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Boosting the Nigerian Economy through Small and Medium Scale Enterprises' Financing

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Abstract. Financial institutions no doubt are reputed for the inter-mediation role of moving funds from the surplus sector of the economy to the deficit sector. However, what is overtly contentious is whether the funds being extended to the deficit sector are well applied to herald the intended growth effect in a volatile economy like Nigeria. This study is yet another empirical attempt to re-establish the link between financing of the small and medium scale enterprise sub-sector and the economic growth of Nigeria. The study made use of secondary data from the Central Bank of Nigeria (CBN) statistical Bulletin covering periods from 1980-2017. Data generated were subjected to diagnostic tests and certified with for use. The Ordinary Least Squares (OLS) method was applied for the data analysis. The results showed that bank credit extended to the SMEs sub-sector though exerted positive effect but was not significant as revealed from the t-statistic and the corresponding p-value. The study therefore recommended that more deliberate efforts and policies should be put in in place to ensure that banks are encouraged to lend to the sub- sector and lending interest rate be further reduced to single digit to make it more attractive to borrowing SMEs. Furthermore, the lending application procedures should be devoid of very stringent conditions for easy accessibility.

Keywords: Small and medium scale enterprises, Economic growth, Macroeconomic variables

1. Introduction

Small and medium scale enterprises (SMEs)are identified as catalysts for economic growth of countries, as such, government formulate policies aimed at facilitating and fostering the performance of the SMEs sub-sector in order to enhance the socio-economic development of the economy like alleviating poverty, employment generation, enhance human development, and improve social welfare of the people (OECD, 2015; Taiwo, Falohun, & Agwu, 2016; World bank, 2012).

It is important to note that a strong and sustainable SMEs sub-sector cannot just emerge on itself. It requires some impetus as catalyst to herald the requisite and key success factor for growth and sustenance of any economy. In Nigeria, the main problem facing the development of most Small and Medium-Scale Enterprises (SMEs) is inadequate finance in spite of continuous policy strategies to attract credits to the subsector; whether for the establishment of new industries or to carry out expansion plans on the existing business yet most Nigerian SMEs have remained unattractive for bank credit supply. Saibu, Wosa & Agbeluyi (2011) argued that the financial institutions in Nigeria had abandoned their primary intermediating role for non-conventional business. The authors noted that most of the bank loans and advances are directed to consumable import finance, oil importation and margin loans to stock market speculators. Abereijo and Fayomi (2005) noted that the majority of commercial bank loans offered to SMEs are often also limited to a period far too short to pay off any sizeable investment. In addition, banks in many developing countries prefer to lend to the government rather than private sector borrowers because the risk involved is lesser and higher returns are offered. Such apathy for the SMEs no doubt has crowded out most private sector borrowers and increased the cost of capital for them. Recently, there is an increasing pressure on banks in Nigeria to give out more loans and advances to private sector and most especially SMEs so as to grow their businesses and increase the

overall growth & development of the economy. This is evident from the Federal Government of Nigeria (FGN) through the Central Bank of Nigeria (CBN) credit policy guidelines and strategies. The policies stress the necessity to continually award priority to the real sector of the economy. For instance, the CBN in 2008 established Small and Medium Scale Enterprises Investment Scheme (SMEIS) to encourage banks to earmark 10% of their pretax earnings towards financing SMEs. In the same year, the Apex bank launched a micro credit finance fund of N50Billion with the sole aim of granting credit to micro and small business enterprises. Also, in 2012, the CBN set aside N200billion for financing of SMEs. However, most of these funds have remained unutilized and at best misappropriated. The view has been supported by Nwakoby (2012) who averred that many SMEs operators do not care to formally apply for financial accommodation since there is a mindset that they will be denied and Sanusi (2010) corroborated thatmany promoters of local industries in Nigeria lacked the requisite discipline to access and use bank facilities responsibly. Increasing access to loans therefore, does not necessarily imply an automatic indication of business growth as it depends on whether the business for which the loans were applied actually benefited from it or they were misappropriated into personal and unproductive uses. The issue of how much impact the credit availed to SMEs exerts on the country's Gross Domestic Product (GDP) therefore arose. This study is yet another empirical attempt to determine the the influence of SMEs financing by commercial banks on the growth of Nigerian economy from 1980 to 2017.

