Bank Lending, Macro-Policy Variables and the Growth of Small Scale Industries in Nigeria

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Abstract

The paper employed time series data obtained from the Central Bank of Nigeria for the period 1992-2011 to examine the impact of bank lending and macroeconomic policy on the growth of Small Scale Enterprises in Nigeria. Data were analyzed using the Ordinary Least Square (OLS) regression technique. The data was first examined for unit roots using the Augmented Dickey Fuller (ADF) with view to ascertaining their stationarity. Result revealed that all the variables were stationary at first difference except government expenditure. Empirical findings further revealed that Commercial bank credit finance and industrial capacity utilization exerted significant positive impact on the growth of Small Scale Enterprises. Also, while exchange rate had a significant negative effect on the growth of Small Scale Enterprises, surprisingly, government expenditure and interest rate charged by banks fails to explain the variation in the growth of Small Scale Enterprises in the period under investigation. This informed the need to pursue policies that would ensure access to short, medium and long-term bank credit finance at concessionary interest rate and less stringent conditions, ensure proper funding of the sector by government, enhance the install capacity utilization rates of manufacturing sector and reduce exchange and interest rates as the way out.

Keywords: Small Scale, Macro-policy, Commercial Banks, Enterprises

1.0 Introduction

The contribution of Small Scale Enterprises to economic growth and development of several countries of the world have been acknowledged in the literature. For instance, in most Countries of Latin America and the Caribbean, Small Scale Enterprises accounts for 10 percent of formal businesses and generate between 20-40 percent of all jobs in their economy. Also in the U.S, small businesses represent more than 99.7 percent of all employers, employ more than half of the private sector employees, pays about 44.5 percent of total private pay roll, generate 60-80 percent non-farm private GDP and supplied 22.8 percent of total values of Federal private contracts in 2001 (Gramlich,1999).

In terms of the number of enterprises, it represents about 90 percent of the Industrial sector of Nigeria but ironically contributes a minute 1 percent Gross Domestic Product (GDP) (NIPC, 2002). Salami (2003), Osa-Afiana (2003) and Oluransawa (2003) summarized the role of Small Scale businesses to include: utilization of local resources, contributing to National output growth, transformation of indigenous technology, production of both intermediate and final consumption goods needed by larger enterprises and the economy, enhancing government revenue base, promotion of even development and the reduction of income disparities.

Funding of Small Scale Enterprises is important for the overall development of the economy. In recognition of the role of Small Scale Enterprises, governments of developing countries have employed series of monetary, fiscal and industrial policy measures all aimed at ensuring their proper funding and development. A summary of the various support programmes according to Olurunshola (2003) include: the establishment of the Industrial Development Centres (IDCs) in 1964, launching of Small Scale Industries Credit Schemes (SSICS) in 1971, setting up of the Nigerian Bank for Commerce and Industry (NBCI) by the Federal Government Decree 22 of 1973, setting up of the National Economic Reconstruction Fund (NERFUND) in 1989, setting up of the Nigerian Industrial Development Bank (NIDB) in 1964, launching of the Banks equity holdings in Companies as well as the merger of the Nigerian Bank for Commerce and Industry (NBCI) with the Nigerian Industrial Development Bank (NIDB) and the National Economic Reconstruction Fund (NERFUND) to form the new Bank of Industry (BOI). Banks have been identified as the major channel through which investment are directed to productive sectors of the economy (Khatkhate and Riechel ,1980). Central Bank of Nigeria since 1970 has continued to play a leading role in mobilizing credit to Small Scale Enterprises through its guidelines to banks. This has resulted in increased credit to Small Scale Enterprises in Nigeria. For instance, Commercial Bank credit to Small Scale Enterprises increased from ₦20,400 million in 1992 to ₦38,321.2 million in 2011 (CBN,2011). In spite of this, Obitayo (2001) and Udechukwu (2003) identified poor access to institutional finance as one of the major impediments to the growth and development of Small Scale industries in Nigeria. For example, Commercial bank loans and advances to SMEs as percentage of total private sector's credit reduced from 27.04% in 1992 to 0.41% in 2011 (CBN,2011). Also, Ogujiuba et al (2004) on their study revealed that about 79 percent of enterprises surveyed in 2001 identified lack of financial resources as their critical constraint. This implies that funding of SMEs in Nigeria has not been encouraging over time. Ogujuiba et al. (2004) attributed banks inability to lend to Small Scale Industries to poor macroeconomic environment, lack of basic infrastructural facilities and internal management problems. In the same view, Essien (2001) posited that for Small Scale Enterprises to grow and flourish, stable macroeconomic environment characterized by low inflation and unemployment rate as well as stable and investment friendly interest and exchange rates are indispensable. This was complemented by Anyanwu (1991) who documented that macroeconomic stability is desirable because it aids planning and enable the business community make reasonable forecast on costs, turnover and returns. Also, while Ragazzi (1981) attributed banks inability to lend to Small Scale industries to inadequate savings mobilization, Osa-Afiana (2003) attributed it to discrimination of the bank credit delivery system against Small Scale industries.

