IMPACT OF MONETARY POLICY ON THE GROWTH OF SMALL AND MEDIUM SCALE ENTERPRISES IN NIGERIA

BY

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BEING A PROJECT SUBMITTED TO THE DEPARTMENT OF ECONOMICS, FACULTY OF SOCIAL SCIENCES, UNIVERSITY OF BENIN, BENIN-CITY. IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR AWARD OF BACHELOR OF SCIENCE DEGREE (B.Sc) IN ECONOMICS.

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CERTIFICATION

We the undersigned persons certify that this research carried out by **ABBE ITOHAN SUSAN** with matriculation number **SSC1608022** in the department of Economics, Faculty of Social Sciences, University of Benin, Benin- City is approved and therefore considered adequate in scope and content for the partial fulfillment of the requirement for the award of Bachelor of Science (B.Sc) Degree in Economics

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DEDICATION

This study is dedicated to God Almighty, my source of inspiration, wisdom, knowledge and understanding. He has been the source of my strength throughout this program and on His wings only have I soared.

I also dedicate this work to my late father, Hon. Dr. Patrick Abbe, my dearest FUZZY. Daddy, I made it and I believe I have made you proud.

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ABSTRACT

This study investigated the impact of monetary policy on the growth of small and medium scale enterprises (SMEs) in Nigeria, with a focus on determining the dynamic responses of each policy on SMEs growth in Nigeria. The model employed in this study is the Autoregressive Distributed lag model (ARDL model) due to the distinction in order of integration. The time frame for this study spanned between the years 1981-2019.

The study found that money supply has a positive and significant impact on growth of SMEs at the 5% level of significance, as well as inflation and interest having a negative but significant impact while exchange plays out not to be a significant factor determining the growth of SMEs. The implication is that the interplay of these variables is important to keep SMEs alive in Nigeria. In response to the dynamics of domestic and global economic events, the policy suggestion is that monetary policy should be designed in such a way that the goal it seeks to attain is clearly and transparently specified.

Also, there is a need for a consistent monetary policy framework that should bring about a realistic exchange rate with emphasis on its role to directly promote output and productivity of the SMEs. Exchange rate measures should be considered as a long-term solution to the problem of rising foreign products demand.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The existence of Small and Medium Scale Enterprises (SMEs) is pivotal in driving innovative and technological processes, which stimulates the economy for growth and development. SMEs are found in a variety of industries, including manufacturing, agriculture, financial services, and information and communication technology (ICT).

Studies on SMEs in developing countries have shown that countries with a large proportion of SMEs have higher economic development than their counterparts, according to the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) (2016). Actually, it is proposed that one of the most significant way of a prospering and growing economy is a flourishing MSMEs sector. SMEs in this way, assumes a crucial part of a country's economic development in the areas of work creation for rural and urban growing labor force, giving alluring maintainability and advancement in the economy in general. Notwithstanding, a large number of individuals either directly or indirectly depend on the existence of SMEs. The majority of the current bigger Nigerian businesses and foreign countries have their birthplaces in SMEs. Following the (CBN Act 2007), Nigeria's Central Bank (CBN) is saddled with the duty of controlling the country's stock of money so as to advance social welfare and government assistance. This role is tied down on the utilization of monetary policy with the essential objective of keeping up stable prices or low and stable inflation. This is critical since exchange rate variations have been shown to have a considerable impact on macroeconomic variables such as interest rates, prices, wages, unemployment, and output levels (Chinweuba & Sunday, 2015). However, the importance of a successful financial strategy system cannot be overemphasized as

it assumes a major role in the growth and development of any country through the intermediation between the economy's surplus and deficit sections (Duru and Kehinde, 2012). Imoughele and Ismaila (2015) asserted that financial institutions make funds accessible for businesses which is a necessity for expansion and survival of SMEs, whether in developed or developing economies. The objective of inflation and exchange rates balancing in Nigeria is to give the local industries a chance to develop into considerable force that can translate into economic growth. This can be possible if they have access to finance that would enable them to extend their businesses by setting out on gainful ventures, for example, securing the most recent machines and boosting their profitability.

Recognizing the role monetary policy can play in accomplishing these lofty objectives, the monetary authorities in Nigeria have initiated several policies, for example, the reduction in cost of borrowing to lessen inflation and guaranteeing a stable exchange rate (Precious and Makhetha-Kosi,2014). Economic laws express that vacillations in the exchange rate, whenever left unchecked, may result in a macroeconomic distortion that could prompt real exchange rate devaluation. Price and financial stability according to (Bernanke and Gertler,1999) are regarded as commonly related monetary policy objectives and to this end, Kalu (2017) contends that the sort of monetary policies set up by the CBN are significant for the general well-being of economy, particularly as regards SMEs.Monetary policy, according to Folawewo and Osinubi (2006), is a set of measures aimed at directing the value, supply, and cost of money in an economy in accordance with predicted economic activities. Anyways, much consideration is not always given to the effects of SMEs when formulating monetary policies in most developing economies, particularly in their capacity to raise the required funds for their businesses, the strength and consistency of prices and consequently their competitiveness in the present global marketplace. Although there had been agreement amongst writers that SMEs are the engine of growth of most

economies, be they developed or developing (Udechukwu, 2013).

In spite of these indispensable roles played by SMEs, the annual report given by the OECD Scoreboard (2017) on Financing SMEs and Entrepreneurs, reported that one of the most persistent challenges is gaining access to capital and this continues to be the biggest difficulties for the creation, development and survival of SMEs, particularly innovative ones. Adelaja (2003) noticed that SMEs lack intense capital formation and are more financially constrained than huge firms in sourcing for credit from formal credit institutions like banks. In addition, Pearce, Antony, Dirk &, Thomas (2018) retorted that regardless of the increasing enthusiasm for the SMEs sector, loaning volume is as yet not amazing. Nigeria's Central Bank (CBN) (2005) saw that banks have been encountering total credit growth in the domestic economy, yet the proportion of advance stock to SMEs has continued to diminish over the years. One of the fundamental roles of the monetary authorities is to encourage the flow of funds to the deficit economic units.

In Nigeria, there is a dearth of study into monetary policy and its impact on SMEs. As a result, the goal of this study is to use empirical analysis to these concerns in order to determine the impact of monetary policy on the growth of SMEs in Nigeria. Previous research, such as Atarere (2016), looked at the impact of monetary policies on the growth of small and medium-sized businesses in Nigeria, but it was mostly hypothetical.

Nto, Mbanasor, and Osuala (2012) used Fully Modified Least Squares (FMOLS) to examine the impact of monetary policy determinants on banks' credit supply to small and medium-sized companies (SMEs) in Nigeria from 1995 to 2010. Suleyman (2014) investigated the effects of credit channels on the real sector (for SMEs in the manufacturing sector) in Turkey from 2003 to 2011, and Kalu (2017) dissected the data using the ECM tool of analysis to dissect the idea of the relationship between monetary policy and private sector credit in Nigeria.

Be that as it may, this research work fills the research gap by looking at monetary policy and

development of small and medium scale businesses in Nigeria from the year 1986 to 2019, analyzing monetary policy (interest rate, exchange rate and inflation) against rate of SMEs contributions to GDP in Nigeria.

1.2 Statement of the Problem

One of the fundamental roles of Nigeria's Central Bank (CBN)has been to regulate the stock of cash in circulation so as to achieve economic growth and price stability, and subsequently a favourable balance of payment. Throughout the years, the significant monetary policy objectives have been those of accomplishing price stability and external balance of trade. Thus, as indicated by Ajayi (1999), targeting inflation and managing the exchange rate have overwhelmed CBN's monetary policy based on the fact that these are basic tools of accomplishing macroeconomic stability. In doing this, the CBN utilizes monetary tools to practice severe control over the stock of cash in the economy, the rate of premium chargeable to borrowers of credit, among which are the small and medium scale business and the rate of exchange of the naira for businesses needing to import finished and unfinished items from different nations.

Nto, (2012) noticed that regardless of all the special strategies adopted by the CBN to instigate banks credit supply to SMEs, the result is always futile as confirmed by the reports of CBN (2010) that the cost of credit to SMEs nosedived from 48.8% in 1992 to 9.0%, 8.6% and 2.7% in 2000, 2002 and 2005 respectively. Different monetary policy theories set forward by the classical school of thoughts reported that monetary policy variables significantly influence the private sector of the economy. In spite of the fact that, the issue that interests numerous Nigerians relates to the small and medium scale enterprises since it has been recognized as the engine of growth, advancement and development of any economy. Hence, it is critical to ascertain if the monetary policies sought after by the nation have contributed to the growth of SMEs in Nigeria.

