

Nexus between Loanable Funds and Performance of Small and Medium Scale Enterprises in Nigeria: Empirical Evidence

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Abstract: - Industrial and economic developments are flourished by small and medium scale enterprises (SMEs) in a country through efficient utilization of local resources, production of intermediate goods and services and transformation of rural technology. This study empirically examined Nigerian context of loanable funds impact on performance of small and medium scale enterprises (SMEs) within a study range of 2001-2018. The study employed time series data sourced from Central Bank of Nigeria (CBN) annual statistical bulletin, 2018. The error correction mechanism (ECM) was used to analyze data set after determining their individual stationarity with the presence of long-run cointegrating relationship among variables employed in the study. The study found that, credit to the private sector and interest rate ceiling have both linear and non-linear significant impact on the performance of small and medium scale enterprises (SMEs) in Nigeria. Therefore, the study recommends: Government and financial institutions in Nigeria to continue to encourage and create a centralized entity within their operations as a strategy of governance to offer short and medium term loans to small and medium scale enterprises either monthly, quarterly or annually as to enable them consistently stay afloat in their business operations.

Keywords: Loanable funds, small and medium scale enterprises, performance, firms.

I. INTRODUCTION

Nigeria is a blessed and prosperous country with enormous human and natural resources of which many are still yet to be tapped. With all these blessed human and natural resources, Nigeria is yet to be developed. Nigeria has gone through political instability that has resulted in a climate of social tension and the unpredictable market for businesses since her independent from British rule in 1960. The powerful and violent takeover of government by the military through coup and the indigenization policy of the late 1970's has made investors or individual with excellent high business potentials to feel reluctant to invest in any kind of business despite its hitherto significant growing market. Although perceived corruption, inadequate infrastructural facilities, policy instability, and lack of accountability of public funds gives set back on the market (Ariyo, 2005). This fact materialized World Bank description of Nigeria as a paradox (World Bank, 1996).

Ariyo (2015) states that the forefront of recent efforts to modernize and improve Nigeria's ailing economy, has

positioned the country on a sharp focus of macroeconomic stabilization and the pursuit of investment liberalization and massive trade programmes in order to encourage foreign direct investment in the country. Multi-national corporations help to bring in foreign exchange and also contribute towards creating jobs in the country that will give room for high revenue generation, but in real sense, how they boost and promote the economic development and how they have been assisting in attaining sustainable prosperity are not well specified but mere speculations. Consequently, for Nigeria to reach its full potential in terms of economic and social development, SMEs should not be neglected or seepage because it contributes simultaneously to the growth of the economy (Dabo, 2006). Therefore, the policies of trade liberalization and the encouragement of foreign direct investment have to be pursued in conjunction with a systematic and resolute effort to boost the development to enhance performance of SMEs in the country.

Developed economies globally have recognized the important role placed by SMEs in positioning industrialization and has gone ahead to formulate and adopt national policies financially for increased performance of small and medium scale enterprises (SMEs). The unavailability of credit may tend to bedevil the performance of small and medium scale enterprises (SMEs) in Nigeria. This was however, confirmed by Schneider (2002), in his statement that the relevance of small and medium scale enterprises (SMEs) in solving the macroeconomic problems is hindered by the absence of adequate capital and the inability to access fund from financial and non-financial institutions. The increase in rate of lending and inaccessibility of funds have been identified as major factors inhibiting small and medium scale enterprises (SMEs) from attaining its full potentials, thus leading to the early collapse of small and medium scale enterprises (SMEs) (Mambula, 2002).

Related empirical studies in Nigeria have identified formal and informal finance sources to SMEs. Aruwa (2004) pinpointed development and commercial banks as the key sources of formal financing to SMEs. He also specifically sighted loans from cooperative societies,

relatives, friends and personal savings as informal sources of financing to SMEs in Nigeria.

Some micro finance mediums have been established to foster enhancement of SMEs in Nigeria. For instance, in 1962, Nigerian Industrial Development Bank (NIDB) was established. This was intermittently followed by the establishment of the Agricultural Credit Guarantee Scheme Fund (ACGSF) and Nigerian Agricultural Cooperative Bank in 1973 while the Rural Banking Initiative (RBI) was set up in 1977 all geared towards enhancing availability of credits to SMEs in Nigeria.

The economic setbacks witnessed in the era of structural adjustment programmes in 1986, give rise to the setting up of National Economic Reconstruction Fund (NERFUND) to offer SMEs an agreed medium term loan for duration of three to seven years period (Ogujiuba et al 2004). Within the period of 1990 to 1998, records shows that 214 small and medium scale enterprises received a total loan offer of USD144.9 million from NERFUND.

As at 1978 to 2011, the Agricultural Credit Guarantee Scheme Fund (ACGSF) offered a total loan sum of ₦43.12 billion to 701,000 small and medium scale enterprises (SMEs). In addition, the federal government in its bid to promote indigenous financing of small and medium scale enterprises (SMEs), secured loan from the World Bank amounting to USD270 million which was offered to small and medium scale enterprises (SMEs) through participating commercial banks in the country.

