

IMPACTS OF SMALL AND MEDIUM ENTERPRISES ON ECONOMIC GROWTH IN NIGERIA.

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Abstract

This study examined the impact of small and medium enterprises on economic growth in Nigeria. Ex- post facto design served as the research design. Secondary data sourced from CBN statistical bulletin were used for analysis of data. The study applied both descriptive and quantitative techniques to evaluate the impacts of small and medium enterprises on economic growth in Nigeria. Specifically, the study used error correction mechanism (ECM) model for evaluation. The results revealed a positive and significant impact on small and medium enterprises on economic growth in Nigeria. Also, the result showed a uni-directional causality relationship between small and medium enterprises and real gross domestic product (RGDP) in Nigeria flowing from commercial bank loan to SMEs (BLS) to real gross domestic product (RGDP). The study concluded that small and medium enterprises play significant role in stimulating economic growth in Nigeria. The study therefore recommends that the adequate infrastructure should be provided to ensure better output production and transported at lower costs as well as generating jobs and other positive externalities by the small and medium scale enterprises. The government can enhance employment opportunities by increasing her spending in providing good roads, electricity and other necessary social amenities. More so the government (both federal and states) should adopt policies towards maintaining a favourably low commercial and micro-finance banks' lending rate to SMEs as this will help improve the level of investments in SMEs, which is expected on the long run, to improve the aggregate asset base and aggregate capitalization of SMEs, and this in turn, will have significant positive effect on the GDP of the country.

Keywords: Small and Medium Enterprises, Economy, Economic Growth and Sustainable Economic Growth

Introduction

Small and medium-sized enterprises, also known as small and medium scale enterprises (SMEs), have been widely recognized as the engine of sustainable economic growth and development. This critical sub-sector does not only out-number large corporations by a very wide margin, but also employ greater number of people. As a result, economic successes of many countries are traced to vibrant small and medium-sized businesses. The development of Small Scale

Enterprises (SMEs) in Nigeria is an essential element in the growth strategy. SMEs not only contribute extensively to improved living standards, they also bring considerable local capital formation and attain high level of productivity (Okufolami, 2003).

In fact, the place of Small and Medium Enterprises (SMEs) in the achievement of economic growth especially in a developing country like Nigeria can never be over-emphasized. SMEs remain the foundation as well as the building block in the realization of any meaningful and sustainable growth in an economy. SMEs constitute the driving force in the attainment of industrial growth and development. Among the secret of economic prosperity are innovation and competition, which is driven by the growth and survival of small businesses. For this reason, governments have designed policies like, credit guarantee schemes, cheap loan facilities etc., and introduced incentives all of which are geared towards creating enabling environment for small and medium scale enterprises. SME in any country is very crucial for the creation of jobs, foreign exchange earnings, poverty reduction, wealth creation, equitable distribution of income and bridging the inequality gaps.

Accordingly, Ilegbinsosa & Jumbo (2015) posited that the creation, growth, advancement as well as development of Small and Medium Scale Enterprises (SMEs) have provided evidence essential to the growth and development of many countries; particularly the developed and some developing nations like United States of America, China and India. In such countries, SMEs consist of over 98 per cent of the entire businesses and play a part in more than 65 per cent of employment opportunities. Globally, SMEs contribute over 50 per cent to the Gross Domestic Product (GDP) in developed countries. SMEs have remarkable effect on the economies of some European, American and Asian nations that successfully adopted and adapted it. In the U.S.A, SMEs formed over 50 per cent of the non-farm private GDP as well as generated 75 per cent new jobs in the economy. By the end of 2008, it was estimated that the US economy has an estimated population of 300 million, which was sustained by about 6 million businesses. Among these businesses, 27% employ less than 20 persons, 22% employ less than 50 persons while about 18% employ less than 100 persons (World Bank, 2001). In addition, SMEs also constitute 95 per cent of registered businesses in the world; particularly in the European Union, SMEs constituted 99.8 per cent of all businesses as well as employing around 76 million people which represents around 67.4 per cent of total employment in 2010 (Canetti, 2003). Consequently, it became obvious that SMEs have been mainly recognized as the spine of the economy as well as play an important role to create employment opportunities, improve value of human resources, develop a philosophy of entrepreneurship, supports large scale industries as well as set-up new business opportunities (Boniface, 2006).