1.3 Objectives of the Study

The major goal of this research is to look at how monetary policy affects the growth of small and medium businesses in Nigeria. As a result, the precise objectives are as follows:

i. To see how the money supply affects the growth of SMEs in Nigeria.

ii. To assess the impact of the exchange rate on the growth of Nigerian SMEs.

iii. To see how the interest rate affects the growth of SMEs in Nigeria.

iv. To see how inflation affects the growth of SMEs in Nigeria.

1.4 Research Question

This study seeks to address the following research questions:

i. What impact does Nigeria's money supply have on the growth of SMEs?

ii. Is there a link between the exchange rate and the growth of SMEs in Nigeria?

iii. What impact does the interest rate have on SMEs in Nigeria?

iv. Is there a link between inflation and SMEs' growth in Nigeria?

1.5 Research Hypothesis

The following hypotheses will be tested in this study:

Ho_1: There is no significant effect between money supply and the growth of small and medium enterprises in Nigeria

Ho_2: There is no significant effect between exchange rate and the growth of small and medium enterprise in Nigeria.

Ho_3: There is no significant effect between interest rate and the growth of small and medium enterprises in Nigeria

Ho_4: There is no significant effect between inflation and the growth of small and medium enterprises in Nigeria.

1.6 Scope of the study

The scope of this analysis is limited to Nigerian monetary policy and small and medium firm growth from 1981 to 2019, a period of 39 years. This period is picked in light of the fact that it surveys the period of past and present government, since the nation is deviating from the endless reliance on crude oil and subsequently attempting to improve the level and growth of her SMEs in order to create numerous job opportunities within the period, and at long last attempting to eradicate unemployment that has hit the country particularly during this season of post-downturn.

1.7 Justification of the study

One of the primary issues facing emerging countries is using monetary policy to stabilize short-term oscillations in order to achieve long-term growth. This has been the fundamental cause of their incapacity to achieve long-term growth and development, exposing the economy to extreme instability, unemployment, financial crises, poor investment, indebtedness, and so on, in addition

to low capacity and infrastructural shortcomings (United Nations 2012).

Nigeria, being a resource-rich country, has enormous growth potential. Despite this, it has struggled to establish long-term growth free of economic insecurity. Policymakers in previous and current administrations have experimented with a variety of statewide, sectoral, regional, and issue-based strategies to achieve economic growth, such as selective lending for the agricultural sector, SMEs loans, and so on (The World Bank, 1994).

It is thought that a greater grasp of the economy's peculiarities would have made these strategies more effective. It is then critical to understand the growth-inhibiting variables and flaws in its policy instruments in order to devise growth-enhancing macroeconomic policies.

Furthermore, an investigation of monetary policies in Nigeria will provide us with the knowledge of their impacts on a developing nation. Additionally, the bottlenecks of these policies in developing countries will be revealed and improved upon. Thus, the weakness and strength of conventional monetary policies are determined and this instrument will be better enhanced. This can be achieved if there is sufficient knowledge on the effects of the tool on economic growth. This research will aid policymakers and researchers in developing alternative approaches to create stable and sustainable long-term growth while also shielding economies from short-term instability. Finally, we will be able to determine appropriate macroeconomic strategies against shocks originating from the real, external, or monetary sectors, in addition to adding to the repertoire of knowledge and serving as a motivator for additional research.

1.8 Limitation of the Study

The major challenge faced in this study was the difficulty in sourcing for accurate and reliable data. This study was able to surmount this problem by relying on published data from Central

Nigeria's Central Bank (CBN), National Bureau of Statistics (NBS) and World Development Indicators (WDI). Thus, data were obtained from CBN Annual Reports and Statement of Accounts, NBS and WDI's repository of information.

1.9 Organization of the Study

This study is divided into five (5) chapters. Chapter one contains the introduction of the study while Chapter two is the review of relevant literature, chapter three examines the research method adopted and specification of the appropriate models, while chapter four focuses on presentation and analysis of results. Chapter five summarizes the entire study and also brings out the conclusions and policy recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Conceptual Literature

2.1.1 Small Business Enterprise

In numerous regards, the significance and idea of small businesses can't be totally secluded from the operational environment. In this manner the observation and definition are profoundly subject to the specific economy given the nature of activity. In Nigeria, there is by all accounts no obvious definition or scope for identifying small business enterprises. Anyway, various definition and scope were made by certain agencies such as:

i. The National Directorate of Employment (NDE) defined it as the ability to accommodate projects with a capital expenditure of as little as #5,000 and as few as three people employed.

ii. The Central Bank of Nigeria defined small scale business in its monetary policy guidelines (2015) as an enterprise with an annual turnover of between #25,000 and#50,000, and the Federal Ministry of Industries (FMI) defined small scale business before the Structural Adjustment Programme (SAP) and the Foreign Exchange Market as any manufacturing, processing, or service industry with capital investment not more than #150,000 in plant and in machinery.

iii. According to the Nigerian Bank for Commerce and Industry (NBCI), a small scale enterprise is defined as a firm or company with assets (including working capital but excluding land) of less than N750,000 and paid employment of up to 50 people that is fully owned by Nigerians.

2.1.2 Types of Small Business

Almost certainly, the fate of economic success of Nigeria lies in the organizing and possible development of medium and small-scale enterprises. This circumstance has been affirmed by the Nigeria Institute of Social and Economic Research (NISER), The National Association of Small Scale Industry (NASSI), and Friedrich Ebert Foundation located in Germany. It is the presence of this sort of situation that has offered driving force to the development of some small-scale industries like the ones that constitute the objects of the investigation. According to Oshagbenius (1985), small scale industries include, weaving, carpentry work, pottery, ceramics production, crop farming, fish farming, piggery farming, poultry, wood and metal projects, brick and block manufacturing as well as a slew of others working under registered names and relying heavily on local raw supplies.

2.1.3 Source of Fund to Small Businesses

The following is a summary of the various credit sources available to small and medium-sized firms, among the multiple sources of cash available to small and medium-sized organizations.

i. Personal saving: To a newly established firm, personal savings of the founder constitute a primary source of equity capital. Many writers are in support of this view. Borrowing venture financing, according to Broom, is not just difficult but also dangerous. He believes that the owner should contribute two-thirds of the first savings.

ii. Commercial Banks – commercial banks are a primary source for debt capital. Although they tend to limit their lending to working capital needs of going concerns, some initial capital for business start-ups are gotten from this source. According to Nagaya (2017), the commercial bank

has considerably changed from just supplying capital for an interest income to a more acceptable socio- economic role. Undoubtedly, there has been an improvement in amount of loans to small businesses alongside the 20 percent loan required to be kept by the banks in their vault (proportion of deposits government requires that should be set aside for small scale business) are also given. Installment loans are one of them, and they have a limit on how much you can borrow. This type of loan is repaid monthly or quarterly as agreed, with a maximum duration of one year. There is also the option of obtaining an overdraft for up to two years. Regardless of the new interest in small businesses, their problem with the banks has not changed. Their greatest problem is to meet the requirements of the banks. The bank considers the mode and time of repayment of the principal amount plus the interest (Nalini, Alamelu & Motha, 2016). Many small businesses may not be in a position to start paying interest not to talk of the principal as and when due.

iii. Trade Credit- Credit provided by suppliers plays an important role especially to starting businesses. Trade credit tends to be a popular short-term funding source to the small firm. According to Baumback, this is a substantial source of working capital for small businesses, particularly in the retail sector. The quantity of credit available to a company is determined by the sort of business and the supplier's faith in the new company. They are more willing to extend credit than bankers. Competitions for sales volume force them to reach out for new small and financially weak customers by offering delayed payment. Even when such customers fail in the credit terms, the suppliers often hesitate to react for fear that they might lose a promising customer.

iv. Friends and Relatives - very often, funds from family and friends are used to supplement initial owner equity capital. This is usually characterized as poor business practice and, in many cases, based on erroneous assumptions may at times be necessary. This is with cognizance to the

fact that many businesses are family owned. It should be noted that family and business relationships as well as funds should not be mixed, if most desirable results are to be obtained. Loans from family and friends tend to create a highly personal relationship, such relationships may conflict with independence and business. It is possible that the loan repayment period will not be specified. Interest payment may be deferred too. But the problem in these associates may feel it a duty to offer advice and even insist that certain decisions be taken. These decisions may not be in harmony with the objectives of the proprietor. However, this problem can be easily avoided. A business loan should be seen as a business transaction and not a favor. In such cases, the inexperienced associate's advice can be easily rejected. Terms of the loan should be clearly defined and loans could be gotten from lending institutions instead of from friends and relatives.

v. Credit Unions – S. F. Arniel defined a credit union as "a group of people bound by some intangible bond of association, perhaps the bond of the same employer, the same religion, the same politics, the same profession, trade, hobby or the same type of misfortune," credit unions are cooperative that encourage saving and lending on attractive terms. Members can also get financial advice from them. A credit union's main goal is to instill thrift in its members. People join a credit union for a variety of reasons. One of these factors could be the lack of a banking institution. As a result, credit unions are an essential source of capital for small businesses, particularly in rural areas.

vi. Other Sources of Funds - In addition to the previously mentioned sources of money for initial capital, a significant proportion of small business owners still rely on local sources, such as "isusu" borrowings (a group of persons who agree to make contributions regularly). Members benefit from these contributions in turn. Some of the cash raised through the "isusu" are utilized to support small businesses.

