## Influence of Funding of Small and Medium Scale Enterprises on Economic Growth of Nigeria

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*ABSTRACT*

*The funding of small and medium scale enterprises (SME's) has been regarded as a necessary impetus for the sustainability of economic growth. The paper investigates the impact of funding of SME's by Commercial banks on Nigeria economic growth between 1992 and 2013. The Multiple regression result shows that a proportionate increase in funding of SME's brings about a more proportionate change in GDP (about52.6%). The Johansen co- integration also confirms the long run relationship between funding of SME's and economic growth. The error correction model also gives a speed of adjustment of about 96%. The conclusion is that the funding of SME's has a significant effect on Nigeria economic growth. The paper hereby suggest low interest rate and tax relief for SME's in Nigeria for their further survival 'which will consequently lead to economic growth.*

*Keywords: Funding, Economic Growth*

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## INTRODUCTION

Small and Medium Scale Enterprises (SMES) constitute the driving force of economic growth and development. This is basically due to their great potential in ensuring diversification and expansion of industrial production as well as the attainment of the basic objectives of development. SMEsutilize local raw materials and technology thereby aiding the realization of the goal of self-reliance. Also, governments at various levels (local, state and federal levels) have in one way or the other focused on the performance of Small and Medium Scale Enterprises for economic gains. While some governments had formulated policies aimed at facilitating and empowering the growth, development and performance of the SMEs, others focused on assisting the SMEs to grow through soft loans and other fiscal incentives in order to enhance the socio-economic development of the economy like alleviating poverty, employment generation, enhance human development, and improve social welfare of the people.

Many developing nations like Nigeria characterized as low income earners by the World Bank, value small and medium scale enterprises (SMEs) for several reasons. The main argument is that SMEs, on average achieve decent levels of productivity especially of capital and factors taken together while also generating relatively large amount of socio-economic development. In dynamic terms, the SMEs sector is viewed as being populated by firms most of which have considerable growth potential. Inadequate funding affects SMEs effective performance as they are unable to offer competitive credit terms to distributors, delay or cut in production resulting from raw materials shortage thus causing sometimes sharp drop in sales volume. These problems are compounded by the unwillingness of entrepreneurs of SMEs to share ownership with individual or institutional fund providers in order to raise needed equity capital. The paper examines the performance of commercial bank funding and if actually the loan accessed are used for the main objective. The study is essential as evidence had shown cases where entrepreneur divert SME's loan into other unproductive social use.

### Objectives of the study

1. To investigate the impact of SME's funding on economic growth

2. To ascertain the long run relationship between SMEs funding proxied by (CBSM) and Economic growth (GDP).

The scope of study covers the period between 1992 and 2013.

**Statement of Hypothesis**

$H_{OI}$ SME's funding has no significant impact on Economic Growth in Nigeria

$H_{02}$ There is no long run relationship between SME's funding and economic growth in Nigeria.

**LITERATURE REVIEW**

The United Nations Industrial Development Organisation (UNIDO) identified fifty definitions of small scale business in seventy-five different countries based on parameters such as installed capacity utilization, output, employment, capital, type of country or other criteria, which have more relevance to the industrial policies of the specific country.

The study of Ekanem (2006) summarizes the importance of SMEs to include ensuring rapid development, increased utilization of local resources and provision of a training ground for indigenous managers and semi-skilled workers, reduction of the rural-urban drift, development of indigenous technology and raising the living standard of rural dwellers and so on. In fact, SMEs accounts for the economic development in most developed economies of the World today. It has helped in the balance of payment position of countries; it reduces over dependence on inputs relative to their capital investment.

Ekpenyong (1997) showed that very little financial supports have been provided by the traditional financial institutions (the commercial banks) to the SMEs. The reasons are that small businesses have serious inherent structural defects that make them high risk borrowers, and the traditional banks are not structured to cater for the type of credit demanded by the small businesses owing to the nature of their credit assessment procedures (Hammond, 1995).

In Ghana, Okraku and Croffie (1997) argued that SMEs rely primarily on personal savings of owners, business profits, family members or friends for their financial needs. They have little or no access to external credit. The effect of this is inadequate fixed capital as well as working capital. The consequences of these are very slow growth rate and frequent failures among small businesses.

Histrich and Peters (l998) observed that the study of entrepreneurship has relevance today, not only because it helps small business or entrepreneurs to fulfil their personal needs, but also because of the economic contribution of the new ventures. The SMEs was seen as positive force in economic growth.

Adoyi and Agbo (2009) employ the descriptive research method and employ both primary and secondary data to determine the extent to which small business firms have developed Benue State of Nigeria and found that 86.3% of the small business firms pay their taxes regularly. These taxes increase the revenue base of the state which is used for development purposes.

Akingunola (2011) highlights specific financing options available to SMEs in Nigeria and contribution to economic growth via investment level. The Spearman's Rho correlation test is employed to determine the relationship between SMEs financing and investment level.

The analysis reported a significant Rho value of 0.643 at 10% which indicated that there is significant positive relationship between SMEs financing and economic growth in Nigeria via investment level.

The relevance of small and medium scale enterprises as a means of generating employment and reduction of povertyin Nigeria was examined by Adeyemi and Aremu (2011). After a deep review of the literature, the authors concluded that the SMEs sector is the main driving force behind job creation, poverty reduction, wealth creation, income distribution and reduction in income disparities.

Availability of finance has been touted as one of the constraints of SMEs (Evbuomwanetal, 2012). However, Azende (2011) in the empirical evaluation of the performance of the Small and Medium Scale Enterprises Equity Investment Scheme in Nigeria (SMEEIS) in Benue and Nassarawa States of Nigeria utilised secondary data of total bank credit to SMEs as percentage of banks total credit for a period from 1993 to 2008 and paired sample t-test to test the significance of bank loans before and after the introduction of SMEEIS. In addition, mean scores and standard deviation was used to analyse the primary data obtained via questionnaires. The outcome reported no significant difference between the loans disbursed by banks to SMEs before and after the introduction of SMEEIS due largely to the fact that the conditions for accessing SMEEIS funds were beyond the reach of the targeted SMEs.

Safiriyu and Njogo (2012) utilised two primary data instruments (questionnaires and interview) to gather information on the impact of small and mediumscale enterprises in the generation of employment in Lagos State, Nigeria. Two different statistical methods (simple percentage and chi-square) were employed to analyse the data. The results showed that small and medium scale enterprises and sustainable development of the Nigerian economy are related, just as promotion of SMEs and improvement in employment generation are related.

Small and Medium Scale Enterprises (SMEs) as defined by the National Council of industries (2009) refer to' business enterprises whose total costs excluding land is not more than two hundred million naira (N200, 000,000.00) only. Although, there exists no consensus among policy makers and scholars concerning the point at which a business firm is deemed to be small or medium.

SMEs need adequate funding to maintain or increase their contribution to overall socio-economic development in developing countries like Nigeria. However, this signifies the importance of capital and its cost of sourcing for SMEs development, among other factors like infrastructure and enabling environment, cheap source of funds, availability of production equipment, efficient manpower, disciplined management and availability of markets (both local and international) that enhance their operations in ensuring sustainable socio-economic development.

Although, a set of factor hinders the performance of SMEs for maximum contribution to the economy. In this regard, Sangosanya (2010) identified ten key factors and variables which have been identified to influence SMEs failure in Nigeria. These include disasters, competition, infrastructure, taxes, accounting, management, marketing, economic, planning and finance. In Nigeria, poor economic conditions, which also implies poor finance and inadequate infrastructure, have been identified as the most crucial factors (Ihua, 2009). This position is corroborated by other studies which identified financial support as one of the main factors responsible for small business failures in Nigeria (Abereijo&Fayorni, 2005; Okpara& Pamela, 2007).

**Methodology**

For the purpose of this study, commercial bank loan to small and medium scale enterprises (CBSM) and Money supply (MSP) are considered as inputs in production process while economic growth (GDP) is taken as an output. Hence a change in GDP is specified as a function of a change in CBSM and MSP as shown below:

GDP= f (CBSM, MSP) ---------- (i)

GDP = $\beta_0$ + $\beta_1$ (CBSM) + $\beta_2$(MSN) + $U_t$

Where

 CBSM = commercial bank loan to a small and medium scale enterprises

MSP = Money Supply

U, = Extraneous Variables

Multiple regression was conducted using Ordinary Least Square (OLS) method with the aid of Econometrics View package (Eview). Time series data were used and the analysis of regression result are shown below:

Time Series Data

| Years | MONEY SUPPLY (# billion) | COMMERCIAL BANK LOAN #'billion | GDP #' billion |
|---|---|---|---|
| 1992 | 111.11 | 20.4 | 875.34 |
| 1993 | 164.33 | 15.5 | 1089.70 |
| 1994 | 230.29 | 20.6 | 1399.70 |
| 1995 | 289.10 | 32.4 | 2907.36 |
| 1996 | 345.85 | 42.3 | 4032.3 |
| 1997 | 413.28 | 40.4 | 4189.30 |
| 1998 | 488.15 | 42.5 | 3989.50 |
| 1999 | 628.95 | 46.8 | 4679.21 |
| 2000 | 878.45 | 44.5 | 6713.58 |
| 2001 | 1269.32 | 52.4 | 6895.20 |
| 2002 | 1505.96 | 82.3 | 7795.76 |
| 2003 | 1952.92 | 91.1 | 9913.52 |
| 2004 | 2131.82 | 55 | 11411.10 |
| 2005 | 2637.91 | 50.6 | 14610.90 |
| 2006 | 3797.91 | 25.8 | 18564.60 |
| 2007 | 5127.40 | 41.1 | 20657.32 |

| 2008 | 8008.20 | 13.5 | 24296.33 |
|------|---------|------|----------|
| 2009 | 9491.92 | 16.4 | 24794.24 |
| 2010 | 11034.94 | 12.6 | 54204.8 |
| 2011 | 12172.50 | 15.6 | 63258.60 |
| 2012 | 13895.40 | 15.8 | 71186.53 |
| 2013 | 15158.62 | 15.3 | 80222.13 |

CBN: statistical Bulletin 2013

OLS Analysis.

$GDP = -20984 + 52.64\ CBSM + 4.82MSP$

S.E = 37627  73.33  0.319

t = -0.558      0.717  15.13

$R^2 = 0.9403$

See full result in Appendix I

Any increase in commercial bank loan to small and medium scale enterprises (CBSM) will lead to about 52.64 multiplier effect on economic growth (GDP). This is in tandem with a-priori expectation. This explains the first objective of this paper.

An increase in money supply also has about 4.82 increases in GDP.

Hence, commercial bank funding of SME's has positive effect on economic growth. The $R^2$ value of about 94% means that the two (independent variables) reasonably explained the variation in economic growth.

**Stationary Test**

The unit root test was conducted on time series data of GDP, CBSM and MSP and the result is summarized below,

**Augmented Dickey Fuller Test**

| Variables | ADF values | Mackinnon Critical values | Order of integration |
|-----------|------------|---------------------------|----------------------|
| GDP | 3.2630 | -3.0656 | I (1) |
| CBSM | 4.6048 | -3.0206 | I(1) |
| MSP | -6.9680 | -3.0299 | I(2) |

Source: Researcher's Computation

The result of the unit root test on GDP, CBSM and MSP showed that they were non stationary.Hence, GDP and CBSM required first differentiation to make them

stationary i.e they have I (1) order of integration while MSP required second differentiation i.e. 1(2) order of integrations.

**Johansen Co-integration Test**

The Johansen test for cointegration provides analytical statistical frame work for ascertaining the long run relationship between economic variables.

The result is shown in Appendix (ii). The table compare unrestricted co-integration rank test available from the trace and maximum Eigen value test with the corresponding critical values.The result indicates that trace statistics showed an evidence of cointegration equation at 0.05 levels. This implies an existence of long run relationship between CBSM and GDP. Hence, a proportionate change in CBSM will bring about a more proportionate change in economic growth (GDP).

**Vector Correction Estimate**

The table below shows the magnitude of the estimated lagged error correction term of growth. Detail is shown in Appendix (iii).

| VARIABLES | D(GDP) | D(CBSM) | D(MSP) |
|---|---|---|---|
| ECT-1 | 0.9555 | 0.0011 | 0.2424 |
| | (0.4442) | (0.0041) | (0.05951) |
| | (-2.1505) | (0.2747) | (4.0723) |

The result shows that the speed of adjustment is about 96% which is highly impressive. This implies- that with the inclusion of additional variables e. g Money supply (MSP), the present error in the model will be corrected in the long run. This indicates a long run convergence.

The result of variance decomposition is also shown in appendix (iv) for further explanation.

**Conclusion and Recommendation**

The empirical result shows that the funding of SME's bring about a positive and significant effect on economic growth. More efforts should be gingered by the Central Bank to encourage commercial banks to lend to SME's at low interest rate as this will lead to further survival of SME's. The government should also reduce all forms of taxes being levied on SME's as this would consequently lead to sustainable economic growth.

