

## THE EFFECT OF SMALL AND MEDIUM SCALE CREDIT FACILITY ON ECONOMIC DEVELOPMENT IN NIGERIA

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### INTRODUCTION

In Nigeria, like any other country of the world, small and medium scale sector plays a very important role in economic development of the nation. The sector remained a vital part of the country economy as it provides massive employments; generates basic raw materials to the economy, provide revenue through taxation, generates foreign exchange and largely provides security and stability. Small and medium scale enterprises (SMEs) have been generally acknowledged as the bedrock of the industrial development of any nation. Apart from the numerous goods and services, they provide a veritable means of large scale employment as they are usually labour intensive (Yerima et al 2007). SMEs activities are often found within the areas of human endeavours: manufacturing, production, information, services, agriculture, hotel and restaurants, financial intermediation, real estate, education, building and constructions, mining and quarrying.

In developed nations of the world, small and medium scale enterprises have been identified as the major drive of economic development. However, in developing countries like Nigeria, the contribution of SMEs has remained insignificant over the years. In an effort to facilitate and enhance the contribution of small and medium scale enterprises to economic development in Nigeria, increasingly interest in financing and promoting small and medium scale enterprises through varying means of credit facility have been shown by Nigeria government. In particular, the federal government through the Central Bank commenced several promotional strategies such as provision of single digit interest credit facility to SMEs in the country.

Central Bank of Nigeria Annual Report (2010), noted that credit to the core private sector grew by 10.26% between 2009 and 2010. Outstanding credit to agriculture, solid minerals, exports and manufacturing in 2010 stood at 1.7, 15.3, 0.6 and 12.8 per cent, respectively. Credit flows to the core private sector in 2010 amounted to N10, 140,947 million. Further statistic revealed that between 1981 to 2012, 14.89% with the maximum value of 37.77% in 2009 while the least value was 0.97% in 1990 credit facility was made available to small and medium scale enterprises in Nigeria (Central Bank of Nigeria, Statistical Bulletin, 2012).

In a country of over one hundred and fifty million (150, 000, 000) population with an average of one million (1000, 000) units small and medium scale enterprise, a credit facility of N10 million is considered inadequate therefore this vital sector of economic

development has remained underfunded within the recent past centuries. According to Dagogo and Ollor (2012), finance has remained the major ban of SMEs for decade. Gbandi and Amisah, (2012); Anyawu, (2010) observed that funding poses a serious impediment to growth of SMEs. Babajide, (2012) reported that credit facility influences survival of small business as it significantly impacts on the level of productivity of SMEs operators.

The importance of credit facility to small and medium scale enterprise in enhancing national development have been recognized by extant literature. Schumpeter (1911) in Samusi, (2011) believed that efficient allocation of savings through identification and funding of entrepreneurs with the best chances of successfully implementing innovative products and production processes are tools to achieving the objective national development. Samusi, (2011) identified that the important of credit facility to the Nigerian economy has led to sustained increase of credit to productive sectors of the Nigerian economy.

Despite the incentives, policies, programmes and support aimed at revamping SMEs', they have performed rather below expectations in Nigeria. Different opinion abounds as to why SMEs have not been able to perform; Some said it was lack of access to credit facilities, others think otherwise arguing that inappropriate management skills, difficulty in accessing global market, lack of entrepreneurial skills, poor infrastructures, insecurity challenges etc are largely responsible. These challenges have been identified to limiting the contribution of Small and medium scale enterprises to national development. It is therefore not surprising that Nigerian economy have seemingly been unproductive with very high unemployment rate, overdependence on foreign goods and services among others even in the face of credit availability to productive sectors of the economy. This therefore makes it imperative to assess specifically the impact of small and medium scale credit facilities national development in Nigeria.

### **OBJECTIVE OF THE STUDY**

The broad objective of the study is to assess the effect of Small and Medium Scale credit facility on economic development in Nigeria.

### **REVIEW OF RELATED LITERATURE**

Credit Facility has been identified to mean an agreement with bank or other credit institutions that enables a person or organization to borrow money when it is needed. This included loans, cash credit, overdraft and packing credit. Dhikhary (2006) identified credit facility as a loan provided through a written or oral agreement for a temporary transfer of a property, usually cash in cash form, from lender to a borrower on a promise of it been returned in accordance to agreed terms.

