponding dependent variables. It should be noted that these coefficients are statistics which estimate the population regression parameters. Multiple regression involves a doubling of dependent and independent variables at intervals. It also implies that the underlying relationship is linear, while data transformations can solve this problem. Finally, the sample size must be large enough to allow a number of measurements per independent variable. The larger the sample size, the more independent the variables.

$Y$  = Dependent Variable representing GDP

Where  $\beta_0$  = the intercept.

$\beta_1$  = coefficient of variability that will depict the relationship between  $X_1$  and  $Y$ . It may be positive or negative

$X_1$  = independent variable representing Lending rate.

$\beta_2$  = coefficient of variability which will depict the relationship between  $X_2$  and  $Y$ . It may be positive or negative.

$X_2$  = inflation rate.

$\beta_3$  = coefficient of variability which will depict the relationship between  $X_3$  and  $Y$ . It may be positive or negative.

$X_3$  = Independent variable representing exchange rate

$B_4$  = coefficient of variability which will depict the relationship between  $X_4$  and  $Y$ . It may be positive or negative.

$\varepsilon$ = error term signifying other variable not captured in the study

## CHAPTER 4

### DATA ANALYSIS, RESULT AND DISCUSSION ON FINDINGS

#### 4.1 Preamble

**Model summary table** provides the R and R<sup>2</sup> values. The R value represents the simple correlation, while R<sup>2</sup> indicates how much of the total variation in the dependent variable can be explained by the independent variables.

The next table is the **ANOVA table**, which reports how well the regression equation fits the data (i.e. predicts the dependent variable). This table indicates that the regression model predicts the dependent variable significantly well. The value of the regression row with its significance indicates the statistical significance of the regression run. Where the p value is less than 0.05, it indicates that, overall, the regression model significantly predicts the outcome variable (i.e., it is a



good fit for the data), otherwise if it is more than 0.05, it indicates that overall, the regression does not significantly predicts the outcome variable.

The **coefficients table** provides the necessary information to predict the dependent variable from the independent variable, as well as determine whether the independent variable contributes statistically significantly to the model. The values in the ‘unstandardized coefficients’ is made use of.

With a **multiple regression**, the R represents the multiple correlation coefficients, and it is one measure of the quality of the prediction of the dependent variable. The R<sup>2</sup> also called the coefficient of determination represents the proportion of variance in the dependent variable that can be explained by the independent variables.

The F- ratio in the **ANOVA table** tests whether the overall regression model is a good fit for data. The table shows how the independent variables statistically significantly predict the dependent variables. If the F-statistics value showed a p-value that is less than 0.05, the regression is a good fit of the data; otherwise if the p-value is more than 0.05, then it is not statistically significant to predict the data and not a good fit of the data.

The **unstandardized coefficients** indicate how much the dependent variable varies with an independent variable when all other independent variables are held constant

## 4.2 Results

### Hypothesis One

#### Relationship of inflation rate and economic growth in Nigeria

**Table 4.1 (a): Model Summary**

| Model | R                 | R Square | Adjusted Square | R | Std. Error of the Estimate |
|-------|-------------------|----------|-----------------|---|----------------------------|
| 1     | .086 <sup>a</sup> | .007     | -.051           |   | .94850                     |

a. Predictors: (Constant), Inflation rate

**Table 4.1 (b): ANOVA<sup>a</sup>**

| Model |            | Sum of Squares | df | Mean Square | F    | Sig.              |
|-------|------------|----------------|----|-------------|------|-------------------|
| 1     | Regression | .115           | 1  | .115        | .128 | .725 <sup>b</sup> |
|       | Residual   | 15.294         | 17 | .900        |      |                   |
|       | Total      | 15.409         | 18 |             |      |                   |