2.1.4 The Role of Small-Scale Business in the Nigerian Economy's Development

Hardly can any major industry succeed in isolation of the services and contributions of small business enterprises. The relative strength of their importance and role vary from one industry to another. In fact, the importance of small businesses cannot be underestimated in any economy. First, the continued growth of any country's economy is highly dependent on the creation of SMEs. Even in a depressed economy, small businesses are a legal and viable element of any strategy to rebuild the economy. In addition, it has been emphasized that providing large-scale employment opportunities makes small businesses more likely to have a fair distribution of national income. By creating more jobs, it helps mobilize capital and talent that remain ineffective.

Uchendu (2006) maintained that some small businesses, no doubt, provide certain distinct services that in most cases may not be matched by the success of large businesses. Implicitly, even if SMEs are overburdened with a plethora of operations that they can only manage slightly, the role of small-scale enterprises in the development of the Nigerian economy has made it feasible for corporations to rely less on imported goods or resources. They frequently rely on locally manufactured machines and locally sourced raw materials as inputs. This claim is further supported by the fact that small enterprises lack of reliance on imported raw materials as inputs reduces demand for foreign raw materials, conserving the country's foreign exchange profits. The benefit of resolving payment problems as a result of reducing reliance on imported inputs is also worth mentioning. This has the added benefit of generating interest in the advertising of homemade goods.

2.1.5 Problems of Establishing Small Business Enterprise in Nigeria

Due to their unique character, small businesses face a slew of unique challenges that either directly or indirectly thwart their survival and growth. Most emerging countries are characterized by a lack of local entrepreneurial drive for industrial development. Limited capital and skilled labor resources, a lack of technological and managerial skills, and a lack of markets are all significant impediments to Nigeria's industrial development. Some of these disadvantages are mitigated by foreign aid partnership in large industrial establishments.

i. Inadequate Start-Up Funding: Obtaining early-stage funding is frequently the most challenging and expensive. At this stage, there are two forms of funding available: seed money and start-up capital. Seed capital is a tiny sum of money required to fund a feasibility study. Because venture capitalists are usually not interested at this level of investment, it is the most difficult to secure. While assessing if commercial sales are feasible requires start-up cash. It's also really difficult to get by. Without finances, no good company ideas can ever come to fruition.

ii. Lack of Land and Good Locations: Before establishing any small-scale enterprise, land must be acquired on which the factory or warehouse will be built. Land is rarely available in urban locations, and when it is, it is prohibitively expensive for the small-scale entrepreneur. Other critical facilities will be absent in rural areas, where land is likely to be accessible at a lower cost. A good location for our businesses is critical for their long-term survival, but it is tough to come by, and even when it is, the cost will be prohibitive for any small business owner.

.**iii. Poor Government Policies:** The Nigerian government has been unable to assist entrepreneurs in the small business creation process. Instead, one hateful policy or another has been used to make things difficult for young entrepreneurs. The government is only interested in generating income without realizing how it has hindered the creation of more small businesses in

Nigeria. Each new business still struggling to survive would have to pay between 5,000 and 20,000 N for business premises and many other permits. The company would also have to pay almost the same amount of money to the local government where it is located. All of this ultimately brings down the business.

iv. Insecurity of Lives and Property: Security issues are one of the most difficult aspects of starting a small business in Nigeria. This social threat affects even large-scale firms that can afford to hire security personnel. Any business that deals with high-value items is at risk. As a result, many potential investors chose to leave their money in banks or to use items to buy empty land for future resale rather than risk their money by starting a business.

v. Psychological Factors such as; Lack of Self Confidence, Lack of Creativity and fear of failure: Psychological factors is another factor that seriously hinders small business creation in Nigeria. While this was never seen as a problem, it has devoured young entrepreneurs deeply. Most people don't believe in themselves; they think they can't. They always expect others to take the lead, or nothing for them. They also lack the foresight to think ahead, they lack creativity. They always fear the business would fail, just like others who failed. They think that they cannot change the situation and so there is no point in trying to establish a business. They make money, but fear of the unknown prevents them from investing.

2.2 Meaning and Concept of Monetary Policy

Monetary policy is one of the most important economic management tools that governments use to influence economic performance. Monetary policy should overcome economic shocks more quickly (Adegbite and Alabi, 2013). Regarding the impact of monetary policy on private sector investments, Hanif, Muhammad Nadim, (2014) points out that the objectives of monetary policy

refer to the management of various monetary objectives, including price stability, the promotion of growth, full employment, the smoothing of the economic cycle, the prevention of financial crises, Stabilization of long-term interest rates and the real exchange rate. There are two main monetary policy controls used by central banks at any one time, and these controls are generally called monetary policy tools / instruments and have implications for short-term objectives. Monetary instruments can be direct or indirect. Direct instruments include aggregate credit limits, deposit cap, exchange control, restrictions on the placement of public deposits, special deposits and stabilization papers, while indirect instruments include Open Market Operation (OMO), reserve requirement of cash, liquidity ratio, minimum discount rate and selective loan policy. Monetary policy plays a decisive role in the short term, that is, it serves to stabilize countercyclical production, while in the long term it serves to achieve the macroeconomic goals of full employment, price stability, rapid economic growth and balance of the balance. of payments. (Imoughele and Ismaila, 2014) Direct instruments operate by setting or limiting prices (interest rates) or amounts (outstanding loan amounts) through regulations, while indirect instruments operate through the market, mainly adjusting demand and supply. underlying bank reserves. (Danjuma, Jbrin & Blessing, 2012) The central bank can use indirect instruments to determine the supply of reserve money. Strictly speaking, the central bank can only determine the supply of long-term reserve money under a completely flexible exchange rate regime. But even under a coupled or controlled exchange rate regime, central bank transactions have at least a short-term effect on reserve funds. These transactions affect banks' liquidity positions, leading to adjustments in interbank, money market, and bank loan and deposit rates to rebalance the demand for and supply of reserves. The Central Bank of Nigeria (2016) defines monetary policy as "the specific measures it takes to regulate the value, supply and cost of money in the economy in order to achieve predetermined macroeconomic objectives". Therefore, to achieve specific economic goals, the CBN begins with the control of money. Classify money into limited money (M1) and broad

money (M2). M1 consists of the currency in circulation among the non-banking public; and demand deposits (checking accounts in banks). This category of money represents money that is used for daily transactions and short-term money needs. M2 (money in the broad sense) consists of small deposits of money and savings, as well as fixed deposits (that is, demand deposits). It also includes deposits denominated in foreign currency. This categorization measures the total volume of money supply in the economy. The CBN addresses liquidity and inflation problems through broad money. Monetary policy measures are designed to keep monetary expansion in line with economic activity and in line with general macroeconomic stability (Ojo, 2004). He also highlighted that the success or failure of monetary policy can be judged by its impact on economic growth and the internal and external stability of the economy. An important objective of monetary policy is to stabilize the economy, that is, it should stimulate the economy in a recession and dampen it in phases of inflation. According to Uchendu (2006), there are three main channels (liquidity, credit, and exchange rates) through which changes in monetary policy affect the activities of small and medium-sized enterprises (SMEs). The author states that there is a liquidity channel, sometimes called a money or interest channel, when short-term nominal interest rates respond to changes in liquidity conditions to affect the business of SMEs in an economy. The basic characteristic is that the effect is remarkable for the economy as a whole. On the other hand, the credit or credit channel works mainly through banks. With this type of transfer, households and SMEs / companies receive less credit, especially from banks in times of liquidity shortage. Bank-dependent borrowers, in particular, are most vulnerable during such times. In addition to the difference between the interest rates of external financing and the opportunity cost of using internal financing, the imperfect substitutability of assets and the asymmetry of information between lenders and borrowers are essential elements for the existence of the credit channel (Uchendu , 2006).