2. Literature Review

2.1 Conceptual Clarification

The meaning of SMEs: The term Small and Medium Scale Enterprises (SME's) has no generally established definition. Kadiri (2012) noted that the 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. Thus, SME's in Nigeria, as defined by Small and Medium Industries Equity Investment Scheme (SMIEIS) are enterprises with a total capital employed not less than ₦1.5 million, but not exceeding ₦200 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.

Esuh and Adebayo (2012) noted that they are firms or businesses arising as a result of entrepreneurial activities of individual. SME sector is categorized into three namely; micro, small and medium enterprises or businesses. The micro SME's are the smallest among the three categories. In the word of Afolabi (2013) "they are businesses that employ up to 9 employees in UK, while in Australia they employ fewer than 5 employees including non employing businesses". According to US Census Bureau, micro businesses are categorized as SOHO meaning Small Office-Home Office. Therefore, micro businesses should be seen as the small form of SME that may employ fewer than 9 employees or on the other hand may not have employees at all.

As regard the small business, they are businesses bigger than the micro-businesses in terms of size, number of employees, structure, capital investment and economic contributions. The Nigerian Industrial Policy defined small scale business as industries with total investment of between ₦100, 000 and ₦2 million, exclusive of land but including working capital. Lastly, the medium business as the name suggests are bigger than both micro and small businesses in terms of operations, manpower capacity or number of employees, structure, capital investment and size. According to Afolabi (2013), they are the businesses that employ not fewer than 15 employees under the Australian Fair Work Act (2009) to fewer than 500 employees under the US, while the European Commission defined medium businesses as enterprises which employ fewer than 250 persons and/or have an annual balance sheet total not exceeding EUR 43 million.

The Concept of Economic Growth: Economic growth is the increase in the inflation-adjusted market value of the goods and services produced by an economy over time. It is conventionally measured as the percent rate of increase in real gross domestic product(real GDP). The Gross Domestic Product is the market value of all officially recognized final goods and services produced within a country in a given period. It measures overall economic activity and signals the direction of economic growth and welfare. It is also a barometer to measure the health of the economy. It is an internationally recognized indicator for measuring the size of an economy in a given period of time (Kale, 2014).

2.2 Theoretical Framework

Theoretically, the finance led growth hypothesis provides a veritable framework and a lucid explanation for the link between banks' credit and the

growth of the SMEs. This theory, which was propounded by Schumpeter in 1912, maintains that the activities of the financial institution serve as a useful tool for increasing the productive capacity of the economy. In concrete term, the finance led growth hypothesis emphasizes that the existence of financial institution and the supply of their financial assets, liabilities and related financial services in advance of demand for them would provide an efficient allocation of resources from surplus spending units to deficit units, thus boosting investment which in turn stimulate growth. A number of studies have argued in favour of the finance led growth hypothesis. They include: (Patrick 1966, McKinnon 1973, Shaw 1973, King and Levine 1993). These studies acknowledge the role played by banks in facilitating technological innovation by identifying and supplying credit to entrepreneurs with the least chances of implementing innovative products.

2.3 Empirical Studies

The impact of Commercial Banks' credit to small and medium scale enterprises on economic growth has been emphasized by researchers. For example, Sharif (2010) investigated the impact of bank lending supply fluctuations on economic activity in a multitude of developed and developing countries, (Argentina, Brazil, Venezuela, Indonesia, India, Malaysia, Thailand, Australia, New Zealand, Belgium, France, Italy, Germany, Spain, UK, Japan, Turkey, South Africa and the USA,).the study applied an unrestricted VAR system, and the results show that bank loan supply fluctuations are responsible for disturbances in GDP in the sample of countries.

Oke and Aluko (2015) examined the impact of Commercial Banks in financing small and medium scale enterprises (SMEs) in Nigeria for the period 2002 to 2012. The authors collected annual data from ten Commercial Banks and adopted panel data regression analysis. The results indicate that Commercial Banks have significant impact on SMEs' financing which implies that Commercial banks are capable of making SMEs grow.

