

Commercial Banks' Loans, Finance Houses' Domestic Credit, Monetary Policy Rate and Small and Medium Scale Industries Development in Nigeria : An Econometric Analysis (1992-2016)

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Abstract

This study empirically investigated the relationships among commercial banks' loans, finance houses' domestic credit, monetary policy rate, exchange rate, inflation rate and development of small and medium scale industries in Nigeria over the period 1992 and 2016. It utilized time series data obtained from Central Bank of Nigeria Statistical Bulletin and National Bureau of Statistics. Augmented Dickey Fuller unit root test, Phillip-Perron unit root test, Johansen Co-integration test and Ordinary Least Square estimating technique were employed to analyze the model. The equation specified development of small and medium scale industries as dependent variable and commercial banks' loans, finance houses' domestic credit, monetary policy rate, exchange rate and inflation rate as exogenous or explanatory variables. Empirical findings revealed that there is a strong negative relationship between commercial banks' loans and development of small and medium scale industries in Nigeria contrary to a priori theoretical expectation. The results further demonstrated that finance houses' domestic credit is positively associated or related with the growth and development of small and medium scale industries. The study also found monetary policy rate to be positively correlated with the development of small and medium scale industries in Nigeria. Based on the results, there should be adequate funding of small and medium scale industries by commercial banks in Nigeria through the removal of stringent conditions which make borrowing unattractive and inaccessible to these business organizations; Central Bank should substantially reduce the monetary policy rate so that commercial banks can review their lending rate downward to give room for easy accessibility of credit facilities by small and medium scale industries in order to finance their operations; devaluation of currency should be discouraged by the government since most of the existing small and medium scale industries rely heavily on imported raw materials and capital goods for their production; directive should be given by the government to commercial banks through the Central Bank to establish more branches in the rural areas so that rural dwellers who are operating small businesses can have easy access to credit facilities in order to galvanize their growth and development; and finance houses should be encouraged to offer more credit facilities to small and medium scale industries through favorable legislation and policy formulation by the government.

Keywords: Commercial banks' loans, Finance houses' domestic credit, Monetary Policy rate, Small and medium scale industries development, Ordinary least square, Unit root, Co-integration, Nigeria

Introduction

The growth and development of small and medium scale industries is of great concern to both developing and advanced countries of the world. This is because these industries have a big potential to bring about social and economic development by contributing significantly in employment generation, income generation, poverty reduction, wealth creation, income distribution, increased productivity, modernization, infrastructural provision and catalyzing development in urban and rural areas. Due to the recognition of small and medium scale industries in the economic development of nations, there has been a shift of emphasis by successive governments in Nigeria away from large scale capital intensive industrialization in favor of small and medium scale industries in recent years. The growth and development of small and medium scale industries is therefore seen as a fundamentally important and veritable tool in the industrialization process of Nigeria. But the existence and survival of small and medium scale industries depend heavily on the availability and accessibility of adequate financing.

The role of the financial system in mobilizing and channeling of funds to the real sector of the economy cannot be taken for granted. Healthy financial system is recognized as a necessary and sufficient condition for rapid sustainable economic growth and development of every developing country like Nigeria. The financial system in Nigeria is dualistic in nature consisting of formal and informal subsystems. The formal financial system refers to an organized, registered and regulated sector of the financial system. The formal subsector of the financial system is made up of the banking sector, non-banking sector and the financial markets. The formal financial sector in Nigeria is dominated by commercial banks which suggests that any failure in the sector would have devastating effect on the economic growth and development of the country. It is an indisputable fact that commercial banks and finance houses are custodians of depositors' funds and operate by receiving cash deposits

from the general public and loaning them out to the needy (small and medium scale enterprises inclusive) at statutorily allowed interest rates. A developing economy like Nigeria consists of surplus and deficit units. Commercial banks and finance houses perform financial intermediation function of mobilization and allocation of funds from the economic surplus unit to the economic deficit unit. The informal financial system comprises the institutions such as money lenders, rotating savings and credit associations and a host of others that are virtually outside the control of the established legal framework.

