EFFECT OF BANK’S CREDIT ON THE PERFORMANCE OF SMALL AND MEDIUM SCALE ENTERPRISES IN NIGERIA

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Abstract
Small and Medium Scale Enterprises (SMEs) performance is largely connected with availability of banks’ credit as this enhances investment, thereby contributing to the overall development of the economy. Specifically, the study evaluated the relationship between Deposit Money Banks’ (DMBs) credit variables such as banking sector credit, lending rate and savings and time deposit on performance of the SMEs. The study’s population was the SMEs in Nigeria. The study employed secondary data obtained from the Central Bank of Nigeria’s Statistical Bulletins for a period of twenty-five years (1992-2016). The data obtained were subjected to fully modified least square regression analysis. Findings reveal that banking sector credit and savings and time deposits with DMBs have a positive and significant effect on SMEs performance at 5% significance level (with pv of 0.0006 and 0.0459, respectively). However, lending rate has a negative and significant relationship with SMEs performance at 5% significant levels (0.0351).

Based on the findings, the study concluded that DMBs credits have significant effect on SMEs performance in Nigeria. Therefore, DMBs should keep interest rate at its minimum as this will enhance the provision of adequate finance to expand SMEs operation which will thus have a significant effect on the performance of this sector.

Keywords: Bank Sector Credit, Lending rate, Savings and time deposit, Performance of SMEs, Multiple regression.

Introduction
It is a known fact that bank credit plays a major role in the development of the economy. Small and Medium Scale Enterprises (SMEs), being an engine growth of the economy, need this credit for capital accumulation which in turn promotes performance and economic growth (Ubesie, Onuaguluchi & Mbah, 2017). According to the United Nations Industrial Development Organizations (UNIDO) report of 2012, SMEs have a significant role to play in economic development. The sector is the engine growth of the private sector as they make up over 90% of innovators of the world and providing for 50 to 60 percent of employment opportunities. Moreover, Gbandi and Amissah (2014) asserted that SMEs have gained recognition and labeled as the backbone of the private sector development and partnership.

Lawson (2007) identified that banks’ credit could be a hindrance to development and partnership. To mitigate this difficulty of credit availability, the Nigerian government implemented different policies, starting from the adoption of the Structural Adjustment Programme (SAP) in 1986, establishment of Bank of Industry (BOI), Small Scale Industries Credit Scheme (SSICS), World Bank Small and Medium Enterprises Loan, Refinancing and Rediscounting Facility (RRF) of the
Central Bank of Nigeria, Small and Medium Enterprises Equity Investment Scheme (SMEEIS), Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) - (Ubesie, Onuaguluchi & Mbah, 2017). Furthermore, the N200 billion Small and Medium Scale Enterprises Guarantee Scheme (SMECGS) was instituted by the CBN in 2010 and, in 2013, the MSME improvement fund with share capital of N220 billion. Subsequent interventions were industry specific such as N50 million textile intervention fund, agricultural and manufacturing sectors’ support facility (RSSF), etc. (Nwosu & Ochu, 2017).

However, SMEs in Nigeria still encounter challenges such as stringent conditions on bank credit, maturity mismatched, inadequate collateral securities, faulty implementation and monitoring of fund disbursed by the government among others and hence handicapping the aim of the policies (Ubesie et al., 2017; Nwosa & Oseni, 2013). Available information from CBN, 2012 shows that as at 1992, commercial bank loans to SMEs as a percentage of total credit was 27.04% in 1997 and falls to 8.68%, 0.85% and 0.14% in 2002, 2007, and 2010 while 2012 recorded a slight increase of 0.15% (Clement, Ayodeji & Abiodun, 2018).