The setting up of community banking scheme in furtherance of boosting finance sources for small and medium scale enterprises (SMEs) in 1991 to enhance rural development and to provide start-up capital for small and medium scale enterprises (SMEs). Also, the Family Economic Advancement Programme (FEAP) was established in 1997. In 2002, government merged the NERFUND and NIDB to Bank of Industry to provide loan at lower interest rate of 10% to the industrial sector and to small and medium scale enterprises (SMEs).

Central Bank of Nigeria (CBN) in 2002, introduced Refinancing and Rediscounting Facility Scheme (RRFS) at an agreed lower rate to provide temporal relief to banks that offer loans for long-term production. In the same year CBN and Bankers' Committee also established Small and Medium Industries Equity Investment Scheme (SMIEIS) which mandated commercial banks to earmark 10% of their profit-before-tax annually for financing of small and medium scale enterprises (Ogujiuba et al, 2004).

Other intervention initiatives for small and medium scale enterprises (SMEs) in Nigeria include: Microfinance Initiative (MFI) set up in 2005. In 2010, CBN in her quest to provide adequate fund for SMEs set up ₦200 billion intervention funds to finance SMEs that engaged in manufacturing.

However, all these captured initiatives embarked upon by both federal, state and the private sector are earmarked by not yielding positive and desired objectives. Thus, questioned the plight of loanable funds impact on the performance of small and medium scale enterprises (SMEs) in Nigeria.

The Study Objectives

The preliminary sequence has made the broad objective of this study obvious, which is to ascertain loanable funds impact on the performance of small and medium scale enterprises (SMEs) in Nigeria with a study range of 2001-2018. However, the study target objectives are:

- To determine credits to the private sector impact on performance of small and medium scale enterprises in Nigeria.
- To determine interest rate ceiling impact on performance of small and medium scale enterprises in Nigeria.

Research Hypotheses

In line with set objectives in the study the research hypotheses will be formulated in the null form as depicted below:

- **Ho₁:** Credit to the private sector does not impact significantly on the performance of small and medium scale enterprises in Nigeria.
- **Ho₂:** Interest rate ceiling does not have significant impact on performance of small and medium scale enterprises in Nigeria.

Thus, the rest of this study will reflect: Review of related literatures, employed methodology, data analysis and summary, concluding remarks with recommendations.

II. REVIEW OF RELATED LITERATURES

Conceptual Framework

The Concept of Small and Medium Scale Enterprises (SMEs)

The issue of what constitutes a small or medium enterprise is a major concern in the SME literature. SMEs have indeed not been spared with the definition problem that is usually associated with concepts which have many components. Different scholars have usually given different definitions of this concept. The definition of firms by size varies among researchers, scholars and academia's alike. Some attempt to use the capital assets; others use skill of labour and turnover level. Some even define SMEs in terms of their legal status and method of production.

Storey (1985) tries to sum up the danger of using size to define the status of a firm by stating that in some sectors all firms may be regarded as small, whilst in other sectors there are possibly no firms which are small. Bolton Committee (1971) first formulated an economic and statistical definition

of a small firm. Under the economic definition, a firm is said to be small if it meets the following three criteria:

- It has a relatively small share of their market place.
- It is managed by owners or part owners in a personalized way, and not through the medium of a formalized management structure;
- It is independent, in the sense of not forming part of a large enterprise.

Under the statistical definition, the Committee proposed the following terms to be identified as SMEs

- The size of the small firm sector and its contribution to GDP, employment, exports, etc.
- The extent to which the small firm sector's economic contribution has changed over time.

The Bolton Committee applied different definitions of the small firm to different sectors. Whereas firms in manufacturing, construction and mining were defined in terms of number of employees (in which case 200 or less qualified the firm to be a small firm), those in the retail, services, wholesale, etc. were defined in terms of monetary turnover (in which case the range is £50,000-£200,000 to be classified as small firm). Firms in the road transport industry are classified as small if they have 5 or fewer vehicles. There have been criticisms of the Bolton definitions. These centers mainly on the apparent inconsistencies between defining characteristics based on number of employees and those based on managerial approach.

The European Commission (EC) defined SMEs largely in term of the number of employees as follows:

- Firms with 0 to 9 employees are micro enterprises.
- 10 to 99 employees are small enterprises.
- 100 to 499 employees are medium enterprises.

