

The Impact of Commercial Bank Credit on the Growth of Small and Medium Scale Enterprises: An Econometric Evidence from Nigeria (1986 - 2012)

Imoughele, Lawrence Ehikioya¹ and Ismaila, Mohammed (Ph.D)²

¹Main Library, Ambrose Alli University, Ekpoma, Nigeria

²Department of Economics, Ambrose Alli University, Ekpoma, Nigeria

Ehis.lawrence@yahoo.com

Abstract

The study employed Co-integration and Error Correction Modelling (ECM) techniques to investigate empirically the impact of commercial bank credit on Nigeria's Small and Medium Scale enterprises (SMEs) between 1986 and 2012. The results revealed that SMEs and selected macroeconomic variables included in the model have a long run relationship with SMEs output. The study also reveals that savings time deposit and exchange rate has a significant impact on SMEs output in Nigeria. Furthermore, commercial bank credit to SMEs, total government expenditure and bank density has direct but insignificant impact on the country SMEs output this may be connected with stringent policy in accessing credit facility and the crowd out effect of government expenditure in the economy. The study also shows that interest rate has adverse effect on SMEs output. The study recommended among others that interest rate on credit facility granted to SMEs should be drastically reduced, commercial banks should grant soft loan to this important sector of the economy and also reduced stringent policy in supply of credit to SMEs and monetary authority should encourage commercial bank to set up more branches in the rural areas in order to encourage rural occupant to save and have assesses to credit facility.

Keyword: Small and Scale Medium Enterprises, Bank Credit, Loans, Commercial Bank

Introduction

Rapid and persistent productivity growth of the domestic economy of Nigeria has since the political independence in 1960 been of supreme importance to succeeding governments in the country. Consequently, governments have since implemented numerous national improvement plans and programmes aimed at boosting productivity, as well as, diversifying the domestic economic base and emphasizing on the small and medium scale production. In recent years, particularly since the adoption of the structural adjustment programme in Nigeria in 1986, there has been a decisive paradigm from the ostentatious, capital intensive, large scale industrial project based on the philosophy of import substitution and export promotion to small scale industries with immense potentials for developing domestic linkages for rapid, sustainable industrial development. Apart from their potential for ensuring a self reliant industrialization, in terms of ability to rely largely on local raw materials, small scale enterprises are also in a better position to boost employ of domestic raw materials as input, small and medium enterprise, are also in a better position to boost employment, guarantee a more even distribution of industrial development in the country, including the rural areas, and facilitate the growth of non-oil exports.

Awoniyi (2010) asserted that for any developing country to grow and develop economically, greater attention and concentration must be given to SMEs sector. The SMEs sector is a viable and important means to utilize the locally available resources, develop local technology for production for local consumption and export trade. Small and medium enterprises development in area of agriculture is a means of sustainable food production, improve employment generation and combat food shortage in developing countries.

However, the influential role played by SMEs notwithstanding its development is everywhere constrained by insufficient financial support and poor administration. These factors are possibly useful to make any right thinking leader opine the need for a dedicated financial institution solely for the propagating their (SME) course. Nevertheless, Finance has been identified in many business surveys as one of the most important factors determining the survival and growth of small and medium enterprises (SME) in both developing and developed countries (UNCTAD,2001). Access to finance allows SME to undertake productive investments to expand their businesses and to acquire the latest technologies, thus ensuring their competitiveness and that of the nation as a whole. Poorly functioning financial systems can seriously undermine the microeconomic fundamentals of a country, resulting in lower growth in income and employment. Despite their dominant numbers and importance in job creation, SMEs traditionally have faced difficulty in obtaining formal credit or equity. This is because the maturities of commercial bank loans extended to SME are often limited to a period far too short to pay off any sizeable investment and poor collateral (Arogundade, 2010).

Accordingly, the SME segment in Nigeria is faced with the problem of ease of access to funds. Even the financial sector reform of the Structural Adjustment Programme (SAP) in 1986, which was meant to correct the structural imbalance in the economy and liberalize the financial systems, did not achieve the expected results. As Edirisuriya (2008) reported, financial sector reforms are expected to promote a more efficient allocation of resources and ensure that financial intermediation occurs as efficiently as possible. This also implies that financial sector liberalization brings competition in the financial markets, raises interest rate to encourage savings, thereby making funds available for investment, and hence lead to economic growth (Asamoah, 2008). Therefore, it is logical to assume that financial liberalization enhances funds mobilization and accessibility, which are required for SMEs' performance.

