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Influence of Small and Medium Scale Enterprises (SMES) Lending on the Nigerian Economy

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Abstract

SMEs all over the world play significant role in the process of industrialization and economic growth. This study empirically examines the impact of bank lending to SMEs on economic growth in Nigeria from 1992-2016. The study employed Augmented Dickey Fuller (ADF) and Phillips-Perron (PP) to ascertain the stationarity of the variables. Co-integration test was also used to ascertain the long run relationship of the variables, and thereafter, Vector Error Correction Mechanism (VECM) technique was used for the analysis. The result revealed that there exists a long run relationship between bank loans to SMEs and GDP in Nigeria. Specifically, the study found that that SMEs credit had a positive and significant impact on economic growth. Also, money supply and exchange rate had positive and significant impact on economic growth. Lending rate was found to be negative but significant to economic growth. The study therefore concluded that SMEs credit significantly impacts economic growth in Nigeria. Based on these findings, the study recommends government should create special windows and programs as well as business friendly environment so as to help people come up with fresh ideas and help existing ones thrive.

Keywords: Small and Medium Scale Enterprises, GDP, VECM

Introduction

The importance of Small and Medium Enterprises (SMEs) globally cannot be overemphasized. SMEs cut across various sectors of the economy, serving as a source of livelihood for many and providing jobs for the yearning unemployed populace. More so, SMEs are pivotal in driving innovative processes, which stimulates the economy for growth and development. This has attracted governments all over the world to institute measures and policy to stimulate various stakeholders to embrace the idea of venturing into SMEs.

The growth of SMEs in any economy cuts across the micro and macro level which constitutes a key element in fostering economic growth, employment and poverty alleviation. Taiwo, Falohun and Edwin (2016) noted that SMEs are the driving force of industrial growth and development

which is due to its great potentials in ensuring diversification and expansion of industrial production as well as the attainment of the basic objectives of development.

It is an established fact the technology-wise, Nigeria is backward comparatively. Worst of all, the Nations sole dependency on oil is also a limiting factor to the development and advancement of other sectors. Therefore, in order to turn the table around and develop the economy, SMEDAN (2013) noted that this can be achieved through the Micro, Small and Medium Enterprises (MSMEs). They argued that in order to boost this sector for economic growth, the creation of an agency (i.e. SMEDAN) solely responsible for the promotion and development of this sector was established so also is the implementation of the National Enterprise Development Programme (NEDEP), and the creation of MSME councils. All these measures are believed if properly implemented will stimulate economic growth in Nigeria.

According to Fjose, Grunfeld and Green (2010) in spite of the fact that 99% of all firms in developing countries are SMEs, and despite the substantial amount written about the significance of SMEs to developing economies, there is very limited evidence in the literature on the contribution of SMEs to economic growth. It is against this background that this research intends to study the impact of bank lending to SMEs on economic growth in Nigeria. Prior studies focused on total banks credit on economic growth (Akpansung & Babalola, 2010; Olowofeso, Adeleke & Udoji, 2015). Others focused on SMEs financing (Afolabi, 2013; Nkuah, Tanyeh & Gaeten, 2013; and Uzonwanne, 2015). More so, other studies on SMEs and economic growth used qualitative approach while other did not consider macroeconomic variables that could affect the outcome of their findings (Mamman & Hashim, 2014 and Uremadu, Ani & Odili, 2014). Conversely, this study is an attempt to fill the existing gap by empirically examining the impact of bank lending to SMEs on economic growth in Nigeria.

The Broad objective of this study is the empirically examine the impact of bank lending to SMEs on economic growth in Nigeria.

The following hypotheses are formulated:

$H0_1$: Lending to SMEs does not significantly impacts economic growth in Nigeria

$H0_2$: Macroeconomic variables does not impact on economic growth in Nigeria

Literature Review

According to SMEDAN (2013) the definition of SMEs adopts a classification based on dual criteria, employment and assets (excluding land and buildings). The first categories are micro enterprises whose total assets (excluding land and buildings) are less than five million naira with a workforce not exceeding ten employees. The second category is Small Enterprises whose total assets (excluding land and building) are above five million naira but not exceeding fifty million naira with a total workforce of above ten but not exceeding forty nine employees. Lastly, medium enterprises whose total assets excluding land and building are above fifty million naira, but not exceeding five hundred million naira

with a total workforce between 50 and 199 employees.