Thus, the SME sector comprises of enterprises (agriculture, hunting, forestry and fishing) which employ less than 500 workers. In effect, the European Commission (EC) definitions are based solely on employment rather than a multiplicity of criteria. Secondly, the use of 100 employees as the small firm's upper limit is more appropriate, given the increase in productivity over the last two decades (Storey, 1994). Finally, the European Commission (EC) definition did not assume the SME group to be homogenous, that is, the definition makes a distinction between micro, small and medium sized enterprises. However, the (EC) definition is too all embracing to be applied to a number of countries. Researchers would have to use definitions for small firms which are more appropriate to their particular target group (an operational definition). It must be emphasized that debates on definitions turn out to be sterile, unless size is a factor which influences performance. For instance, the relationship between size and performance matters when assessing the impact of a credit programme on a target group (Storey, 1994).

Weston and Copeland (1998) hold that definitions of size of enterprises suffer from a lack of universal applicability. In their view, enterprises may be conceived of in varying terms. Size has been defined in different contexts, in terms of the number of employees, annual turnover, industry of enterprise, ownership of enterprise, and value of fixed assets.

Van der Wijst (1989) considers small and medium enterprises as privately held firms with 1 to 9 and 10 to 99 persons employed respectively. Jordan et al (1998) define SMEs as firms with fewer than 100 employees and less than £15 million turnover.

According to the British Department of Trade and Industry, the best description of a small firm remains at Bolton Committee in its 1971 Report on Small Firms. This stated that a small firm is an independent business, managed by its owner or part owners and having a small market share.

The following are spelt out classifications of SMEs for developing countries by United Nations Industrial Development Organization (UNIDO):

- Large firms with 100 or more workers.
- Medium firms with 20 to 99 workers.
- Small firms with 5 to 19 workers.
- Micro firms with less than 5 workers.

It is clear from the various definitions above that there is no general consensus over what constitutes an SME. Definitions vary across industries and also across countries. It is important now to examine definitions of SMEs given in the Nigerian context.

The Nigerian Context of SMEs

In line with the federal constitution 1999 as amended, SMEs defined as an enterprise having maximum turnover of ₦500, 000 per annum. It is also conceptualized as firms with capital outlay of not more than two million naira or total of five million naira including cost of other factors of production.

Therefore, the term SMEs is relative and mainly determined by the nature of business activities and geographical locations of the firms (Umar, 1997). According to Ebiringa (2011), the 13th meeting of National Council of industry stated that micro and small firms are firms that have total work force of less than or equal to ten employees and capital outlay less than ₦1.5million excluding cost of other factors of production. The council defined micro-enterprise as a firm with workforce size between 11 to 100 employees and a total capital outlay not less than ₦50million in exclusion of the cost of other factors of production. It also refers medium-sized firm to a firm that has workforce between 101 to 300 employees and has a total capital outlay of not less than ₦50 million but not more than ₦200million excluding the cost of other factors of production.

SMEs Performance

Performance as an aspect of strategic management and in the field of management in general is not purely new or unnoticed. For instance, performance measurement, performance assessment, or evaluation and performance management is used in various fields of management sciences. However, the meaning of the word is still relative, there may be no one accepted definition of performance rather it depends on the area and the person defining it. In numerous finance related literatures, SMEs performance has been studied by a number of researchers, scholars and academia's. Most of these studies concentrated on examining causes of SMEs performance, in which quite a lot of variables were recognized as the factors influencing SMEs performance.

SMEs performance can be seen as how the firm provides value to its stakeholders such as owners, customers, society and even the government within which it operates. In other words, it is an indication on how thriving the management utilizes the firm resources to attain set standards (Moullin, 2007). Neely et al. (1995) defined firm performance as the procedures of quantifying actions of the firm in terms of accomplishing its objectives.

Firms attain their objective if they succeed in satisfying their stakeholders' needs more than their rivals. Firm performance can be measured either by looking at economic variables or non-economic variables (Leitao & Franco, 2008). In other words, it can be measured quantitatively or qualitatively (Augustine, Bhasi, & Madhu, 2012).

Related studies have used various organizational resources to measure SMEs performance. Fornoni et al. (2012) in their study used social capital as antecedents of firm performance. Similarly, Ahmad, Abdullah, & Roslan (2012) employed short term debt, long term and total debt to measure SMEs performance. Al-Swidi and Mahmood (2012) examined the effect of total quality management and entrepreneurial orientation as SMEs performance.

However, studies of Fatoki (2012), Lechner & Gudmundsson (2012), and Mutlu & Aksoy (2014) have shown that entrepreneurial orientation determines performance. While Mazanai and Fatoki (2012) in their study employed access to finance as a performance measure for SMEs.

SMEs Attributed Importance

SMEs essential serves as oil for the lubrication and development of any economy. SMEs play a major role in economic growth in the Organization of Economic Co-operation Development (OECD) areas, majorly providing the source for most new jobs. Over 95% of OECD enterprises are SMEs, which account for 60%-70% of employment in most countries (OECD, 2005).

As larger firms downsize and outsource more functions, the weight of SMEs in the economy is increasing. In addition, the level of productivity and consequently

economic growth is strongly influenced by the competition inherent in the birth, death, entry and exit of smaller firms. This process involves high job turnover rates and churning in labour markets which is an important part of the competitive process and structural change.

Loanable Funds

SMEs lack of access to relative cheap and effective loanable funds has been identified as the major factor hindering their performance. A widespread concern is that the banking system in the sub sector (which supposed to be the major financier of SMEs) is not providing enough support to new economic initiatives and in particular to the expansion of SMEs. It is noted that commercial banks hitherto merchant banks which retained liquidity levels in excess of regulation have shown reluctance in providing loanable funds to SMEs (Sacerdoti, 2005). While Micro Finance Institutions (MFIs) have expanded vigorously in numbers of the country, the size of their credit remains limited, so that their support is not on the scale needed for many medium sized projects. Also, the interest rate on micro-credits is very high, due to large administrative costs in relation to their scale of operations (Mahmoud, 2005).

Several studies have identified financial constraint as the major obstacle to SMEs development in developing countries including Nigeria. Adelaja (2003) For instance, argued that lack of access to institutional finance has always constituted a pandemic problem for SMEs development in Nigeria. The problem of SME financing has received the tremendous research efforts from researchers. In their findings, four problems in financing SMEs have become recurrent, these includes:

- The cost of capital.
- The credit risk Involved.
- The inappropriate terms on loanable funds from banks;
- The shortage of equity capital.

Over the years government has enacted various policies and introduced schemes aimed at financing SMEs as noted in the study. However it is worrisome to note that SME up till date are starved of funds and the financing problems keep reoccurring. Asaolu et al (2005) have deduced that the financial challenges limit the developmental role of SMEs. But this may not be true especially in the case of Nigeria where the informal sector account largely by the SMEs play a crucial role in the development of the nation's economy. There is an inherent concern to ascertain the performance of SMEs in respect to loanable funds in Nigeria.

Theoretical Frame Work Of The Study

This study hinges on the modern theory of loanable funds.

The Modern Theory Of Loanable Funds: The modern theory of loanable funds, which was developed by Wicksel and

elaborated by Pigou, Ohlin and other neo-classical economist, has its root in the classical theory of interest rate. This theory explains how demand for and supply of credit determines the rate of interest. The point which equilibrates the financial market is that point which equates the supply of credit, through savings supply in a given period. The demand for credit arises from investment demand for real capital expenditure, plus net lending during the period. Thus,

$$S + M = I + DH \dots\dots\dots (I)$$

Where,

S = Current Savings

M = Net increase in money supply

I = Investment Demand and

DH = Net Hoarding

The loanable model postulates that in the financial markets, the demand for and supply of credit determines the interest rate. That is:

$$R = F (LFD, LFS) \dots\dots\dots (II)$$

Where,

R = Rate of interest

LFD = Demand for loanable funds

LFS = Supply of loanable funds

The model attempts to simultaneously satisfy the portfolio preference of two types of agents, firm or government. On one side are borrowers who wish to expand the holding of real assets, inventories, productivity plants and machinery beyond the limit of their worth. On the other hand are lenders who wish to put part or all their net worth in assets of a stable money value with a negligible risk of default.

The assumption here is that an effective and efficient financial system determines the level of productivity. SMEs play a crucial role in economic growth and development of any nation if loanable funds are available and accessible. This indicates the pivotal role of the banking system to the development of SMEs. There are a lot of factors that could hinder loanable funds provision by financial institutions (Ohanga, 2005). Therefore, information asymmetry arises when firm owners have adequate information with regards to risks and prospect of their business than the financial institutions. According to the information asymmetric theory, the lenders given the available information about the business risk may increase the lending rates in excess of the required risk.

The modern theory of loanable funds is of the view that financial institutions can reduce interest rate where small and medium scale enterprises accept loans without bias. This implies that increasing cost of borrowing will make it impossible for firms to engage in any type of business project.

Thus, information asymmetry is appropriate to SMEs especially due to its relative size that made it unattractive for financial institutions as a result of their inability to effectively determine the risk inherent to small and medium scale enterprises (Ohanga, 2005).

Empirical Review

The following are empirical studies considered in reflecting the studied phenomenon. Muritala et al (2012) employed multi-methodology techniques to analyse small and medium scale enterprises output performance and found that SMEs has significant impact on output performance in Nigeria. The study also identified that poor credit facilities, mismanagement, corruption, unskilled manpower and lack of infrastructure inhibit the performance of small and medium scale enterprises in Nigeria.

Akingunola (2011) employed Spearman’s Rho test to analyse the impact of SMEs and output growth of Nigeria from 2002 to 2009. The result showed that SMEs have positive impact on investment growth in Nigeria.

Onyeiwu (2011) employed OLS to analyze SMEs and Nigerian output growth using quarterly data from 1994 to 2008. The results reveal that SMEs loans positively affects gross domestic product. The study also argued that SMEs finance has long-run effect on Nigerian gross domestic product.