Commercial banks and finance houses have been providing financial intermediation to small and medium scale industries in Nigeria over the years with a view to galvanizing their growth and development. In 1992, commercial banks' loans and finance houses' domestic credit figures were #20400.00 million and #1512.8 million respectively. These figures rose to #32374.50 million and #5079.1 million in 1995. In 2000, commercial banks' loans and finance houses' domestic credit figures skyrocketed to #44542.30 million and #5270.9 million. In 2005, commercial banks' loans to small and medium scale industries figure was #50672.60 million while finance houses' domestic credit figure stood at #22007.7 million. In 2010, commercial banks' loans figure was #12550.30 million while finance houses' domestic credit figure amounted to #57769.6 million. These figures stood at #12047.8 million and #55974.9 million in 2016. The previously mentioned scenario clearly emphasizes the fact that both commercial banks' loans to small and medium scale industries and finance houses' domestic credit have been on the increase over the years. Therefore, it is against this backdrop that the study considers it worthwhile to examine the effects of commercial banks' loans, finance houses' domestic credit and monetary policy rate on the growth and development of small and medium scale industries in Nigeria.

Objectives of the Model

The general objective of the model is to empirically examine the impact of commercial banks' credit, finance houses' domestic credit and microfinance banks' loans on development of small and medium scale industries in Nigeria. The specific objectives of the study are to:

- Identify the relationship between commercial banks' loans and development of small and medium scale industries in Nigeria.
- Investigate the connection between finance houses' domestic credit and development of small and medium scale industries in Nigeria.
- Explore the impact of monetary policy rate on development of small and medium scale industries in Nigeria.

Study Hypotheses

The hypotheses to be verified by this study are stated below :

1. H_0 : Commercial banks' loans have no statistically significant positive relationship with development of small and medium scale enterprises in Nigeria.
 H_1 : Commercial banks' loans have statistically significant positive relationship with development of small and medium scale enterprises in Nigeria.
2. H_0 : There exists no statistically significant positive correlation between finance houses' domestic credit and development of small and medium scale enterprises in Nigeria.
 H_1 : There exists statistically significant positive correlation between finance houses' domestic credit and development of small and medium scale enterprises in Nigeria.
3. H_0 : Monetary policy rate has no statistically significant positive impact on the development of small and medium scale enterprises in Nigeria.
 H_1 : Monetary policy rate has statistically significant positive impact on the development of small and medium scale enterprises in Nigeria.

Research Questions

1. Does monetary policy rate exert negative or positive influence on the development of small and medium scale enterprises in Nigeria?
2. What relationship exists between commercial banks' loans and the development of small and medium scale enterprises in Nigeria?
3. What nexus exists between finance houses' domestic credit and the development of small and medium scale enterprises in Nigeria.

Description of Variables

Small and Medium Scale Industries Development- This represents the **endogenous variable** in the model which is expected to be influenced by plethora of exogenous variables such as commercial banks' loans, financial houses' domestic credit, monetary policy rate, exchange rate and inflation rate in the economy.

Commercial Bank Loan- A commercial bank loan represents an important line of business for the banking industry and a key source of funds for the business sector. Commercial and industrial lending is a major line of

business for many banking firms as they provide credit for a wide array of business purposes. Commercial and industrial loans, as defined by the Federal Financial Institutions Examination Council (FFIEC) in the commercial bank call reports include loans for commercial and industrial purposes to sole proprietorships, partnerships, corporations and other business enterprises, whether secured (other than by real estate) or unsecured, single-payment or installment. Loans to individuals for commercial, industrial and professional purposes, but not for investment or personal expenditure purposes are also included. This variable is expected theoretically to exert a positive relationship with small and medium scale industries development. The higher the rate of accessibility of commercial banks' loans to owners of small and medium scale industries in Nigeria, the faster their rate of development would be while the converse is true.

Finance Houses' Domestic Credit- Finance houses are non-bank financial institutions whose operating model was built to compete with established banks through offering an array of financial products and instruments that entail commercial and corporate finance, personal finance, credit cards and loans. The loans obtainable from these financial houses by small and medium scale industries are used for their development. This variable theoretically should have a positive correlation with the development of small and medium scale industries in the country. The higher the level of domestic credit offered by these finance houses to intending small and medium scale industries, the higher the ability of these industries to expand and develop while the reverse is true.

Monetary Policy Rate – Monetary Policy Rate (MPR) is the official interest rate of the Central Bank of Nigeria which anchors all others interest rates in the money market and the economy. Historically, the interest rate regime in Nigeria has been very stochastic. The volatile nature of interest rate is determined by many factors, which includes taxes, risk of investment, inflationary expectations, liquidity preference and market imperfections in an economy. MPR is an economic tool used by the Central Bank to control inflation and boost economic development. This variable is expected to exert a negative influence on the development of small and medium scale industries in Nigeria.