However, a peep into the maturity structure of Commercial Banks loan and advances in Nigeria using data from Central Bank of Nigeria (2007) revealed that, of a total loan and advances of 85,173.45 million naira that was given to Small Scale industries by Commercial Banks between the period 1985- 1997, 713,378.74 million, 102,646.95 million and 42,147.6 million representing about 83.13%, 11.96% and 4.91% matured under 12 months, 1-5 years and over 5 years respectively. This is an indication that a greater portion of loan and advances given to SMEs matured less than 12 months, which invariably discourages investment in long-term projects. Utomi (2002) had argued that for an economy to grow, investment in long-term risk capital must be encouraged. Also, according to Ogiogio (1992), a huge part of the amount reported as loans and advances by Commercial banks are not actually allocated as indicated. This according to Obaden and Odusola (2001) has resulted in weak growth of the economy. For instance, preliminary computation using data from Central bank (2011) revealed that commercial bank total credit to Small Scale Enterprises reduced from ₦26,218.40 million in 1992-1996 periods to ₦24,146.96 million in the 2007-2011 periods. Also, Commercial bank credit to Small Scale Enterprises as percentage of total credit to the private sector fell from 18.25% in the 1992-1996 period to 0.35% in the 2007-2011 period. This is an indication that Nigerian banks lack the needed resource base to extend long-term loans and advances to Small Scale Enterprises. Another problem hindering Small Scale Enterprises access to bank credit is high interest rate charge by banks. Ogujuiba et al (2004) have argued that high interest rates are not favourable to investors because the cost of funds would undermine profit and cause a loss of investment.

In Nigeria, interest rates are rarely negotiated and when reviewed upward by Central Bank, other banks often apply the new rate without notifying their borrowers. Presently, interest rates charge by most banks is as high as 24 percent. The banks prefer to lend to larger firms that are subsidiaries of Multinational Companies at the expense of Small Scale Enterprises, majority which are owned by Nigerians. World Bank (2001) reported that larger firms in Nigeria are often given loans at lower interest rates than small scale Enterprises. This has invariably affected their growth and performance.

In spite of the numerous initiatives of financial stakeholders in funding and promoting the growth of Small Scale Enterprises in Nigeria, Salami (2001) documented that the potential of Small Scale Enterprises have not been fully exploited as the   sector which account for about 70% of total industrial employment only contribute an estimated 10-15% of manufacturing output. This has been attributed to numerous factors such as: inadequate and inefficient infrastructural facilities, overbearing bureaucracy, inefficient and bad management-financial and technical (Sanusi, 2001). Others range from poor funding to unstable macroeconomic policies. Hence, this study examines empirically the effect of bank lending and macroeconomic policy variables on the growth of Small Scale Enterprises in Nigeria for the period 1992-2011.

2.0 Research Methodology

2.1 Study Area

The study was carried out in Nigeria which lies between Latitude 4^0 and 14^0 N of the Equator and between Longitude 3^0 and 15^0 East of the Greenwich meridian and is situated in the Gulf of Guinea. The country has a population of 140 million people (NPC, 2006) and a total land area of about 923,769 Km^2 (FOS, 1989). Of this, arable land account for 31%, permanent crops 3%,meadows and pasture, 23%, forest and woodland, 15%, others, 28%, with total irrigated land of 8,650sq km. In terms of 1993 estimate, the Federal Ministry of Environment of Nigeria (FMEN,2001) put Nigeria's irrigated land at 9,570km^2 and arable land about 35%, pasture 15%,forest reserve 10%, settlement 10% and the remaining 30% uncultivable.

2.2 Sources of Data Collection

The study made use of secondary data which were sourced from various issues of the Central Bank of Nigeria Statistical Bulletins and Annual Statement of Accounts for various years. Data series of interest which covered the period 1992-2011 were: GDP of manufacturing sector, Commercial bank credit to Small Scale Enterprises, lending rate of Commercial banks, government expenditure on economic services and install capacity utilization rate of manufacturing sector.

2.3 Model Specification

The data was analyzed using the Ordinary Least Square (OLS) regression technique. Gross Domestic Product of the manufacturing sector was expressed as a function of government expenditure, Commercial bank credit to Small Scale Industries, lending rate of commercial banks, exchange rate and install capacity utilization rate of manufacturing sector in our regression model.