Carl (2001) in his study: Survival of small firm in developing countries; Posited that financial assistance to SMEs led to its survival in Africa and Latin America. While Godfried& Song (2000) in their investigation of financial mode available to SMEs in Ghana employed probit models. The study reported that small firms make use of credit from informal sector than credit from banks. The study also established that many small firms relied on informal credit to finance their business and that credits from banks are more available to high profit making SMEs than low profit making SMEs.

Adolphus (2011) employed multiple regressions of ordinary least square techniques to analyze the relationship between bank management, rural access to credit and SMEs in Nigeria from 1992 to 2007. The study found that total credit has a positive impact on rural credit availability.

Hassan & Olaniran (2011) adopted survey design to examine the role of assistance institutions in the growth of SMEs concentrated in the industrial areas of Osogbo in Nigeria. The study sampled a total of 340 respondents consisting of respondents from private sector, trade union and students. The study found that assistance institutions enhance the performance of SMEs and entrepreneurship in Nigeria. The study further recommends the commercialization of products from the industrial area in order to meet the demand expectation of the consumers and improves SMEs access to credit.

Aremu & Adeyemi (2011) in their examination of the influence of SMEs on GDP growth indicated that most of SMEs die within the period of 5 years of its existence in Nigeria. The study also, posited that smaller percentage of SMEs windup within 6 and 10 year of its set up but only between 5 and 10 percent of young SMESs survive in Nigeria. The study identified factors that are responsible for the failure of small business in Nigeria to include: irregular power supply, inadequate fund, poor availability of infrastructure and poor knowledge of the market.

Almost all the studies reviewed globally and within the national pegs on the studied phenomenon did not consider independently the ratio of credit to SMEs to GDP as SMEs performance measure (explained variable) in Nigeria. Thus, it is imperative therefore to do so to examine the subject with the study range of 2001-2018 as another gap in literature identified distinct from previous related studies.

III. METHODOLOGY

This study uses quasi experimental research design approach for the data analysis. This approach combines theoretical consideration (a-priori criterion) with the empirical observation and extract maximum information from the available data. It enables us therefore to observe the impact of explanatory variables on the explained variable.

Data Requirement and Sources

Considering a study of this kind, it is necessary to choose data that will align the estimation and testing of the hypotheses formulated. Credit to the private sector (CRPS) and Interest rate ceiling (ITRC) as proxy of the impact variable (loanable funds) while credit to small and medium scale enterprises ratio to gross domestic product (CSME/GDP) is used as the explained variable (performance of small and medium scale enterprises) within the specified study range.

Time series data are employed for this study. The data were obtained from Central Bank of Nigeria (CBN) annual statistical bulletin, 2018.

Data Analysis Method

The following econometric techniques shall be employed for the analysis of the data-set and the estimation of the model, that is:

- (a). Augmented dickey-fuller (ADF) test.
- (b). Johansen co-integration test and
- (c). Error Correction Mechanism (ECM).

Model Specification

In accordance with the formulated hypotheses in this study, the model of this study will be built as: credit to small and medium scale enterprises ratio to gross domestic product (CSME/GDP) as determinant for performance of small and medium scale enterprises in Nigeria, which is the explained variable while credit to the private sector (CRPS) and interest

rate ceiling (ITRC) are the explanatory variables employed in the study.

The specification of econometric model is based on economic theory relating to the studied phenomenon that requires basically:

1. Determination of the explained and the explanatory variables.
2. Theoretical apriori expectation and signs of functional parameters relationships.
3. Determination of the mathematical form of model (Gujarati, 2004).

In analyzing the studied subject we adopt and modify an empirical model of Ikpor, Bernard & Obaji (2017). Their model was used to study Bank Lending to Small and Medium Scale Enterprises and Its Implication on Economic Growth in Nigeria.

Their model will be adjusted to reflect the current study showing the functional relationship of the variables employed.

$$CSME/GDP = f(CRPS, ITRC) \dots\dots\dots I$$

Where,

CSME/GDP = credit to small and medium scale enterprises ratio to gross domestic product.

CRPS = Credit to the private sector.

ITRC = Interest rate ceiling.

The econometric specification of the explicit form of the multiple regression models is given as follows;

$$CSME/GDP_t = a_0 + a_1 CRPS_t + a_2 ITRC_t + Ue_t \dots\dots\dots (II)$$

Where:

a_0 = intercept

$a_1 \dots a_2$ = Coefficients of the explanatory variables to be estimated. They measure the impact of a unit change in loanable funds on performance of small and medium scale enterprises in Nigeria.

Ue_t = Error term of the time series data.

A-priori Expectation of the Study

Thus, it is expected that the coefficients of variables in the study would be greater than zero. I.e, $E_{q1} a_1 > 0, a_2 > 0$

Decision Rule: In this study the decision rule is to reject the null hypotheses (H0) if the t-statistics outcome is greater than critical values (probabilities) at 5% level of significance.