SMEs have been stressed as capable of helping in bringing about positive economic turn around and complementing the effort of the existing medium and large scales industries (Osuagwu, 2001). According to Adebuseyi, (1997), SMEs have contributed about 70% of industrial employment and over 50% of the gross domestic. Okpara (2000) posited that because of the role and the importance of SMEs, the performance and the financing of SMEs are of huge concern to the government of different countries of the world. Such economic contributions are obvious in the mobilization of idle financial resources, the conservation of foreign exchange, utilization of local raw materials, specialist suppliers to large companies, adding varieties and choice for the consumers, checking the monopolistic tendency power, providing a source or innovation, breeding ground for new industries and above all employment creation (Bamidele, 2012). SMEs

utilize local raw materials and technology thereby aiding the realization of the goal of self-reliance. Currently, small and medium enterprises in Nigeria are not effectively performing, as they are poorly funded and the unavailability of social and economic overhead which have affected significantly the performance of SMEs to the economy (Bernet & Gnan, 2009). High interest rate from deposit money banks is capable of deterring the incentive to borrow which ultimately affects the positive performances of small and medium scale enterprises to economic development in Nigeria. Small and medium scale enterprises contribute significantly to the economic growth of any developing economy. In fact, the stimulation of economic growth hinges largely on the activities of Small and medium scale enterprises.

The study seeks to provide answers to the following research questions:

- What are the impacts of small and medium enterprises on economic growth in Nigeria?
- What is the causality relationship between small/medium enterprises and economic growth in Nigeria?

To provide answers to the above research questions, the objectives of the study include:

The main objective of the study is to evaluate the impacts of small and medium enterprises on economic growth in Nigeria. Then, the specific objectives are formulated as follows:

- To examine the impact of small and medium enterprises on economic growth in Nigeria.
- To determine the causality relationship between small/medium enterprises and economic growth in Nigeria.

This study is divided into five sections. Section one is the introductory section. Section two focuses on the literature review, which includes the conceptual issues and empirical literature. Section three presents the methodology while section four is on the presentation and discussion of the results, section five, which is the last section, presents the summary of the findings, conclusion and the recommendations.

Literature Review

Conceptual review

Concept of Economic Growth

According to Reavley & Lituchy (2008), economic growth implies an increase in the net national product in a given period of time. He explained that economic growth is generally referred to as a quantitative change in economic variables, normally persisting over successive periods. He added that determinants of economic growth are availability of natural resources, the rate of capital formation, capital-output ratio, technological progress, dynamic entrepreneurship and other factors. Economic growth is an increase in the production capacity of an economy over a period of time. It can also be defined as quantitative increase in output per capita of a country over a period of time. It can be measured in nominal or real (adjusted for inflation) terms. The real gross domestic product (RGDP) is the best way to measure economic growth as it takes into account the countries entire economic output. Ajayi (2014), perceived economic growth as the increased overtime of a country's real output of goods and services. In fact, in a simple language, economic growth means the production of more and better goods and services, or higher

standard of living. Economic growth is the basis of future standard of living and prosperity among different nations (Hanafi, 2016). Economic growth can be positive or negative. An economy can be said to be positive if there is a sustained increase of output over a long period of time. Negative economic growth can be referred to by saying that the economy is shrinking. Negative growth could be associated to recession or depression

Conceptualizing Small and Medium Scale Enterprises

The notion of small and medium enterprises (SME) was introduced into the development landscape as early as the late 1940s, and the primary aim was to improve trade and industrialization in the present developed nations (OECD, 2004). The definitions of SME are usually derived in each country, based on the role of SME in the economy, policies and programs designed by particular agencies or institutions empowered to develop SME. For instance, a small business in the developed economies of countries like Japan, Germany and United States of America (USA), may be a medium or large-scaled business in a developing economy like Nigeria. Moreover, the definition of SME also varies overtime from agencies or developing institutions to another, depending on their policy focus (Etuk & Michael, 2014).

According to Ikpor, Nnadu & Itumo (2017), Small and medium enterprises (SMEs) are different kind of firms that could be found in different business activities across the country. They include artisans producing local agricultural implements, the coffee shop owners, tailor shop owners, iron fabricators, road side mechanics, small transport firm, the internet café, small engineering or software firm and a medium-sized automotive parts manufacturer. Some of the SMEs produce for domestic market or for foreign markets. They can be found in rural, urban, regional, national or international level and the owners may be poor or rich. There is no universally accepted classification of small and medium scale enterprises (SMEs). The definition differs across countries. This is due to the difference in socio-economic factors across the countries (as explained by Etuk et al., 2014 above). For instance, Nigerian Small and Medium Industries Equity Investment Scheme (SMIEIS) of 1998 regarded SMES as enterprises that has a total capital outlay between ₦1.5million to ₦200 million. This includes the working capital but excluding cost of land. To Nigeria's national Council on Industry; SME is seen as an enterprise that employed at least 10 and a maximum of 300 employees (Udechukwu, 2003)