The role of credit facility in economic development has remained a subject of contention. Scholars have express dispersing opinion on this note. In a two stage regression analysis conducted by Cappiello et al (2010), it was revealed that the volume and standard of credit supplied as loan to enterprises have significant effect on real economic activities. That is a change in loan growth has a significant positive effect on the gross domestic product (GDP). According findings by Chang et al (2008) on a branch panel data examining

bank fund reallocation and economic growth in China reported a positive association between bank deposits and growth. Vazakidis & Adamopoulos (2009) putting into account inflation rate on credit market development employed a Vector Error Correction Model (VECM) in a study on the relationship between credit market development and economic growth in Italy within the period 1965-2007. It was reported that economic growth had a positive effect on credit market development, while inflation rate had a negative effect.

Utilizing tri-variate VAR framework, Abu-Bader and Abu-Qarn (2008) examined causal relationship between financial development and economic growth in Egypt during the period 1960-2001. Employing employs ratio of money to GDP, ratio of M2 minus currency to GDP, ratio of bank credit to the private sector to GDP, and the ratio of credit issued to private sector to total domestic credit as four different measures of financial development. They reported that the causality is bidirectional. It was also revealed in the paper that finance development has a significant impact on through both investment and efficiency. Similarly, Kar et al. (2011) carried out a study on the direction of causality between finance and growth in the SEMCs region. The study adopted Seemingly Unrelated Regressions (SURE) while Wald tests were applied to a panel of fifteen countries for the period 1980-2007. The study report indicated that the direction of causality depends on the measure of the financial development measure and the country investigated

Other extant literatures have suggested a similar relationship between credit facility and economic development. In a recent study conducted by Ben Salem and Trabelsi (2012) on the importance of financial development as a determinant of growth in seven SEMCs during the period 1970-2006 utilizing Pedroni's panel co-integration analysis reported a long-run relationship between finance and growth. Besides, very weak support is provided to the supply-side hypothesis. Indeed, economic growth leads to financial sector development. Ben Salem and Trabelsi relate these findings to macroeconomic imbalances, weak institutional development and the weakness of the private sector in the southern and eastern Mediterranean region.

Furthermore, Dada (2014) maintained that access to credit is crucial for the growth and survival of small and medium scale enterprises (SMEs) utilizing data from 1992 to 2011 and adopting ordinary least squares regression, the study revealed that Commercial Banks' credit to SMEs and saving and time deposit of commercial banks exert a positive influence on SMEs' development while exchange rate and interest rate have adverse effects on SMEs' development. Dada (2014) therefore recommended that Commercial Banks should lend more to the SMEs at subsidized rate. 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 stake holders in order to accelerate the growth of SMEs in the rural communities to reduce the current unemployment and rural-urban

migration. Funding has remained a major challenge to the growth of small and medium scale enterprises in Nigeria. This assertion was buttressed by (Abereijo and Fayomi, 2005. Beck, 2007 and Ovat, 2013). Again World Bank (2001) reported that 39 per cent of small scale enterprises and 37 per cent of medium scale firms in Nigeria are financially constrained. Arising from the issue of financial constraints to the growth of SMEs, some studies have documented that commercial banks have risen to the challenge in providing financial succor to the SMEs to support their growth in Nigeria.

For example, Nwosa and Oseni (2013) examined the impact of bank loans on manufacturing output in Nigeria between 1992 and 2010. Utilizing error correction modeling technique, the findings indicated that banks' credit to the SMEs had significant impact on manufacturing output both in the short run and long run. On the other hand, a number of studies have shown that commercial banks' role in extending credit to the SMEs in Nigeria is not impressive. For example, Central Bank of Nigeria (2010) revealed that Commercial Banks' advances to SMEs have been on the decline over the years.