Exchange Rate- Exchange rate is the price at which the domestic currency is exchanged for foreign currencies. It is the rate at which one currency will be exchanged for another, that is, the value of a country's currency in terms of another. Nigeria has had problems with exchange rate management for the past four decades. The value of the Naira in terms of foreign currencies has been depreciating over the years. This variable is expected to exert a negative impact on the development of small and medium scale industries in Nigeria.

Inflation Rate – This variable theoretically should affect development of small and medium scale industries negatively. The higher the inflation rate, the greater the prices of productive resources or factors of production needed by owners of small and medium scale industries and the slower would be the pace of development in this sector of the economy. There would be discouragement or disincentive to produce on the part of potential small and medium scale industries owners.

Random Variable - This variable takes care of other exogenous or explanatory variables influencing development of small and medium scale enterprises in Nigeria which are not included in the model. It accommodates the unexplained part of the model.

Review of Related Literature

There has been a global recognition of the significant role being played by SMEs in industrialization and economic development by both developed and developing countries. The tremendous success recorded by SMEs in South East Asia through acceleration of the economy's industrialization and development has made most developing countries to pay more attention to the development of the sector as an engine of growth and development. The benefits derivable by a country from the operations of its SMEs are numerous. These include increased output growth through innovation, employment generation, income generation, income distribution, poverty reduction, reduction in income disparities, facilitation of technology transfer, economic diversification, entrepreneurial development and catalyzing development in urban and rural areas. Conceptually, there is no generally established definition of small and medium scale enterprises. These enterprises have been variously defined by different researchers based on the level of development of their various economies. The criteria for the classification of an enterprise as small, medium or large varies from country to country and depending on the level of development of the country. For instance, a small scale business in one country may be regarded as a large business in another. In Nigeria, the National Council on Industry in 2001 defined small-scale enterprise as an industry with a labour size of 11 to 100 workers or a total cost of not more than #50 million, including working capital but excluding cost of land. In similar vein, medium scale enterprise is defined as an industry with a labour size of between 101 to 300 workers or total cost of over #50 million but not more than #200 million, including working capital but excluding cost of land. Also, small and medium Industries Equity Investment Scheme (SMIEIS) defined SMEs as enterprises with a total capital employed not less than #1.5 million but not exceeding #200 million, including working capital, but excluding cost of land and with a staff strength of not less than 10 and not more than 300.

Several empirical studies have been conducted by different researchers on the impact of commercial banks'

credit and financial houses' domestic credit on the growth of small and medium enterprises. Grace and Tomola (2008) empirically investigated the relationship between profitability, bank loans, age of business and the size of small and medium enterprises in Nigeria. using fixed effects regression model, the paper was based on a balanced panel data of 115 SMEs of existing firms that have taken loans or currently have active loans, randomly selected in Ondo State, Nigeria. The equation specified profitability as dependent variable and loans, sales, age of business, size of business and interest rate as independent variables. The results showed that there is interdependence between the SMEs profitability and bank loans, and a significant relationship between profitability and the size of business. The study recommended that the government should formulate policies that will compel commercial banks to relax their restrictive regulations and operations which discourage borrowing, and offer more credit facilities for SMEs. In addition, the government empower the SMEs to access and get credits from the commercial bank through formal and informal entrepreneurship education.

Qureshi (2012) examined the challenges and constraints faced by small and medium-sized enterprises (SMEs) in Pakistan with regard to access to financing. The research methodology includes qualitative data and quantitative. A survey was undertaken from a sample group of 500 respondents of SMEs in Karachi from whom various questions were asked through a structured questionnaire. In addition, one-on-one formal and informal interviews were taken from various businessmen and bankers. Samples were selected conveniently. A conceptual model was devised to test and ascertain the statistical validity. It includes dependent variable SME financing and independent variables, financing constraints, functional/internal barriers, government support and incentives, and SMEs growth and development. The study reveals that formal financing is the biggest problem of SMEs because a substantial portion of SMEs does not have the required collateral security against repayment. The loan processing time is very lengthy and cumbersome and the loan terms are not succinct and thoroughly understood by the borrower which is a similar scenario to the Nigerian situation.

Omah et al. (2012) investigated the impact of post-bank consolidation on the performance of SMEs in Nigeria with special reference to Lagos State. A sample size of 50 was drawn from the supra-population of the study within Ikeja Local Government in Lagos State. Mean, standard deviation and coefficient of variation were applied in its data analysis. Empirical study revealed that SMEs do not have better access to finance through banks, due to neo-reorganization in banks as a result of post-bank consolidation and SMEs do not have absolute support with the financial institutions due to their financial background in Nigeria. Safiyyah and Garba (2013) examined the contribution of commercial banks to the growth of small and medium scale enterprises in Nigeria over the period of 1980 and 2009. The study employed descriptive method of analysis. An inductive methodology involving observation, collection of secondary data and the analysis of such data was employed. Ratio analysis and trend analysis were also used to analyze the endogenous and exogenous variables included in the model. Empirical findings revealed that commercial banks contributed to financing small and medium scale enterprises but their contribution has declined as the government through CBN directives abolished the mandatory bank's credit allocations. The study therefore recommended that commercial banks should trim down its stringent requirements so that SMEs can benefit from loan advances as large corporations do.

Sokoto and Abdullahi (2013) investigated how strengthening the Small and Medium Enterprises can contribute to poverty reduction in north western Nigeria. the study made use of both primary data and secondary information that was analyzed with the use of t-test statistics. The principal findings of the study is that large enterprises contribute more in the area of employment provision than the SMEs going by the countrywide data. This result contradicts the a priori assumption that small and medium scale enterprises do contribute to employment generation and use more indigenous technology than large organizations. Yusuf and Dansu (2013) investigated the correlation between business risks and the sustainability of SMEs in Nigeria employing Chi-square and descriptive statistics. Empirical study revealed that standard risk management strategy by SMEs will give room for their sustainability. Afolabi (2013) employed Ordinary Least Square (OLS) regression technique to estimate the growth effect of small and medium enterprises financing in Nigeria. Empirical study revealed that SMEs output and deposit banks credit to SMEs exert positive influence on economic development while lending rate is found to exert negative impact on economic growth. Akinruwa et al. (2013) conducted a similar study in Ekiti State employing regression analysis. Findings from the study showed that funds, managerial skills, government policy, education and facilities were significantly related with performance. By rankings, funds were considered most significant followed by education, government policy, managerial skill and facilities.

Nwosa and Oseni (2013) investigated the impact of bank loans to SME's on manufacturing output in Nigeria for the period spanning 1992 to 2010 using the error correction modeling technique. The study revealed that bank loans to the SMEs sector had significant impact on manufacturing output both in the long and short run. Aliyu and Bello (2013) examined the contribution of commercial banks to the growth of SMEs in Nigeria between 1980 and 2009. The study employed ratio analysis and trend analysis to the time series data obtained. Empirical analysis revealed that commercial banks contribute to financing SMEs but their contribution has declined as the government through CBN directives abolished the mandatory bank's credit allocations. Onakoya et al. (2013) investigated the impact of financing small scale enterprise on economic growth in Nigeria using a

quarterly time series data from 1992 to 2009. The result showed that loan to small scale business entrepreneurs have a positive impact on the economic performance while interest has a negative impact on economic growth. The study concluded that the greatest challenge facing SMEs in Nigeria is managerial capacity. Dada (2014) investigated empirically the effect of commercial banks' credit on SMEs development employing Ordinary Least Square (OLS) technique to estimate the multiple regression models. Empirical findings revealed that commercial banks credit to SMEs and the saving and time deposit of commercial banks exert a positive and significant influence on SMEs development proxy by wholesale and retail trade output as a component of GDP, while exchange rate and interest rate exhibit adverse effect on SMEs development. The author therefore recommended that commercial banks should lend more to the SMEs at subsidized rate.

Omika (2014) employed Ordinary Least Square (OLS) estimating technique to examine the necessity and strategies of re-positioning commercial banks in order to enhance the productive capacities of Small and Medium Scale Enterprises (SMEs). The results showed that there was cointegration between re-positioning of commercial banks and capacities of SMEs to deliver product/services and there was significant dispersion resulting from lending conditions and macroeconomic variables. Imoughele and Ismaila (2014) investigated empirically the impact of commercial banks' credit on Nigeria's Small and Medium Scale Enterprises between 1986 and 2012. Empirical findings revealed that SMEs and selected macroeconomic variables included in the model have a long run relationship with SMEs output. The study also revealed that savings and time deposit and exchange rate have a significant impact on SMEs output in Nigeria. Jegede (2014) examined empirically the effect of monetary policy on commercial banking lending in Nigeria between 1988 and 2008 using macroeconomic time series variables of exchange rate, interest rate, liquidity ratio, money supply and commercial bank loan and advances. Vector Error Correction Mechanism of Ordinary Least Square econometric technique was used as the estimation method. Specifically, the findings revealed that exchange rate and interest rate significantly influenced commercial banks' lending while liquidity ratio and money supply exert negative effect on commercial banks' loans and advances.