Ikpor et al. (2014) also notes that the European Union defines SMEs as an enterprise that has not more than two hundred and fifty employees and total turnover of not more than €50 million. It also maintained that the share of the enterprise in another enterprise(s) should not be more than 25 percent. According to World Bank (2006), medium enterprise is an enterprise which employs a maximum of 300 employees with a maximum of 15 million dollars annual turnover. World Bank went further to say that small enterprise consists of less than fifty employees with annual turnover of not more than \$3 million. Therefore, it referred to small-enterprises as firms who employed a maximum of 10 persons with annual turnover of \$100,000 dollars. Etuk et al. (2014) states that in line with the federal government budget of 1990, SMEs are defined as business enterprises having maximum turnover of ₦500,000 per annum. It also defined it as firms with capital outlay of not more than two million naira or total of five million naira including cost of the landed property. Therefore, the term SMEs is relative and mainly determined by the nature of business activities and geographical locations of the firms (Umar, 1997). The SME sector comprises very different types of businesses across a wide range of economic sectors. There are essentially two categories: those that are growth-oriented, and those small and micro enterprises

that operate at the subsistence level to provide employment and income mainly for their owners and a relatively small number of external employees. Subsistence enterprises represent the vast majority of SMEs in developing countries. On the other hand, the growth-oriented type is innovative type of businesses which usually operate in growing markets, as well as businesses that are efficiency-oriented and/or network-intensive, which tend to grow through acquisitions (Ikpor et al., 2017).

Therefore, from the scholarly definitions of small and medium scale enterprises, it can be deduced that SMEs are enterprises which are relatively small in nature compared to public limited liability companies. Even though in terms of capital and asset base, these can be defined by a country in which a business organisation operates, one thing is sure about SMEs; they are majorly small to medium business enterprises who does not trade at the stock exchange (it does not in any way means that all companies that do not trade in the stock exchange are SMEs) and their role in the economic development of a country (most especially developing economies like Nigeria) cannot be overemphasized as they are commonplace.

Empirical literature

Onyeiwu Muoneke & Nkoyo (2020) examined the extent to which SMEs financing influenced economic growth in Nigeria through the use of time-series data from 1999-2018. After a literature search, other factors possessing the potential to influence the dependent variable ASGDP was added to the research model. Relying on Ordinary Least Squares estimation, findings showed that lending rate reduces ASGDP by 7% and gross capital formation reduces ASGDP by 5%. On the other hand, surprisingly, credit to SMEs did not retain the massive effect on growth as seen in previous studies. We can attribute this to our choice of adopting SME contribution to GDP as our target variable. Electricity distribution increased ASGDP by 4.6%.

Otugo, Edoko & Ezeanolue (2018) examined the effect of small and medium enterprises on economic growth in Nigeria using Ordinary Least Square (OLS) to regress data collected on government expenditure in promoting SMEs, Employment generation growth rate and level of corruption. From analysis of the study, it is observed that small and medium enterprise, government expenditure to small and medium enterprises, 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.

In Malawi, Richard (2015) conducted a study aimed at determining whether financing micro, small and medium enterprises through the commercial banking system has resulted in any corresponding impact on economic growth between 1981 and 2014. The study also aimed to establish whether interest rate levels, which have a bearing on the access to finance have impacted on economic growth in Malawi over the same period. Ordinary Least Squares (OLS) method was used to analyze the relationships. The results show that both the levels of financing and interest rates have had a significant negative impact on growth

Iloh & Chijioke (2015) examined the impact of credit availability from banks to small businesses in Nigeria. RGDP was used as a dependent variable, while small and medium enterprises activities, deposit money bank credit, exchange, and lending rates represent independent

variables. The findings revealed that deposit money bank credit to SMEs has a significant positive effect on Nigerian economic growth.

Imoisi & Ephraim (2015) researched on the association between small businesses and Nigerian growth (1975 to 2012). GDP stood as the dependent variable, finance availability to SMEs, inflation, and the interest rate was used as stimulus variables. Findings from the ordinary least square (OLS) showed that SMEs' financial availability had a positive and significant relationship with GDP. Hence, inflation and interest rate showed a positive and negative influence on GDP, respectively. Onokoya, Fasanya & Abdulrahman (2013) examined the impact of financing small scale enterprises on economic growth in Nigeria, using a quarterly time series data from 1992 to 2009. The study combined several econometric estimation techniques. The findings shows that loan to small scale entrepreneurs have a positive impact on the economic performance while interest rate has a negative impact on economic growth. The study thereby concludes that the greatest or worst problem confronting SMEs in Nigeria is managerial capacity. Access to capital or finance is necessary but not a sufficient condition for successful entrepreneurial development.