2.2.1 Discussion of Related Concepts

i. Money supply

The amount of money supply at any time is the total amount of money in the economy at any time (Jhingan, 2006). In Nigeria, a tight money supply (M1) is defined as deducting off-bank cash, site deposits from commercial banks, domestic deposits at central banks, and federal deposits at commercial banks. Simply put, M1 is defined as: M1 = C + D where M1 = tight money supply, C = non-bank currency, D = site deposit. Ajayi (1978) argues that M2 is the most appropriate definition of money in Nigeria. M2 includes banknotes, coins and checking deposits, as well as 7-day bank deposits and some building-and-loan deposits. Board money (M2) is defined in the Nigerian context as M1 plus quasi-money. Near money is the sum of commercial bank savings and time deposits. It is symbolically expressed as follows. M2 = C + D + T + S where M2 = Board Allowance T = Fixed Deposit S = Savings Deposits C and D as defined above. According to Anyanwu and Oikhenam (1997), money in a broad sense is money that can be easily converted into cash without loss.

ii. Interest Rate

The interest rate is the amount of interest earned per period in proportion to the amount credited, deposited or borrowed (called the principal). The total interest on a loan or borrowed amount depends on the principal amount, interest rate, compounding frequency and for how long it has been lent, deposited or borrowed (Sepheri and Moshiri, 2004). The amount of borrowed funds that lenders charge the borrower as interest, is usually expressed as an annual percentage. During the

era of direct financial management in Nigeria (before 1986), interest rates were set administratively so that economic activities were primarily influenced by the diversification of the amount of loans granted to borrowers. When economic sanctions were eased as part of the Structural Adjustment Program (SAP) launched in mid-1986, interbank markets and rising rates became an important medium for the spread of monetary policy in Nigeria. Money market conditions usually determine interest rate growth. Since the early 1990s, the effectiveness of the interbank market has weakened as distressed borrowing by troubled banks contributed to interest rate fluctuations. Open market operations (OMOs) were introduced as the main instrument of monetary policy on June 30, 1993, as part of the final phase of the transition to an indirect method of monetary management. Under OMO, authorized dealers trade government securities through discount houses. (Tokunbo, 2005).

iii. Exchange Rate

The exchange rate is the price of a country's currency compared to other currencies. Thus, the exchange rate has two parts, domestic currency and foreign currency, and can be quoted directly or indirectly. In a direct quote, the price of a unit of foreign currency is expressed in terms of the national currency. In an indirect quote, the price of a unit of national currency is expressed in terms of foreign currency. Exchange rates are valued against the US dollar. However, the exchange rate can also be given against the currency of another country, which is called cross currency or cross rate. (Investopedia, 2017). Exchange rates can be floating or fixed. Floating exchange rates occur when market demand and supply forces determine the exchange rate. This is the standard for most countries. However, some countries want to set their national financial

standards on a widely recognized currency, such as the US dollar. The purpose behind setting the exchange rate may be to reduce instability or to better monitor trade and foreign exchange activities. For example, Nigeria converts its currency, the naira, into US dollars because its main export is oil, valued in US dollars (Investopedia, 2017).

iv. Inflation

There are different views on inflation, but economists agree that inflation is a constant increase in prices. In essence, inflation is an economic situation in which there is a constant general increase in the prices of goods and services. It can be characterized as a continuous increase in prices measured by an index such as the consumer price index (CPI) or an implicit price deflator for gross national product (GNP). Inflation is occasionally described as a condition in which "surplus cash is used in the search for scarce goods." With inflation, the purchasing power of the currency in circulation decreases (Chude, Chude, 2015).

2.3 Theoretical Literature

This study is underpinned by the Classical theory, Keynesian theory and the Monetarist theory of Monetary policy growth.

2.3.1 Classical Theory

The classical theory of monetary policy is based on the principle of the quantity of money. The principle of the amount of money is usually discussed in terms of the Fisherian equation of exchange, which is expressed as MV = PY. In expression, M refers to the supply of money over which the federal government has little control. V represents the speed of circulation, which is the average number of currencies spent on final goods and services in a year. P indicates the price level of GDP. Therefore, PY represents GDP equal to non-existent. An exchange equation is an

identification that states that the current market value of all final goods and services (nominal GDP) must be equal to the supply of money multiplied by the average number of currencies used in a given year. The classical economist believes that economies are always at or near the natural level of real GDP. Thus, they assume that in the short term, y is fixed in the exchange equation. He further argues that the speed of money circulation is constant. So that V can also be considered static. Given that both Y and V are fixed, then if the Central Bank of Nigeria (CBN) engages in expansion (or contraction) monetary policy, it will increase (or decrease) the money supply (M). It will happen, only money will be affected. In other words, a broad monetary policy can only lead to inflation, and a contractionary monetary policy can only lead to a fall in the price level.

2.3.2 Keynesian Theory

Keynesian theory does not buy the notion that the relationship between money and price is direct and proportional. They share the opinion that it is indirect through interest rates. Moreover, Y is considered fixed in the equation of exchange because they reject the assumption that the economy is always at or near the natural level of real GDP. They also reject the proposal that the flow of money continues to accelerate. Keynesians believe that the expansion of monetary policy will increase the supply of credible funds available through the banking system and lower interest rates. Lower interest rates generally increase overall spending on investment and interest rate-sensitive consumer goods, leading to higher real GDP. Therefore, monetary policy can indirectly affect real GDP. The principle liquidity preference also presupposes a positive relationship between output and interest rates based on the money supply relationship, also known as the LM curve. The original version of the IS_LM model assumes a fixed price level. Therefore, it cannot be used for inflation analysis, but it can be used for short-term output (Hicks, 1937). The money supply is considered external, and as the money supply increases, the interest rate at which the requested amount is equal to the money supply decreases. Low interest rates react positively to

the marginal efficiency of capital and investment, resulting in increased production. Keynes questioned the effectiveness of monetary policy while the economy was in a liquidity trap and financial market uncertainty. Keynes supported a clearer role in fiscal policy. The concept of equal money supply in both classical and Keynesian theories was challenged and withdrawn in subsequent and modern theories (Romer, 2006). Lower interest rates in Keynesian theory have long been thought of as distortions in the form of temporary asset price bubbles (Schwartz, 2009).

2.3.3 The Monetarist Theory

The Monetarist of the School of Economic Theory says that money supply (total amount in the economy) is an important factor in determining the level of current dollar GDP and long-term prices in the short term. Monetary policy is one of the tools that governments should use to influence the overall performance of the economy, using means such as interest rates to adjust the size of the economy. Monetarists believe that targeting the growth rate of the money supply achieves the objectives of monetary policy. Monetarists became prominent in the 1970s and had a major impact on the central bank's decision to curb inflation in the United States and the United Kingdom and to stimulate the economy during the global recession of 2007-2009. Today, monetary theory is most closely connected with Nobel Laureate economist Milton Friedman. In 1963, Friedman wrote with fellow economist Anna Schwartz in his original work, A Monetary History of the United States, from 1867 to 1960, in which he claimed that the poor monetary policy of the Federal Reserve System, the US Federal Reserve, was the main reason for recession in the United States in the 1930s. In his view, the Fed's (as it is commonly called) failure to offset the downward pressure on money supply and the steps taken to reduce the money supply are

contrary to what should have been done. He also argued that the market was behaving erratically due to improper supply of money as the market had naturally moved towards a stable center. This idea is a modern version of classical macroeconomics. Friedman focuses on the provision of money that affects economic well-being and acknowledges the need for effective monetary policy to stabilize the economy. He also believes that in order to promote a stable growth rate, the money supply should be increased by a certain rate instead of being regulated and amended by the financial authorities.

2.4 Empirical framework

This paper provides a critical review of existing empirical studies that will help to better understand the impact of monetary policy on SME growth. However, most of the literature has been reviewed in the areas of the concept of small and medium-sized enterprises, the concept of monetary policy, and the relative impact of fiscal and monetary policy on SME growth.

Ibrahim and Mustapha (2019), for example, examined the determinants of the performance of small and medium-sized enterprises in Nigeria with a special focus on government policy and found that government subsidies influence business orientation and the contemporary marketing offensive. It suggests that the various supports for SMEs help make them feel important in business and promote the commercialization of their products to compete cheaply in the market.

Osakwe, Ibenta & Ezeabasili (2019) examined the impact of monetary policy on the performance of manufacturing in Nigeria. The study covered a period from 1986 to 2017 using ex post facto research. The data were subjected to an augmented Dicker Fuller stationarity test to determine the most suitable econometric analysis tool. Autoregressive Distributed Lag (ARDL) was used to

estimate the model. The results show that: Monetary policy instruments only have a significant impact on manufacturing production in Nigeria in the short term. Therefore, the study concludes that monetary policy instruments may not be a long-term policy instrument for the growth of manufacturing production in Nigeria, but rather short-term instruments.