The role of SMEs as identifies by SMEDAN (2013) includes substantial contribution of the sector to the GDP, employment generation, export, increasing local value addition and technological advancement.

Empirical Studies

The debate on the impact of bank lending on economic growth has been going on for some time now. While some authors argued that bank credit to SMEs stimulate the economy others argued against. However, a lot of reasons could be responsible for this, while some researcher are of the view that lack of credit availability to SMEs could be responsible for inability to impact on GDP, others assert that certain macro-economic variables can influence the impact of SMEs credit on GDP A lot of empirical studies have been undertaken to drive this point. For example Chughtai (2014) aimed to know the effects of process innovation on SMEs Growth and to find the impact of SMEs on economic growth of Pakistan. Secondary data was collected for the period from 1981 to 2013. Using multiple regression analysis, the findings concludes that there a strong correlation between SMEs performance and economic growth in Pakistan.

In Nigeria however, a number of studies have been carried out in this regards. For example Okafor Ugochukwu and Chijindu (2016) investigated the impact of SMEs on the growth of the Nigerian economy for the period of 1986-2014. OLS method of estimation was employed in the data analysis. The result of the Johansen co-integration test indicates that there is a long run relationship between SMEs, Oil revenue (OILR), Inflation (INFRT) and economic growth in Nigeria. The result of the OLS multiple regression analysis showed that SME, OILR, INFRT has a positive and significant impact on the growth of the Nigerian economy in the short run, while in the long run the result showed that SMEs has a positive but insignificant impact on the growth of the Nigerian economy.

Alese and Alimi (2014) investigated the role of SMEs financing as a catalyst for growth rate of the Nigerian economy from 1980-2012. Using ECM and Engel Granger causality tests, empirical findings revealed that commercial bank loans as a form of SMEs financing options significantly improve the economic size of the Nigerian economy in the long-run, but not significant in the short-run.

Ogbuabor, Mba and Orji (2014) examined the trend of lending to SMEs in Nigeria and the impact of lending to SMEs on economic growth in Nigeria over the period 1992 to 2011 using ordinary least squares, the results indicated that lending to SMEs increases the rate of economic growth in Nigeria. Unfortunately, the trend analysis indicates that lending to the SMEs sector in Nigeria had been on the decline since 1992.

Afolabi (2013) investigated the effect of SMEs financing on economic growth in Nigeria between 1980 and 2010. The study employed 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,

commercial banks' credit to SMEs and exchange rate of naira vis-à-vis U.S dollar exert positive influence on economic development proxy real gross domestic product while lending rate is found to exert negative effects on economic growth. SMEs output and commercial banks' credit to SMEs were found to be significant factors enhancing economic growth in Nigeria.

Taiwo, Ayodeji and Yusuf (2012) investigated SMEs as a veritable tool in Economic Growth and Development. A survey method was used to gather data from 200 SME/Entrepreneurial officers and Managers from five selected local government in Nigeria namely; Ijebu North, Yewa South, Sagamu, Odeda and Ogun Waterside Local government. Using structured questionnaire the results reveals that SMEs significantly impacts on economic growth. Similarly, Akingunola (2011) assessed specific financing options available to SMEs in Nigeria and contribution with economic growth via investment level covering 1992-2009. The Spearman's Rho correlation test is employed to determine the relationship and the analysis indicated that there is significant positive relationship between SMEs financing and economic growth in Nigeria via investment level.

In another vein, Ayuba and Zubairu (2015) investigated whether banking sector credit has significant impact on the growth of small and medium enterprises in Nigeria using annual data between 1985 and 2010. Correlation matrix and error correction model was used to test the formulated hypothesis which reveals that banking sector credit has significant impact on the growth of SMEs in Nigeria. However, bank credit was insignificant in understanding growth variations in Nigeria's SMEs. Similarly, Uremadu et al (2014) examined the impact of banking system credit to SMEs and economic growth in Nigeria using annual data covering 1981 to 2013. The study employed ordinary least square (OLS) and co-integration econometric method. The results revealed that the banking system credit to SMEs though gradually increased yearly as a result of increase in population and hence economic activities, the credit to SMEs as a percentage of total credit to the private sector declined yearly. Banking system credit to SMEs was not significant and thus did not contribute meaningfully to economic growth in Nigeria. Total credit to the private sector was statistically significant and positive. While lending rate has negative and significant impact on economic growth in Nigeria.