The vital role of commercial bank credit in generating growth in SMEs within an economy has been widely acknowledge for instance Schumpeter (1932) established that banking sector facilitate technological innovation through their intermediary role. His emphasis was that efficient allocation of savings through identification and funding of entrepreneur with best chances of successfully implementing innovative product and production are tools to achieve real economic performance. Nwanyanwu (2012) noted that the banking sector help to make credit available by mobilizing surplus fund from depositor who have no immediate needs of such money and channel it in form of credit to investors who have brilliant ideals on how to create additional wealth in the economy but lack the necessary capital to execute the ideals. The study further reveals that the role of credit in an economy has been recognized as credit are obtained by economic agents to enable them meet operating expenses. For instance business firm obtained credit to buy machinery and equipment, farmers obtained credit to purchase farm input such as fertilizers, seeds, farm buildings.

However, acknowledging the role of commercial bank credit in an economy various banking reformed has been established by the monetary authority in Nigeria in enhancing credit accessibility. The overall intentions of these reforms have been to ensure financial stability so as to influence the growth of the economy and also enhance bank to play critical role of financial intermediation in provision and accessibility of credit in the Nigerian economy. These various reforms have led to the improvement in banking services to economic units. However, despite this increase in credit supply to the SMEs the performance of the sector in Nigeria has been dwindling. Therefore, this study examines the impact of commercial bank credit on the growth of small and medium scale enterprises in Nigeria.

Statement of the Problems

In spite of continuous policy strategies to attract credits to the SMEs, most Nigerian SMEs have remained unattractive for bank credits supply. For instance, as indicated in central Bank of Nigeria (CBN) reports, almost throughout the regulatory era, commercial bank's loans and advances to the SMEs sector deviated persistently from prescribed minimum. Furthermore, the enhanced financial intermediation in the economy following the

financial reforms of the 1986, credits to SMEs as a proportion of total banking credits has not improved significantly.

Afolabi (2013) asserted that one of the problems faced by SMEs operators in Nigeria is that government does not give chance or consider them when making policy in which priority is given to large organizations. This makes financing the main constraining factor to SMEs growth and hinders their potentials for enhancing economic growth in Nigeria. Available information from CBN,2012 shows that, as at 1992 commercial bank loan to SMEs as Percentage of total credit was 27.04% in 1997 and decreases to 8.68%, 0.85% and 0.14% in 2002, 2007 and 2010 while 2012 recorded 0.15%. Consequently, many SMEs in the country have continued to rely heavily on internally generated funds, which have tended to limit their scope of operation. Therefore it becomes imperative to ask the following questions.

1. Has commercial bank lending to the SMEs sector improved significantly?
2. Does density of commercial bank improve SMEs performance in the Nigerian economy?
3. Is there a significant relationship between commercial bank credit and the output performance of SMEs in Nigeria?

Answering these questions will provide insights on the empirical relationship between commercial bank credit and its impact on the growth of SMEs in Nigeria and the implications for banks credit supply to the sector.

The Purpose of the Study

1. To examine the impact of commercial bank credit on the growth of SMEs in Nigeria.
2. To evaluate the relationship between commercial bank density and SMEs performance in the Nigerian economy.
3. To evaluate the impact of government policy on the growth of SMEs in the economy.
4. Finally, to look into the problems that militates against this sector (SMEs) apart from finance in Nigeria and makes recommendation where necessary.

Significance of the Study

This study will be of significance to monetary authority, policy maker, government, academia and the general public. The findings of this study will help government and the monetary authorities to see the effectiveness of monetary policy in the management of the Nigerian economy interns of credit demand and supply to SMEs which have a spill over effect on Nigeria economic growth. This research work further serves as a guide and provides insight for future research on the topic and related field for academia's and policy makers who are willing to improve on it. The study will also contribute to knowledge by appraising the impact of bank density and government expenditure on the growth of SMEs output in Nigeria.

Hypothesis of the Study

H₀: commercial banks' credit to small scale enterprises, savings and time deposit with commercial banks, exchange rate of naira, interest rate, bank density proxy by total number of commercial bank and total government expenditure have insignificant impact on SMEs output.