Younus (2007) examined the relationship if any among economic growth (output), private sector credit and inflation in Bangladesh. The study used real private sector credit (from banks) and GDP to examine whether private sector credit has any impact on economic growth in Bangladesh. Various econometric techniques, such as unrestricted VAR, Granger Causality are used to examine the relationship. The econometric results suggest that private sector credit has no real effect on economic growth but is inflationary. Economic growth, however, has positive impact on real private sector credit growth reflecting higher credit demand emanating from increased economic activities. This result is consistent with the conventional belief that when an economy starts to grow it creates immediate additional demand for financial services and helps grow a better financial system

Owenvbiugie and Igbinedion (2015) analyzed the role of finance in that SMEs growth was hindered as a result of inability to access funds from financial institutions as a result of stringent policies required by banks and other financial institutions. Consequently, the authors recommended that necessary financial assistance should be given to the sector by government and other stake holders in order to accelerate the growth of SMEs in the rural communities to reduce the current unemployment and rural- urban migration.In a related study, Imoughele and Ismaila (2014) investigated empirically the impact of Commercial Banks' credit on small and medium scale enterprises in Nigeria between 1986 and 2012, using co-integration and error correction modeling technique. The findings revealed that SMEs and selected macroeconomic variables included in the model are co-integrated indicating a long run relationship between them. The findings further revealed that savings, time deposit and exchange rate have significant impact on SMEs' output in Nigeria, while interest rate has adverse effect. The paper therefore recommended among others that interest rate on credit facility granted to SMEs should be drastically reduced and soft loans devoid of stringent conditions be granted to the SMEs. Furthermore, Dada (2014) maintained that access to credit is crucial for the growth and survival of small and medium scale enterprises (SMEs)utilizing data from 1992 to2011 and adopting ordinary least squares regression, the study revealed that Commercial Banks' credit to SMEs and saving and time deposit of commercial banks exert a positive influence on SMEs' development while exchange rate and interest rate have adverse effects on SMEs' development. Dada (2014) therefore recommended that Commercial Banks should lend more to the SMEs at subsidized rate.Funding has remained a major challenge to the growth of small and medium scale enterprises in Nigeria. This assertion was buttressed by (Abereijo & Fayomi, 2005; Beck, 2007 & Ovat, 2013). Again World Bank (2001) reported that 39 per cent of small scale enterprises and 37 per cent of medium scale firms in Nigeria are financially constrained. Arising from the

issue of financial constraints to the growth of SMEs, some studies have documented that commercial banks have risen to the challenge in providing financial succor to the SMEs to support their growth in Nigeria. For example, Nwosa and Oseni (2013) examined the impact of bank loans on manufacturing output in Nigeria between 1992 and 2010. Utilizing error correction modeling technique, the findings indicated that banks' credit to the SMEs had significant impact on manufacturing output both in the short run and long run. On the other hand, a number of studies have shown that commercial banks' role in extending credit to the SMEs in Nigeria is not impressive. For example, Central Bank of Nigeria (2010) revealed that Commercial Banks' advances to SMEs have been on the decline over the years. This is corroborated by Luper (2012), when he documented that Commercial Banks loans to SMEs as a percentage of total credits, decreased from 48.79 per cent in 1992 to 0.15 per cent in 2010. While some studies maintained and affirmed that Commercial Banks have contributed immensely to the growth of SMEs, others debunked such claims and opined that no substantial contribution has been made by Commercial Banks towards the growth of SMEs in Nigeria. This suggests that there is no consensus among researchers on the role of Commercial banks on economic growth in Nigeria. The debate rages on. This paper is therefore one of the several attempts to contribute to the on-going debate.

3. Research Methods

This study adopts the Ex-post facto research design. The data for this study will be obtained mainly from secondary sources. The secondary data that relates to relevant information that depicts the tax structure and characteristics of Nigeria will be collected from the Central Bank of Nigeria statistical Bulletin (2017). This is because data needed for analysis already exists. The study will cover Nigeria's economy with time series data relating to credit to SMEs by commercial banks and GDP for the years 1980-2017. The study uses the OLS regression model to test for relationship between SME credit and the Nigerian economy proxied as Gross Domestic Product (GDP). The data for this study will be obtained mainly from secondary sources. The secondary data that relates to relevant information that depicts the tax structure and characteristics of Nigeria will be collected from the Central Bank of Nigeria statistical Bulletin (2017) . The data is made up of Gross Domestic Product (GDP) of Nigeria from 1980 to 2017.. The data were collated and analysed with the aid of E-view version 5statistical package.