a. Dependent Variable: lnGDP

b. Predictors: (Constant), Inflation rate

**Table 4.1 (c) :Coefficients<sup>a</sup>**

| Model |                | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. |
|-------|----------------|-----------------------------|------------|---------------------------|--------|------|
|       |                | B                           | Std. Error | Beta                      |        |      |
| 1     | (Constant)     | 31.523                      | .711       |                           | 44.316 | .000 |
|       | Inflation rate | -.020                       | .055       | -.086                     | -.357  | .725 |

a. Dependent Variable: lnGDP

From the regression tables above (Tables 4.1a-4.1c), the model summary result indicated that there is a negative but weak correlation between inflation and Gross Domestic Product (GDP), proxy for economic growth. This is reflected on the value of the co-efficient of the correlation (R) which is 0.086. This value indicates that the strength of the relationship between the two variables under study is about 8.6% while holding other independent variables constant. The co-efficient of determination ( $R^2$ ) showed a value of 0.007 which indicates about 0.07%. This result implies that on the average about 0.07% variations in economic growth within the period under review is systematically explained by changes in inflation rate. Thus, not more than 99.30% variations in the gross domestic product remain unexplained by this explanatory variable. The coefficient value is -0.020 with a corresponding p value of 0.725. This is greater than the 0.05 (5%) significance level. This depicts a statistically no significant relationship between inflation and economic growth. We therefore accept the null hypothesis of no significant impact and reject the alternate hypothesis of significant impact.

## Hypothesis Two

### Relationship between exchange rate and economic growth in Nigeria

**Table 4.2 (a) : Model Summary**

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1     | .726 <sup>a</sup> | .527     | .499              | .65501                     |

a. Predictors: (Constant), Exchange Rate

**Table 4.2 (b) : ANOVA<sup>a</sup>**

| Model |            | Sum of Squares | df | Mean Square | F      | Sig.              |
|-------|------------|----------------|----|-------------|--------|-------------------|
| 1     | Regression | 8.115          | 1  | 8.115       | 18.915 | .000 <sup>b</sup> |
|       | Residual   | 7.294          | 17 | .429        |        |                   |
|       | Total      | 15.409         | 18 |             |        |                   |

a. Dependent Variable: lnGDP

b. Predictors: (Constant), Exchange Rate

**Table 4.2 (c) : Coefficients<sup>a</sup>**

| Model |               | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. |
|-------|---------------|-----------------------------|------------|---------------------------|--------|------|
|       |               | B                           | Std. Error | Beta                      |        |      |
| 1     | (Constant)    | 29.563                      | .423       |                           | 69.945 | .000 |
|       | Exchange Rate | .010                        | .002       | .726                      | 4.349  | .000 |

a. Dependent Variable: lnGDP

From the regression tables above (Tables 4.2a-4.2c), the model summary result indicated that there is a positive and strong correlation between exchange rate and Gross Domestic Product (GDP), proxy for economic growth. This is reflected on the value of the co-efficient of the correlation (R) which is 0.726. This value indicates that the strength of the relationship between the two variables under study is about 72.6% while holding other independent variables constant. The co-efficient of determination ( $R^2$ ) showed a value of 0.527 which indicates about 52.7%. This result implies that on the average about 52.7% variations in economic growth within the period under review is systematically explained by changes in exchange rate. Thus, not more than 47.30% variations in the gross domestic product remain unexplained by this explanatory variable. The coefficient value is 0.010 with a corresponding p value of 0.000. This is less than the 0.05 (5%) significance level. This depicts a statistically significant relationship between inflation and economic growth. We therefore reject the null hypothesis of no significant impact and accept the alternate hypothesis of significant impact and relationship.