Although researchers such as Nwosa & Oseni (2013); Mamman and Aminu (2013); Ahiawodzi and Adade (2012); Obasan and Arikewuyo (2012); Bawuah, Yakubu and Alhassan (2014); Chiou, Wu and Huang (2011) have studied the effects of bank credits on SMEs, in different dimensions, they mainly focused on SMEs Growth (using Gross domestic product). The studies in Nigeria did not pay attention to the effects of bank credits on the performance of SMEs. Therefore, this study examines the effect of DMBs credits, lending rate and time and saving deposit on the performance of SMEs sector in Nigeria. To accomplish the study’s objective, the following hypotheses stated in their null forms were formulated:

\[ H_0: \text{DMBs credit has no significance effect on the performance of small and medium enterprises in Nigeria.} \]

\[ H_0: \text{DMBs lending rate has no significance effect on the performance of SMEs in Nigeria.} \]

\[ H_0: \text{DMBs savings and time deposits have no significance effect on the financial performance of SMEs in Nigeria.} \]

**Literature Review**

**Small and Medium Scale Enterprises (SMEs)**

SMEs are enterprises often independently owned and engage in varieties of activities. According to Esuah and Adebayo (2012), SMEs are firms established based on the entrepreneurial skills of an individual. Fatai (2012) opined that different authors, institutions, government agencies have suggested different ways to define SMEs at various times over the years. According to United Nations Environmental Programme (UNEP) (2003), some countries prefer to group small enterprises into three, that is micro, small and medium or very small, but adopt two categories of small and medium enterprises.

Bamidele (2012) asserted that SMEs in Nigeria are usually small owned or family managed business and therefore, lack organization and management structure. There has been no clear cut definition of SME in Nigeria; however, it varies from one organization to another. Various organizations or institutions in Nigeria had at specific times, defined SMEs in different contexts,
but the definitions have variables such as fixed assets, gross output, and the number of employees as common measures.

The role of finance in the real sector was first brought to the fore by the writings of Alexander Gerschenkron (1963) as cited by Onyiewu (2012), which stressed that financial institutions are not only providers of capital but also must offer complementary services such as entrepreneurial guidelines that would see businesses through their teething ages. According to a report of the OECD (2006), the SMEs are centerpieces of many advanced economies, but due to their limited size and their generally lower credit worthiness, their access to financial market instruments is more limited than for large enterprises, which benefit from access to securitized lending and stock market. In another related study, Aris (2007) pointed out that SMEs generally face difficulties in obtaining financing with lack of collateral, insufficient documents to support loan application and lack of financial track records as being the constraints faced by the SME sector in accessing financing.

Theoretical Discuss

The theories underpinning this study are financial intermediation and loan pricing theories.

The theory of financial intermediation

This was propounded by an early economist, Schumpeter (1912), who described financial intermediation as innovation finance. He further opined that this provided the entrepreneurs an access to funds which increased their expectations and new horizons to possible alternatives, thereby enhancing their performance. Innovation as an attribute of entrepreneur contributes to economic development. McKinnon and Shaw (1973) as cited in Imoughele and Ismaila (2013) opined the essence of the role of financial intermediation as an opportunity of inducing real growth through finance.

In 1973, Schumpeter stressed the role of credit in financing innovation as a key factor for performance and economic development. In a related study, Bencivegan and Smith (1991) emphasized the role of banks as a financial intermediation agents by channelling savings received from surplus units to productive investments through credit advances. Hence, without credit, the innovation opportunities may be handicapped and can hinder performance and economic growth. Therefore, it was concluded that non-availability of bank credits can be a hindrance to the performance of entrepreneurs.

Theory of Loan Pricing

Thompson Reuters (1965) propounded this theory and asserted that banks should not always increase interest rates to maximize their incomes, as this can affect the borrowers’ perception to credits. Chodechai (2014) argued that increasing interest rates might cause adverse selection problem. He further stated that this might be an acceptable rate for risk loving borrowers but they might venture into high risk business which can adversely affect their performance. Consequently, this theory predicts that high-interest rates lead to low-performance.

Empirical Review

Ahiawodze and Adade (2012) investigated the impact of access to credit on the growth of SMEs in the Ho Municipality in Ghana using the survey design. The survey involved a sample of 78
SMEs in the manufacturing sector. It was found that access to credit exerted a positive significant influence on the growth of SMEs in Ghana.

Similarly, Evans, Munir, Douglas and Stephen (2015) studied the impact of loan interest rates on the performance of small and medium-sized enterprises in Lurambi Sub-County, Kenya. The study used descriptive research design and correlation and found that loan interest rate has a significant impact on the performance of SMEs in Kenya.

