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Microfinance Banks' Credit and the Growth of Small and Medium Scale Businesses (SMBS) in Nigeria (1990-2016): Investigating the Nexus

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Abstract
The study examined microfinance banks' credit and the growth of small and medium scale businesses in Nigeria; for the period 1990-2016. Secondary data were used and collected from the Central Bank of Nigeria statistical bulletin. The study employed Microfinance Banks' Credit to Small and Medium Businesses, Interest Rate and Broad Money Supply and used as the independent variables; whereas, