



Effect of Small and Medium Enterprises on Economic Growth in Nigeria

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Abstract

Despite the perceived impact of Small and Medium Enterprises on the growth and development of an economy as observed in the literature, and also the government effort at promoting SMEs in the country, the impact of SMEs to Gross Domestic Product in Nigeria is reported to be low, thus affecting every other aspect of the economy. As the GDP grows, it is expected that it tickles down to other sectors of the economy by ways of greater utilisation of local raw materials, employment generation, encouragement of rural development, development of entrepreneurship, mobilisation 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. Unfortunately, the reverse is the case. It is against this back drop that this study examines the effect of small and medium enterprises on economic growth in Nigeria by modeling the effect of SMEs, government expenditure in promoting SMEs, Employment generation growth rate and level of Corruption, commercial bank credits and lending rate to SMEs on economic growth in Nigeria using an econometric regression model of the Ordinary Least Square (OLS). From analysis of the study, it is observed that small and medium enterprise, government expenditure to small and medium enterprise, employment generations, commercial bank credit to small and medium enterprise and lending rate to small and medium enterprises have a positive impact on economic growth in Nigeria. Corruption has a negative impact on economic growth in Nigeria. However, all the explanatory variables have significant impacts on economic growth in Nigeria. Based on the above findings, the study recommends that the government should as a deliberate policy, encourage rural based industrialization whereby investors in different communities should be encourage to establish small and medium scale industries that would be based entirely on local raw materials, including machines and equipments. Government monetary policies should also be designed to favour the SMEs in terms of lending rate, interest rate and exchange rate. Arguably, this will help to boost the economy and create more employment.

Keywords: Small and medium enterprises; Gross domestic product; Regression model; Employment generation; Corruption.

1. Introduction

The contribution of Small and Medium Enterprises to the growth and development of an economy has been the focus of general interest and research, especially in developing countries due to the importance of Small and Medium Enterprises to the global economy (Muritala *et al.*, 2012; Offor, 2012). According to Opafunso and Adepoju (2014), Small and Medium Scale Enterprise (SME) has proved to be a major tool adopted by the developed nations to attain socio-economic development. They further stated in recent time, small scale industrial sector is considered to be the backbone of modern day economy. Historical facts show that prior to the late 19th century, cottage industries, mostly small and medium scale businesses controlled the economy of Europe (Aremu, 2010).

In the developing nations like Nigeria, the impact of Small and Medium Enterprises on the growth and development can be felt in so many ways. According to Muritala *et al.* (2012), SMEs on the growth and development of an economy is felt by ways greater utilisation of local raw materials, employment generation, encouragement of rural development, development of entrepreneurship, mobilisation 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. Consequently, Small and Medium Enterprises has been regarded as engine of growth (Eze and Okpala, 2015). As cited by Eze and Okpala (2015), extant literature revealed that the development of small and medium enterprises (SME's) should be seen as attempts towards the achievement of a wider economic and socio-economic objective, including poverty alleviation. Small and medium Enterprise drives their country's development as they create employment and contribute to the gross domestic product (GDP) (Anyanwu, 2001; Ayozie and Latinwo, 2010; Kuteyi, 2013; Muritala *et al.*, 2012).

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Despite the perceived impact of Small and Medium Enterprises on the growth and development of an economy as observed in the literature, and also the government effort at promoting SMEs in the country, the impact of SMEs to Gross Domestic Product in Nigeria is reported to be low (Adeloye, 2012; Yusuf and Dansu, 2013), thus affecting every other aspect of the economy. Eze and Okpala (2015), capture the latent problem by stating that in spite of all the efforts by the government, both at federal, state, and local government levels, to ensure the growth of SMEs in Nigeria SMEs continues to fail. Yet, the vast majority of developed and developing countries rely on dynamism, resourcefulness and risk tasking of small and medium enterprises to trigger and sustain process of economic growth. A number of studies investigated SMEs growth nexus from different perspectives, for example using the descriptive research method, Adoyi and Agbo (2009) employed both primary and secondary data to determine the extent to which small business firms have developed Benue state of Nigeria, and found that 86.3 percent of the small business firms pay their taxes regularly. These taxes increase the revenue base of the state which is used for development purposes. Akingunola (2011) assessed the specific financing options available to SMEs in Nigeria and their contribution to economic growth performance. The Spearman's Rho correlation was employed to determine the relationship between SMEs financing and investment level. At 10 percent level of significance, the Rho value of 0.643 indicated a significant and positive relationship between SMEs financing and economic growth in Nigeria. Safiriyu and Njogo (2012), employed primary data instruments, questionnaire and interviews to study the impact of small and medium scale enterprises on employment generation in Lagos state, Nigeria. The results of simple percentages and chi-Square (X^2) tests conducted show that small and medium scale enterprises and sustainable development of Nigerian economy are positively related, just as promotion of SMEs and improvements in employment generation are positively related and significant. Availability of finance has been widely viewed as a constraint to the growth of SMEs. Azende (2011), in an empirical evaluation of the performance of small and medium scale Enterprises, Equity Investment Scheme (SMEEIS) in Nigeria used Benue and Nassarawa states as case studies. Using total credit to SMEs as a percentage of Banks' total credit for the period 1993 to 2008, the T-test conducted to determine the extent of relationship between bank loans before and after the introduction of SMEEIS indicated no significant difference between loans disbursed by banks to SMEs. This result, according to him, was due to the fact that the conditions for accessing SMEEIS funds were beyond the reach of the targeted SMEs.

In the light of this background, this research study intends to examine the impact of small and medium enterprises on Nigerian economic growth and development with regard to adding knowledge to the existing one. Thus, it is expected that the outcome of this research will go a long way in ensuring a turnaround of Nigeria's SMEs sub-sector.

1.1. Statement of Problem

This study was informed by the perceived paradox of growth in Nigeria. As the GDP grows, it is expected that it tickles down to other sectors of the economy by ways of greater utilisation of local raw materials, employment generation, encouragement of rural development, development of entrepreneurship, mobilisation 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. Unfortunately, the reverse is the case. The country citizens continues to record a dwindling economic situation, low levels of purchasing power, inability to access capital for business expansion and low level of standard of living, increase in unemployment and underemployment, and low level of absorption capacity of the informal sector enterprise. In spite of the fact that SMEs have been regarded as the backbone of most economy for employment generation and technological development, its impact on Nigeria economic growth and development has been low, thus warranting an empirical probing to various SMEs drivers and inhibitors that impact on the growth in Nigeria. In recent time, however, economic growth and development and their drivers have been examined by researchers from various standpoint and with varying literary perspectives. The impact of Small and Medium Enterprises on the growth and development have also been investigated (Eze and Okpala, 2015; Muritala *et al.*, 2012; Offor, 2012; Opafunso and Adepoju, 2014). For example, Offor (2012) carried out similar but they regress only Small Scale Industries Output and real interest rate on GDP. Eze and Okpala (2015) included Output of Small and Medium Scale Enterprises, Bank Credit to SMEs, Inflation rate, Interest rate, and Government Expenditure among others.

This study is important and it fills a gap by extending models of previous researchers to include other variables that either propel or inhibit SMEs from impact positively on growth in Nigeria. Thus the inclusion of small and medium enterprise, government expenditure to small and medium enterprise, employment generations, corruption, commercial bank credit to small and medium enterprise and lending rate to small and medium enterprises. If SMEs in Nigeria restructured to impact heavily on GDP in Nigeria, arguably it will help to redress the challenge unemployment, poverty, corruption and a host of other human miseries.

1.2. Objective of the Study

The broad objective of the study is to examine the effect of small and medium enterprises on economic growth in Nigeria. Specifically, this study seeks: To examine the impact of small and medium enterprises growth rate on economic growth in Nigeria; To examine the impact of government expenditure in promoting small and medium enterprises on economic growth in Nigeria. To examine the impact of Employment generation growth rate and level of Corruption on economic growth in Nigeria; To examine the impact of commercial bank credits and lending rate to small and medium enterprise on economic growth in Nigeria.

2. Methodology

2.1. Theoretical Framework

Nwoga (2007) developed a model to access the impact of small and medium enterprises on economic growth in Nigeria. In his model specification, the small scale industry output (SMSO) is the dependent variable while real gross domestic product (RGDP), Commercial Banks' credit (CBC) and real interest rate (RIR) are the independent variables. On this basis, the simple regression model is hereby specified thus:

$$\text{SMSO} = f(\text{RGDP}, \text{CBC}, \text{RIR}) \dots \dots \dots (1)$$

The econometric model of equation 1 is:

$$\text{SMSO} = \beta_0 + \beta_1\text{RGDP} + \beta_2\text{CBC} + \beta_3\text{RIR} + \mu_i \dots \dots \dots (2)$$

Where; SMSO = Small Scale Industry Output

RGDP = Real Gross Domestic Product

CBC = Commercial Banks' credit

RIR = Real Interest Rate

β_0 = Intercept of the model

$\beta_1 - \beta_3$ = Parameters of the regression coefficients

μ_i = Stochastic error term

2.2. Model Specification

The model for this study will be based on the insight gain from Nwoga (2007) and modifications made. This modification was the introduction of the government expenditure to small and medium enterprise, employment generations, corruption and lending rate to small and medium enterprises in the model. In line with this, this study will adopt Nwoga style of model and make economic growth the dependent variable while small and medium enterprise, government expenditure to small and medium enterprise, employment generations, corruption, commercial bank credit to small and medium enterprise and lending rate to small and medium enterprises are the explanatory variables of the study. Thus, the model equation for this study is stated as follow:

The structural form of the model is:

$$\text{GDP} = f(\text{SME}, \text{GEX}, \text{EMG}, \text{COR}, \text{CBC}, \text{LER}) \dots \dots \dots (1)$$

The mathematical form of the model is:

$$\text{GDP} = \beta_0 + \beta_1\text{SME} + \beta_2\text{GEX} + \beta_3\text{EMG} + \beta_4\text{COR} + \beta_5\text{CBC} + \beta_6\text{LER} \dots \dots \dots (2)$$

The econometric form of the model is:

$$\text{GDP} = \beta_0 + \beta_1\text{SME} + \beta_2\text{GEX} + \beta_3\text{EMG} + \beta_4\text{COR} + \beta_5\text{CBC} + \beta_6\text{LER} + \mu_i \dots \dots \dots (3)$$

Where; GDP = Gross domestic product growth rate

SME = Small and medium enterprise captured by SMEs growth rate

GEX = Government expenditure to small and medium enterprise

EMG = Employment generation growth rate

COR = Corruption

CBC = Commercial bank credits to small and medium enterprise

LER = Lending rate to small and medium enterprise

β_0 = Intercept of the model

$\beta_1 - \beta_6$ = Parameters of the regression coefficients

μ_i = Stochastic error term

3. Method of Data Analysis

The economic technique employed in the study is the ordinary least square (OLS). This is because the OLS computational procedure is fairly simple a best linear estimator among all unbiased estimation, efficient and shown to have the smallest (minimum variance) thus, it become the best linear unbiased estimator (BLUE) in the classical linear regression (CLR) model. Basic assumptions of the OLS are related to the forms of the relationship among the distribution of the random variance (μ_i).

OLS is a very popular method and in fact, one of the most powerful methods of regression analysis. It is used exclusively to estimate the unknown parameters of a linear regression model. The Economic views (E-views) software will be adopted for regression analysis.

All data used in this research are secondary time series data which are sourced from the Central Bank of Nigeria (CBN) statistical bulletin and National Bureau of Statistics (NBS) annual reports. This study examined mainly the contributions of small and medium enterprises on economic growth of Nigeria covering the period 1980 - 2016.

4. Empirical Results and Analyses

Table-1. Summary of regression results

Dependent Variable: GDP

Method: Least Squares

Sample: 1980 2016

Included observations: 37

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	18.39133	6.015232	3.057460	0.0049
SME	0.066017	0.037341	2.967925	0.0080
GEX	0.000145	4.495034	3.226736	0.0032
EMG	0.752993	0.678498	3.109794	0.0035
COR	-1.914642	1.120471	-2.808783	0.0086
CBC	0.000772	0.002096	3.368450	0.0053
LER	0.127295	0.074561	2.707270	0.0098
R-squared	0.390372	F-statistic		29.88271
Adjusted R-squared	0.259737	Prob(F-statistic)		0.000000
S.E. of regression	12.97114	Durbin-Watson stat		1.950204

Source: Researchers computation

4.1. Evaluation Based on Economic a Priori Criteria

This subsection is concerned with evaluating the regression results based on a priori (i.e., theoretical) expectations. The sign and magnitude of each variable coefficient is evaluated against theoretical expectations.