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| | |
|---|---|
| Determinant resid covariance (dof adj.) | 1.04E+13 |
| Determinant resid covariance | 2.02E+12 |
| Log likelihood | -350.0745 |
| Akaike information criterion | 39.69205 |
| Schwarz criterion | 41.03415 |

## APPENDIX IV

Variance Decomposition

Variance Decomposition of GDP:

| Period | S.E. | GDP | CBSM | MSP |
|---|---|---|---|---|
| 1 | 2046.764 | 100.0000 | 0.000000 | 0.000000 |
| 2 | 2333.014 | 86.94859 | 11.86423 | 1.187173 |
| 3 | 3920.726 | 52.85336 | 45.13776 | 2.008880 |
| 4 | 4205.382 | 51.65113 | 43.75041 | 4.598460 |
| 5 | 7099.222 | 42.09780 | 54.33096 | 3.571238 |
| 6 | 11144.88 | 40.33354 | 57.59423 | 2.072228 |
| 7 | 15804.68 | 28.79622 | 69.76903 | 1.434749 |
| 8 | 19831.88 | 23.04743 | 75.71048 | 1.242090 |
| 9 | 23848.41 | 19.76496 | 79.03958 | 1.195461 |
| 10 | 27926.86 | 18.99385 | 79.85202 | 1.154127 |

Variance Decomposition of CBSM:

| Period | S.E. | GDP | CBSM | MSP |
|---|---|---|---|---|
| 1 | 19.06539 | 0.042092 | 99.95791 | 0.000000 |
| 2 | 26.13900 | 1.071923 | 98.90868 | 0.019394 |
| 3 | 32.98754 | 0.792456 | 99.18610 | 0.021445 |
| 4 | 38.82946 | 0.662167 | 99.30378 | 0.034056 |
| 5 | 44.29270 | 0.508897 | 99.45647 | 0.034629 |
| 6 | 49.67610 | 0.415786 | 99.54613 | 0.038080 |
| 7 | 54.58934 | 0.348853 | 99.61157 | 0.039577 |
| 8 | 59.31933 | 0.303354 | 99.65283 | 0.043818 |
| 9 | 63.70766 | 0.263011 | 99.68997 | 0.047022 |
| 10 | 68.03493 | 0.231088 | 99.71861 | 0.050299 |

Variance Decomposition of MSP:

| Period | S.E. | GDP | CBSM | MSP |
|---|---|---|---|---|
| 1 | 274.2114 | 5.299591 | 85.58507 | 9.115339 |
| 2 | 536.2599 | 34.89602 | 59.07893 | 6.025050 |
| 3 | 1130.754 | 28.51808 | 68.53329 | 2.948637 |
| 4 | 1775.831 | 27.68524 | 70.46388 | 1.850875 |
| 5 | 2493.689 | 21.74316 | 76.84173 | 1.415110 |
| 6 | 3166.804 | 19.06538 | 79.68949 | 1.245125 |
| 7 | 3864.485 | 17.38774 | 81.44761 | 1.164644 |
| 8 | 4572.182 | 16.95693 | 81.94564 | 1.097433 |
| 9 | 5315.482 | 16.51616 | 82.45164 | 1.032207 |
| 10 | 6059.808 | 16.06480 | 82.95804 | 0.977163 |

Cholesky Ordering: GDP CBSM MSP

Source: Researcher's computation

# APPENDIX III

## Vector Error Correction Estimates

Vector Error Correction Estimates
Date: 06/04/15   Time: 06:19
Sample (adjusted): 1995 2013
Included observations: 19 after adjustments
Standard errors in ( ) & t-statistics in [ ]

| Cointegrating Eq: | CointEq1 |
|---|---|
| GDP(-1) | 1.000000 |
| CBSM(-1) | -16.16257 |
|  | (5.39741) |
|  | [-2.99450] |
| MSP(-1) | -6.160435 |
|  | (0.06529) |
|  | [-94.3537] |
| C | 6635.330 |

| Error Correction: | D(GDP) | D(CBSM) | D(MSP) |
|---|---|---|---|
| CointEq1 | -0.955306 | 0.001137 | 0.242365 |
|  | (0.44423) | (0.00414) | (0.05951) |
|  | [-2.15047] | [ 0.27475] | [ 4.07234] |
| D(GDP(-1)) | 0.220495 | -0.000130 | -0.052459 |
|  | (0.12309) | (0.00115) | (0.01649) |
|  | [ 1.79128] | [-0.11358] | [-3.18103] |
| D(GDP(-2)) | 0.026181 | -0.000190 | -0.028580 |
|  | (0.12650) | (0.00118) | (0.01695) |
|  | [ 0.20697] | [-0.16110] | [-1.68645] |
| D(CBSM(-1)) | -14.14514 | -0.112801 | 3.324359 |
|  | (35.1503) | (0.32742) | (4.70919) |
|  | [-0.40242] | [-0.34451] | [ 0.70593] |
| D(CBSM(-2)) | -69.60146 | 0.131245 | -16.81998 |
|  | (37.3969) | (0.34835) | (5.01018) |
|  | [-1.86116] | [ 0.37676] | [-3.35716] |
| D(MSP(-1)) | -8.955554 | 0.002607 | 1.729174 |
|  | (2.23363) | (0.02081) | (0.29925) |
|  | [-4.00943] | [ 0.12530] | [ 5.77844] |
| D(MSP(-2)) | 1.628643 | 0.011117 | 2.505873 |
|  | (4.74770) | (0.04422) | (0.63606) |
|  | [ 0.34304] | [ 0.25138] | [ 3.93965] |
| C | 8669.466 | -8.081472 | -1771.537 |
|  | (3752.72) | (34.9562) | (502.764) |
|  | [ 2.31018] | [-0.23119] | [-3.52359] |