$GDP_t =$ f (GXPt, CBF_t , LR , EXR, ICUt,) .   .   .   (1)

It is stated econometrically as;

$LogGDP_t =bo+b_1log \: logGXP_t + b_2CBF_t + b_3logLR + b_4logEXR + b_5ICUt + U_t$ . .   **(2)**

Where $GDP_t =$ Gross Domestic Product of manufacturing sector in period t
GXPt = Government capital expenditure on economic services in period t
CBFt =Total Commercial bank loan and advances to Small Scale Enterprises in period t
LRt = Lending rate at period t measured in percentage
EXR_t = Exchange rate of Naira to US dollars in period t
ICU_t = Install capacity utilization rate of manufacturing sector in period t
U_t = Stochastic error term.

2.4 Test for Stationarity

In examining each of the time series variables for the presence of a unit root (an indication of stationality), an Augmented Dickey Fuller (ADF) test was used to carried out the unit root.

The ADF test minimizes autocorrelation in the error term since it involves the first difference in lags such that the error term is distributed as white noise. The test formula for ADF is shown as;

$$\Delta Yt = \alpha + \rho Yt - 1 + \sum_{t-1}^{j} Y \Delta Yt - j + Ut . \: . \: . \qquad\qquad \textbf{(3)}$$

Here the lag length j chosen for ADF ensure U_t is empirical white noise. The significance of ρ is tested against the null that ρ = 0 based on the t statistics obtained from the OLS estimated in equation (3). If the null hypothesis of non stationarity cannot be rejected, the variables are difference till they become stationary, that is, till the existence of a unit root is rejected.

3.0 Result and Discussion

3.1 Unit Root Test for Variables in the Analysis

Table 1 presents the result of the ADF unit root test carried out to ascertain the stationarity of variables. From the result, all variables were integrated of the order 1(0) except government expenditure. This implies that except government expenditure, all the other variables were stationary at first difference.

Table 1: Unit root test

Table 3: Result of the Unit Root test for Variables Used in the Analysis

Logged Variables	Augmented Dicker Fuller Test for unit root		
	Level	1st diff.	OT
LnY	-2.304	-4.425***	1(1)
Ln GXP$_t$	-4.724***	-	1(0)
LnTLCB$_t$	-1.322	-5.358***	1(1)
LnLR$_t$	-2.354	-3.554***	1(1)
LnEXR$_t$	-3.043	-4.232***	1(1)
Ln ICU$_t$	-1.453	-4.586***	1(1)
5%	-2.96	-2.97***	

Note: OT means order of integration. Critical values (CV) are defined at 1% and 5% significant levels and asterisks * and ** represent 5% and 1% significance levels respectively. Variables are as defined in equation 2.

3.2 Testing for Short and Long Run Relationship

After ascertaining the stationarity of the variables, an attempt was made to carry out a cointegration test and estimate the error correction model. However, this was not possible because of the smaller number of observations and there was no way the number of observations could be increased since bank allocation to Small Scale Enterprises started in 1992. So, we proceeded to carry out the Ordinary Least Square (OLS) regression analysis, the result which is reported in section 3.3 below.

3.3 Regression Result and Discussion

Table 3 presents the result of the diagnostic test carried out to examine the effect of the explanatory variables on the growth of small scale industries in Nigeria. Result of the diagnostic test revealed the R^2 value of 0.7836 implying that the specified explanatory variables explain about 78.3% of the adjusted total variation in the output of Small scale industries. Fstat value of 52.84 is significant at 1% level of probability indicating the goodness of fit of the estimated equation. Also, the Durbin-Watson statistics of 2.01 indicates the absence of autocorrelation in the estimated equation.

The coefficient for total Commercial bank credit to Small Scale Enterprises (TLCB) was positive and significant at 1 percent probability level. Its coefficient indicates that increasing bank loan by one unit would increase the output of the Small Scale Enterprises by 0.2712. This is in line with theoretical postulation because increase in bank credit to Small Scale investors would in addition to increasing their liquidity position enhance their chances of investing in mega projects.

This finding corroborates those of Obamuyi (2012) and Omojimite (2012) on their study on manufacturing . and Agricultural sectors of Nigeria, respectively. In the industrial sector, Bassey et al (2014) reported a positive but insignificant relationship between Bank credit finance and industrial output growth.

The coefficient for exchange was negative and significant at the 5 percent level. The implication is that an increase in exchange rate would reduce the GDP of Small Scale industries.