Theoretical Framework

This study adopts the active learning model of Erickson and Pakes (1995) which states that a firm explores its economic environment actively and invests to enhance its growth under competitive pressure from both within and outside the firm. The potential and actual growth changes over time in response to the outcomes of the firm's own investment and those of other actors in the same market. According to this model of learning, owners or managers of SMEs could raise their efficiency through formal education and training that increases their endowments while government may support their activities through the creation of the enabling environment. Entrepreneurs or managers of SMEs with higher formal education, work experience, training and government assistance would therefore be

expected to grow faster than those without these qualities. This implies that SMEs in Nigeria have prospects of growing and contributing meaningfully to economic growth only when appropriate investments are made into them by all the stakeholders

Research Methodology

The study adopts ex-post facto research design. Secondary data were used for this study spanning from 1992-2016 which were sourced from CBN statistical bulletin. In testing the formulated hypotheses, the use of econometric techniques was employed which includes: unit root test to test for stationarity in the variables and cointegration test was used to examine the long run relationship between the dependent variable and the independent variable before running the Vector Error Correction Mechanism (VECM) with the aid of Eviews 8.0.

Model Specification

The study employed multiple regression in examining the impact of bank lending on economic growth in Nigeria with emphasis on lending to SMEs. The dependent variable for the study is Gross Domestic Product (GDP) while the explanatory variables include: commercial bank loans to SMEs (SMEsCr), broad money supply (M2), commercial bank lending rate (Lr), and exchange rate (EXr). Therefore, the multiple regression model is specified as follows:

$$LnGDP_t = \beta_0 + \beta_1 LnSMEsCr_t + \beta_2 M2_t + \beta_3 Lr_t + \beta_4 Exr_t + \varepsilon$$

The logged form of the variables is preceded by 'Ln' in the variable acronyms.

Results and Discussions

4.1 Unit Root Tests

In order to prevent spurious regression result, the variables were subjected to stationarity test using Augmented Dickey Fuller (ADF) test and Phillips Perron (PP) test. The ADF and PP test are based on the null hypothesis of non-stationarity and failure to reject the null implies rejection and the need for appropriate differencing to induce stationarity.

Table 4.1: Augmented Dickey-Fuller and Phillips-Perron Unit Root Tests

Variable	ADF t-statistics	Order	PP t-statistic	Order
LnGDP	-4.501227***	1	-4.531478***	1
LnSMEscr	-6.402639***	1	-6.180194***	1
LnM2	-6.228828***	2	-6.210430***	2
Lr	-5.490713***	1	-5.533701***	1
Exr	-4.386315***	1	-4.386315***	1

Note: *** significant at 1%; Mackinnon critical values
Source: Authors' computation (2017)

Table 4.1 shows the stationarity test results which was carried out to test the presence of unit root which was tested at 5% Mackinnon critical value. This study employed both ADF and PP because, the ADF is conducted by augmenting the preceding three equations by adding the lagged values of ted pendent variable, the idea being to include enough terms to that the error term is serially uncorrelated. On the other hand, PP test use nonparametric statistical methods to take care of the serial correlation in the error terms without adding lagged difference terms (Gujarati, 2004). From our analysis, the logarithm of GDP (LnGDP), logarithm commercial loan to SMEs (LnSMEscr), lending rate (Lr) and exchange rate (Exr) were found to be stationary at first difference while, logarithm of broad money supply (LnM2) was found to be stationary at second difference.

4.2 Co-integration Test

Johansen co-integration test was conducted to test the existence of a long run relationship among the variables. Prior to that conducting the co-integration test, we first ascertain the optimal lag length criteria for the variables. 1 lag was found to be more appropriate.