From [table 1](#), it is observed that the regression line have a positive intercept as presented by the constant (c) = 18.39133. This means that if all the variables are held constant (zero), GDP will be valued at 18.39133. Thus, the a-priori expectation is that the intercept could be positive or negative, so it conforms to the theoretical expectation.

From [table 1](#), it is observed that small and medium enterprise, government expenditure to small and medium enterprise, employment generations, commercial bank credit to small and medium enterprise and lending rate to small and medium enterprises have a positive impact on economic growth in Nigeria. This means that as small and medium enterprise, government expenditure to small and medium enterprise, employment generations, commercial bank credit to small and medium enterprise and lending rate to small and medium enterprises are increasing, economic growth will also be increasing. On the other hand, corruption has a negative impact on economic growth in Nigeria. This means that as economic growth is increasing, corruption will be decreasing.

From the regression analysis, it is observed that all the variables conform to the a priori expectation of the study. Thus, [table 2](#) summarises the a priori test of this study.

Table-2. Summary of economic a priori test

Parameters	Variables		Expected Relationships	Observed Relationships	Conclusion
	Regressand	Regressor			
β_0	GDP	Intercept	+/-	+	Conform
β_1	GDP	SME	+	+	Conform
β_2	GDP	GEX	+	+	Conform
β_3	GDP	EMG	+	+	Conform
β_4	GDP	COR	-	-	Conform
β_5	GDP	CBC	+	+	Conform
β_6	GDP	LER	+	+	Conform

Source: Researchers compilation

4.2. Evaluation Based On Statistical Criteria

This subsection applies the R^2 , adjusted R^2 , the S.E, the t-test and the f-test to determine the statistical reliability of the estimated parameters. These tests are performed as follows: From our regression result, the coefficient of determination (R^2) is given as 0.390372, which shows that the explanatory power of the variables is very low and/or weak. This implies that 39% of the variations in the growth of the SME, GEX, EMG, COR, BCB and LER are being accounted for or explained by the variations in economic growth in Nigeria. While other determinants of economic growth not captured in the model explain 61% of the variation in economic growth in Nigeria.

The adjusted R^2 supports the claim of the R^2 with a value of 0.259737 indicating that 96% of the total variation in the dependent variable (economic growth is explained by the independent variables (the regressors)). Thus, this supports the statement that the explanatory power of the variables is very low and weak.

The standard errors as presented in table 1 show that all the explanatory variables were all low. The low values of the standard errors in the result show that some level of confidence can be placed on the estimates.

The F-statistic: The F-test is applied to check the overall significance of the model. The F-statistic is instrumental in verifying the overall significance of an estimated model. The F-statistic of our estimated model is 29.88271 and the probability of the F-statistic is 0.000000. Since the probability of the F-statistic is less than 0.05, we conclude that the explanatory variables have significant impacts on economic growth in Nigeria.

4.3. Summary of Findings

From analysis of the study, it is observed that small and medium enterprise, government expenditure to small and medium enterprise, employment generations, commercial bank credit to small and medium enterprise and lending rate to small and medium enterprises have a positive impact on economic growth in Nigeria. This means that as small and medium enterprise, government expenditure to small and medium enterprise, employment generations, commercial bank credit to small and medium enterprise and lending rate to small and medium enterprises are increasing, economic growth will also be increasing. On the other hand, corruption has a negative impact on economic growth in Nigeria. This means that as economic growth is increasing, corruption will be decreasing. All the explanatory variables have significant impacts on economic growth in Nigeria.

Based on the above findings, the study recommends that the government should as a deliberate policy, encourage rural based industrialization whereby investors in different communities should be encourage to establish small and medium scale industries that would be based entirely on local raw materials, including machines and equipments. Government monetary policies should also be designed to favour the SMEs in terms of lending rate, interest rate and exchange rate. Arguably, this will help to boost the economy and create more employment.

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