H₁: commercial banks' credit to small scale enterprises, savings and time deposit with commercial banks, exchange rate of naira, interest rate, bank density proxy by total number of commercial bank and total government expenditure have significant impact on SMEs output.

The rest of the study is structured as follows: section two had a review of related literatures. The theoretical framework of the study is presented in section three. Section four had research methodology. . Section five is the presentation of results and discussions. Section six is the conclusions of the study while section seven is the recommendations.

Review of Related Literature

The term Small and Medium Scale Enterprises (SMEs) has no generally established definition. Musa (2013) noted that definition and criteria for classification of an enterprise as small, medium or large varies from one country to another, depending on whether it is developed or developing country. A small business for example to one country may be a large-scale business to another. SMEs in Nigeria, as defined by Small and Medium Industries Equity Investment Scheme (SMIEIS), are enterprises with a total capital employed not less than N1.5 million, but not exceeding N200 million, including working capital, but excluding cost of land and/or with a staff strength of not less than 10 and not more than 300.

The 1992 Review by the National Council on Industrial Standards have defined Small and SMEs as enterprises with total cost of (including working capital but excluding cost of land) above 31 million but not exceeding 50 million with a labour size of between 11 and 100 employees. Bamidele (2012) postulated that SMEs are usually small own or family managed business with its goods and services being basic and also SMEs also tend to lack the organization and management structure, which characterize large-scale entrepreneur (LSE) and Urban SMEs tend to be more structured than their rural counterpart. Aluko (2002) defines SMEs as those enterprises employing up to fifty (50) workers or less than excluding household enterprise. Small business is a business that is privately owned and operated with a small number of employees and relatively low volume of sales. Small-scale businesses are normally owned corporation, partnerships or sole proprietorship. The legal definition of "small" varies historically, by country and by industry but generally has fewer than 100 employees.

Kadiri (2012) established that SMEs serves as a catalyst for employment generation, national growth, poverty reduction and economic development. SMEs world over can boast of being the major employers of labour if compared to the major industries including the multinationals. Oluba (2009) summarized the contribution of SMEs to an economy, especially developing ones as: Greater utilization of raw materials, employment generation, encourage of rural development, development of entrepreneurship, mobilization of local savings, linkages with bigger industries, provision of regional balance by spreading investments more evenly, provision of avenue for self-employment and provision of opportunity for training managers and semi-skilled workers.

Kadiri (2012) noted that past efforts at providing solution to unemployment problem facing developing nations of the world are often faced with stiff opposition sometime right from beginning. Examining the contributions of small and medium scale enterprises to employment generation in Nigeria using the Binomial Logistic Regression Analysis the result revealed that the sector was unable to achieve this goal due to its inability to obtain adequate business finance for the sector. It was observed that virtually all the SMEs that were sampled relied on the informal sources of finance to start their business. As a way out, the study suggests the need for the integration of the activities of the formal with that of the informal financial institutions. However, acknowledging the role of commercial bank credit in an economy various banking reformed has been established by the monetary authority in Nigeria in enhancing credit accessibility. The overall intentions of these reforms have been to ensure financial stability so as to influence the growth of the economy and also enhance bank to play critical role of financial intermediation in provision and accessibility of credit in the Nigerian economy.

Dada (2014) noted that the consistently repeated complaint of SMEs about their problem regarding access to finance is highly relevant constraint that endangers the development of the sector in Nigeria and investigating the effect of commercial banks' credit on SMEs development employing Ordinary Least Square (OLS) technique to estimate the multiple regression models. The findings revealed that commercial banks credit to SMEs and the saving and time deposit of commercial banks exert a positive and significant influence on SMEs development proxy by wholesale and retail trade output as a component of GDP, while exchange rate and interest rate exhibit adversative effect on SMEs development. The study concluded that adequate savings should be mobilized from the public by emphasizing more on saving and that government should encourage banks to lend to SMEs by providing guarantee, interest rate subsidies and other incentives.