Model Specification: In order to examine the impact of tax revenue on Nigerian economic growth, a multiple linear model is built. The model captures the contribution of SME financing and economic growth proxied as GDP. This is represented in the following function:

GDP =b0 + b1CRSME + b2M2+ b3INTR + b4EXCHR + b5GFCF + b6INF +Ut

From the above function, the following model is derived:

Where GDP is the Gross Domestic Product; CRSME: Bank credit to small and medium scale enterprises; M2: Broad Money supply; INTR: Interest rate; EXCHR: Exchange rate; GFCF: Gross fixed capital formation; INF: Inflation; 0, 1,2,3,4,5,6 are the coefficient of the parameter estimate. It is the error term.

Method of Evaluation: Having specified and estimated the parameters of model the research would proceed with the evaluation of the results of the calculation, that is, with the determination of the reliability of these results. That is, with the evaluation of the reliability of these results. The evaluation consists of deciding whether the estimates of the theoretically meaningful and statistically satisfactory. In view of the researcher will evaluate the estimated parameters using the following criteria;

(1) The adjusted R^2test
(2) The student t - test
(3) The f- test
(4) The Durbin – Watson test

1. The Adjusted R^2

This is also coefficient of multiple determinations. It measures the percentage of the total variation of the dependent variable (GDP) explained by the regression plane, that is by changes in explanatory variables, (CRSME, M2, INTR, EXCHR,GFCF, INF). The value of R^2 is between 0 and 1. The higher the R^2 the better the goodness of fit of the regression plane to the sample observations, and the closer the R^2 to zero worse the fit (Gujarati 2004).

2. The student T-test

It is used to test the statistical significance of individual estimated parameter. In this research, t – statistics is chosen because the population variance is unknown and sample size is less than 30($n<30$).

Decision Rule

Reject the null hypothesis if the calculated value of t is greater than the tabulated value of t (i.e. $t^* > t$ tab) with N –K degree of freedom at the chosen level of significant. In this study, the chosen level of significance will be 5%.

3. The F – test

This is used to test for the overall significance of the regression plane (model). The test aims at finding out

whether the joint influence of the explanatory variables on the dependent variable is statistically significant.
Decision Rule
If f – calculated (f*) is greater than F – tabulated (f* >ftab) with the chosen level of significance with K-1 and N-K degree of freedom, we reject the null hypothesis, that is, we accept that the regression model is significant.
But if f* >ftabs, we accept null hypothesis, that is we accept that the regression model is not significance with K-1 and N – K degree of freedom.

4. Durbin – Watson Test
It is determined by the theory of economics. It is used for the presence of first auto correlation in the level of significance used is (%).
Decision Rule
Accept the null hypothesis if du < d*< (6 – du), that is there is presence of first order autocorrelation of first order.
These are the guiding principles throughout the study.

4. Data Analysis and Results

Descriptive Statistics

The Jarque-Bera (JB) test statistic was used to determine whether or the variables (control variables) follow the normal probability distribution. The JB test of normality is a large-sample or asymptotic test that computes kurtosis and the skewness measures. We therefore examine the Sample mean, standard deviation, skewness and kurtosis, and the Jacque-Bera statistics as well as the p-values.

The Descriptive Statistics

	GDP	CRSME	M2	INTR	EXCHR	GFCF	INF
Mean	21671.53	63746.12	3958.914	10.63171	83.50597	259856.8	19.87045
Median	4434.231	16038.48	450.7130	11.87500	57.37000	375330.9	14.50000
Maximum	101598.5	508302.2	21607.68	26.90000	360.2000	429230.0	72.80000
Minimum	94.32502	0.000000	14.46112	2.500000	0.550000	5573.000	5.400000
Std. Dev.	32883.76	110331.1	6256.973	5.897878	88.17989	154044.5	16.27148
Skewness	1.452574	2.531932	1.531699	0.463708	1.132340	-0.651039	1.672856
Kurtosis	3.524347	9.249507	3.996388	2.761949	4.225768	1.685226	5.095231
Jarque-Bera	13.79847	102.4402	16.43055	1.451549	10.49953	5.421392	24.67432
Probability	0.001009	0.000000	0.000270	0.483950	0.005249	0.066491	0.000004
Sum	823518.2	2422352.	150438.7	404.0050	3173.227	9874557.	755.0769
Sum Sq. Dev.	4.00E+10	4.50E+11	1.45E+09	1287.044	287700.6	8.78E+11	9796.159
Observations	38	38	38	38	38	38	38