### Hypothesis Three

#### Relationship between lending rate and economic growth

**Table 4.3 ( a ) : Model Summary**

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1     | .462 <sup>a</sup> | .214     | .167              | .84427                     |

a. Predictors: (Constant), Lending Rate

**Table 4.3 ( b ) : ANOVA<sup>a</sup>**

| Model |            | Sum of Squares | df | Mean Square | F     | Sig.              |
|-------|------------|----------------|----|-------------|-------|-------------------|
| 1     | Regression | 3.291          | 1  | 3.291       | 4.617 | .046 <sup>b</sup> |
|       | Residual   | 12.118         | 17 | .713        |       |                   |
|       | Total      | 15.409         | 18 |             |       |                   |

a. Dependent Variable: lnGDP

b. Predictors: (Constant), Lending Rate

**Table 4.3 ( c ) : Coefficients<sup>a</sup>**

| Model |              | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. |
|-------|--------------|-----------------------------|------------|---------------------------|--------|------|
|       |              | B                           | Std. Error | Beta                      |        |      |
| 1     | (Constant)   | 28.769                      | 1.185      |                           | 24.284 | .000 |
|       | Lending Rate | .106                        | .049       | .462                      | 2.149  | .046 |

a. Dependent Variable: lnGDP

From the regression tables above (Tables 4.3a-4.3c), the model summary result indicated that there is a positive but moderate correlation between lending rate and Gross Domestic Product (GDP), proxy for economic growth. This is reflected on the value of the co-efficient of the correlation (R) which is 0.462. This value indicates that the strength of the relationship between the two variables under study is about 8.6% while holding other independent variables constant. The co-efficient of determination ( $R^2$ ) showed a value of 0.214 which indicates about 21.4%. This result implies that on the average about 21.4% variations in economic growth within the period under review is systematically explained by changes in lending rate. Thus, not more than 78.6% variations in the gross domestic product remain unexplained by this explanatory variable. The coefficient value is 0.106 with a corresponding p value of 0.046. This is less than the 0.05 (5%) significance level. This depicts a statistically significant relationship between lending rate and economic growth. We therefore reject the null hypothesis of no significant impact and accept the alternate hypothesis of significant relationship and impact.

#### Hypothesis 4

#### Relationship between money supply and economic growth

**Table 4.4( a) : Model Summary**

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1     | .993 <sup>a</sup> | .987     | .986              | .10990                     |

a. Predictors: (Constant), lnMS

**Table 4.4 (b) : ANOVA<sup>a</sup>**

| Model |            | Sum of Squares | df | Mean Square | F        | Sig.              |
|-------|------------|----------------|----|-------------|----------|-------------------|
| 1     | Regression | 15.204         | 1  | 15.204      | 1258.714 | .000 <sup>b</sup> |
|       | Residual   | .205           | 17 | .012        |          |                   |
|       | Total      | 15.409         | 18 |             |          |                   |

a. Dependent Variable: lnGDP

b. Predictors: (Constant), lnMS

**Table 4.4 (c) : Coefficients<sup>a</sup>**

| Model |            | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. |
|-------|------------|-----------------------------|------------|---------------------------|--------|------|
|       |            | B                           | Std. Error | Beta                      |        |      |
| 1     | (Constant) | 6.492                       | .699       |                           | 9.286  | .000 |
|       | lnMS       | .840                        | .024       | .993                      | 35.478 | .000 |

a. Dependent Variable: lnGDP

From the regression tables above (Tables 4.4a-4.4c), the model summary result indicated that there is a positive and high correlation between money supply and Gross Domestic Product (GDP), proxy for economic growth. This is reflected on the value of the co-efficient of the correlation (R) which is 0.993. This value indicates that the strength of the relationship between the two variables under study is about 99.3% while holding other independent variables constant. The co-efficient of determination ( $R^2$ ) showed a value of 0.987 which indicates about 98.7%. This result implies that on the average about 98.7% variations in economic growth within the period under review is systematically explained by changes in money supply. Thus, not more than 1.3% variations in the gross domestic product remain unexplained by this explanatory variable. The coefficient value is 0.840 with a corresponding p value of 0.000. This is less than the 0.05 (5%) significance level. This depicts a statistically significant relationship between money supply and economic growth. We therefore reject the null hypothesis of no significant impact and accept the alternate hypothesis of significant relationship and impact