Afolabi (2013) evaluated the effect of SMEs financing on economic growth in Nigeria between 1980 and 2010 the study employed Ordinary Least Square (OLS) method to estimate the multiple regression models. The estimated model results revealed that SMEs output proxy by wholesale and retail trade output as a component of gross domestic product and commercial banks' credit to SMEs exert positive and significant impact on economic development proxy real gross domestic product while lending rate is found to exert negative effects on economic growth. Mohammed (2014) examined the necessity and strategies of re-positioning commercial banks in order to enhance the productive capacities of SMEs employing the Error Correction Model (ECM) and Co-integration Test the results showed that there was co-integration between re-positioning of commercial banks and capacities of SMEs to deliver products/services and also there was significant dispersion resulting from lending conditions and macroeconomic variables. He concluded that the previous Global Financial Crisis really brought with it economic hazards leading to Banking Sector Crises. It was recommended that government should relax the conditions for lending offered by the Commercial Banks through the Central Bank, revitalize the Capital Markets and Prioritize the SME in order to contribute to Economic Growth.

Idowu (2012) assert that the major barrier to rapid development of the SME sector is a shortage of both debt and equity financing. Accessing finance has been identified as a key element for SMEs to succeed in their drive to build productive capacity, to compete, to create jobs and to contribute to poverty alleviation in developing countries. Small business especially in Africa can rarely meet the conditions set by financial institutions, which see SMEs as a risk because of poor guarantees and lack of information about their ability to repay loans. Olukayode and Somoye, (2013) evaluates the impact of finance on entrepreneurship growth in Nigeria using endogenous growth framework, the results show that the finance, interest rate, real gross domestic product, unemployment and industrial productivity are significant to entrepreneurship in Nigeria. The results also show a uni-directional Granger causal relationship and suggest that access to finance by entrepreneurship has significant relationship with economic growth in Nigeria. The paper therefore recommends the formulation of effective macroeconomic policy targeted to entrepreneurship financing and growth. They recommended that monetary authorities should intervene indirectly by reducing Monetary Policy Rates (MPR) which will directly reduce the transaction costs of funds to entrepreneurship and industrial sectors. Findings, the study proffered that the central authority should create an enabling environment for SME development.

Ekpenyong (1997) showed that very little financial supports have been provided by the commercial banks to the SMEs. The reasons are that small businesses have serious intrinsic structural defects that make them high risk borrowers, and the commercial banks are not structured to supply for the type of credit demanded by the small businesses owing to the nature of their credit evaluation procedures.

Onakoya, Fasanya and Abdulrahman (2013) examined the impact of financing small scale enterprises on economic growth using quarterly time series data from 1992 to 2009 the study revealed that loan to small scale entrepreneurs have a positive impact on the economic performance and conclude that access to capital or finance is necessary but not a sufficient condition for successful entrepreneurial development. Imoughele and Ismaila (2013) also investigated the impact of commercial bank credit accessibility and sectoral output performance in Nigerian economy for the period which spanned between 1986 and 2011. An augmented growth model was estimated via the ordinary least square (OLS) techniques. The result found that the various commercial bank credit supplies have a long-run relationship with sectoral output performance in Nigeria.

Theoretical Framework

The finance led growth theory believes that the activities of the financial institutions serve as a useful tool for increasing the productive capacity of the economy. They argue that countries with better-developed financial system tend to grow faster. The importance of financial institutions in generating growth within the economy has been widely discussed in the literature. Early economists such as Schumpeter (1911) identified banks' role in facilitating technological innovation through their intermediary role such as supply of credit to the productive sector. He believed that efficient allocation of savings through identification and funding of entrepreneurs with the best chances of successfully implementing innovative products and production processes are tools to achieve this objective. Several scholars thereafter (Mckinnon 1973, Shaw 1973, Fry 1988, King and Levine 1993) have supported the above postulation about the importance of banks to the growth of the economy.

There are different transmission channels through which monetary policy affects economic activities and these channels of transmissions have been broadly examined under the monetarist schools of thought. The monetarist postulates that change in the money supply leads directly to a change in the real magnitude of money. Describing this transmission mechanism, (Friedman and Schwartz. 1963) as reported in Onyeiwu (2012) say that an expansive open market operations by the Central Bank, increases stock of money, which also leads to an increase in Commercial Bank reserves and ability to create credit and hence increase money supply through the multiplier effect. In order to reduce the quantity of money in their portfolios, the bank and non-bank organizations purchase securities with characteristics of the type sold by the Central Bank, thus stimulating activities in the real sector such SMEs.

In a related study, Bencivenga and Smith (1991) explained that development of banks and efficient financial intermediation contributes to economic growth by channelling savings to high productive activities and reduction of liquidity risks. They therefore concluded that financial intermediation leads to growth. Based on this assertion, this study examines the extent to which intermediation or credit to SMEs of the economy has influenced the sectors performance. This means that a commercial bank credit and the availability of the bank (bank density) can affect the growth of SMEs by efficiently carrying out its functions, among which is the provision of credit.