Owenvbiugie and Igbiniedion (2015) analyzed the role of finance in the growth of small and medium scale enterprises in Edo State, Nigeria. The study adopted a survey research design and a sample of 122 respondents was used. Cronbach Alpha was used to compute the reliability of the instrument and yielded 0.89. The findings showed that SMEs growth was hindered as a result of inability to access funds from financial institutions as a result of stringent policies required by banks and other financial institutions. Consequently, the authors recommended that necessary financial assistance should be given to the sector by government and other stakeholders in order to accelerate the growth of SMEs in the rural communities to reduce the current unemployment and rural-urban migration. Ayuba and Subairu (2015) examined the impact of banking sector credit on the growth of small and medium enterprises in Nigeria. The study made use of annual data between 1985 and 2010 while descriptive statistics, correlation matrix and error correction model were used to test the formulated hypotheses. Empirical findings revealed that banking sector credit has significant impact on the growth of small and medium enterprises in Nigeria. Anigbogu et al. (2015) investigated the effect of financial intermediation on small and medium enterprises performance in Nigeria using an econometric model of the Ordinary Least Square (OLS). The results showed that financial intermediation, commercial bank loans and advances to SMEs, bank lending rate to SMEs, exchange rate and monetary policy have a positive and significant influence on small and enterprises performance in Nigeria. The study further revealed that bank interest rate exerted a negative impact on SMEs performance in Nigeria.

Iwedi (2015) examined the anatomy of the banking system credit and small and medium enterprises growth in Nigeria from 1980 to 2014 employing the econometric tool of the Johansen and Juselius co-integration test and the Engel granger causality test. Empirical analysis revealed that bank credit have a significant positive influence on the SMEs growth in Nigeria. The study recommended that a well deserved attention be placed by the government and other stakeholders in the sector in the areas of access to funds, legislations, institutional restructuring and protection. Ilori et al. (2015) reviewed the funding arrangements available to SMEs and assessed how far they have contributed to meeting the finance and development needs of the SMEs sub-sector in Nigeria. The study revealed that various programmes have been put in place by the Federal Government to enhance SMEs access to finance. Similarly, financial institutions, non-financial institutions and NGOs have made considerable efforts to palliate the financial challenges confronting SMEs development, yet not much have been achieved in an attempt to position the sub-sector in the mainstream of economic development. The study recommended, among others, that development of the informal sector should be seen as imperative in order to leverage on its perceived advantage over other means of financing SMEs. Also commercial banks should make more funds available to the sub-sector and must imbibe the culture of real sector financing as in other emerging economies of the world. Okey (2016) examined the impact of commercial banks' credit on the growth of small and medium scale enterprises in Nigeria. The study adopted co-integration and error correction mechanisms in carrying out this empirical examination. The findings revealed that commercial banks' credit has not contributed significantly to the growth of small and medium scale enterprises in Nigeria. The study recommended that SMEs

should be made to have easy access to credits by commercial banks through the reduction of lending rate to the barest minimum by the monetary authority; devaluation of the national currency should be discouraged because it makes imported raw materials and capital goods used by the SMEs very expensive and hence impedes their production.

Ndubuaku et al. (2017) examined the impact of monetary policy regimes on the performance of commercial banks in Nigeria. It utilized time series data collected from the Central Bank of Nigeria. Regression and Pearson Product Moment Correlation technique were used to analyze the data collected while t-test statistic was employed in testing the hypotheses. The study revealed that monetary policy rate during the SAP period did not have significant impact on the performance of the banking sector but during the Post SAP period had significant impact on the performance of banking sector in Nigeria. The study recommended that policy makers should administer the monetary policy instruments to ensure they are effective in generating and stimulating the desired level of economic activity in the banking sector. Aguwamba and Ekienabor (2017) investigated empirically the impact of bank lending on small scale enterprises in Nigeria employing econometric regression model of Ordinary Least Square estimating technique. The result showed a positive impact of bank lending on small scale enterprises. The study recommended that measures should be taken to create a pool of long-term funds to enable long tenor lending. In addition, measures should be taken to influence the regime of interest rate downward, ease loan documentation process and requirements.