IV. ANALYSIS AND INTERPRETATION OF DATA

Table 1.1 Unit Root Test Results

Variables	ADF t-Statistics	Critical Value @5%	Order of Integration
CSME/GDP	-3.128985	-3.081002	1(1)
CRPS	-3.457276	-3.065585	1(1)
ITRC	-8.363887	-3.065585	1(1)

Source: Author’s computation: E-view 9 output

Table 1.1 shows the unit root test results of the variables employed in the study. The results shows that all variables employed in the study are integrated at first difference, symbolized by I(1) at 5% significant level.

Thus, this means that variables employed has no unit root problem. Note, a variable is said to have no unit root problem if the test statistics is greater than the critical value in absolute terms. This shows that data employed can be used for meaningful decision making.

Table 1.2 Johansen Cointegration Test Results

Date: 03/19/20 Time: 15:02				
Sample (adjusted): 2003 2018				
Included observations: 16 after adjustments				
Trend assumption: Linear deterministic trend				
Series: CRPS CSME/GDP ITRC				
Lags interval (in first differences): 1 to 1				
Unrestricted Cointegration Rank Test (Trace)				
Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.918684	70.50266	29.79707	0.0000
At most 1 *	0.762228	30.35202	15.49471	0.0002
At most 2 *	0.369070	7.368959	3.841466	0.0066
Trace test indicates 3 cointegrating eqn(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: E-view 9 output

Table 1.2 above shows the Johansen cointegration test result for long run relationship among variables employed. The test results indicate the existence of three cointegrating long run

relationship among variables in this study. This conclusion is premised on the trace statistics value against the Critical Values at 5% significant level.

Table 1.3 Parsimonious Error Correction Mechanisms (ECM)

Dependent Variable: D(CSME/GDP)				
Method: Least Squares				
Date: 03/19/20 Time: 14:51				
Sample (adjusted): 2002 2018				
Included observations: 17 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-6.953567	2.233095	-3.113869	0.0037
D(CRPS)	9.324017	1.893206	4.924988	0.0002
D(ITRC)	-10.98175	2.241907	-4.898398	0.0003
ECM(-1)	-0.845996	0.199250	-4.245897	0.0010
R-squared	0.708569	Mean dependent var		-5.500000
Adjusted R-squared	0.641316	S.D. dependent var		29.98475
S.E. of regression	17.95794	Akaike info criterion		8.816266
Sum squared resid	4192.340	Schwarz criterion		9.012316
Log likelihood	-70.93826	Hannan-Quinn criter.		8.835754
F-statistic	10.53582	Durbin-Watson stat		1.866624
Prob(F-statistic)	0.000869			

Source: Author’s computation: E-view 9 output

The above table (1.3) portrays the impact of loanable funds on performance of small and medium scale enterprises in Nigeria. The t-test output will be used to test the hypotheses formulated in the study. The error correction term will tell us the speed with which our model returns to equilibrium following short run fluctuations not captured in the Johansen co-integration test. The ECM coefficient of -0.845996 indicates that ECM is well specified and the diagnostic statistics are good. The negative sign indicates the short run adjustment of the explanatory variables to the explained variable. The ECM term also shows 84% fast speed of adjustment towards equilibrium. This implies that 84% of disequilibrium caused by exogenous shocks or short run fluctuations in the previous period is corrected in the current year.

Using the a priori criteria of evaluating the parameters, all the variables including the constant (CRPS, ITRC and ECM (-1)) met a priori expectations hence fulfilling the economic criterion of the model.

The results also show that ITRC is non-linear (negative) while CRPS is linear (positive) and statistically significant to CSME/GDP both in short and in the long run. Furthermore, the results of the test of the overall significance of the model using F-statistics shows that the entire model is statistically significant. We arrive at this conclusion because the F-statistics is greater than the F-probability. Coefficients of determination (R^2) indicate that approximately 71% of total variation of CSME/GDP is explained by the explanatory variables (CRPS and ITRC) in the model. This means that the model is of good fit. Finally, the Durbin-Watson statistics, a rule of thumb for the measure of autocorrelation is greater than coefficients of determination, thus, indicating the absence of first order autocorrelation.

Test of Hypotheses

Table 1.3 above reveals that credit to the private sector (CRPS) and interest rate ceiling (ITRC) have t-statistic of 4.924988 and -4.898398 respectively with an associated probabilities value of 0.0002 and 0.0003 which is less than 5% significant level. Hence the null hypotheses are rejected. This means that credit to the private sector and interest rate ceiling have a significant impact on performance of small and medium scale enterprises in Nigeria within the specified study range.