Kalu (2017) analyzed the relationship between monetary policy and private sector credit in Nigeria. The results of the cointegration regression indicated a long-term relationship between monetary policy and loans to the private sector. Long-term stability tests for parameter estimation support cointegration in the presence of structural breaks. On the contrary, the results of the Error Correction Model (ECM) showed that credit changes have a positive and significant short-term impact on changes in monetary policy. The results also indicate a one-way causality ranging from credit to monetary policy.

Atarere (2016) examined the impact of monetary policy on the development of small and medium-sized enterprises in Nigeria. The study focused on the growth of SMEs which was good but did not explain in depth how the results were achieved, analytical tools were used and it was a study of the theoretical nature and a bit confusing.

Ovat (2016) examined the role played by commercial bank lending in facilitating the growth of SMEs in Nigeria. The study has adopted a cointegration and error correction model and based on the results, the exchange rate and lending rate are statistically significant for SME credit. In addition, the rate of inflation for SME credit has been found to be significant but negative. He believed that SMEs should have easy access to credit from commercial banks. To achieve this, the monetary authority must ensure that the credit that reasonable banks lend to SMEs is reduced to a strict minimum. Moreover, the devaluation of the national currency should not be encouraged as the devaluation makes the price of imported raw materials and capital goods used

by SMEs too expensive and therefore hinders their production, should be encouraged to reduce the domestic supply of raw materials. Pressure on the exchange rate.

Anigbogu, Okoli and Nwakoby (2015) studied the impact of financial intermediation on the performance of small and medium enterprises in Nigeria between 1980 and 2013. Using the Econometric Model of the Common Minimum Square (OLS). The results show that all other variables, excluding bank interest rates for SMEs, have a positive and significant impact on the performance of small and medium enterprises, bank loan rates, exchange rates and monetary policy for SMEs. In Nigeria.

Suleyman (2014) examined the effects of credit channels on the actual sector tested for SMEs in the manufacturing sector. To this end, the monetary policy of the Central Bank of the Republic of Turkey was analyzed between 2003 and 2011 to find the correlation between credit growth and money supply in line with changes in the size of the firm. Indicates the asymmetrical distribution of credit, which had to be criticized by policy makers. As a result of this essay, in Turkey, money supply has a significant impact on the amount of credit in the manufacturing sector. Furthermore, this article shows that the increase in the credit volume of large companies has no effect on the credit volume of SMEs, as the analyzed data show no clear correlation. Conversely, as the credit volume of SMEs increases, so does the credit volume of large companies, indicating the opposite efficiency between the credit volume trends of companies of different sizes. Suleyman's study was theoretical, as there were no analytical tools used, the number of manufacturing companies was not indicated, and no results were given, but the study proceeded to reveal the inefficiency between credit volume trends of different size companies. Mohammed (2014) examined the need and strategies for re-positioning of commercial banks to improve the productivity of SMEs using error correction model (ECM) and cointegration testing. The results showed that there was a correlation between the repositioning of commercial banks and the ability of SMEs to provide

services as well as significant dispersal as a result of lending conditions and macroeconomic variables. He argued that simplification in the terms of lending provided by banks through the apex bank gives priority to SMEs to contribute to economic growth.

Imoughele and Ismaila (2014) used co-integration and error correction modeling (ECM) techniques to study the impact of commercial bank lending on the growth of Nigerian SMEs between 1986 and 2012. There is a long term relationship with the production of SMEs. The study also reveals that savings time deposits and exchange rates have a significant impact on the production of SMEs in Nigeria. The study also showed that interest rates have a negative impact on the production of SMEs.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Theoretical Framework

The theoretical basis of this research is based on the Monetary School of Thought. Monetarists like Friedman have emphasized money supply as a major factor influencing the well-being of the economy. Thus, to ensure a sustainable growth rate, the money supply should grow at a fixed rate, and should not be regulated and changed by the financial authorities. Friedman also argued that as money supply replaces not only bonds, but also many goods and services, a change in money supply would have both direct and indirect consequences for costs and investment, respectively, so that the demand for money would depend on the relative rate of money supply returns available or various competitive assets that may contain wealth. Monetarist Irvin Fisher supports his argument about the effectiveness of monetary policy in influencing economic activity using the exchange equation proposed. They actually convert this equation of exchange into the

principle of the amount of money, which is formulated as follows:

$MV = PY$. …… (i)

where M denotes the money supply which is controlled by the Central Bank of Nigeria, P denotes the price level, Y indicates the output level, and V indicates the speed of circulation. Monetarists assume that the rate is stable, and when V is stable, Equation (1) indicates a one-to-one relationship between a change in the money supply and a change in the value of national income. As a result, equation (1) will be converted to equation (2) below, where k is constant.

$M = KPY$ ……(ii)

According to Equation (2), a change in output can only be due to a change in money supply. Therefore, the direct link between the financial sector and the real sector of the economy like SMEs comes from the argument of constant momentum. This explains the basis of the Monetarist argument that a change in monetary policy will affect economic activity.

3.2 Model Specification

Following the theoretical framework, the functional model employed in this study to evaluate the effect of monetary policy on growth of SMEs is stated thus:

$GSME = F(MS, EXR, INT, INF)$ …… *(i)*

Hence, the econometric form of the model is:

$GSME = \beta_0 + \beta_1 M2_t + \beta_2 EXR_t + \beta_3 INR_t + \beta_4 INF_t + \mathcal{E}_t$ …… *(ii)*

Where:

GSME = Small Scale Industrial Output

MS = Money Supply

EXR = Exchange Rate

INT = Interest Rate

INF = Inflation Rate

β_0 = Constant term, $\beta_1$to β_4 = Regression coefficient and ε_t = Error Term

$\beta_0 > 0$, $\beta_1 > 0$, $\beta_2 > 0$, $\beta_3 < 0$, and $\beta_4 > 0$ apriori expectation

Equation (ii) is the baseline long run model for determining the effect of monetary policy in Nigeria. In recent financial econometrics literature, it has been emphasized that when establishing a long-run relationship, it is necessary to integrate a model that fits into the short-run dynamic adjustment process, which is the speed of adjustment (ECT) from short-run disequilibrium to long-run equilibrium. Based on this, the researcher develops ECM by modifying equation 1 as follows:

Modified as;

$$InGSME = \beta_0 + \beta_1 lnM2t + \beta_2 lnEXR_t + \beta_3 INR_t + \beta_4 INF_t + ECT_{t-1} + \varepsilon_t \ldots\ldots\ldots\ldots\ldots (iii)$$

3.3 Method of Data Analysis

The study will adopt ex-post facto research design using secondary data spanning from 1981 – 2019. In testing the formulated hypotheses, the augmented dickey fuller test will be used to test for the stationarity in the variables. The underlying assumption is that if the variables are not integrated of the same order as in the case of the data present in the chapter four of this paper which are *I*(0) and *I*(1), the appropriate cointegration technique to use is the "Bound Test" by Pesaran and Smith (2001) to examine the long run relationship between the dependent and the independent variables before applying the Error Correction Model (ECM) which tells us the speed of adjustment, that is, the rate at which the previous period disequilibrium is adjusted toward equilibrium path on an annual basis.

3.4 Determining the Reliability of Estimated Results

In a view of evaluating whether the estimates of the parameters are theoretically meaningful and statistically satisfactory, this study will adopt the econometric criteria.

This criterion is based on the theory of econometrics and aimed at investigating whether the assumptions of econometric method employed are satisfied or not. Examples of tests under this criterion are heteroscedasticity test, Multicollinearity test, autocorrelation test, Normality test, Stability test etc. for this research, focus is confined to autocorrelation test, normality test and stability test.

Autocorrelation Test: The test is used to investigate if the error term of different observations is correlated or not. That is, testing for the randomness of the error term. Hence, the Durbin-Watson method was adopted to test for serial correlation.

Stability Test: This test is carried out to ascertain whether the variables adopted for this study were stable over the period under review (usually at 5% level). The CUSUM Test is adopted for this study.

Normality Test: This test is carried out to ascertain whether the stochastic error term is normally distributed with a mean of zero and constant variance. This is expressed symbolically as;

$$\mu = N\,(0, \sigma_i^2)$$

3.4 Sources of Data

The data to be used in carrying out this study would be time series data for the period 1981 – 2019 obtained mainly from secondary sources. Among these are the Central Bank of Nigeria (CBN) statistical bulletin (various issues), Word Development Indicators (WDI), The National Bureau of Statistic (NBS), Economic Journals, text book and published articles in the subject matter.