Data and Methodology

The data used for this study are annual time series secondary data sourced from the Central Bank of Nigeria Statistical Bulletin of various issues and National Bureau of Statistics. The study adopted an econometric approach in its empirical analysis of the impact of commercial banks' loans, financial houses' domestic credit, monetary policy rate and the development of small and medium scale enterprises in Nigeria. The technique of analysis is co-integration and ordinary least square regression modeling. This technique is chosen in order to determine whether there is the existence of a long run equilibrium relationship in the series. The basic idea behind co-integration is that if in the long run two or more series move closely together even though the series themselves are trended, the difference between them is constant. It is possible to regard these series as defining a long run equilibrium relationship as the difference between them is stationary (Hall and Henry, 1989).

Model Specification

The regression analysis of Ordinary Least Square Technique (OLS), Augmented Dickey Fuller (ADF) unit root test, Phillips Perron (PP) unit root test and Johansen Co-integration test were utilized to examine the relationships among commercial banks' loans, finance houses' domestic credit, monetary policy rate and the development of small and medium scale enterprises in Nigeria over the period 1992 and 2016. The model is specified as follows:

$$\text{SMSED} = f(\text{CBL}, \text{FHDC}, \text{MPR}, \text{EXGR}, \text{INFR}) \quad (1)$$

Equation (1) is transformed into an econometric form as follows:

$$\text{SMSED} = b_0 + b_1\text{CBL} + b_2\text{FHDC} + b_3\text{MPR} + b_4\text{EXGR} + b_5\text{INFR} + U \quad (2)$$

Where:

SMSED = Small and medium scale enterprises' development proxied by wholesale and retail output as a component of Real Gross Domestic Product.

CBL = Commercial banks' loans

FHDC = Finance houses' domestic credit

MPR = Monetary policy rate

EXGR = Exchange Rate

INFR = Inflation Rate

U = Stochastic error term

b_0 = Constant term

b_1 - b_5 = Coefficients of the exogenous or explanatory variables

Stationarity Test

In order to ensure that the data for the variables used in the model do not fluctuate unnecessarily, unit root test is conducted to ascertain the stationary status of the variables using Augmented Dickey Fuller (ADF) and Phillips-Perron (PP) techniques. Running regression with non-stationary data series produces spurious results that may not be reliable. From the unit root test result, only the dependent variable, small and medium scale enterprises development (SMSED) is found to be stationary at second difference while all the explanatory or exogenous variables are stationary at their first difference. The unit root ADF test and PP test results are presented in table 1&2 below.

Table 1 AUGUMENTED DICKEY FULLER TEST STATISTICS OF THE VARIABLES

VARIABLES	ADF STATISTICS	1%	5%	10%	ORDER OF INTEGRATION	MAXIMUM NO. OF LAG
SMSSED	-6.132679	-3.769597	-3.004861	-2.642242	I(2)	5
CBL	-5.120253	-2.669359	-1.956406	-1.608495	I(1)	5
FHDC	-5.647804	-3.752946	-2.998064	-2.638752	I(1)	5
MPR	-8.102284	-3.752946	-2.998064	-2.638752	I(1)	5
EXGR	-6.638784	-3.769597	-3.004861	-2.642242	I(1)	5
INFR	-7.474516	-3.769597	-3.004861	-2.642242	I(1)	5

Source: Author's Computation using E-view 7.1 version

Table 2 PHILLIPS-PERRON TEST STATISTICS OF THE VARIABLES

VARIABLES	ADF STATISTICS	1%	5%	10%	ORDER OF INTEGRATION	MAXIMUM NO. OF LAG
SMSSED	-6.338390	-3.769597	-3.004861	-2.642242	I(2)	2
CBL	-5.000907	-3.752946	-2.998064	-2.638752	I(1)	2
FHDC	-5.656003	-3.752946	-2.998064	-2.638752	I(1)	2
MPR	-8.102284	-3.752946	-2.998064	-2.638752	I(1)	2
EXGR	-7.329923	-3.769597	-3.004861	-2.642242	I(1)	2
INFR	-4.627203	-2.669359	-1.956406	-1.608495	I(1)	2

Source: Author's Computation using E-view 7.1 version

Having conducted the unit root test, the paper proceeds to test for the existence or otherwise of long-run relationship between the dependent variable and other explanatory variables employing Johansen Co-integration test. The result of the co-integration test is presented in table 3 below.