## METHODOLOGY

The paper adopts an econometric approach in its empirical analysis of the effect of Small and Medium Scale credit facility on economic development in Nigeria. This study utilized data from of 1986-2016. And to achieve this, a log form of OLS regression model was adopted in the work. The choice of introducing log in the model is to enable the researcher improve on the linierity of the model and also to avoid heteroskedasticity

$$\text{GDP} = f(\text{TBCPS}, \text{M2}) \dots \dots \dots (1)$$

Explicitly the above equation can be stated thus:

$$\text{GDP} = \beta_0 + \beta_1 \text{TCFPS} + \beta_2 \text{M2} + \text{Ut} \dots \dots \dots (2)$$

The log form of the model is stated as follows.

$$\text{Log}(\text{GDP}) = \beta_0 + \beta_1 \text{log}(\text{TCFPS}) + \beta_2 \text{log}(\text{M2}) + \text{Ut} \dots \dots \dots (3)$$

Where

GDP = Gross Domestic Product

TCFPS = Total Credit Facility to Private Sector

SMEC = SMEs Contribution to GDP

Theoretically the coefficient will take the following outcome:

$$\beta_1 > 0, \beta_2 > 0$$

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## Sources of Data

The data used in this paper are annual time series secondary data sourced from the Central Bank of Nigeria statistical bulletin 2016, various issues and National Bureau of statistics (NBS) various issues.

## Tests for Best Regression

To determine if the above model is the best model to explain this relationship, the following condition must be met:

1.  $R_2$  must be high at least above 60%
2. There will be no serial autocorrelation in the model.
3. The residual must be normally distributed.
4. There will be no heteroskedasticity in the model, in other words the model must be homoskedastic.

When all this condition is met, the model will be regarded as the best regression model to explain the effect of credit facility on economic development in Nigeria.

## ESTIMATION TECHNIQUE

### Unit Root Test

The first step involves testing the order of integration of the individual series under consideration. Researchers have developed several procedures for the test of order of integration. The most popular ones are Augmented Dickey-Fuller (ADF) test due to Dickey and Fuller (1979, 1981), and the Phillip-Perron (PP) due to Phillips (1987) and Phillips and Perron (1988). Augmented Dickey-Fuller test relies on rejecting a null hypothesis of unit root (the series are non-stationary) in favor of the alternative hypotheses of stationarity. The tests are conducted with and without a deterministic trend (t) for each of the series. The general form of ADF test is estimated by the following equation:

### Co-Integration Test

The second step in this time series analysis is to test for the presence or otherwise of co-integration between the series of same order of integration through forming a co-integration equation. The basic idea behind cointegration 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). A lack of cointegration suggests that such variables have no long-run relationship: in principal they can wander arbitrarily far away from each other (Dickey et. al., 1991). We employ the maximum-likelihood test procedure established by Johansen and Juselius (1990) and Johansen (1991). Specifically, if  $Y_t$  is a vector of  $n$  stochastic variables, then there exists a  $p$ -lag vector auto regression with Gaussian errors

of the following form: Johansen's methodology takes its starting point in the Vector Autoregression (VAR) of order P.

To determine the number of co-integration vectors, Johansen (1988, 1989) and Johansen and Juselius (1990) suggested two statistic test, the first one is the trace test ( $\lambda$  trace). It tests the null hypothesis that the number of distinct co integrating vector is less than or equal to q against a general unrestricted alternatives  $q = r$ .

### **Error Correction Mechanism**

After testing for the Co integration relationship and co-integration is proven to exist between the variables, then the third step will require the construction of an ECM to model the dynamics of the relationship. The reason behind ECM is to determine the speed of adjustment from the short-run disequilibrium to the long-run equilibrium state. The greater the co-efficient of ECM, the higher the speed of adjustment from the short-run disequilibrium to long-run equilibrium

GDPT = Gross Domestic Product at time t

The term ECTt-1 is the error correction term derived from the long-run co-integrating relationship in the equation.

It is noted that the estimate  $\delta_1$  can be interpreted as the speed of adjustment from short-run disequilibrium to longrun equilibrium. According to Johansen and Juselius (1987), the existence of co-integration implies the existence of the causality relation between the variables (GDP and TCFPS, SMEs)

These tests enable the researcher to determine the direction of causality existing between the variables under review. It reveals the relationship of no causality, unidirectional causality and bidirectional or feedback causality between the variables under consideration. If the parameters of the lagged variables in equations 9, 10 and 11; is statistically significant, it implies that there is a causality relationship between the variables under study. But if the parameters of the lagged variables in equations 9, 10 and 11; is not statistically significant, it means that there is no causal relationship between the variables under study.

### **DATA ANALYSIS AND INTERPRETATION**

In this section we presented the analysis and interpretation of the result of econometrics analysis adopted in this work. The first step in this analysis was a test for stationarity conducted using ADF test. The result of the ADF is shown bellow.