Discussions of Findings

The outcome of the error correction model (ECM) shown that loanable funds considering from 2001-2018 have a significant impact on performance of small and medium scale enterprises in Nigeria. As evidenced from our empirical results, loanable funds proxies (credit to the private sector and interest rate ceiling) had combined significant impact on performance of small and medium scale enterprises proxy (credit to small and medium scale enterprises to gross domestic product ratio) within the specified study range.

Furthermore, interest rate ceiling has a non-linear but significant relationship with credit to small and medium scale enterprises to gross domestic product ratio in Nigeria. The negative co-efficient indicates that 1% reduction in interest rate ceiling will enhance the performance of small and medium scale enterprise in Nigeria by 10%. The positive and significant coefficients for credit to private sector indicate positive relationship among variables.

This means that 1% increase in credit to the private sector will enhance performance of small and medium scale enterprises in Nigeria by 9% respectively. This finding confirms the Apriori expectations and with that of Hassan & Olaniran (2011). That found assistance of financial institutions to enhance the performance of SMEs and entrepreneurship in Nigeria.

V. SUMMARY, CONCLUSION AND RECOMMENDATIONS

The nexus between loanable funds and performance of small and medium scale enterprises has been a contemporaneous argument in entrepreneurial development in Nigeria. This study revealed that loanable funds collectively impacted significantly on the performance of small and medium scale enterprises in Nigeria within the specified study range.

However, individual explanatory variables employed in the study (credit to private sector and interest rate ceiling) shows both direct and inverse relationship with the explained variable (credit to small and medium scale enterprises to gross domestic product ratio).

Our conclusion therefore, is that the nexus between loanable funds and performance of small and medium scale enterprises is complementary and that small and medium scale enterprises activities cannot survive in isolation of effective and efficient supply of loanable funds with tolerable level of interest rate ceiling from financial institutions.

From the empirical findings of this study, we are constrained to recommend that:

Government and financial institutions in Nigeria should continue to encourage and create a centralized entity within their operations as a strategy of governance to offer short and medium term loans to small and medium scale enterprises either monthly, quarterly or annually as to enable them consistently stay afloat in their business operations.

Knowledge Contribution

This study empirical finding have established scientifically a strong relationship between loanable funds and performance of small and medium scale enterprises (SMEs) in Nigeria. And thus, confirms the relevance of credit to the private sector and interest rate ceiling of enhancing the performance of small and medium scale enterprises (SMEs) in Nigeria, and as such, both government and managers of banks are therefore provided with useful information to efficiently

provide accessible loanable funds for young and old entrepreneurs to strive.

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APPENDIX

EMPLOYED DATA

Years	Commercial Banks credit to Private Sector (N' Millions)	Prime Interest Rate Ceiling of Commercial Banks	Commercial Banks credit to SMEs (N' Millions)	Gross Domestic Product (GDP) N' Billion	Commercial Banks credit to SMEs Ratio to GDP
2001	844,486.2	18.29	52,428.4	431.8	121.4
2002	948,464.1	24.85	82,368.4	451.8	182.3
2003	1,203,199.0	20.71	90,176.5	495	182.2
2004	1,519,242.7	19.18	54,981.2	527.6	104.2
2005	1,991,146.4	16.54	50,672.6	561.9	90.2
2006	2,609,289.4	16.84	25,713.7	595.8	43.2
2007	4,820,695.7	16.84	41,100.4	634.3	64.8
2008	7,799,400.1	16.42	13,512.2	672.2	20.1
2009	9,667,876.7	17.2	16,366.5	719	22.8
2010	9,198,173.1	16.92	12,550.3	776.3	17.5
2011	9,614,445.8	16.86	15,611.7	834	18.7
2012	10,440,956.3	16.69	13,863.5	888.9	15.6
2013	11,543,649.9	16.56	15,353.0	950.1	16.2
2014	13,179,598.1	17.13	16,069.3	1,054.50	15.2
2015	13,568,543.7	17.08	12,949.5	493.84	26.2
2016	16,500,150.3	16.08	10,747.9	405.44	26.5
2017	26,562,698.38	17.78	12,437.6	376.36	33.0
2018	26,694,526.84	18.08	11,142.4	398.19	27.9

Source: Central Bank of Nigeria Statistical Bulletin, 2018

UNIT ROOT TEST RESULTS FOR CSME/GDP

Null Hypothesis: D(CSME/GDP) has a unit root

Exogenous: Constant

Lag Length: 1 (Automatic - based on SIC, maxlag=3)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-3.128985	0.0459
Test critical values:		
1% level	-3.959148	
5% level	-3.081002	
10% level	-2.681330	

*MacKinnon (1996) one-sided p-values.