### Overall Multiple Regression

Relationship between inflation rates, exchange rate, lending rate, money supply and economic growth in Nigeria

**Table 4.5 (a): Model Summary**

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1     | .994 <sup>a</sup> | .989     | .985              | .11164                     |

a. Predictors: (Constant), lnMS, Inflation rate, Lending Rate, Exchange Rate

**Table 4.5 (b): ANOVA<sup>a</sup>**

| Model | Sum of Squares | df | Mean Square | F | Sig. |
|-------|----------------|----|-------------|---|------|
|       |                |    |             |   |      |

|   |            |        |    |       |         |                   |
|---|------------|--------|----|-------|---------|-------------------|
| 1 | Regression | 15.234 | 4  | 3.809 | 305.589 | .000 <sup>b</sup> |
|   | Residual   | .174   | 14 | .012  |         |                   |
|   | Total      | 15.409 | 18 |       |         |                   |

a. Dependent Variable: lnGDP

b. Predictors: (Constant), lnMS, Inflation rate, Lending Rate, Exchange Rate

**Table 4. 5 ( c ): Coefficients<sup>a</sup>**

| Model |                | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. |
|-------|----------------|-----------------------------|------------|---------------------------|--------|------|
|       |                | B                           | Std. Error | Beta                      |        |      |
| 1     | (Constant)     | 7.754                       | 1.132      |                           | 6.850  | .000 |
|       | Inflation rate | -.010                       | .007       | -.044                     | -1.369 | .193 |
|       | Exchange Rate  | .001                        | .001       | .079                      | 1.277  | .222 |
|       | Lending Rate   | -.006                       | .010       | -.027                     | -.600  | .558 |
|       | lnMS           | .800                        | .038       | .946                      | 20.894 | .000 |

a. Dependent Variable: lnGDP

From the regression tables above (Tables 4.5a-4.c), the model summary showed the multiple regression and the interaction of the dependent variable (economic growth) and the independent variables together. It indicated that there is a positive and high correlation between these independent variables and Gross Domestic Product (GDP), proxy for economic growth. This is reflected on the value of the co-efficient of the correlation (R) which is 0.994. This value indicates that the strength of the relationship between the variables under study is about 99.4%. The coefficient of determination ( $R^2$ ) showed a value of 0.989 which indicates about 98.9%. This result implies that on the average about 98.9% variations in economic growth within the period under review is systematically explained by changes in the independent variables. Thus, not more than 1.1% variations in the gross domestic product remain unexplained by this explanatory variable. The overall F-statistics show how the independent variables statistically significantly predict the dependent variable. If the F-statistics value showed a p-value that is less than 0.05, the regression is a good fit of the data; otherwise if the p-value is more than 0.05, then it is not statistically

significant to predict the data and not a good fit of the data. In table 4.5 (b), F-statistics (4,14) has a p-value of 0.000, depicting that the independent variables (inflation rates, exchange rate, lending rate and money supply) can statistically predict the dependent variable (economic growth).

The overall regression model therefore can be stated as:

$$\text{GDP} = 7.754 - 0.010 (\text{INFL}) + 0.001 (\text{EXCR}) - 0.006 (\text{LR}) + 0.800(\text{MS}) + \mu.$$

### **Discussion of Findings**

This portion of the report addressed the results of the calculation in accordance with the goals of the study.

The first goal is to assess if inflation has a direct association with economic development in Nigeria. This was done by lowering inflation against the GDP that Nigeria's output gave rise to. As a result, there is no noticeable association between inflation and gross domestic products. The findings are in agreement with Uwakaeme (2015), Hussain et al (2016) and Babalola, Oladepo, Danladi, Akomolade and Ajiboye (2015) which concluded that there is no significant relationship between inflation and growth in Nigeria, but contrary to the Olusegun (2011) report.