Source: *Author's computation (2019)*

From the result table above, the descriptive statistics indicates that from 1980 to 2017, the seven variables under consideration show an averaged positive mean values. The standard deviation showed that the highest standard deviation of (154044.5) is recorded by the GFCF while the least standard deviation of (5.897878) is recorded by INTR. The skewness statistics from the table revealed that six of the variables are positively skewed while one variableis skewed negatively; the kurtosis coefficients show that five of the variables are leptokurtic, suggesting that the distributions are high relative to normal distribution while one variableis mesokurtic, indicating not too flat topped and one other variable is platykurtic, indicating a flat topped.The probabilities of Jarque-Bera test of normality for the variables indicates that six of the variables have values greater than 5% level of significance.

Correlation

Under the correlation test, we conduct the test to ascertain the degree of relationship that exists between the dependent variable and the independent variables. This is done using the correlation matrix . In the correlation test, we test the variables to ascertain the degree of relationship that exist between the independent variables and the dependent variable. The relationships among the studied variables depicted in the model were tested using correlation matrix and the result presented below:

Correlation matrix

	GDP	CRSME	M2	INTR	EXCHR	GFCF	INF
GDP	1.000000	-0.209880	0.868709	0.458477	0.852530	0.513680	-0.131295
CRSME	-0.209880	1.000000	-0.218426	0.365084	-0.043392	0.354007	-0.065679
M2	0.868709	-0.218426	1.000000	0.443290	0.667518	0.496030	-0.152125
INTR	0.458477	0.365084	0.443290	1.000000	0.694314	0.802662	-0.224011
EXCHR	0.852530	-0.043392	0.667518	0.694314	1.000000	0.693975	-0.218326
GFCF	0.513680	0.354007	0.496030	0.802662	0.693975	1.000000	-0.223251
INF	-0.131295	-0.065679	-0.152125	-0.224011	-0.218326	-0.223251	1.000000

Source: *Author's computation (2019)*

The correlation result shows that four of the variables have positive relationships with the GDP. The relationships are actually at 86%, 45%,85%, and15% respectively. Two variables indicate indicates a negative signs (-20%) and (-13%) respectively. Hence we conclude that there exist no multicolinearity among the variables under consideration.

Unit Root /Stationary Test

Economic variables are generally non-stationary and they are a random process. Linear combination of non-stationary series in general is a non-stationary series and closely associated with economic theory. Because economic theory guarantees stagnation of combination of economic variables, in this study Dickey Fuller's generalized Test for investigation of stationary variables is used. In order to assess the time series properties of the data, unit root tests was conducted. As Engle and Granger (1987) argued, if individual time series data are non-stationary, their linear combinations could be stationary if the variables were integrated of the same order. The assumption is stated as follows: If the absolute value of the Augmented Dickey Fuller (ADF) test is greater than the critical value either at 1% ,5%,or 10% level of significance at order zero, one or two, it shows that the variable under consideration is stationary otherwise it is not. The results of the Augmented Dickey Fuller (ADF) test obtained are as follow:

The Unit root test

Variable	**Level difference**	**Probability**	**Order of integration**	**First difference**	**probability**	**Order of integration**
GDP	2.301739	0.9999	I(0)	-5.279597	0.0001	I(1)
CRSME	-2.431725	0.1403	I(0)	-7.462494	0.0000	I(1)
M2	-5.95687	0.0001	I(0)	-5.564556	0.0001	I(1)
INTR	-1.923104	0.3185	I(0)	-6.736464	0.0000	I(1)
EXCHR	2.707388	1.0000	I(0)	-3.219975	0.0269	I(1)
GFCF	-1.621876	0.4614	I(0)	-2.256252	0.1921	I(1)
INF	-2.979870	0.0461	I(0)	-5.611779	0.0000	I(1)