Table 3

Date: 04/01/18 Time: 15:33
 Sample (adjusted): 1994 2016
 Included observations: 23 after adjustments
 Trend assumption: Linear deterministic trend (restricted)
 Series: SMSSED CBL FHDC MPR INFR EXGR
 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 *	0.960010	203.2630	117.7082	0.0000
At most 1 *	0.890524	129.2230	88.80380	0.0000
At most 2 *	0.805636	78.34587	63.87610	0.0019
At most 3	0.576011	40.67140	42.91525	0.0824
At most 4	0.498310	20.93628	25.87211	0.1822
At most 5	0.197882	5.071492	12.51798	0.5861

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 *	0.960010	74.04006	44.49720	0.0000
At most 1 *	0.890524	50.87710	38.33101	0.0011
At most 2 *	0.805636	37.67447	32.11832	0.0094
At most 3	0.576011	19.73512	25.82321	0.2586
At most 4	0.498310	15.86479	19.38704	0.1511
At most 5	0.197882	5.071492	12.51798	0.5861

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

The Johansen co-integration test results presented in table 3 revealed that there is a long run relationship between small and medium scale enterprises development (SMSSED) and the independent or explanatory variables captured in the model as both the Trace Statistic and Maximum Eigen value indicate three co-integrating equations each at the 5 percent level of significance respectively. Having established that a long run relationship exists among the variables in the model, an Ordinary Least Square regression was estimated because the variables are stationary at their various first and second differences.

Table 4

Dependent Variable: SMSED
 Method: Least Squares
 Date: 04/01/18 Time: 15:21
 Sample: 1992 2016
 Included observations: 25

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2377.357	1268.994	1.873418	0.0765
CBL	-0.043179	0.013243	-3.260442	0.0041
FHDC	0.068105	0.018215	3.738829	0.0014
MPR	31.62351	62.62354	0.504978	0.6194
INFR	-3.867928	14.46551	-0.267390	0.7921
EXGR	21.79669	5.624674	3.875191	0.0010
R-squared	0.947406	Mean dependent var		5638.748
Adjusted R-squared	0.933566	S.D. dependent var		3504.883
S.E. of regression	903.3778	Akaike info criterion		16.65572
Sum squared resid	15505738	Schwarz criterion		16.94825
Log likelihood	-202.1965	Hannan-Quinn criter.		16.73686
F-statistic	68.45194	Durbin-Watson stat		1.927427
Prob(F-statistic)	0.000000			

Table 5 Presentation of Regression Result

Variables	Coefficient	Standard Error	T Statistic	Probability	Apriori Expectation	Inference
Constant term	2377.357	1268.994	1.873418	0.0765	$b_0 > 0$	Correct sign and significant
CBL	-0.043179	0.013243	-3.260442	0.0041	$b_1 < 0$	Incorrect sign and significant
FHDC	0.068105	0.018215	3.738829	0.0014	$b_2 > 0$	Correct sign and significant
MPR	31.62351	62.62354	0.504978	0.6194	$b_3 > 0$	Incorrect sign and significant
INFR	-3.867928	14.46551	-0.267390	0.7921	$b_4 < 0$	Correct sign and significant
EXGR	21.79669	5.624674	3.875191	0.0010	$b_5 > 0$	Incorrect sign and significant
Significant at 5%		$R^2 = 0.93$				DW = 1.9

Source : Author's Computation using E-view 7.1

Interpretation and Discussion of Empirical Findings

The empirical result in table 4 reveals that there is a negative relationship between commercial banks' loans and the development of small and medium scale enterprises in the Nigerian economy, given the coefficient of -0.043179, which is statistically significant with a t-value of -3.260422. This can be interpreted as a one naira increase in commercial banks' loans would bring about 43.17 units decrease in small and medium scale enterprises development in Nigeria. The inverse relationship between commercial banks' loans and development of small and medium scale enterprises negates the a priori theoretical expectation. This could be attributed to the high lending interest rate being charged and demand for excessive collateral securities by commercial banks from existing small and medium scale enterprises which makes borrowing unattractive. Uneasy accessibility to funds from commercial banks inhibits the existence and development of small and medium scale enterprises in Nigeria. From the empirical result, there is a positive relationship between finance houses' domestic credit and the development of small and medium scale enterprises, given the coefficient of 0.068105 which is statistically significant with a t-value of 3.738829. This suggests that a one naira increase in finance houses' domestic credit would bring about 0.068105 units rise in the growth and development of small and medium scale enterprises development. This result is in conformity with a priori theoretical expectation. The positive connection between

finance houses' domestic credit and small and medium scale enterprises could be attributed to the adequate funding of SMEs by finance houses which help to galvanize their growth and development.