The co-integration with the trace test reveals 3 co-integration equations at 5% level of significance. While the maximum eigenvalue indicated 2 co-integration equations at 5% level of significance. This implies that there is a long run relationship among the variables and hence, a vector error correction mechanism to explain the short run relationship between the variables would be applied (See appendice).

4.3 Vector Error Correction Mechanism (VECM)

In order to explain the short run deviations that may have occurred in estimating the long run co-integration equation and to test the formulated hypotheses, the VECM was conducted and the result presented below:

Table 4.3: VECM Result

Variables	Coefficient	t-statistics
D(LNSMESCR(-1))	0.1792	3.1097***
D(EXR(-1))	0.0010	2.3144**
D(LNM2(-1))	1.4799	4.5247***
D(LR(-1)	-0.0062	-2.1519**
ECM	-0.9240	-8.1924***

R^2=85%, Adj R^2=77.7% F-statistics=11.50***, DW=2.434
Note: *** and ** represents significant level and 1% and 5% respectively

The ECM term is in line with our a priori expectation. The negative sign and the statistical significant of the ECM at 1% implies that the speed of adjustment to its long run equilibrium is 92%. Thus, the ECM will adequately act to correct any deviations of the short run dynamics to its long run equilibrium by 92% annually.

The coefficient of determination measured by the R^2 is 85% which implies that 85% of the total variations in dependent variable is accounted for by the explanatory variables (LnSMEscr, LnM2, lr and Exr). After adjusting the R^2, it can be seen that the total variations is 55.9%. Also, the fitness of the model which is measured by the F-statistics showed that the model is statistically fit at 1% significance level. The Durbin Watson indicated the absence of serial correlation among the variables.

Table 4.3 also shows that test of hypotheses and from the analysis, it can be seen that all the formulated null hypotheses were rejected. More specifically, the t-statistics of SMEs credit is significant at 1% and also positive. This implies that the null hypothesis is rejected and the alternate hypothesis is accepted. That is, there is a significant relationship between SMEs credit and GDP. This Imply that when banks increase their level of financing SMEs, there is a high possibility that it will increase the Nigeria GDP. This finding is contrary to the finding of Ayuba and Zubairu (2015) and Uremadu et al. (2014) study who found a negative relationship. However, our findings is in line with the Alese and Alimi (2014) Afolabi (2013) study who concluded that increase in SMEs credit positively and significantly impacts on GDP. We also found that other macroeconomic variables such as money supply and exchange rate can positively impact on GDP. This is evidence from our test result which revealed that money supply and exchange rate are statistically significant. On the contrary,

lending rate was significant but negatively related to GDP which is in line with the findings of Afolabi (2013) study who argued that high lending rate exerts negative effect on economic growth. This study therefore concludes that SMEs credit in Nigeria has significant impact of economic growth.

Also, the residuals of the results were subjected to some diagnostic tests. First the test for normality was carried out to ascertain the normality of the result. Using Jarque-Bera test, it revealed that the residuals were normally distributed; this is due to acceptance of the null hypothesis. Secondly, One of the assumptions of the OLS is that the error term do not vary (i.e homoskedastic) which is desirable. The test for heteroskedasticity was carried out using Breusch-Pegan-Godfrey test to test the null hypothesis which states that there is no heteroskedasticity. However, the null was accepted which implies that the error term is homoscedastic.

Conclusion and Recommendations

The main purpose of this study is to empirically examine the impact of bank lending to SMEs on economic growth in Nigeria from 1992-2016. Econometric model was specified and estimated using VECM to ascertain the impact of the dependent variable and explanatory variables. The variables were first tested for stationarity using ADF and PP. Thereafter, co-integration analysis was carried out to determine the long run relationship among the variables. VECM test was performed and the findings revealed that bank loans to SMEs have long run relationship with GDP in Nigeria for the period under review. Furthermore, the study found that bank loans to SMEs, money supply and exchange rate had positive and significant impact on economic growth in Nigeria while, lending rate had a negative but significant impact.

Based on these findings, the study recommends that the government should create special windows and programs as well as business friendly environment so as to help people come up with fresh ideas and help existing ones thrive. Secondly, high lending rates affects the ability of SMEs owners in assessing loan, therefore monetary authority (CBN) should create special windows such as low rates or zero interest rate so as to encourage more persons to venture and grow their business.

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