A related study by Nwosa & Oseni (2013) sought to empirically ascertain the impact of bank advances to SMEs on manufacturing output in Nigeria between 1992 and 2010. The study adopted an error correction modeling (ECM) technique and found that banks advances to the SME sector had significant positive impact on manufacturing output both in the long-run and short-run. Based on this observation, the authors suggested that the government should ensure that SMEs have access to bank loans and advances since this will translate to rapid economic growth and output expansion. Afolabi (2011) investigated 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, commercial banks credit to SMEs and exchange rate of naira vis-à-vis U.S dollar exert positive influence on economy development proxy real gross domestic product while lending rate is found to exert negative effects on economic growth. In terms of partial significance and using t-statistics as a test of evaluation, SMEs output and commercial banks, credit to SMEs were found to be significant factors enhancing-economic growth in Nigeria at 5% critical level. Therefore, emanating from the findings, the study proffered that the central authority should create an enabling environment for SME development

Literature gap

From the literature reviewed, it was observed that none of the previous studies was able to capture asset base of small and medium enterprises (ASB) in their models, which is the major criteria of extending credit to the SMEs by the commercial banks, hence this present study tries to fill in that gap by capturing it in the model as one of the independent variables.

Methodology

The research design adopted is the ex-post facto. This study applies econometric procedure in estimating the impact of small and medium enterprises on economic growth in Nigeria. The Ordinary Least Square (OLS) technique is employed in obtaining the numerical estimates of coefficients in different equations. The OLS method is chosen because it possesses some optimal and BLUE properties.

Theoretical framework

The theory employed for this study is neo-classical growth theory. The reason for chosen this theory is because it assumes Y (i.e output) which can be proxied as economic growth to be dependent on some independent variables like technology (A), physical capital (K) and Labour (L), establishing a possibility of linear relationship between the dependent and independent variables. This relationship according to the model is as follows: $Y = F(A, K, L)$

Relaxing the equation above to capture the objectives of this study, the researcher re-structured equation as follows:

$$RGDP = F(BLS, ASB, INT, INF)$$

Model specification

This study adopted the model by Orji & Eze (2019), argument it with Nigeria economic characteristics in an inherent static equation that depicts long-term relationship, hence the model is implicitly specified as:

$$RGDP = f(BLS, ASB, INT, INF)$$

Where:

RGDP = Real gross domestic product

BLS = Commercial Bank loans to SMEs

INT = Interest rate

INF = Inflation rate

Explicitly, the model is specified as follow:

$$RGDP_t = \beta_0 + \beta_1 BLS_t + \beta_2 ASB_t + \beta_3 INT_t + \beta_4 INF_t + \mu_t$$

Where : $\beta_0 = \text{constant}$

$\beta_1, \beta_2, \beta_3, \text{ and } \beta_4$ are the parameters of the variables:

BLS, ASB, INT and INF are the independent variables

μ = error term

Then, taking a log function of the model in order to scale down data and for easy interpretation, we have:

$$LRGDP_t = \beta_0 + \beta_1 \ln BLS_t + \beta_2 ASB_t + \beta_3 INT_t + \beta_4 INF_t + \mu_t$$

Table 1: Variable description and sources

Variables	Definition	Source
RGDP	Real Gross Domestic Product	Central Bank of Nigeria(CBN) Statistical Bulletin
BLS	Commercial Bank loans to SMEs	CBN Statistical Bulletin
INT	Interest rate	CBN Statistical Bulletin
INF	Inflation rate	CBN Statistical Bulletin

ECM model

This is followed by the error correction model estimation (ECM), as it is stated as thus::

$$\Delta(\text{LRGDP})_{t-1} = \alpha + \sum_{i=0}^k \lambda_1 \Delta(\text{LBLS})_{t-1} + \sum_{i=0}^k \lambda_1 \Delta(\text{LASB})_{t-1} + \sum_{i=0}^k \lambda_1 \Delta(\text{INT})_{t-1} + \sum_{i=0}^k \lambda_1 \Delta(\text{INF})_{t-1} + \delta \text{ECM}_{t-1} + \varepsilon_t$$

Where:

δ = the speed of adjustment parameter

ECM = error correction mechanism

Δ = *change*

ε_t = white noise residual

Method of data evaluation

This study was evaluated under the following sub-headings.

Economic theory (a priori expectation). This is to confirm whether the signs or the parameter values conform to the economic theory. That is: $\beta_1, \beta_2, \text{ and } \beta_3 > 0, \beta_4 < 0$

Statistical significance. In evaluating the statistical significance of the study, the researcher will use t test, T- test is use to test for the statistical significance of individual regression coefficients. Inusing t- test, reject H_0 if $t_{\text{cal}} > t_{\text{tab}}$ at 5% level of significance, but if otherwise, do not accept H_0 . Alternative, if $P(t)$ is < 0.05 , it is significant but if $P(t)$ is > 0.05 , it is not significant.