The empirical findings further revealed that monetary policy rate exerts a positive impact on the development of small and medium scale enterprises within the studied period, given the coefficient of 31.62351 which is statistically significant with a t-value of 0.504978. The coefficient of exchange rate (EXGR) in the estimated regression equation is 21.79669 which is statistically significant with a t-value of 3.875191. This implies that a one unit rise in exchange rate would increase small and medium scale enterprises growth and development by 21.79669 units. This is not in conformity with a priori theoretical expectation.

The coefficient of determination (R^2) indicates that over 94 percent changes in the growth and development of small and medium scale enterprises are explained by Commercial Banks' Loans (CBL), Finance Houses' Domestic Credit (FHDC), Monetary Policy Rate (MPR), Exchange Rate (EXGR) and Inflation Rate (INFR) taken together. This is a nice fit as the unexplained variation is just 6 percent. The remaining 6 percent could be attributed to other variables influencing small and medium scale enterprises' growth and development which are excluded from this model. The Adjusted Coefficient of Determination (R^2) is 0.93 and this shows that 93 percent variation in small and medium scale enterprises growth and development (SMSSED) is caused by variations in Commercial Banks Loans (CBL), Finance Houses' Domestic Credit (FHDC), Monetary Policy Rate (MPR), Exchange Rate (EXGR) and Inflation Rate (INFR). This model as specified is statistically significant given its F-test to be 68.45194. the F-statistic value of 68.45194 is high enough, this shows the overall significance of the model and this indicates that collectively, all the explanatory variables are important determinants of small and medium scale enterprises growth and development.

The value of Durbin-Watson is 1.927427 for the model. This falls within the determinate region and this implies that the model is free from autocorrelation problem. Since commercial banks' loans exerts a statistically significant negative relationship with the growth and development of small and medium scale enterprises in the model, thus, null hypothesis is accepted which states that there is no significant positive relationship between commercial banks' loans and the growth and development of small and medium scale enterprises in Nigeria. Both finance houses' domestic credit and monetary policy rate have statistically significant positive connections with the growth and development of small and medium scale enterprises, thus the null hypothesis is rejected which states that finance houses' domestic credit and monetary policy rate are negatively correlated with the growth and development of small and medium scale enterprises in Nigeria.

Conclusion and Recommendations

This paper empirically investigated the growth and development implications of commercial banks' loans, finance houses' domestic credit, monetary policy rate, exchange rate, inflation rate and small and medium scale enterprises in Nigeria. Empirical analysis was conducted through the application of multiple regression of the ordinary least square to the annual data on the Nigerian economy for the period 1992 to 2016. The empirical analysis found that commercial banks' loans have negative impact on the development of small and medium scale industries contrary to a priori theoretical expectation. The results further demonstrated that there is a positive relationship between finance houses' domestic credit and the development of small and medium scale industries in Nigeria. The study also revealed that there is a positive connection or association between monetary policy rate and the development of small and medium scale industries within the studied period. Based on the results, the following recommendations are made:

- Adequate funding of small and medium scale industries by commercial banks in Nigeria through the removal of stringent conditions which make borrowing unattractive and inaccessible to these business organizations.
- There should be substantial reduction in the monetary policy rate by the Central Bank of Nigeria so that commercial banks can review their lending rate downward to give room for easy accessibility of credit facilities by small and medium scale industries in order to finance their operations.
- Devaluation of currency should be discouraged by the government since most of the existing small and medium scale industries rely heavily on imported raw materials and capital goods for their production.
- Directive should be given by the government to commercial banks through the Central Bank to establish more branches in the rural areas so that rural dwellers who are operating small businesses can have easy access to credit facilities in order to galvanize their growth and development.
- Finance houses should be encouraged to offer more credit facilities to small and medium scale industries through favorable policy formulation and provision of basic amenities by the government.

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