Source: Author's computation from E-views result(2019)

The stationarity tests result indicate that two of the variables under consideration, CRSME, and INF are stationary at level difference while the other variables are non-stationary at level. However, after first differencing the variables became stationary; hence all the variables under consideration, are stationary and integrated of order one at 5% level of significance. A cointegration test is therefore conducted

Cointegration Test

When a linear combination of variables that are I(1) produces a stationary series, then the variables may need to be cointegrated. This means that a long-run relationship may exist among them, which connotes that they may wander from one another in the short-run but in the long-run they will move together. To establish whether long-run relationship exists among the variables or not, cointegration tests are conducted by using the multivariate procedure developed by Johansen (1988) and Johansen and Juselius (1990). The nature of the estimator means that the estimates are robust to simultaneity bias, and it is robust to departure from normality (Johansen, 1995). Johansen method detects a number of cointegrating vectors in non-stationary time series. It allows for hypothesis testing regarding the elements of co-integrating vectors and loading matrix.The Johansen hypothesized cointegration was carried out to determine the number of stationary long-run relationship among the variables included in the study. It offers two tests, the trace test and the Eigen value test, with a view to identify the number of cointegrating relationships. The results of the cointegration test is as follows:

The cointegration test

Lags interval (in first differences): 1 to 2				
Unrestricted Cointegration Rank Test (Trace)				
Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.968105	353.2456	125.6154	0.0000
At most 1 *	0.945460	232.6604	95.75366	0.0000
At most 2 *	0.822146	130.8516	69.81889	0.0000
At most 3 *	0.629068	70.41388	47.85613	0.0001
At most 4 *	0.427843	35.70306	29.79707	0.0093
At most 5 *	0.334135	16.16108	15.49471	0.0397
At most 6	0.053587	1.927682	3.841466	0.1650
Trace test indicates 6 cointegratingeqn(s) at the 0.05 level				
Unrestricted Cointegration Rank Test (Maximum Eigenvalue)				
Hypothesized		Max-Eigen	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.968105	120.5852	46.23142	0.0000
At most 1 *	0.945460	101.8088	40.07757	0.0000
At most 2 *	0.822146	60.43773	33.87687	0.0000
At most 3 *	0.629068	34.71082	27.58434	0.0051
At most 4	0.427843	19.54198	21.13162	0.0822
At most 5	0.334135	14.23340	14.26460	0.0506
At most 6	0.053587	1.927682	3.841466	0.1650
Max-eigenvalue test indicates 4 cointegratingeqn(s) at the 0.05 level				
* denotes rejection of the hypothesis at the 0.05 level				
**MacKinnon-Haug-Michelis (1999) p-values				

Source: *Author's computation (2019)*

The Johansen hypothesized cointegration offers two tests, the trace test and the Eigen value test, with a view to identify the number of cointegrating relationships.From the table above, the trace likelihood ratio and the maximum Eigen value results point out that the null hypothesis of no cointegration among the variables is rejected in favour of the alternative hypothesis up to six and four cointegrating equations at 5% significant level respectively. This implies that a unique long-run relationship exists among the variables and the coefficients of estimated regression can be taken as equilibrium values.

Regression Result: In order to ascertain the long-run effect of the effect of bank credit to SMEs on Economic growth,we conducted an Ordinary Least Square (OLS) multiple regression. It is expected that the coefficients of the variables under consideration will exhibit various characteristics in sign and sizes that conforms to the a priori expectations of the economic theory.

The regression result

Dependent Variable: LOG(GDP)				
Method: Least Squares				
Date: 07/16/19 Time: 09:39				
Sample: 1980 2017				
Included observations: 38				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.978555	0.859003	1.139176	0.2634
CRSME	1.420006	7.940007	1.788616	0.0835
LOG(M2)	0.583138	0.058658	9.941365	0.0000
INTR	-0.015841	0.022732	-0.696862	0.4911
EXCHR	0.010426	0.001307	7.974922	0.0000
LOG(GFCF)	0.215568	0.089125	2.418716	0.0216
INF	0.007863	0.004344	1.809957	0.0800
R-squared	0.975254	Mean dependent var		8.148588
Adjusted R-squared	0.970465	S.D. dependent var		2.400062