Econometrics test. The study utilized the co-integration and error correction mechanism(ECM) . In the first steps, the augmented Dickey- fuller (ADF) unit root test for stationarity will be adopted and Philip Parron test will be used to further confirm the order of integration of 1(0) or 1(1), this is necessary to avoid having a spurious regression result.

Granger causality test

The equation is specified as:

$$LRGDP_t = \delta_0 + \sum_{i=1}^{i=n} \delta_1 LRGDP_{t-1} + \sum_{i=1}^{i=n} \delta_2 LBLS_{t-2} + \sum_{i=1}^{i=n} \delta_3 LASB_{t-3} + \sum_{i=1}^{i=n} \delta_4 INT_{t-4} + \sum_{i=1}^{i=n} \delta_5 INF_{t-5} + \mu_1$$

$$LBLS_t = \alpha_0 + \sum_{i=1}^{i=n} \alpha_1 LRGDP_{t-1} + \sum_{i=1}^{i=n} \alpha_2 LBLS_t + \sum_{i=1}^{i=n} \alpha_3 LASB_{t-3} + \sum_{i=1}^{i=n} \alpha_4 INT_{t-4} + \sum_{i=1}^{i=n} \alpha_5 INF_{t-5} + \mu_2$$

$$LASB_t = \Delta_0 + \sum_{i=1}^{i=n} \Delta_1 LRGDP_{t-1} + \sum_{i=1}^{i=n} \Delta_2 LASB_{t-2} + \sum_{i=1}^{i=n} \Delta_3 LBLS_{t-3} + \sum_{i=1}^{i=n} \Delta_4 INT_{t-4} + \sum_{i=1}^{i=n} \Delta_5 INF_{t-5} + \mu_3$$

$$INT_t = \beta_0 + \sum_{i=1}^{i=n} \beta_1 LRGDP_{t-1} + \sum_{i=1}^{i=n} \beta_2 INT_{t-2} + \sum_{i=1}^{i=n} \beta_3 LBLS_{t-3} + \sum_{i=1}^{i=n} \beta_4 LASB_{t-4} + \sum_{i=1}^{i=n} \beta_5 INF_{t-5} + \mu_4$$

$$INF_t = \partial_0 + \sum_{i=1}^{i=n} \partial_1 LRGDP_{t-1} + \sum_{i=1}^{i=n} \partial_2 INF_{t-2} + \partial_3 LBLS_{t-3} + \sum_{i=1}^{i=n} \partial_4 LASB_{t-4} + \sum_{i=1}^{i=n} \partial_5 INT_{t-5} + \mu_4$$

If the probability value is < 0.05 , accept the null hypothesis and if otherwise, reject the null hypothesis

Estimated results and its interpretation

Descriptive analysis of the data

Descriptive tries to describe the nature and features of variables used for the analysis. The descriptive result of table 2 showed that the variables used in the study are evenly distributed with 40 observations each. The Probabilities associated with Jarque-Bera are not normally distributed, and this may be because of the raw nature of the data used for the descriptive statistics. Real gross domestic product has (RGDP) has the highest mean value of 35592.74, while the asset base of small and medium enterprise has the lowest value of 1.552500. The standard deviation of the variables showed that these variables; RGDP, BLS and INT are widely spread because the mean values are far from their standard deviation, while ASB and INF are not widely dispersed. For the skewness, all the variables are platykurtic (because the values are < 3) implying a long-right tail) and positively skewed,

Table 2: Descriptive statistics

	RGDP	BLS	ASB	INT	INFL
Mean	35592.74	31.90000	1.552500	120.5000	15.09650
Median	24477.91	33.85000	1.300000	107.0000	13.17500
Maximum	71387.83	53.30000	5.800000	490.6000	67.40000
Minimum	13779.26	9.100000	0.200000	2.000000	0.160000
Std. Dev.	20777.20	11.92330	1.237033	136.4574	12.67769
Skewness	0.610728	-0.381322	1.644751	1.273100	2.033722
Kurtosis	1.769530	2.387844	5.864172	3.630744	8.586271
Jarque-Bera	5.010020	1.593935	31.70718	11.46829	79.58422
Probability	0.081675	0.450694	0.000000	0.003234	0.000000

Sum	1423710.	1276.000	62.10000	4820.000	603.8600
Sum Sq.	1.68E+10	5544.440	59.67975	726204.6	6268.225
Dev.					
Observation	40	40	40	40	40

s
Source: Author's computation from e-view 9.0, 2024.