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION OF RESULT

4.1 Descriptive Statistics

Table 1 below shows the summary Descriptive statistics of the variables employed in this study are presented and discussed below. Precisely, the mean, median, minimum and maximum values, standard deviation, the skewness and kurtosis, Jarque-Bera values and their equivalent probability values are also stated in Table 1 below. The mean of each of the series is a pointer to the average of the respective variable as it is used in the study. The standard deviation shows how distributed the variable is from the mean; thus it shows the explosiveness of the series. Additionally, the skewness and kurtosis indicators reveal the asymmetry and peakedness of the distribution while the normality test was conducted using the Jarque-Bera statistic.

In the table, GSME and M2 both have a very high means and standard deviation. Whereas EXR,

INF, and INT have relatively low means and standard deviations. In addition, all of the variables used are favorably skewed, with the exception of INT, which is negatively skewed. The positive values of the kurtosis of this distribution are clear indication that the variables are all leptokurtic ie the distribution is peaked and possesses thick tails.

Table 1: Descriptive Statistics

	GSME	M2	EXR	INF	INT
Mean	7488.740	6585.141	94.14346	19.14646	0.307633
Median	2182.618	878.4573	101.6973	12.55496	4.310292
Maximum	39879.69	34251.70	306.9210	72.83550	18.18000
Minimum	48.58912	14.47117	0.617708	5.388008	-65.85715
Std. Dev.	10334.20	9911.373	92.82186	17.06283	14.60655
Skewness	1.483892	1.436874	0.810180	1.783591	-2.633592
Kurtosis	4.371647	3.785015	2.854578	4.997667	12.25136
Jarque-Bera	17.36987	14.42135	4.300915	27.16262	184.1628
Probability	0.000169	0.000739	0.116431	0.000001	0.000000
Sum	292060.8	256820.5	3671.595	746.7120	11.99770
Sum Sq. Dev.	4.06E+09	3.73E+09	327404.1	11063.33	8107.346
Observations	39	39	39	39	39

Source: Author's computation using eviews 10

4.2 Unit Root Test

A unit root test is performed on the variables considered in the study. This is due to the fact that most macroeconomic time series data are non-stationary and regressing non-stationary series on each other is bound to produce spurious regression results as specified by Granger and NewBold (1974). The Unit root test is also performed to know whether the variables exhibit certain characteristics such as the mean reversion and finite variance. It is appropriate to test the time series to ascertain whether they are stationary or non-stationary as well as their order of integration. The order of integration is essential because it helps in determining the subsequence long run relationship among the variables.

The null hypothesis is that the series is non-stationary and this is either accepted or rejected based on the t-ratio of the lagged term Xt-1 compared to the tabulated values. If the t-ratio is

greater than the critical value, the null hypothesis of the Unit root (i.e. the series is non-stationary) is rejected. On the other hand if the t-ratio is less than the critical value, the null hypothesis of a Unit root (i.e. the series is non-stationary) is accepted. The Augmented Dickey-Fuller (ADF) unit root testing approach was employed to ascertain whether the variables employed in the model were free of unit root.

From the stationarity test results below, all the series were found to be stationary at first difference *I*(1), that is, integrated of order 1, except for Interest rate (INT) which was stationary at level, that is *I*(0). Evidently, all the variables fluctuate round a long-run mean that is approximately zero. The stationarity tests results are reported in the tables 2 below.

Table 2: Augmented Dickey Fuller Tests at levels

Variables	Test statistic	1% critical value	5% critical value	10% critical value	Remarks
LGSME	-0.377542	-3.615588	-2.941145	-2.609066	NON STATIONARY
LM2	-0.648370	-3.615588	-2.941145	-2.609066	NON STATIONARY
LEXR	-2.090901	-3.615588	-2.941145	-2.609066	NON STATIONARY
INF	-2.915636	-3.615588	-2.941145	-2.609066	NON STATIONARY
INT	-7.268269	-3.615588	-2.941145	-2.609066	STATIONARY

Source: Author's computation using eviews 10

Table 2 shows clearly that the variables LGSME, LM2 and INF, except INT, are non-stationary at level.

Table 3: Augumented Dickey Fuller Tests at First Difference

Variables	Test statistic	1% critical value	5% critical value	10% critical value	Remarks
LGSME	-4.812330	-3.621023	-2.943427	--2.610263	STATIONARY
LM2	-4.108938	-3.621023	-2.943427	-2.610263	STATIONARY
LEXR	-5.205054	-3.621023	-2.943427	-2.610263	STATIONARY
INF	-5.672638	-3.621023	-2.943427	-2.610263	STATIONARY

Source: Author's computation using eviews 10

The ADF test indicates that four of the variables (LGSME, LM2, LEXR and INF) were found stationary at first difference and at 5% level of significance and 1% respectively. Hence, the unit roots for the ADF test were rejected at the first difference for the four variables. INT, on the other hand, was shown to be steady at levels and at the 5% threshold of significance. They satisfy the criteria for utilizing a bound cointegration test because they were all found stationary in different orders.

4.3 Cointegration Test

Cointegration Test is the statistical implication of the existence of a long-run relationship between economic variables. If variables are integrated in the same order, a linear combination of the variables will be integrated in the same order, according to the test. Although macro variables may tend to trend up and down over time, groups of variables may drift together, according to cointegration analysis. We perform the cointegration test using the Pesaran (2001) Bound Cointegration Test after determining that the variables are characterized by a unit root process and integrated of order I(0) and I(1).

Table 4: Bound Cointegration Test

F-Bounds Test	Null Hypothesis: No levels relationship

Test Statistic	Value	Signif.	I(0)	I(1)
F-statistic	4.745988	10%	2.2	3.09
k	4	5%	2.56	3.49
		1%	3.29	4.37

Source: Author's computation using eviews 10

Using the bound test, it indicates the F-statistic value of 4.7459 is greater than the upper and lower bound of 3.49 and 2.56 at 5%. This implies that a long run relationship exists among the variables. This led to the rejection of the hypothesis of no cointegration among the variables. The result thus shows that there is a long run relationship between monetary policy and SMEs growth in Nigeria.

4.4 Regression Results

The table belows shows the Autoregressive Distributed lag Error Correction Model (ARDL-ECM) regression result which indicates that for each of the variables of Money Supply, Exchange rate, Inflation and Interest rate, a one percent increase in these variables will lead to a percent change in the dependent variable of SME growth represented by it coefficients GSME. It also showed the statistical significance of each of the independent variables in determining growth of SMEs in Nigeria

Table 5: ARDL Error Correction Model

ECM Regression
Case 2: Restricted Constant and No Trend

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNGSME(-1))	0.618472	0.141991	4.355714	0.0004
D(LNM2)	0.489250	0.130438	3.750830	0.0016
D(LNM2(-1))	-0.287841	0.151137	-1.904499	0.0739
D(LNM2(-2))	-0.219116	0.129334	-1.694192	0.1085
D(LNEXR)	-0.062030	0.052690	-1.177272	0.2553
D(INF)	-0.005864	0.001272	-4.611057	0.0002
D(INF(-1))	-0.003276	0.001589	-2.062077	0.0548

D(INF(-2))	-0.001183	0.001510	-0.783995	0.4438
D(INF(-3))	-0.005130	0.001348	-3.805817	0.0014
D(INT)	-0.014944	0.001890	-7.908797	0.0000
D(INT(-1))	0.005756	0.003142	1.831868	0.0846
D(INT(-2))	0.007170	0.002392	2.998009	0.0081
ECM(-1)*	-0.799534	0.131708	-6.070519	0.0000

R-squared	0.865925	Mean dependent var	0.191721
Adjusted R-squared	0.792793	S.D. dependent var	0.157887
S.E. of regression	0.071870	Akaike info criterion	-2.149365
Sum squared resid	0.113636	Schwarz criterion	-1.571664
Log likelihood	50.61389	Hannan-Quinn criter.	-1.949943
Durbin-Watson stat	1.969874		

F-Bounds Test			Null Hypothesis: No levels relationship	
Test Statistic	Value	Signif.	I(0)	I(1)
F-statistic	4.745988	10%	2.2	3.09
K	4	5%	2.56	3.49
		2.5%	2.88	3.87
		1%	3.29	4.37

Source: Author's computation using eviews 10

4.4.1 Result Analysis

From table 5 above, the ECM term is in line with our a priori expectation. The negative sign and the statistical significance of the ECM at 5% implies that the speed of adjustment to its long run equilibrium is 79.9%. Thus, the ECM will adequately act to correct any deviations of the short run dynamics to its long run equilibrium by 79.9% quarterly. The coefficient of determination measured by the $R^2$is 0.866 which implies that 86.6% of the total variations in SMEs growth is accounted for by the explanatory variables: money supply, exchange rate, interest rate and inflation rate, while the remaining 13.4% represents the changes in the dependent variable which was not included in the model. It showed that monetary policy has an impact prediction on the SMEs growth within the period under review. After adjusting the R^2, the total variation becomes

79.3%. Also, the fitness of the model was tested using the F-statistics which shows that the model is statistically fit as indicated by the significance level of 1%. In other words, we are about 99% confident that the explanatory variables of money supply, exchange rate, interest rate and inflation rate are simultaneously significant when addressing the various factors that influence growth of SMEs in Nigeria. From our Error Correction result, the Durbin Watson statistic was 1.96 indicating that autocorrelation is absent in the estimated model, this makes the estimated model reliable and fit for policy perspective.