S.E. of regression	0.412472	Akaike info criterion		1.231525
Sum squared resid	5.274125	Schwarz criterion		1.533185
Log likelihood	-16.39897	Hannan-Quinn criter.		1.338853
F-statistic	203.6219	Durbin-Watson stat		1.954999
Prob(F-statistic)	0.000000			

Source: *Author's computation (2019)*

The table above shows the regression result on the effect of bank credit to SMEs on economic growth in Nigeria. From the table, the coefficient of the variables, CRSME, LOG(M2) EXCHR, LOG(GFCF)and INF indicate positive signs. The positive coefficient of the variable, EXCHR conforms to the findings of Udeh, Ugwu, and Onwuka (2016) who noted that that exchange rate fluctuation had positive impact on the Nigerian economy while external debt stock and debt service payment had negative impact on the same economy.

Statistically, the t-statistic of the variables under consideration show that three of the variables, exhibited values that is greater than positive two and less than the negative two. This shows that the variables under consideration are statistically significant. The F-statistic shows that the overall estimate of the regression has a good fit and is statistically significant. The R2 - (R-squared) which measures the overall goodness of fit of the entire regression indicates a 97% value while the adjusted R2 97%, hence implying that the independent variables explain the dependent variable to the tune of 97%. Also the Durbin Watson (DW) statistics DW = 1.954999 which is greater than the R2 shows that the overall regression is statistically significance. Thus the result indicates no serial auto correlation among the variables under consideration.

Error Correction Models (ECM)

There is long-run equilibrium relationship among the variables in the regression model; however, it is the short-run that transmit to the long-run. Thus, error correction mechanism is therefore used to correct or eliminate the discrepancy that occurs in the short-run. The coefficients of the explanatory variables in the error correction model measure the short-run relationship. The assumption of the ECM states that if two variables are cointegrated, then, there is error correction mechanism to revise instability in short term (Engle and Granger, 1987). ECM is used to see the speed of adjustments of the variables to deviations from their common stochastic trend. ECM corrects the deviations from the longrun equilibrium by short-run adjustments. This shows us that changes in independent variables are a function of changes in explanatory variables and the lagged error term in cointegrated regression. The VECM result is therefore presented below:

Error-correction estimates

Dependent Variable: DLOG(GDP)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.073331	0.350301	-0.209336	0.8356
CRSME	4.61E-07	2.97E-07	1.549095	0.1322
LOG(M2)	0.075850	0.026623	2.849014	0.0080
INTR	-0.009653	0.008283	-1.165409	0.2534
EXCHR	-0.001504	0.000562	-2.675649	0.0121
LOG(GFCF)	-0.009834	0.036340	-0.270605	0.7886
INF	0.004683	0.001585	2.953782	0.0062
ECM(-1)	-0.308222	0.096381	-3.197939	0.0033
R-squared	0.486978	Mean dependent var		0.186752
Adjusted R-squared	0.363145	S.D. dependent var		0.186909
S.E. of regression	0.149159	Akaike info criterion		-0.778792
Sum squared resid	0.645207	Schwarz criterion		-0.430485
Log likelihood	22.40765	Hannan-Quinn criter.		-0.655997
F-statistic	3.932542	Durbin-Watson stat		2.369857
Prob(F-statistic)	0.003933			

Source: *Author's computation (2019)*

From the result table, the coefficient of the variable CRSME indicates a positive sign though statistically insignificant. The implication is that a percentage change in the bank credit to the SMEs will lead to 4.6 % increase

in the economic growth. Equally, the coefficient of the variables LOG(M2) is correctly signed and statistically significant at5% critical level. Thus, there is a strong relationship between broad money supply and economic growth in the short run. This implies that, a percentage change (increase) in the bank credit to the SMEs will lead to an increases in economic growth. The coefficients of INTR is correctly signed and is \not statistically significant at 5% critical level. Furthermore, the coefficient of the error correction termECM(-1) is with the expected sign (-3.197939) and statistically significant. The implication is that any deviation from the long run equilibrium adjust slowly and about 30% of the disequilibrium is removed each period.

Statistically, it is evidenced from the coefficient of multiple determinations (R^2) that the model has a good fit as the independent variables were found to jointly explain 46% of the movement in the dependent variable. However, the fitness of the model is could be interpreted in the F-statistic which is significant at 3.932542 with a probability values (0.003933) , and explains the adequacy of overall variables incorporated in the model.