Methodology

The data to be used in carrying out this study would be time series data for the period 1986 – 2012 obtained mainly from secondary sources. Among these are Central Bank of Nigeria (CBN) statistical bulletin (various issues), The National Bureau of Statistic (NBS), Economic Journals, text book and published article in the subject matter.

Model Specification

Following the theoretical framework, the econometric model employed in this study to evaluate the effect of commercial bank credit on the growth of Nigeria SMEs is formulated following the previous empirical study of Afolabi (2013) and Dada (2014) with modification by including bank density and government expenditure in the economy, if it has any effect on growth of SMEs output proxy by wholesale and retail output as a component of GDP. Thus the model for this study is specified thus,

$SMEQ = f(\text{Commercial banks credit to SMEs, Savings and Time deposit with Commercial banks, bank Density, Exchange rate, total government expenditure and Lending rate})$ ----- (1)

$$SMEQ = (CBSME, STD, EXR, INT, BD, TGE) \text{ ----- (2)}$$

This can be specified in operational form and including logarithm as:

$$LSMEQ = \beta_0 + \beta_1 LCBSME + \beta_2 LSTD + \beta_3 LEXR + \beta_4 LINT + \beta_5 LTGE + \beta_5 DB + Ut \text{ ----- (3)}$$

Where

SMEQ = SMEs output proxy by Wholesale and Retail trade output as a component of GDP

CBSME = Commercial Banks' Credit to Small scale enterprises

STD = Savings and Time deposit with Commercial banks

EXR = Exchange rate of naira

INT = Interest rate (lending rate)

BD = Bank density proxy by total number of commercial bank

TGE= Total government expenditure

Techniques of Data Analysis

The estimation techniques of investigating the model are in four stages:

First, Time series is stationary when the mean $E(x_t)$ of time series (x_t) does not depend on t , and the variance, $E[x_t - E(x_t)]^2$ does not vary systematically with time. A stationary process has the property that the mean, variance and autocorrelation structure do not change over time. Stationary data depends on whether it has a unit root. Non-stationary data has stochastic or random trends and as such they are non deterministic. Therefore, when unit root is present, it implies that the time series data are non-stationary. The standard approach to investigate the stationary of time series data is the unit root test. The most commonly used is the Augmented Dickey Fuller (ADF) test proposed by Dickey and Fuller (1981). Basically, this step seeks to establish whether a particular time series data is stationary or non-stationary. If it is non-stationary, then it has to be differenced either once or twice.

To carry out this test, we test the null hypothesis of a difference stationary against the alternative hypothesis of a trend stationary (Enoma and Isedu, 2011). Thus,

$$H_0: Y_k \sim 1(1)$$

$$H_0: Y_k \sim 1(0)$$

Secondly, the variables are tested for co-integration, to find their convergence status. This is because variables that fail to converge in the long run may be hazardous to policy making. The theory of co-integration pioneered by Engle and Granger (1987) addresses this issue of integrating short-run dynamics with long-run equilibrium.

Thirdly, we estimate the model to evaluate the performance of the monetary policy on non-oil export. The estimation is carried out by using the ordinary least squares (OLS) technique, which is regarded as the best linear unbiased estimator (BLUE) that can be used in evaluating models of this nature (Gujarati 2002).

estimation, however, presupposes that the variables possesses desirable empirical properties of stationary and convergence (co-integration). However, if these desirable properties are not achieved we use the Error Correction specification to estimate the equation before using the ordinary least square technique.

Empirical Results and Interpretation

Unit Root Test

The unit root test in Table 1 shows that savings and time deposit with commercial banks, and bank density proxy by total number of commercial bank, exchange rate of naira and total government expenditure are stationary at first difference 1(1), since the ADF value of each of the variables at first difference is greater than the McKinnon 5% critical values, while SMEs output proxy by wholesale and retail trade output as a component of GDP, commercial banks' credit to small scale enterprises and interest rate are stationary at level because the ADF value of each variable at level is greater than the McKinnon 5% critical values.