**Table 4.1 ADF result at Level**

Variables	ADF Test Statistic	1%	5%	10%	Lag	Order of Integration
GDP	-2.147175	-3.7204	-2.9850	-2.6318	1	Non-stationary
TCFPS	0.016253	-3.7204	-2.9850	-2.6318	1	Non-stationary
SMEsC	-0.904397	-3.7204	-2.9850	-2.6318	2	Non-stationary

Source: Researchers' SPSS result

The result in table 4.1 above revealed that all the variables in the model are non-stationary at level.

**Table 4.2 ADF result at first difference**

Variables	ADF Test Statistic	1%	5%	10%	Lag	Order of Integration
GDP	-3.176048	-3.7343	-2.9907	-2.6348	1	I(1)
TCFPS	-4.003735	-3.7343	-2.9907	-2.6348	1	I(1)
SMEsC	-3.468973	-3.7343	-2.9907	-2.6348	2	I(1)

Source: researchers SPSS result

From the result of ADF test shown in table 4.2 above, it indicates that all the variables are integrated of same order one i.e I(1). In other words the result shows that GDP, TCFPS and SMEsC are stationary at 5% level of significance. And so, having established stationarity among the variable, the researcher proceeded to co-integration with a view to determining the number of co-integrating equation in the model.

**Table 4.3 Result of Johanson Co-integration Test**

Eigenvalue	Likelihood ratio	5% critical value	1% critical value	Hypothesized No. of CE(s)
0.971925	102.3270	29.68	35.65	None **
0.392655	13.00484	15.41	20.04	At most 1
0.021306	0.538399	3.76	6.65	At most 2

**Source:** Researchers SPSS result.

The result of the co-integration analysis from table 4.3 above indicates that at most one co-integrating equation exist in the model at 5% level of significance. This implies that there is a long-run relationship between GDP, TCFPS and SMEsC in the model. Having established co-integration in the model the researcher move on to estimate the Error Correction Model (ECM) which will enable the researcher to see the short run dynamics of the model. The ECM will identify the speed of adjustment from short-run disequilibrium to long run equilibrium.

**Table 4.4 Result of Short Run Dynamics of the Model**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.478019	0.733673	3.377552	0.0034
LOG(TBCPS)	-0.385550	0.378029	-1.019895	0.3213
LOG(M2)	1.305343	0.409763	3.185604	0.0051
ECM(-1)	-0.240361	0.606990	-0.395989	0.6968

**Source:** researchers SPSS result.

The result of ECM shown in table 4.4 above revealed that in the short-run total credit facility to private sector of the economy has a negative and insignificant relationship with economic growth in Nigeria. Small and medium scale enterprise contribution to GDP which was used as a control variable was seen to have a positive and significant impact

with economic growth in Nigeria. The coefficient of the ECM(-1) indicates that 24.03% of the disequilibrium in the model will be corrected annually. In other words, 24.03% of the disequilibrium in the short run will be corrected in the long run. The insignificant result in the ECM indicates that the speed of adjustment will be slow.

**Table 4.5 The Result of the Long Run Regression Model**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.223061	0.457006	2.676250	0.0132
LOG(TCFPS)	-0.784358	0.330416	-2.373848	0.0260
LOG(M2)	1.781338	0.345961	5.148950	0.0000
R-squared	0.984878	Durbin-Watson stat	1.006871	
F-statistic	781.5365	Prob(F-statistic)	0.000000	

**Source:** researchers SPSS result

The result of the long-run model shown in table 4.5 above revealed that the coefficient of TBCPS is (-0.784358) with a probability value of 0.0260, which is less than 0.05 meaning that total credit facility in the long run has a negative and significant impact on the growth of Nigerian economy. On the other hand the coefficient of M2 which was used as a control variable in the model is 1.781338 with a probability value of 0.000 which is less than 0.005 indicating that M2 has a positive and significant impact on the growth of Nigerian economy for the period under review. The result in table 4.5 also shows R<sup>2</sup> value is 0.984878, which means that 98.49% of the variation in GDP is explained in the model leaving only less than 2% to the error term. This also means that the line of best fit was highly fitted. This shows that this model is the best model to explain the relationship between the variable under consideration. Durbin-Watson statistics value of 1.006817 shows the likely presence of autocorrelation in the model. The result of F-stat is (781.5365) and the probability of F-stat is 0.0000 which implies that the overall regression is statistically significant. This also means that all the independent variable taking together will impact significantly on the growth of Nigerian economy.