In Nigeria, Onyiewu (2012) examined the effect of SMEs financing on the economic growth of Nigeria using ordinary least square method to analyze the data. The result showed that access to credits by SMEs has a positive effect on economic growth while money supply and deficit financing have negative effect on the growth.

In the same manner, Afolabi (2013) examined the impact of SMEs financing on economic growth in Nigeria from 1980 and 2010. The study analyzed the data using ordinary least square method. The study found that SME output (measured as wholesale and retail trade to GDP) and banks’ credit have a positive impact on the economic development (measured as real GDP) while lending rate has a negative influence on the growth.

However, Onakoya, Fasanya and Abdulrahman (2013) studied the effect of banking reforms on the performance of SMEs in Nigeria between 1986 and 2014. The study also used ordinary least square method of analysis. The result revealed that banks’ credit exert a negative effect on the growth of SMEs in Nigeria.

But Dada (2014) examined the effect of banks’ credit on SMEs development in Nigeria from 1992 to 2011. The study used secondary sources of data and ordinary least square method. The result showed that bank credits’ to SMEs and savings and time deposits have a positive influence on SMEs development in Nigeria.

Likewise, Imoughele and Ismaila (2014) used Co-integration and Error Correction Model (ECM) to examine the effect of bank’s credit on the output of SMEs in Nigeria. The empirical result revealed savings time deposit and exchange rate have a significant effect on SMEs output while credit to SMEs and total government expenditure have direct but insignificant effect on the output in Nigeria.

Also, Bello and Mohammed (2015) examined the impact of financial intermediation on the SMEs performance in Nigeria using ordinary least square method of analysis. The result revealed that financial intermediation, bank loans and advances, bank lending rate, exchange rate and monetary policy have positive and significant influence on SMEs performance in Nigeria.

However, Ubesie et al. (2017) examine the effect of deposit money banks’ credit on small and medium scale enterprises growth in Nigeria for the period of 1986 to 2015, using ordinary least squares regression method to analyse the data. It was found that DMBs credit to SME has no significant effect on SMEs growth in Nigeria.

In a different study, Muhammad, Olusegun, and Sonny (2018) examined a comparative analysis of viable SMEs financing in Nigeria. The study employed Net Present Value (NPV) technique to determine whether conventional banks usury is more viable than Islamic bank mudaraba. The
results revealed that Islamic bank mudaraba has a positive and higher NPV than conventional bank usury towards economic growth.

Methodology

The study adopted ex-post factor research design. The target population covered the whole SMEs industry in Nigeria. The choice of this sector was based on the inability of SMEs to obtain adequate working capital from banks to facilitate their operations and performance which usually retards their existence and contribution to economic development. The study covers a period of 24 years from the year 1992 to 2016 because data on SME’s financing in CBN annual report started in 1992. The study used secondary sources of data extracted from the CBN statistical bulletins. The data were subjected to econometric techniques like unit root test, co-integration test and fully modified least regression analysis.

Model specification

The study adopted the model of Afolabi (2013) who investigated the impact of SMEs financing on economic growth. The model was stated as follows:

\[
SMEQ = a_0 + a_1 CSME + a_2 STCB + a_3 EXCH + a_4 LNDR + \mu_i
\]

And by linearization the equation becomes:

\[
LnSMEQ = a_0 + a_1 \ln CSME + a_2 \ln STCB + a_3 \ln LNDR + \mu_i
\]

Where: SMEQ is GDP growth rate, CSME is Commercial banks’ credit to SMEs, LNDR is the lending rate, and STCB is savings and time deposits of banks as the independent variables.