Table 1: Unit Root Test

Variable	ADF calculated value in Level	ADF calculated value at 1st Difference	McKinnon 5% Critical value	Order of Integration
LBD	-0.542	-3.817	-2.985	1(1)
LCBSME	-3.227	-	-2.980	1(0)
LEXR	-2.442	-5.127	-2.985	1(1)
INT	-4.451	-	-2.980	1(0)
SMEQ	-4.059	-	-2.980	1(0)
STD	-0.117	-3.666	-2.985	1(1)
LTGE	-2.023	-7.931	-2.985	1(1)

Sources: Authors' calculation.

Johansen Co-integration Test

The result of Johansen co-integration test is shown in Table 2 below. The result shows that there exist one (1) co-integrating equations at 5% level of significance. This is because the likelihood ratio is greater than critical values at 5%. This shows that there exists a long run relationship between SMEs growth and all the explanatory variables. This is consistent with Imoughele and Ismaila (2013) who established that, the various commercial bank credit supplies have a long-run relationship with sectoral output performance in Nigeria. The result indicates that in the long run, the dependent variables can be efficiently anticipated using the specified independent variables and, thus, error correction model can be estimated.

Table 2: Co-integration Test

Date:08/04/14 Time: 04:36				
Sample: 1986 2012				
Included observation: 25				
Series: LBD, LCBSME, LEXR, LTGE, LINT, LSMEQ, LSTD, LTGE				
Lag interval: 1 to 1				
Eigen value	Likelihood Ratio	5 Percent Critical Value	1 Percent Critical Value	Hypothesized No. of CE(s)
0.905	126.412	94.15	103.18	None **
0.583	65.227	68.52	76.07	At most 1
0.500	42.467	47.21	54.46	At most 2
0.383	24.427	29.68	35.65	At most 3
0.355	11.873	15.41	20.04	At most 4
0.018	0.475	3.76	6.65	At most 5

*(**) denotes rejection of the hypothesis at 5% (1%) significance level

L.R. test indicates 1 co-integrating equation(s) at 5% significance level
 Sources: Authors computation.

Presentation of Regression Result

The result of error correction model is presented in table 3 below.

Table 3: Regression Results

Regressor	Coefficient	Std Error	T-statistic	Probability.
C	2.600	0.411	6.314	0.000
D(LBD)	0.252	0.178	1.418	0.172
D (LCBSME)	0.013	0.035	0.384	0.705
D (LEXR)	-0.170	0.067	-2.518	0.020
D(LINT)	-0.200	0.125	-1.602	0.125
D(STD)	0.384	0.074	5.162	0.000
D(LTGE)	0.122	0.069	1.773	0.091
ECM(-1)	-0.399	0.165	-1.761	0.095

$$R^2 = 0.7630$$

$$R^{-2} = 0.6919$$

$$F - \text{Statistic} = 37.343$$

$$\text{Prob} (F - \text{Statistic}) = 0.000$$

$$D.W \text{ Statistic} 2.198$$

Sources: Authors computation.

The regression result shown in Table 3, shows an insignificant Positive relationship between bank density and SMEs output. One percent increase in bank density will lead to about 1.418 percent increase in Nigeria SMEs output. This is consistent with apriori expectation. This result supports the fact that increasing number of bank will aid mobilisation of credit to the SMEs sector which have a spill over effect on SMEs performance. Commercial banks' credit to small scale enterprises has an insignificant positive relationship with growth of SMEs suggesting that its contribution to the sector is low as results of the stringent policy put in place to assess credit facility from the bank and the proximity of bank to SMEs. This finding conforms to the result of Dada (2014) and Mohammed (2013) who reported that commercial bank credit have direct impact on the growth of SMEs.

Exchange rate has negative correlation with Nigeria SMEs output. This is in line with the appriori expectation as continuous devaluation of the currency leads to inflation which have adverse effect for economic growth. From the result, the coefficient of EXR is significantly (at 5 percent significant level). The implication of this result is that the external sector has not contributed to the growth of Nigeria SMEs by making Nigeria market a dumping ground for substandard product this is in line with Dada (2014) findings. The result also shows that the coefficient of savings and time deposit with commercial banks has a significant positive effect on Nigeria SMEs output such that one percent increase in savings and time deposit with commercial banks will leads to 0.384 percent increase in SMEs output. This is consistent with standard theories and economic expectation because mobilisation of savings for investment in SMEs through bank enhances productivity of the sector which will have a spill over effect on economic output, ceteris paribus. This findings is consistent with Dada (2014) and Afolabi (2013) findings, that savings and time deposit with commercial banks has direct and significant effect on Nigeria SMEs output.