The second objective Success of the relationship between the foreign exchange market and the Nigerian economy was accomplished by a fall in foreign exchange and by Nigeria's GDP. Indicated that there is a positive and clear link between the exchange rate and the Gross Domestic Product (GDP), which is a metric for economic growth. The results are in accordance with Olusegun (2011) and Hussain et al (2016). However, contrary to the Adeku (2003) report, which suggested that there is a negative association between exchange rate volatility and GDP.

The third objective Evaluate the relationship between lending rate and Nigerian economy. the model summary result indicated that there is a positive but moderate correlation between lending rate and Gross Domestic Product (GDP), proxy for economic growth. This is in line with Olusegun (2011). But contrary to Babalola, Oladepo, Danladi, Akomolade and Ajiboye (2015).

Finally, the fourth goal Describe the relationship between money supply and the Nigerian economy. This study found that there is a positive and high correlation between money supply and the Gross Domestic Product (GDP), a metric for economic growth. The results are consistent with Ogunmuyiwa and Ekone (2010), Ojo (1993), Odedokun (1996), Okedokun (1998), Owoye and Onafowora (2007), and Saidu (2007). But in opposition to Olusegun (2011)

## **CHAPTER 5**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Summary of the Study**

This study examined the effect of macroeconomic variables on the performance of Nigeria's economy. Previous study and literatures were examined and treated in relation to this study. And different methodologies, the geographical settings under which the studies were carried out, the period under study, the nature of data and its sources used by different authors were put in to consideration in order to achieve the scope of this study.

This study consists of five chapters. The first chapter started off by diving into the background of the study, pronounced the problem of the study, likewise the delimited objectives of the study, research questions and hypothesis on which the analysis was to be conducted. Chapter one also foregrounded the justification and significance of this research and as well described its scope. Terminologies important to the research were defined according to their contextual use in the study. Concisely, the chapter one served as the introduction to the study.

The chapter two addresses the important phases of the study. The conceptual review emphasizes were in relation to macroeconomic variables and variables that measure economic development, this variables include inflation, exchange rate, interest rate, gross domestic product (GDP). The theoretical review adopted three hypotheses related to macroeconomic factors and economic growth. The theories of macroeconomic thoughts which are the classical and Keynesian theories serves as the most appropriate in this study but the theory of endogenous growth will be used as a wrap-up for the theoretical examination. The findings and recommendations of each theory was started.

Chapter three presented the methodology for the study. The chapter basically discussed the research design, area and the population of the study. It provided information about the source of data which is secondary data and how it was derived and disclosed. An appropriate sample size was determined using purposive simple random sampling technique. Method of data collection and model specification were explained. Moreover, the appropriate functional relationship, as well as the associated model, techniques for the evaluation of the model coefficient were represented.

In chapter four, the data were analyzed. This section of the study gives the summary of the data and its interpretation as well as the findings and their implications.

## **5.2 Conclusion**

My attempt to examine the effect of selected macroeconomic variables on performance of Nigeria economy, gross domestic product was used as a unit of measuring the performance of Nigeria which serves as the independent variable in the models implemented in this research work. The selected macroeconomics variables used were also the independent variables they are, inflation and exchange rate, and lending rate.

The main objective of this research is to know the effect of selected macroeconomic variables on performance of Nigeria's economy.

### **5.3 Recommendations**

i. The government of Nigeria should keep up a stable political landscape to encourage an important improvement in financial development and economic growth.

ii. The government of Nigeria ought to intercede in monetary business sectors by lessening and additionally controlling loan costs on the grounds that extremely high financing costs are impeding to both venture and development.

iii. The government should also maintain a favorable exchange rate in order to promote export competitiveness.

iv. Private and public speculation work hand – in – hand in improving financial development. In this manner, the public authority is urged to zero in on setting up essential public framework, for example, street organizations, power and correspondence organizations, since these have been demonstrated to be reciprocal to private speculation.

v. Per capita income grows when aggregate national income grows faster than population. Therefore, the federal government of Nigeria ought to expand its infrastructure base in order to

iv. Private and public speculation work hand – in – hand in improving financial development. In this manner, the public authority is urged to zero in on setting up essential public framework, for example, street organizations, power and correspondence organizations, since these have been demonstrated to be reciprocal to private speculation.