The study modified the equation by employing SMEs performance as the dependent variable measured by the aggregate performance of SMEs in Nigeria. Hence, this study model is specified as:

\[
SMEP = (Deposit money bank credit to SMEs, Savings and Time Deposit with Deposit Money banks, and Lending rate) \ldots \ldots \ldots \ldots \ldots (1)
\]

\[
SMEP = (BCSME, STD, LNDR) \ldots \ldots \ldots \ldots \ldots (2)
\]

\[
SMEP = a_0 + a_1 BCSME + a_2 STD + a_3 LNDR + \mu_i
\]

Restated as a logarithm

\[
LnSMEP = a_0 + a_1 \ln BCSME + a_2 \ln STD + a_3 \ln LNDR + \mu_i
\]

Where:

Ln = Natural Logarithm

SMEP= SMEs performance

BCSME= Banks’ credit to SMEs
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STD = Savings and time deposits
LNDR = Lending rate
\( a_0 \) = the intercept/ constant
\( a_1 - a_4 \) = Slopes or coefficient of the explanatory variables
\( \mu_i \) = error term

On the apriori expectation, it is expected that \( a_1 \) and \( a_2 \) will be greater than zero, hence they will exert a positive influence on the SMEs performance. In other words, an increase in the value of deposit money bank credit, savings and time deposit is expected to bring about increase in the SMEs performance. While \( a_3 \) is expected to be less than zero, i.e. negative. Because an increase in the value of interest rate would lead to high cost of lending to SMEs this can retard their performance and ability to have access to finance.

Data Analysis and Discussion of Findings

Table 1: Result of Unit Root Test Augmented Dickey-Fuller (ADF)

<table>
<thead>
<tr>
<th>Variables</th>
<th>t-statistics</th>
<th>5% Significance level</th>
<th>Order of integration</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMEP</td>
<td>-5.2841</td>
<td>0.0003</td>
<td>I(1)</td>
</tr>
<tr>
<td>BCSME</td>
<td>-10.7414</td>
<td>0.0000</td>
<td>I(1)</td>
</tr>
<tr>
<td>STD</td>
<td>-6.1344</td>
<td>0.0000</td>
<td>I(1)</td>
</tr>
<tr>
<td>LNDR</td>
<td>-5.3453</td>
<td>0.0003</td>
<td>I(1)</td>
</tr>
</tbody>
</table>

Source: Field Survey, 2018

The result of ADF test indicates that all the variables SMEP, BCSME, STD and LNDR of the series are integrated of order one i.e I (1). Based on this, the result of the ADF unit root test showed that all the variables series are stationary at first difference. This indicates that there is a presence of short term variance among the variables.

However, as suggested by Granger (1969), there could be a form of long-run relationship amongst variables in the model, even though they are first difference-stationary. This possibility informs the need to conduct the co-integration test, which is depicted below.

Table 2: Johansen Co-Integration Test: Unrestricted Co-Integration Rank Test (Trace)

<table>
<thead>
<tr>
<th>Hypothesized No. of CE(s)</th>
<th>Eigenvalue</th>
<th>Trace statistic</th>
<th>0.05 Critical value</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>0.9903</td>
<td>272.85</td>
<td>83.937</td>
<td>0.0000</td>
</tr>
<tr>
<td>At most 1</td>
<td>0.9317</td>
<td>166.25</td>
<td>60.061</td>
<td>0.0000</td>
</tr>
<tr>
<td>At most 2</td>
<td>0.8755</td>
<td>104.54</td>
<td>40.175</td>
<td>0.0000</td>
</tr>
<tr>
<td>At most 3</td>
<td>0.8487</td>
<td>56.626</td>
<td>24.321</td>
<td>0.0000</td>
</tr>
<tr>
<td>At most 4</td>
<td>0.4332</td>
<td>13.186</td>
<td>12.321</td>
<td>0.0557</td>
</tr>
<tr>
<td>At most 5</td>
<td>0.0056</td>
<td>0.1287</td>
<td>4.1299</td>
<td>0.7674</td>
</tr>
</tbody>
</table>

Source: Field Survey, 2018

Table 2 shows the result of Johansen co-integration test among the variables, and the result reveals that there is present of co-integration among the variable at most 3. It implies that long
term variance exists among the variable. Therefore, it is required that co-integration regression techniques should be used in testing of the hypotheses.