The result shows that the coefficient of interest rate is negative but insignificant such that one percent increase in interest rate will leads to 0.200 percent increase in Nigeria SMEs output. This is in line with the sign but the insignificant of this variable is as a result of poor interest rate policy and the dominants of informal sector in granting credit facility to economic agent. This finding is in line with Afolabi (2013) and Olukayode and Somoye (2013) that interest rate have indirect relationship with the growth of SMEs. The result further revealed that total government expenditure has positive but insignificant relationship with SMEs output such that one

percent increase in total government expenditure will leads to 0.122 percent increases in Nigeria SMEs output. The implication of this finding is that expansionary fiscal policy crowding out SMEs which stem the growth of the sector.

The result shows that the coefficient of ECM is negative -0.399 and significant at 10% percent critical level. This shows that about 40 percent disequilibria in the economic growth in the previous years are corrected for in the current year. The significance of the ECM is an indication and a confirmation of the existence of a long run equilibrium relationship between growth of SMEs and the determinants variables used in this study.

The coefficient of determinations R² of 0.763 indicates that about 76 percent of the total variations in Nigeria SMEs output are explained by the variations in the independent variables. The F-statistic shows overall significance of the model. The F-statistic is significant at 5% level. The probability of its value (0.000) is less than the 0.05 critical levels. We, therefore, reject the null hypothesis that the model is not significant in explaining the variations in SMEs output. Finally, the Durbin Watson test of autocorrelation shows an absence of positive serial autocorrelation. This is because the calculated value of DW (2.198) falls between lower critical level (DU) and 2 at 1% significant level. Where DU= 1.741. With this result we reject the alternate hypothesis that there is presence of serial autocorrelation in our model. Therefore, parameter estimates from our model are stable, efficient suitable for policy simulation.

Test of Hypotheses

This sub-section presents the result of hypothesis testing. Null hypothesis to be tested is that explanatory variables used in the model have no significant impact on the growth of SMEs in Nigeria's economy. If the calculated t ratio of an explanatory variable is greater than table value, such variable is said be a significant. The table t-statistic with 19 as degree of freedom at 5 percent critical level is 2.093. Comparing the table t-statistic value with calculated t-statistic value of each independent variable, it can be seen that only three explanatory variables are significant at 5 percent critical level. These variables are savings time deposit, exchange rate and error correction parameter. Therefore, from the findings above, we conclude that savings time deposit and exchange rate are significant determinants of the growth of SMEs in Nigeria.

Conclusion

This study has investigated the impact of commercial bank credit on the growth of SMEs for the period which spanned between 1986 and 2012. Econometric model was specified and estimated via the Ordinary Least Square (OLS) techniques to ascertain the relationship between dependent SMEs output and the explanatory variables. The variables were tested for stationarity, co-integration analysis was also carried out and also error correction test was performed. The study found that the SMEs and selected macroeconomic variables included have a long run relationship with SMEs output performance. The study also reveals that savings time deposit and exchange rate has a significant impact on SMEs output in Nigeria. Furthermore, commercial bank credit to SMEs, total government expenditure and bank density has direct but insignificant impact on the country SMEs output performance this may be connected with the stringent policy in accessing credit facility and the crowd effect of government expenditure in the economy. The study shows that interest rate has adverse effect on SMEs output. This finding confirms to the apriori expectation. This was attributed to the stable macroeconomic policy in management of interest rate in the Nigeria economy. Conclusively, savings time deposit and exchange rate are the main determinants of Nigeria SMEs performance.

Recommendations

Based on the findings in this study and further to induce SMEs performance in Nigeria, the following recommendations are suggested:

1. There is need for government to consciously develop the business environment by provision of necessary infrastructure, which will lower the cost of doing business in Nigeria this will induce the growth of SMEs.
2. Since exchange rate is under the control of monetary authority in Nigeria, efforts must be made to ensure exchange rate stability in order to stem inflationary tendencies in Nigeria which have adverse effect on the growth of SMEs.
3. Interest rate on credit facility granted to SMES should be drastically reduced, Commercial bank should grant soft loan to this important sector of the economy and also reduced stringent policy in supply of credit to SMEs. This will make commercial bank credit to SMEs to have a robust effect on growth of the sector.