Warning: Probabilities and critical values calculated for 20 observations and may not be accurate for a sample size of 15

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(CSME/GDP,2)

Method: Least Squares

Date: 03/19/20 Time: 10:20

Sample (adjusted): 2004 2018

Included observations: 15 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(CSMEGDP(-1))	-1.211670	0.387241	-3.128985	0.0087

UNIT ROOT TEST RESULTS FOR CRPS

Null Hypothesis: D(CRPS) has a unit root
 Exogenous: Constant
 Lag Length: 0 (Automatic - based on SIC, maxlag=3)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-3.457276	0.0242
Test critical values:		
1% level	-3.920350	
5% level	-3.065585	
10% level	-2.673459	

*MacKinnon (1996) one-sided p-values.
 Warning: Probabilities and critical values calculated for 20 observations
 and may not be accurate for a sample size of 16

Augmented Dickey-Fuller Test Equation
 Dependent Variable: D(CRPS,2)
 Method: Least Squares
 Date: 03/19/20 Time: 10:17
 Sample (adjusted): 2003 2018
 Included observations: 16 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
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UNIT ROOT TEST RESULTS FOR ITRC

Null Hypothesis: D(ITRC) has a unit root
 Exogenous: Constant
 Lag Length: 0 (Automatic - based on SIC, maxlag=3)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-8.363887	0.0000
Test critical values:		
1% level	-3.920350	
5% level	-3.065585	
10% level	-2.673459	

*MacKinnon (1996) one-sided p-values.
 Warning: Probabilities and critical values calculated for 20 observations
 and may not be accurate for a sample size of 16

Augmented Dickey-Fuller Test Equation
 Dependent Variable: D(ITRC,2)
 Method: Least Squares
 Date: 03/19/20 Time: 10:26
 Sample (adjusted): 2003 2018
 Included observations: 16 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
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Johansen Cointegration Test Results

Date: 03/19/20 Time: 15:02
 Sample (adjusted): 2003 2018
 Included observations: 16 after adjustments
 Trend assumption: Linear deterministic trend
 Series: CRPS CSME/GDP ITRC
 Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.918684	70.50266	29.79707	0.0000
At most 1 *	0.762228	30.35202	15.49471	0.0002
At most 2 *	0.369070	7.368959	3.841466	0.0066

Trace test indicates 3 cointegrating eqn(s) at the 0.05 level
 * denotes rejection of the hypothesis at the 0.05 level
 **MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.918684	40.15064	21.13162	0.0000
At most 1 *	0.762228	22.98306	14.26460	0.0017
At most 2 *	0.369070	7.368959	3.841466	0.0066

Max-eigenvalue test indicates 3 cointegrating eqn(s) at the 0.05 level
 * denotes rejection of the hypothesis at the 0.05 level
 **MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegrating Coefficients (normalized by b*S11*b-I):

CRPS	CSME/GDP	ITRC
-2.62E-07	-0.001186	-0.053473
2.28E-07	0.017510	0.328053
-4.54E-07	-0.116775	2.664233

Unrestricted Adjustment Coefficients (alpha):

D(CRPS)	-598131.1	-288004.9	-1352886.
D(CSMEGDP)	-14.86628	-5.601477	-1.954758
D(ITRC)	-0.489447	-0.799441	-0.133804

1 Cointegrating Equation(s): Log likelihood -319.1031

Normalized cointegrating coefficients (standard error in parentheses)

CRPS	CSME/GDP	ITRC
1.000000	4531.652	204318.6
	(21367.6)	(628738.)

Adjustment coefficients (standard error in parentheses)

D(CRPS)	0.156538 (0.17820)
D(CSMEGDP)	3.89E-06 (6.7E-07)
D(ITRC)	1.28E-07 (7.5E-08)

2 Cointegrating Equation(s):	Log likelihood	-307.6116
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Normalized cointegrating coefficients (standard error in parentheses)

CRPS	CSME/GDP	ITRC
1.000000	0.000000	126925.3 (209483.)
0.000000	1.000000	17.07839 (6.43051)

Adjustment coefficients (standard error in parentheses)

D(CRPS)	0.090730 (0.23463)	-4333.725 (11852.4)
D(CSMEGDP)	2.61E-06 (6.6E-07)	-0.080453 (0.03334)
D(ITRC)	-5.46E-08 (5.4E-08)	-0.013418 (0.00274)

Test Results of the Ordinary Least Square (OLS)

Dependent Variable: CSME/GDP
 Method: Least Squares
 Date: 03/19/20 Time: 14:43
 Sample: 2001 2018
 Included observations: 18

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-248.4524	58.61621	-4.238629	0.0007
CRPS	-2.74E-06	8.17E-07	-3.350881	0.0044
ITRC	18.62853	3.112416	5.985231	0.0000

R-squared	0.818328	Mean dependent var	57.11111
Adjusted R-squared	0.794105	S.D. dependent var	55.88305
S.E. of regression	25.35728	Akaike info criterion	9.455021
Sum squared resid	9644.877	Schwarz criterion	9.603416
Log likelihood	-82.09519	Hannan-Quinn criter.	9.475483
F-statistic	33.78323	Durbin-Watson stat	2.049076
Prob(F-statistic)	0.000003		