Regression Results and Hypotheses Testing:

**Table 3:** SME and CREDIT

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. error</th>
<th>t-statistics</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant (C)</td>
<td>3.0060</td>
<td>1.5139</td>
<td>1.9855</td>
<td>0.0610</td>
</tr>
<tr>
<td>BCSME</td>
<td>0.2654</td>
<td>0.0656</td>
<td>4.0432</td>
<td>0.0006</td>
</tr>
<tr>
<td>STD</td>
<td>0.0008</td>
<td>0.0003</td>
<td>2.1783</td>
<td>0.0459</td>
</tr>
<tr>
<td>LNDR</td>
<td>-7.9892</td>
<td>2.5826</td>
<td>-2.2526</td>
<td>0.0351</td>
</tr>
<tr>
<td>R²</td>
<td>0.7962</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adj R²</td>
<td>0.6656</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S.E regression</td>
<td>4.7806</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Field Survey, 2018

Table 4 shows the linear relationship between SME and Credit creation with the use of fully modified least squares (FMOLS) regression analysis. The results obtained from the static model indicates that the overall coefficient of determination R-squared (R²) shows that the equation has a good fit with 79.6 percent of variations in Performance is explained by the variables in the equation.

Looking at the sign of the coefficient that signifies the impact of credit on SMEP, it shows that the three variables: BCSME, STD & LNDR concur with *a priori* in terms of signs. This implies that there is a relationship between SMEP and Credit.

To achieve the first objective, the magnitude of the coefficient of BCSME, STD and LNDR have significant effect on SMEP as indicated by coefficients (0.2654, 0.008 and -7.9892) with probability values (0.0006, 0.0459 and 0.0351) respectively at 5% significance level. It implies that N1 change in BCSME will induce N0.26 positive change in the SMEP, N1 change in STD will induce N0.008 positive change in SMEP, and a change in LNDR will induce N7.99 negative change in performance.

Overall, credit creation clearly has a significant effect on SME performance in Nigeria.

**Discussion of Findings**

The regression result shown on Table 4 reveals that banks’ credit has a positive significant impact on SMEs’ performance in Nigeria. This is consistent with apriori expectation. This means that when bank increases the volume of bank credits to the SMEs’ sector, this will aid availability of credits to the sector which will thus have a positive effect on SMEs performance. This finding conforms to the result of Dada (2014) but against the work of Onakoya, *et al.* (2013).

However, the results show that the coefficient of lending rate is negative but significant. This is in line with the loan pricing theory. An increase in bank interest rate would lead to a decrease in SMEs performance. This finding is in line with Afolabi (2013) and against the results of Bawuah, Yakubu and Alhassan (2014).

Also, savings and time deposits exert a significant positive impact on the performance of SMEs in Nigeria. This is in line with the financial intermediation theory. This means that channelling
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deposits for investment enhances the performance of the sector. This conforms with the results of Dadaa (2014) and Afolabi (2013) but against the findings of Onakoya, et al. (2013).

Conclusions and Recommendations

Based on the findings, the study concludes that DMBs credit has a significant effect on the performance of small and medium scale enterprises in Nigeria. The result reveals that there is a positive relationship between bank credit creations to SMEs, implying that an increase in bank finances to this sector will improve the productivity of SMEs. The savings and time deposit of deposit money banks also indicate a significant positive relation with SMEs performance; this implies that SMEs respond favourably to increase in aggregate savings in the economy. Lastly, lending rate as a measure of cost financing was found to retard SMEs performance significantly and this is line with economic expectation. This implies that to ensure development of SMEs performance in Nigeria, interest rates need to be kept at their minimum. Based on the findings and conclusions drawn, the following recommendations are deemed pertinent:

i. Interest rates on credit facility granted to SMEs should be kept at their minimum, as it was found that high-interest rates could impede performance.

ii. Adequate savings should be mobilized by offering an incentive rate, as this will enhance the flow of funds from surplus to deficit units of the economy. Thus, an adequate fund will be available for activities of the SMEs.

iii. DMBs should be encouraged to make available small and medium term loan and ensure consistent monitoring of credit is adopted, as this would resolve the problem of loan diversification and contribute significantly to SMEs performance.

References


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