On the other hand, the table indicates that money supply in Nigeria has a positive and significant relationship with growth of SMEs during the period under consideration. The implication is that a 0.4892 percent (48.92%) increase in SMEs growth is a result of a one percent increase in Money supply. However, during the previous year prior to the current year, in Nigeria, money supply exhibits a negative relationship with growth of SMEs. This implies that a 0.287 percent decrease in SMEs growth in Nigeria is due to one percent increase in money supply (a year prior to the current year). Also, money supply is found to be a statistically significant factor determining growth of SMEs in Nigeria, positively in the current year 1% probability which is far below the 5% level of significance.

Also, exchange rate is found to be negatively related to SMEs growth in Nigeria in the current year. From the analysis, it is seen that a one percent increase in exchange rate will result in a 0.062 (6.2%) percent decrease in growth of SMEs in Nigeria during the current year. Exchange rate is found to be a statistically insignificant factor determining growth of SMEs in Nigeria at the 21% probability value which is far above the 5% level of significance.

Furthermore, inflation in the current year exhibited a negative relationship with growth of SMEs in Nigeria during the period under consideration. It was found that a one percent increase

in inflation will lead to a 0.005 percent decrease in SMEs growth in Nigeria. Also, it was found that inflation has been a negative factor of growth of SMEs for 3 years prior to the current year. The analysis showed also that inflation is a statistically significant factor determining growth of SMEs in Nigeria at the 0.02% probability value which is far below the 5% level of significance.

Lastly, interest rates in the current year also exhibited a negative relationship to SMEs growth in Nigeria during the period under consideration. It was found that a one percent increase in the interest rate will lead to a 0.014 percent decrease in SMEs growth in Nigeria. Also, it was found out that two years prior to the current year, interest rate had a positive relationship with SMEs growth in Nigeria. Thus, showing that one percent increase in interest rate will lead to a 0.007 percent increase in SMEs growth in Nigeria. The analysis showed also that interest rate is a statistically significant factor determining SMEs growth in Nigeria at the 0% and 0.8% probability value which is far below the 5% level of significance.

4.4.2 Discussion of Result

The empirical evidence as presented in Table 5 shows that broad money supply has a direct and significant impact on the growth performance of SMEs in the short run. This is consistent with the apriori expectation of positive relationship of M2 coefficient. However, the result is contrary to the findings of Ehikioya, Uduh & Edeme (2018) who observed that broad money supply has direct and insignificant impact on SMEs which may be attributed to the poor supply of money to this sector compared to the demand in the short run where interest rate has inverse and insignificant effect on SMEs output.

More still, it was discovered from the study that there is no significant effect between exchange rate (EXR) and the growth of small and medium enterprise in Nigeria. It showed that frequent depreciation of the naira due to fluctuations in exchange rates had adverse effects on the growth

of small businesses in Nigeria. This is in-line with Nneka (2012) and Udoh, Gbande, Cephas & Acha (2018) whose studies revealed that exchange rate had a negative impact on the performance of the manufacturing sector over the period of study. More so, results obtained by Suleyman (2014) supported this study outcome as they revealed that there was no evidence of a strong direct relationship between changes in exchange rate and output growth.

On the other hand, findings from the study revealed that there is a very significant negative effect between inflation (INFL) and the growth of SMEs in Nigeria. This is not surprising as rising inflationary trends create a dampening effect on the growth of SMEs due to high cost of production. This is in agreement with the findings of Blume (2017) and Udoh, Gbande, Cephas & Acha (2018) whose results revealed that higher inflation reduces the supply of credit available to fund capital investment in the economy which results in lower SMEs investment levels, production and loss socially positive interactions.

In addition, the study revealed that there exists a significant impact of interest rate on SMEs growth in Nigeria which is evident by the p-value ($p<0.01$). This may be attributed to the prime lending rate that witnessed relative stability after consolidation of 2005 and post-consolidation period of 2007. Hence, the null hypothesis which states that interest rate does not have any significant effect on SMEs growth in Nigeria is rejected. The findings however are not in agreement with Ishioro (2013) who observed that negative monetary shocks posed a constraint to the banking system's capability to dispose deposits due to adjustability of price that lead to a fall in real money balances causing interest rates to rise thereby increasing the cost of capital. In addition, the finding is in line with that obtained by Nto, Mbanasor and Osuala (2012) which showed that policies on interest rate and liquidity ratio were negatively and positively significant at 1 percent probability level respectively.

4.5 Autocorrelation and Heteroskedasticity Test

Autocorrelation implies that, the residuals in a regression model are correlated while hetero-skedasticity refers to a situation whereby the variances of the residuals in an econometric equation are unequal. Both autocorrelation and heteroskedasticity are seen as serious coercions in the field of econometrics, as they greatly affect the parameters in a regression model and further render the usual F-statistic unpredictable.

The Breusch–Pagan test of heteroskedasticity adopted by Koenker (1981), Honda (1985), Zeilies and Hothorn (2002) were employed to ascertain whether the error term is constant across observation (Homoskedastic) or not while the Breusch-Godfrey Serial Correlation L-M Test was utilized in testing for Autocorrelation. The null hypothesis of the hetero-skedasticity states that there is no heteroskedasticity in the model whiles the alternative states that there is heteroskedasticity. The decision rule is that if the F-calculated is greater than the F-critical, reject the null hypothesis or if the p-value is greater than 5% (0.05) significant level. From the result as presented in Table below it can be ascertained that autocorrelation was absent in the model.

Table 6: Serial Correlation Test

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	0.394518	Prob. F(2,15)	0.6808
Obs*R-squared	1.749077	Prob. Chi-Square(2)	0.4171

Source: Author's computation using eviews 10

From the table above the reject the alternative hypothesis for autocorrelation test which says that autocorrelation is present thus accepting the null hypothesis indicating its absence. The probability value exceeds 0.05 significant level; thus it just passes the serial correlation or autocorrelation test. From the Durbin Watson Statistic obtained in our regression result there

exists also absence of autocorrelation.

4.6 Heteroskedasticity

Table 7: Heteroskedasticity Test

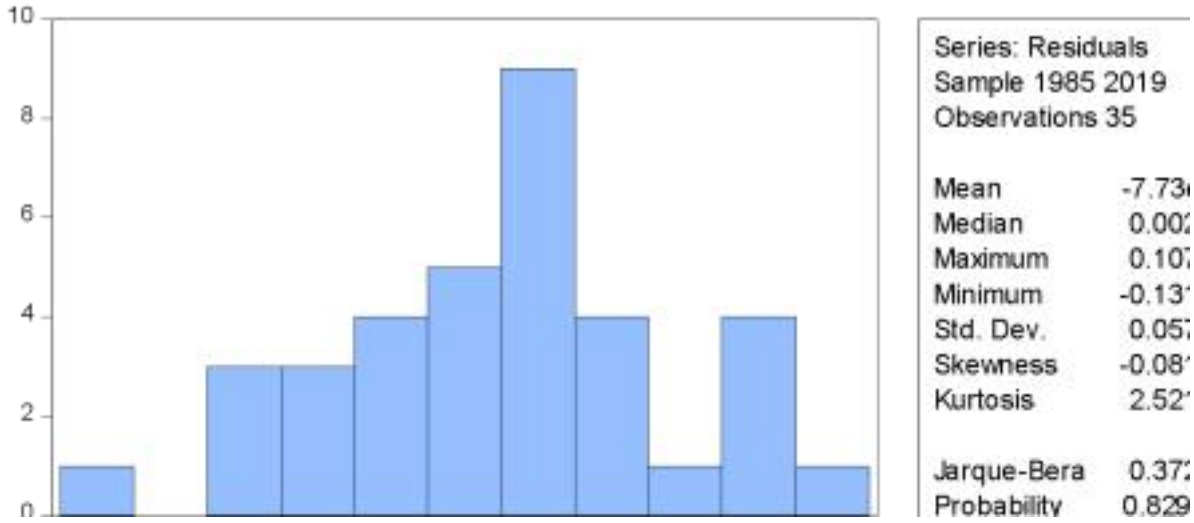
Heteroskedasticity Test: Breusch-Pagan-Godfrey				
F-statistic	0.980965	Prob. F(17,17)		0.5156
Obs*R-squared	12.46053	Prob. Chi-Square(17)		0.4321
Scaled explained SS	4.354269	Prob. Chi-Square(17)		0.9999

Source: Author's computation using eviews 10

The table above shows the absence of heteroskedasticity as the probability value exceeds the required 5% level. Thus we reject the alternative hypothesis that shows the presence of heteroskedasticity and accept the null hypothesis that shows its absence. Thus, the results obtained from our estimation are reliable.