This is expected because a rise in the price of foreign currency against their domestic counterpart would reduce productivity by way of a rise in domestic prices of imported goods. This finding lend credence to the works of Ehinomen and Oladipo (2012) and Bassey et al (2014) who reported similar findings in the manufacturing and industrial sector of Nigeria respectively. Obamuji (2012) also reported similar result between exchange rate and manufacturing output in Nigeria.

The findings conflicts with that of Yaqub (2010) who reported a positive but insignificant effect of exchange rate on agricultural and manufacturing outputs of Nigeria, respectively.

The coefficient for government expenditure was positive but insignificant implying that it did not exert significant influence on the growth of Small Scale industries. This is an indication that government expenditure in the sector has not been encouraging. In the industrial sector of Nigeria, Bassey et al (2014) reported similar result. This finding is at variance with that of Yaqub (2010).

The negative and insignificant value of lending rate is in line with theoretical literature. This is expected because the level of investment in the sector would depend on the rate of interest. For instance, at higher interest rates, the cost of capital would be high. Hence investors would be discouraged from borrowing, thereby affecting their productivity and investment in long-term projects. This finding support Ehinomen and Oladipo (2012) and contradicted that of Obamuyi (2012) who reported a positive relationship between lending rate and manufacturing output in Nigeria.

The coefficient for install capacity utilization was positive and significant at the 5 percent level of probability. Its value shows that increasing the install capacity rate of manufacturing sector by 10 percent would increase the growth of the sector by 162.52 units. This is expected because increase in the capacity utilization would invariably increase the output of Small scale investors. Bassey et al (2014) and Akpan et al (2012) reported similar results between Install capacity utilization rate and industrial and Cassava outputs, respectively.

Table 4: **OLS Result for the Relationship between GDP of Small Scale Enterprises, Bank Finance and Some Macro-Policy Variables in Nigeria**

Variable	Coefficient	Standard error	t-value	Prob
Constant	-34.768	58.1130	-0.5864	0.113
LogTLCB	0.2712	0.0638	4.2508***	0.000
LogGXP	1.0514	0.7522	1.3978	0.288
LogLRT	-0.1152	0.1890	-0.6095	0.494
LogICU	16.252	6.473	2.5107**	0.000
$LogEXR_t$	-1.7151	0.6591	-2.6022**	0.017
Diagnostic tests				
R^2	0.7836			
F-Cal	52.54***			
D-Watson	2.01			
Adjusted R^2	0.7654			
Akaike Criterion	207.93			
Schwartz Criterion	233.35			
Hanan Quinon Criterion	212.54			
Prob (F-stat)	0.0000			

Note: Asterisks ** and *** represent 5% and 1% significance levels respectively. Variables are as defined in equation (2).

Source: Authors computation from E-view version 7.1

4.0 Conclusion

The paper examined the impact of bank funding and macroeconomic policy variables on the growth of Small Scale Enterprises in Nigeria. Time series data obtained from CBN Statistical Bulletin (various issues) covering the period 1992-2011 was used in the study. A unit root test was carried out on the variables in order to determine their stationarity.

Result revealed that all the variables were stationary at first difference except government expenditure. Findings of the study further revealed that Commercial bank lending and install capacity utilization rate exerted significant positive impact on the growth of Small Scale industries in Nigeria. This implies that a rise in these variables would enhance the output of Small Scale industries. Also, while exchange rate had a significant negative impact on the growth of Small Scale Enterprises, surprisingly, government expenditure and interest rate charged by banks fails to explain the variation in the growth of Small Scale industries in Nigeria for the period under investigation.

5.0 Recommendations

Based on the above result and findings the following recommendations are made:

(1) Government should pursue policies that would promote access to short, medium and long-term bank credit finance at concessionary interest rates by small scale investors. Apart from relaxing certain credit conditions to SMEs investors such as the provision of collateral, the institutional framework responsible for mobilizing credit to SME should be strengthened. Measures that would enhance the liquidity position of these banks would go a long way to increase the volume of loanable funds within their disposal that can be given out to SMEs investors as loan.

(2) Policies that would enhance the install capacity utilization rates of the manufacturing sector should be pursued. Effort should be directed towards improving upon the erratic power supply in the country. The recent privatization of the power sector is bold step by the government to improve upon the erratic power supply and should be encourage.

(3) Government should ensure proper funding of the sector. Apart from ensuring that money allocated to SMEs through participatory banks is disbursed timely and at CBN approved rates and conditions; government should make SMEs a priority area in her expenditure schedule.

(4) Government should pursue policies that would ensure macroeconomic stability. Such policies should be tailored towards the reduction of exchange and interest rates in the country. To reduce exchange rate, proper monitoring and regulation of the foreign exchange market is imperative.

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