#### **SERIAL CORRELATION**

Ho= there is no serial correlation in the model

H1= there is serial correlation in the model

Decision rule

If the probability value is less than 0.05 reject Ho otherwise accept Ho

#### **Table 4.7 RESULT OF TEST FOR SERIAL CORRELATION**

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	2.202406	Probability	0.096739
Obs*R-squared	9.906855	Probability	0.077918

**Source:** Researchers SPSS result

The result of the serial correlation shows that the probability value is 0.077918 which is greater than 0.05 implying that we accept Ho and reject H1 and conclude that there is no serial correlation in the model.

#### **HETEROSKEDASTICITY TEST**

Ho= there is no heteroskedasticity in

the model H1 = there is

heteroskedasticity in the model.



**TABLE 4.8 White Heteroskedasticity Test:**

F-statistic	1.087272	Probability	0.387081
Obs*R-squared	4.456527	Probability	0.347733

Source: researcher E-view result

The result of the heteroskedasticity test indicates the acceptance of  $H_0$  at 5% level of significance meaning that there is no heteroskedasticity in the model instead the model is homoskedastic. And based on this we conclude that this is the best model to explain the relationship between these variables included in the model.

**TABLE 4.9 THE RESULT OF GRANGER CAUSALITY TEST**

Null Hypothesis:	Obs	F-Statistic	Probability
GDP does not Granger Cause TCFPS	25	19.8735	1.8E-05
TCFPS does not Granger Cause GDP		0.00437	0.99564
SMEsC does not Granger Cause TCFPS	25	11.1368	0.00056
TCFPS does not Granger Cause SMEsC		13.6783	0.00018
SMEsC does not Granger Cause GDP	25	0.60031	0.55823
GDP does not Granger Cause SMEsC		15.6272	8.2E-05

**Source:** Researchers E-view result

The result of the granger causality test as shown in table 4.9 indicates that GDP granger causes TBCPS this corroborates the findings of Aniekan and Babalola (2009) who also found causation running from GDP to private sector credit. The result also shows a case of unidirectional causality with causation from GDP to TCFPS and not the other way round as found by Aurangzeb (2012) in the case of Pakistan economy. The result also reveals that SMEsC granger causes TCFPS and at the same time TCFPS granger causes SMEsC, which indicates a case of bidirectional causality between M2 and TCFPS. On the same note, the result reveals that GDP granger causes SMEsC.

### CONCLUSIONS AND RECOMMENDATIONS

The study which was set out to examine the effect of credit facility on the development of Nigeria economy have revealed that, the level of credit facility guaranteed to small and medium scale enterprise have a negative effect on the nation economy via the contribution of small and medium scale enterprise towards the nation GDP. In other words, the result of the findings indicates that credit facility has a negative and significant effect on the growth of Nigerian economy. This finding agrees with the findings of Aniekan and Babalola (2009) were they found private sector credit negatively and significantly impact on the growth of Nigerian economy. This result finding might be due to the condition precedence for accessing credit facility in Nigeria especially through the banking industry. Most of the small and medium scale enterprises operational in Nigeria, often times function within the sphere of informal sector, however the banking sector most time are not in favor of the most active sector of the economy operational in a formal nature. The informal sector of the economy which arguably is the most effective sector of the Nigerian economy most times don't have attractive collateral that will enable them access credit facility especially from the bank thereby retarding their contribution to the overall growth of the economy. The high rate of interest charged on credit facility by banks erodes the net returns on the investment leaving the enterprise with noting and in most cases worse than they were before they accessed the credit. Against this background, we recommend that Central Bank of Nigeria (CBN) should step in with measures to regulate lending rate by maintaining the monetary policy rate at a level

low enough to bring down the rate at which deposit money banks lend to their customers. The CBN should also adopt direct credit control policy with a view to favor the informal sector of the Nigerian economy. Government on the other hand should improve the infrastructural facilities in the country as well as promote peace in all the geo-political zone of the country in order to improve the security state of the nation.

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