Unit root (Stationarity test)

The stationarity test is necessary since we are using time series data, and data of such nature exhibit non-stationarity characteristics, hence the unit root test is germane to avert spurious result. The augmented Dicky- Fuller (ADF) and Phillips Parron (PP) test were used in this study. Table 3 showed that LRGDP, LASB and INF are integrated of order one (I(1)), while LBLS and INT are integrated of order zero I(0) ,implying mixed order of intergration. Hence , the reason for ARDL bounds test

Table 3 : ADF and PP unit root tests for stationarity

Variables	ADF test	5% level	Probability	Order of integration	PP test	5% level	Probability	Order of integration
LRGDP	-7.2359	-2.9389	0.0000	I(1)	-7.2969	-2.9369	0.0000	I(1)
LBLS	-6.9617	-2.9389	0.0000	I(0)	-7.0614	-2.9389	0.0000	I(0)
LASB	-3.1811	-2.9389	0.0000	I(1)	-3.1744	-2.9389	0.0000	I(I)
INT	-6.5111	-2.9389	0.0041	I(0)	-6.5111	-2.9389	0.0041	I(0)
INF	-3.6271	-2.9389	0.0102	1(1)	-3.7862	-2.9389	0.0103	I(1)

Source: Author's computation from e-view 9, 2024.

ARDL bounds co-integration test

In the table 4, since the F-statistic value (i.e. 3.441427) is greater than the critical values of bounds test at 5% (that is, 1(0) and I(1) values), we reject the null hypothesis of no long- run relationship. Therefore, we proceed to establish the relationship using the error correction mechanism (ECM).

Table 4: ARDL bounds cointegration test result

ARDL Bounds Test		
Test Statistic	Value	K
F-statistic	3.441427	4
Critical Value Bounds		
Significance	I0 Bound	I1 Bound
10%	2.2	3.09
5%	2.56	3.09
2.5%	2.88	3.17

1%	3.29	3.37
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Source: Author's computation from e-view 9, 2024

Result of error correction mechanism (ECM)

The table 5 showed that the coefficient of commercial bank loan to SMEs (LBLS) is 4.028564, has positive and significant impact on the RGDP. This is because the P-value of 0.0309 is less than 0.05, and even the t-value of 3.033269 confirms that. The estimated coefficient of commercial bank loan to SMEs (LBLS) of 4.028564 conforms to the a priori sign. This means that holding other variables constant, a unit change in commercial bank loan to SMEs (LBLS) will lead to 3.033269 increase in RGDP. This result is in conformity with the study of Iloha & Chijioke (2015) and Nwosa & Oseni (2013).

The coefficient of asset base of SMEs is 1.004422, and it has positive insignificant impact on RDGP, and the sign does not conform with the apriori expectation. This is because the P-value of 0.0297 is less than 0.05 and even the t-value of 7.375433 confirms that. This implies that a unit change in asset base of SMEs will lead to 1.004422 increase in RGDP.

The coefficient of interest rate is 0.000162, and it has positive significant impact on the RGDP, and the sign conformed with the a priori expectation. This is because the P-value of 0.0235 is less than 0.05 and even the t-value of 2.495543 confirms that. This implies that a unit change in interest rate will lead to 0.611974 increase in of RGDP. This result is in conformity with the study in contrast to the study of Imoisi and Ephraim (2015).

The coefficient of inflation rate is -0.000630. This means that it has negative and significant impacts on the RGDP. With the P-value of 0.0160 which is greater than 0.05 and the t-value of -0.694024, it shows that inflation rate has insignificant impact on RGDP. This implies that a unit change in inflation rate will lead to decrease in 0.694024 RGDP. This result is in conformity with the study of Imoisi & Ephraim (2015).

R-squared value of 0.876608 suggests that the model is of good fit. R^2 coefficient of 88% implies that up to 88 percent changes in RGDP are explained by the change in the independent variables. The Durbin-Watson statistics of 1.861751 implies that there is no problem of auto-correlation in the sample study. Also, the F-value of 9.787573 and P-value of 0.006130 showed that the entire regression plane is significant.

The estimated coefficient of the error correlation mechanism (ECM) is -0.570774, which implies that the speed of adjustment is approximately 57 % per annum. The negative coefficient is an indication that co-integration relationship exists among the variables.