Granger Causality Test

The procedure used in this study for testing statistical causality between the variables is the "Granger-causality" test developed by C.W.J. Granger in 1969. The Granger causality tests determine the predictive content of one variable beyond that inherent in the explanatory variable itself. Granger and Engle (Granger and Engle, 1987) have showed that in case of a cointegration between the variables, there may be one way or two way Granger-causality between the variables which have stochastic error terms in I(0). Thus, regression is purified from spurious regression. In order to examine the Granger causal relationships between the variables under examination, we used the estimated model in the previous section. F -statistic was used as a testing criterion. The results relating to the existence of Granger causal relationships between the variables are presented in the table below:

The Pairwise Granger Causality Tests

Lags: 2			
Null Hypothesis:	Obs	F-Statistic	Prob.
CRSME does not Granger Cause GDP	36	0.09835	0.9066
GDP does not Granger Cause CRSME		0.22740	0.7979
M2 does not Granger Cause GDP	36	17.1283	1.E-05
GDP does not Granger Cause M2		0.58922	0.5609
INTR does not Granger Cause GDP	36	1.21212	0.3113
GDP does not Granger Cause INTR		0.13302	0.8759
EXCHR does not Granger Cause GDP	36	1.22423	0.3078
GDP does not Granger Cause EXCHR		4.61301	0.0176
GFCF does not Granger Cause GDP	36	0.95610	0.3954
GDP does not Granger Cause GFCF		0.00517	0.9948
INF does not Granger Cause GDP	36	0.18294	0.8337
GDP does not Granger Cause INF		0.19843	0.8211

Source: *Author's computation (2019)*

From the pairwise Granger Causality test result, it shows that there is no direction of causality between GDP and CRSME. There exists a uni-directional causality existing from M2 to GDP. This implies that broad money supply granger causes the GDP in the economy during the period under review. From the result table, a uni-directional causality existing from GDP to EXCHR . The result equally indicates no direction of causality between GDP and INTR, GFCF and GDP.

5. Conclusion

From the entire research study, the following conclusions have been reached:

- That financing of SMEs in Nigeria contributes to the economic Growth though not significant to give the requisite boost to economic growth.
- That the macroeconomic variables such as money supply, interest rate, exchange rate, Gross fixed capital formation and inflation are severally and jointly responsible for economic fluctuations and require effective management to boost the economic performance of the country.

It can therefore be inferred that some operators of SMEs divert credit facilities given to them to personal and unproductive purposes as the result of the analysis revealed that the credit advanced to them does not bring about wealth creation and the requisite economic boost. There could be the issue of mismanagement of funds and resources, fraud and embezzlement. etc. These obstacles have impaired greatly the rate of contribution of this sector.

6. Recommendations

Based on the above, the following recommendations are hereby put forward:

- Government and financial institution should develop a holistic approach to schemes initiated by them and policies initiated by the government should be funded efficiently.
- The Central Bank of Nigeria (CBN) and other financial institutions should embark on extensive sensitization of entrepreneurs on the operations of the banks and high interests which deter people with genuine business ideas should be reduced to a bearable level so as to make borrowing cheaper.
- All administrative bottle necks which make funds inaccessible to small and medium scale enterprises operators should be removed and the Central Bank of Nigeria should compel all commercial banks to adhere strictly to banking policies and regulations.
- Government should engage professionally in the formulation of policies that will stand the test of time and should develop a lasting solution to the state of infrastructural deterioration especially electricity.
- The government should strive to provide sufficient funds for the industry. The lending scheme should be properly monitored by the government to ensure effective implementation.
- The government should continually review the interest rate on credit advanced to SMEs to enhanced productivity of the sector and boost the economic growth of the country.
- The regulatory authorities should work to ensure that inflation is reduced to single digit and sustained for enhanced growth of the economy.
- That government through CBN should effectively manage the fluctuations of exchange rate to be conducive enough to spur growth and development,
- The government continuously and consciously through the Central Bank of Nigeria (CBN) should direct banks to provide loans for this SMEs sector which must be well monitored and properly channeled to boost their performances and enhance economic growth and national development.

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