### **5.4 Areas for further study**

This examination work zeroed in on the impact of chosen macroeconomic factors on execution of Nigeria's economy. With detail of inflation, lending rate and exchange rate on the GDP. In this manner, I propose that further investigations ought to be completed on other macroeconomic factors and critical impact on the monetary development. With that way, administrative specialists

will proffer answers for improve the one with less effect on the monetary development of the nation.

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## **Appendix**

| YEAR | GROSS DOMESTIC PRODUCT (GDP) | INFLATION RATE(INFL) | EXCHANGE RATE (EXCR) | LENDING RATE (LR) | MONEY SUPPLY (MS) | lnGDP | lnMS  |
|------|------------------------------|----------------------|----------------------|-------------------|-------------------|-------|-------|
| 2000 | 6897482480970.59             | 6.5                  | 106.71               | 21.55             | 878457274716.44   | 29.56 | 27.5  |
| 2001 | 8134141808205.78             | 18.9                 | 112.99               | 21.34             | 1269321612208.65  | 29.73 | 27.87 |
| 2002 | 11332252815560.30            | 12.9                 | 126.88               | 30.19             | 1505963500000.00  | 30.06 | 28.04 |
| 2003 | 13301558863221.80            | 14                   | 137.22               | 22.88             | 1952921192750.00  | 30.22 | 28.3  |
| 2004 | 17321295244331.10            | 15                   | 132.86               | 20.82             | 2131818981972.10  | 30.48 | 28.39 |
| 2005 | 22269977831018.60            | 17.9                 | 130.29               | 19.49             | 2637912724829.96  | 30.73 | 28.6  |
| 2006 | 28662468773837.60            | 8.2                  | 128.29               | 18.7              | 3797908976069.45  | 30.99 | 28.97 |
| 2007 | 32995384349769.30            | 5.4                  | 118.21               | 18.36             | 5127400705127.23  | 31.13 | 29.27 |
| 2008 | 39157884386237.20            | 11.6                 | 126.48               | 18.7              | 8008203949921.95  | 31.3  | 29.71 |
| 2009 | 44285560502235.90            | 16.2                 | 149.69               | 22.62             | 9411112184741.25  | 31.42 | 29.87 |
| 2010 | 54612264176577.90            | 13.7                 | 150.48               | 22.51             | 11034940929925.80 | 31.63 | 30.03 |
| 2011 | 62980397224984.50            | 10.3                 | 158.21               | 22.42             | 12172490283100.20 | 31.77 | 30.13 |
| 2012 | 71713935062171.60            | 12                   | 157.32               | 23.79             | 13893215267110.50 | 31.9  | 30.26 |
| 2013 | 80092563380126.10            | 8                    | 157.27               | 24.69             | 15154637566847.10 | 32.01 | 30.35 |
| 2014 | 89043615256190.20            | 8                    | 169.68               | 25.74             | 16238521924859.50 | 32.12 | 30.42 |
| 2015 | 94144960452469.50            | 9.55                 | 196.99               | 26.71             | 18525215271353.60 | 32.18 | 30.55 |
| 2016 | 101489492201968.00           | 18.55                | 305.22               | 27.29             | 21624631652143.60 | 32.25 | 30.7  |
| 2017 | 113711634607831.00           | 15.37                | 306.31               | 30.68             | 22363431795111.60 | 32.36 | 30.74 |
| 2018 | 127762545584658.00           | 12.22                | 306.92               | 31.09             | 25079720983152.60 | 32.48 | 30.85 |