Table 5: Error correction mechanism (ECM)

Dependent Variable: D(LRGDP)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LBLS)	4.028564	1.328126	3.033269	0.0309
D(LASB)	1.004422	0.136185	7.375433	0.0297
D(INT)	0.000126	0.000050	2.495543	0.0235
D(INFL)	-0.000630	0.000186	-3.379785	0.0169
ECM-1	-0.570774	1.215075	-5.469744	0.0111
C	0.098217	0.039381	2.494016	0.0178
R-squared	0.876608	Mean dependent var	0.039353	
Adjusted R-squared	0.858755	S.D. dependent var	0.042132	
S.E. of regression	0.042734	Akaike info criterion	-3.327013	
Sum squared resid	0.060264	Schwarz criterion	-3.071080	
Log likelihood	70.87675	Hannan-Quinn criter.	-3.235187	
F-statistic	9.787573	Durbin-Watson stat	1.861751	
Prob(F-statistic)	0.006130			

Source: Author's computation from e-view 9, 2024

Pairwise Granger causality tests

From the table 6, Granger causality test, it show that Commercial bank loan to SMEs (LBLS) has uni-directional relationship with real gross domestic product (RGDP), flowing from Commercial bank loan to SMEs (LBLS) . Also, it revealed that asset base of SMEs (LASB) has a bi-directional relationship with real gross domestic product (RGDP).

Table 6: Pairwise Granger causality tests

Null Hypothesis:	Obs	F-Statistic	Prob.
LBLS does not Granger Cause LRGDP	38	1.32516	0.0295
LASB does not Granger Cause LRGDP	38	2.91630	0.0482
LRGDP does not Granger Cause LASB		1.53154	0.0212
INT does not Granger Cause LRGDP	38	0.21423	0.8083
LRGDP does not Granger Cause INT		1.24137	0.3021
INFL does not Granger Cause LRGDP	38	1.53950	0.2295
LRGDP does not Granger Cause INFL		2.92814	0.0675
LASB does not Granger Cause LBLS	38	1.35748	0.2713

LBS does not Granger Cause LASB	0.3481	0.7085
	9	

Source: Author's computation from e-view 9, 2024

Post diagnostic tests

From the table 7 results, the probability values of Breusch-Godfrey serial correlation test, Breusch-Pagan Godfrey and heteroscedasticity test, are greater than 0.05 respectively. This implies that there is no serial correlation problem, the residuals are homoscedastic and that the functional form of the model is well specified.

Table 7: Post diagnostic tests

Ramsey RESET Test

Omitted Variables: Squares of fitted values

	Value	Df	Probability
t-statistic	0.305255	32	0.7621
F-statistic	0.093181	(1, 32)	0.7621
Likelihood ratio	0.113399	1	0.7363

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	3.786820	Prob. F(2,31)	0.3038
Obs*R-squared	7.657352	Prob. Chi-Square(2)	0.2017

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	1.485658	Prob. F(5,33)	0.2211
Obs*R-squared	7.165856	Prob. Chi-Square(5)	0.2086
Scaled explained SS	8.310761	Prob. Chi-Square(5)	0.1399

Source: Author's computation from e-view 9, 2024

Summary, Conclusion and Recommendations

Summary of the findings

Based on the analysis of data, the researcher made the following findings.

- Commercial bank loan to SMEs has positive and significant impact on the Nigerian economy.
- Asset base of SMEs has positive and significant impact on the Nigerian economy
- Commercial bank loan to SMEs (BLS) granger causes gross domestic product (RGDP) in Nigeria. Gross domestic product (RGDP) does not granger cause commercial bank loan to SMEs (BLS). This implies a uni-directional relationship between Commercial bank loan to SMEs (BLS) and gross domestic product (RGDP) in Nigeria.

Conclusion

Developing countries like Nigeria need to pursue economic growth and development if they are to reduce mass poverty and unemployment through SMEs. To achieve this, there is need for adequate attention placed to the growth of SMEs. This study has been able to provide answers to the research questions based on the findings by clearly concluding that Small and Medium Scale enterprises (SMEs) have a positive and significant effect on the economic growth of Nigeria and long run impacts on the economy. Commercial banks loans and financial institutions lending to small and medium scale enterprises have been found to have significant impact on economic growth in Nigeria, this implies that loans directed mainly to small and medium productive economic enterprises might have a multiplier effect in creating jobs and reducing unemployment in Nigeria.

Recommendations

Based on the findings, the following recommendations are suggested by the researcher:

1. The different tiers of government should direct more credit policies towards small and medium scale enterprises and intensity monitoring process to check inefficiency and ineffectiveness. This can be done through government expansionary policies; reducing interest rate and buying securities from member banks so as to make liquidity available to be given to SMEs through loans.
2. Government should pursue policies that ensure stability of the economy and sustainable growth, ensuring stable prices and a more realistic exchange rate. Some of these policies includes; technology policy where government provides incentives for SMEs to invest into new technology. These incentives could be in form of grants, cheap loans, or tax relief.
3. Adequate infrastructure should be provided to ensure better output production and transported at lower costs as well as generating jobs and other positive externalities by the small and medium scale enterprises. This the government can achieve by increasing her spending in providing good roads, electricity and other necessary social amenities.
4. The government (both federal and states) should adopt policies towards maintaining a favourably low commercial and micro-finance banks' lending rate to SMEs as this will help improve the level of investments in SMEs, which is expected on the long run, to improve aggregate asset base and aggregate capitalization of SMEs, which will in turn, have a significant positive effect on the GDP of the country.