4.7 Normality Test

Table 8: Jarque-Bera Test of Normality



The table above shows that the series are normally distributed as the probability value exceeds the required 5% level. Thus we reject the alternative hypothesis that shows states that the series are not normally distributed. Thus, the results obtained from our estimation are reliable.

4.8 Structural Stability Test (Cusum/Cusum of Square)

In this segment, we look at the stability properties of the estimation model by utilizing the plots of the Cumulative Sum of Recursive Residual (CUSUM) and Cumulative Sum of Squares of Recursive Residual (CUSUMsq). It is worth noting that, while the CUSUM test is appropriate for identifying systematic variations in the regression coefficients, the CUSUMsq is used in situations where the deviation from the stability of the regression coefficients is sudden and unexpected. The results of the two tests are provided in the figures below. **Hypothesis**

There are two hypotheses guiding the CUSUM test and they are expressed below.

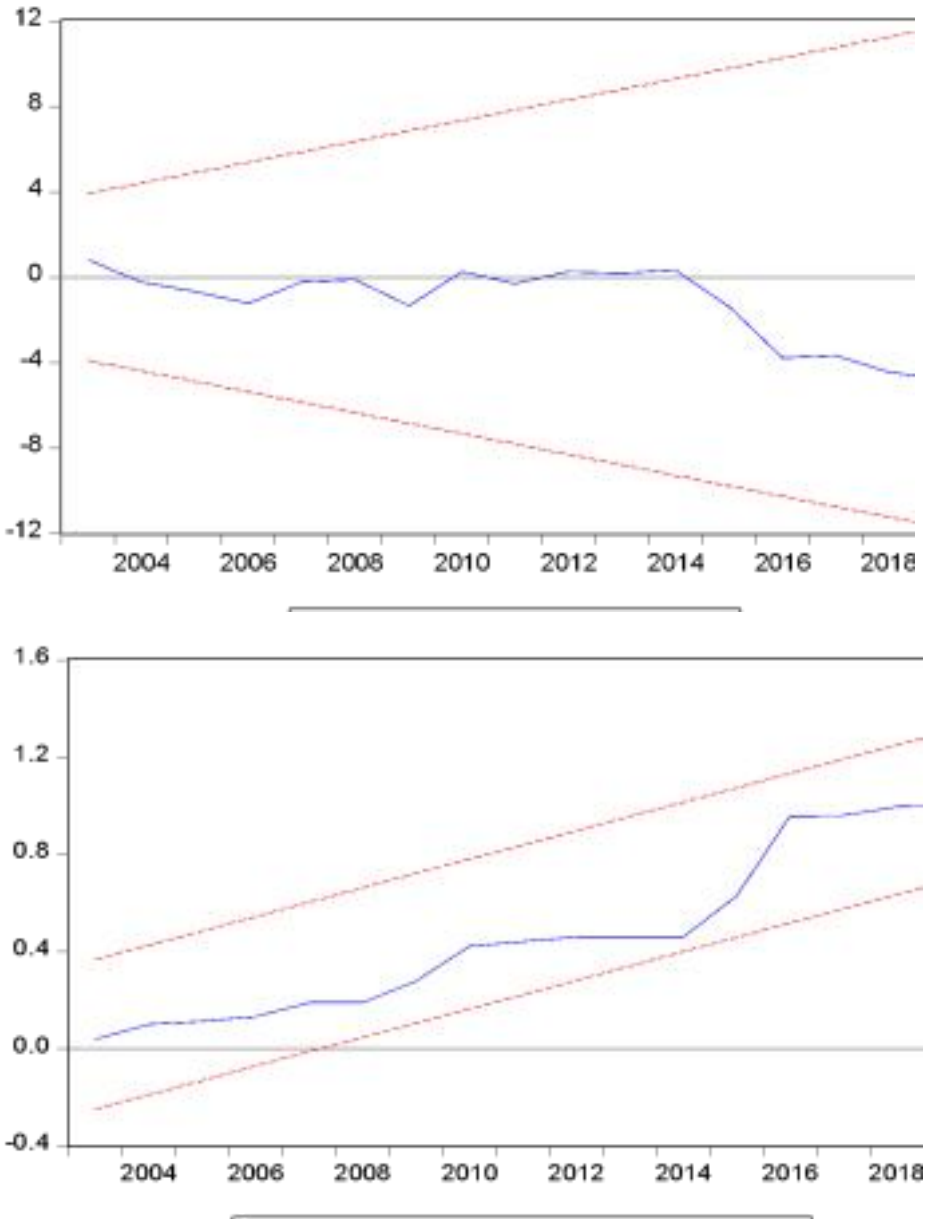
H_0: parameters are stable

H_1: parameters are not stable.

Decision Rule

If the blue line is found between/within the two parallel red lines, we accept the null hypothesis (stable) and reject the alternative hypothesis (not stable). But if the blue line is found

across/outside the red lines, we accept the alternative hypothesis (not stable) and reject the null hypothesis (stable). From the graphs presented below, only the CUSUM remained within the 5% critical lines while CUSUM of Square did not remain within the 5% critical lines throughout the whole period thus, signifying parameter stability using only the CUSUM test, however we observe a sudden and unexpected shift in regression coefficients using the CUSUM of square test, during the course of assessment.



From the graphs presented above, both CUSUM and CUSUM of square remained within

the 5% critical lines throughout the whole period thus, signifying parameter stability during the course of assessment..

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of Findings

The relationship between monetary policy and growth of SMEs in the Nigerian economy has been fundamental to policy makers and individuals. There is great concern among policy makers and citizens regarding the insufficient credit and high cost of borrowing and how they affect growth of small and medium businesses in Nigeria. As a result, the focus of this research is on the impact of monetary policy on the growth of small and medium-sized businesses in Nigeria.

To determine if the variables are stationary, the researchers use the Augmented Dickey-Fuller (ADF) unit root tests.

To ensure that a long run relationship exists, the study used the Bound co-integration test. The study showed the existence of a long-run relationship among the variables employed in the research work.

The study finds out that the model passes the diagnostic test of autocorrelation using the Durbin Watson test and Breusch Godfrey Serial Correlation L-M test. The model passes both stability tests at the 5% significance level using the cumulative sum (CUSUM) and CUSUM square of recursive residuals. The overall model was significant using the F test, coefficient of

determination was above 50%, thus the model is fit and can be used for policy implications.

The study also found that money supply has a positive and significant impact on the growth of SMEs. More so, exchange rate has a negative and insignificant impact, while inflation and interest rate both have negative and very significant impact in determining the growth of SMEs using the ARDL-ECM model.

5.2 Conclusion

The effects of monetary policy on the growth of small and medium size firms in Nigeria were investigated, and the findings revealed that money supply policies, interest rate stabilization, exchange rate management, and inflation rate targeting are key determinants of SMEs growth. The consequence is that the interaction of these factors is critical to the survival of SMEs in Nigeria. In response to the dynamics of domestic and global economic events, the policy suggestion is that monetary policy should be designed in such a way that the goal it seeks to attain is clearly and transparently specified.

5.3 Recommendations

Given the result of the analysis therefore, the following are recommended:

1. Money supply should be increased and subsequently directed to the productive sectors of the economy. This will increase the volume of money available for investment in the private sector and enhance growth of small and medium scale enterprises. However, there will be tendencies of inflationary pressure in the economy and this should be minimized.

2. There is a need for a consistent monetary policy framework that should bring about a realistic

exchange rate with emphasis on its role to directly promote output and productivity of the SMEs. Policy makers should consider exchange rate policies as a long-run fix to the problem of growth in foreign goods demand.

3. Monetary authorities should give special attention to SMEs in specific sectors by creating special windows through various financial institutions to grant low interest rate loans, so as to give SMEs access to funds. This will boost business opportunities and consequently achieve macroeconomic objectives.

4. Based on the findings, inflation rate was found to be negatively significant to SMEs financing. This is evidence in the inflation data of Nigeria, which has continually recorded double digits most especially in recent years. Monetary authorities should employ various monetary tools such as the policy rate to steer the inflation rate downward. This will help boost local SMEs productivity.