| | | | |
|---|---|---|---|
| R-squared | 0.944074 | 0.043273 | 0.924381 |
| Adj. R-squared | 0.908485 | -0.565553 | 0.876261 |
| Sum sq. resids | 46081655 | 3998.382 | 827110.7 |
| S.E. equation | 2046.764 | 19.06539 | 274.2114 |
| F-statistic | 26.52698 | 0.071077 | 19.20957 |
| Log likelihood | -166.6240 | -77.77729 | -128.4318 |
| Akaike AIC | 18.38147 | 9.029188 | 14.36124 |
| Schwarz SC | 18.77913 | 9.426847 | 14.75890 |
| Mean dependent | 4148.549 | -0.278947 | 785.7016 |
| S.D. dependent | 6765.834 | 15.23744 | 779.5275 |

| 2 Cointegrating Equation(s): | Log likelihood | -403.4563 |
|---|---|---|

Normalized cointegrating coefficients (standard error in parentheses)

| GDP | CBSM | MSP |
|---|---|---|
| 1.000000 | 0.000000 | -6.619069 |
|  |  | (0.18230) |
| 0.000000 | 1.000000 | 2.99E-05 |
|  |  | (0.00349) |

Adjustment coefficients (standard error in parentheses)

| D(GDP) | -1.077967 | 14.24497 |
|---|---|---|
|  | (0.08278) | (24.4564) |
| D(CBSM) | 0.000530 | -0.401526 |
|  | (0.00065) | (0.19150) |
| D(MSP) | -0.015857 | 0.876612 |
|  | (0.02526) | (7.46134) |

Source: Researcher's computation

# APPENDIX II

## Johansen Cointegration Test

Date: 06/04/15   Time: 06:17
Sample (adjusted): 1994 2013
Included observations: 20 after adjustments
Trend assumption: Linear deterministic trend
Series: GDP CBSM MSP
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 * | 0.931594 | 60.75170 | 29.79707 | 0.0000 |
| At most 1 | 0.258462 | 7.105936 | 15.49471 | 0.5653 |
| At most 2 | 0.054715 | 1.125369 | 3.841466 | 0.2888 |

Trace test indicates 1 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 * | 0.931594 | 53.64576 | 21.13162 | 0.0000 |
| At most 1 | 0.258462 | 5.980568 | 14.26460 | 0.6157 |
| At most 2 | 0.054715 | 1.125369 | 3.841466 | 0.2888 |

Max-eigenvalue test indicates 1 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

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

| GDP | CBSM | MSP |
|---|---|---|
| -0.000194 | 0.003749 | 0.001287 |
| 4.69E-05 | -0.058966 | -0.000312 |
| 0.000139 | 0.006602 | -0.000336 |

Unrestricted Adjustment Coefficients (alpha):

| D(GDP) | 5571.348 | 112.6124 | 117.9496 |
|---|---|---|---|
| D(CBSM) | -1.102441 | 6.739307 | -1.219125 |
| D(MSP) | 79.18460 | -9.832239 | 114.2253 |

| 1 Cointegrating Equation(s): | Log likelihood | -406.4466 |
|---|---|---|

Normalized cointegrating coefficients (standard error in parentheses)

| GDP | CBSM | MSP |
|---|---|---|
| 1.000000 | -19.28035 | -6.619646 |
|  | (21.0543) | (0.17308) |

Adjustment coefficients (standard error in parentheses)

| D(GDP) | -1.083244 |
|---|---|
|  | (0.08068) |
| D(CBSM) | 0.000214 |
|  | (0.00072) |
| D(MSP) | -0.015396 |
|  | (0.02456) |