References

- Adebusuyi, J. Y. (1997). Manufacturing enterprises in Nigeria: Is finance a constraint to performance? *Journal of Economic Reform*, 1(3), 99-113
- Afolabi, M., O. (2011). Growth and effect of small and medium enterprises (SME) financing in Nigeria. *Journal of African Macroeconomics review*, 3(1), 56-72.
- Bamidele, Y. A. (2012). Impact of small and medium enterprises on economic growth and development. *American Journal of Business and Management*, 1(1), 18-22.

- Benet, N., & Guan, T. (2009). SMEs in the U.S and Japan. A paper presented on a forum, "Looking at SMEs in some developed countries. *International Journal of Management and Information Systems*, 15(2), 95-104.
- Etuk, R.U., & Michael, B. (2014). Small and medium scale enterprises (SMES) and Nigeria's economic development. *Mediterranean Journal of Social Sciences*, 5(7), 656-662.
- Hanafi, M. (2003). *The entrepreneur: An economic theory (2nd ed.)*. Edward Elgar Publishers.
- Ikpor, R., Nnabu, B.E., & Itumo, O.S. (2017). Bank lending to small and medium scale enterprises and its implication on economic growth in Nigeria. *IOSR Journal of Humanities and Social Science (IOSR-JHSS)*, 22(12, 5), 14-28.
- Ilegbinosa, I.A., & Jumbo, E. (2015). Small and medium scale enterprises and economic growth in Nigeria: 1975-2012. *International Journal of Business and Management*, 10(3), 203-216.
- Iloh, L. & Chijoke, S. (2010). Sustainable development and decision making model for small and medium enterprises. *Environmental Research, Engineering and Management*, 2(52), 14-24.
- Imoisi, G.T. & Ephraim, T.M. (2008). An empirical analysis of factors associated with the profitability of small and medium enterprises in Nigeria. *African Journal of Business Management*, 2(1), 190-200.
- Nwosa, S. O., & Useni, W. B. (2013). Contribution of small and medium enterprises to economic growth. *Standard Research Journal of Business Management*, 1(2), 60-71.
- Okey, C. (2016). "Impact of small and medium enterprises on economic growth in Nigeria". *Journal of humanities and social sciences*, 6(1), 89-91
- Okufolami, B. O. (2003). Impact of small and medium scale enterprises in the generation of Employment in Lagos State. Kuwait Chapter of *Arabian Journal of Business and Management Review*, 1(11), 107-141.
- Onokoya, T. E., Fasanya, B.O., & Abduralhman, O. D. (2013). Determinants of small and medium enterprises (SMEs) performance in Ekiti State, Nigeria: A business survey approach. *European Journal of Humanities and Social Sciences*, 7(1). 32-49
- Onyeiw, A. O., Muoneke, E.D., & Nkoyo, B.S. (2014). An empirical study of the capital structure of micro, small and medium scale enterprises in Nigeria. *International Journal of Business and Social Science*, 5(1), 211-231
- Onyeiwu, A. O. (2010). Effective financing of small/medium scale enterprises as an impetus for poverty alleviation in Nigeria: An analytical approach. *International Journal of Economics and Development Issues*, 5(1), 67-78
- Orji, F.Y & Eze, E.O. (2019). Financing options for small and medium-scale enterprises in Nigeria. *Nigeria Journal of Accounting Research*, 1(2), 67-81.

- Osuagwu, C.N. (2001). Perceptions of SME growth constraints in Nigeria. *Journal Small Business Management*, 40(1), 58-65.
- Otugo, N., E., Edoko, T., D., & Ezeanolue, U., S. (2018). Effect of small and medium enterprises on economic growth in Nigeria. *Sumerian Journal of Business Management and Marketing*, 1(2), 73-78.
- Reavley, M., A and Lituchy, T., R. (2008). Successful women entrepreneurs: A six-Country analysis of self-reported determinants of success more than just dollars and cents. *International Journal of Entrepreneurship and Small Business*, 5(3-4), 272-296.
- Richard, O. A. (2015). Small and medium scale enterprises, financing and economic growth in Nigeria. Retrieved on 3rd November, 2024, from www.academia.edu.
- Udechukwu, D. (2003). Entrepreneurial developments and small scale industry contribution to Nigerian national development. *Marketing Interface*, 1(2), 51-68.