4. Greater efforts should be made to make available, short, medium and long term loans to productive investments like SMEs as they constitute an integral part of the growth and transformation process of an agro based economy like that of Nigeria, this will induce employment and income of the various economic agent which will have a spill over effect on private savings and growth of the sector.
5. Since bank density have insignificant effect on the SMEs output, there is need for monetary authority to encourage commercial bank to set up more branches in the rural areas in order to encourage rural occupant to save and have assesses to credit facility which will induced the growth of SMEs output.
6. Finally, government should encourage stability in macroeconomic variables and employ such growth oriented and stabilization policies especially at macro level which will induce economic growth and development SMEs in Nigeria.

References

- Afolabi, M. O. (2013). Growth effect of Small and Medium Enterprises (SMEs) Financing in Nigeria, *Journal of African Macroeconomic Review*, 3(1):193-205.
- Arogundade, K.K. (2010), Effective Microfinance and SME: The True Story. *Journal of Management and Society*, 1(2): 51-54.
- Awoniyi, M.A. (2010). A Survey of Government Industrial Policy and Programmes on SME Growth and Entrepreneurs Development Strategy in Nigeria. Atlanta, Georgia USA. July, 2010.
- Bamidele, R. (2012), Small And Medium Scale Enterprises (SMES): A Panacea For Economic Growth In Nigeria. *Journal of Management and Corporate Governance*, 4, 83-99.
- Bencivenga, V. R. and Smith, B. D. (1991). Financial Intermediation and Endogenous Growth. *The Review of Economic Studies*, 58 (2):195-209.
- Dada, R. M. (2014), Commercial Banks' Credit and SMEs Development in Nigeria: An Empirical Review. *International Journal of Research (IJR)* 1(8): 305-320.
- Ekpenyong, D. B. (1997). Problems of Small Business and why they Fail." *Journal of General Studies*, Bayero, University, 3(1).
- Engel, R. F. and Granger G. W. J. (1987) Estimation and Testing, *Econometrica*. 55, 257-276.
- Gujarati, D. N. (2003) Basic Econometrics, 4th edition, New York: *McGraw-Hill Higher Education*.
- Idowu, F.C (2012), Impact of Microfinance on Small and Medium-Sized Enterprises in Nigeria. Proceedings of the 7th International Conference on Innovation & Management.
- Imoughele, L. E and Ismaila, M (2013). Commercial Bank Credit Accessibility and sectoral output Performance in a Deregulated Financial market Economy: Empirical Evidence from Nigeria. *Journal of Finance and Bank Management*. 1(2), : 36-59.
- Kadiri, I.B. (2012). Small and Medium Scale Enterprises and Employment Generation in Nigeria: The Role of Finance. *Kuwait Chapter of Arabian Journal of Business and Management Review*, 1(9): 79-94.
- King, R. G. and Levine, R (1993), "Finance and Growth: Schumpeter Might Be Right", *Quarterly Journal of Economics*, 108, 717-737.
- McKinnon, R. I. (1973), *Money and Capital in Economic Development* Washington, D.C. Brookings Institution.
- Mohammed, O. (2014), Re-positioning Commercial Banks to enhance the productive capacities of Small and Medium – Scale Enterprises (SMEs) for Economic Growth of Developing Nations: A Focus on Nigeria. *International Journal of Public Administration and Management Research (IJPAMR)*, 2(2) : 193-198

- Nwanyanwu, O.J. (2012), “An Analysis of Banks’ Credit on the Nigerian Economic Growth (1992-2008)”, *Jos Journal of Economics*, 4(1), 43-58.
- Olukayode, R. and Somoye, C. (2013). The Impact of Finance on Entrepreneurship Growth in Nigeria: A Cointegration Framework, *ACRN Journal of Entrepreneurship Perspectives*, 2 (2): 21-45.
- Onakoya, A.B.Fasanya, O and Abdulrahman, H. D (2013), Small and Medium Scale Enterprises Financing and Economic Growth in Nigeria. *European Journal of Business and Management*, 5(4): 130-137
- Onyeiwu, C. (2012). Small and Medium Enterprises Finance and Economic Development of Nigeria. An *unpublished Article*. University of Lagos. Lagos State, Nigeria.
- Shaw, E. S. (1973). *Financial Deepening in Economic Development* London: Oxford University Press.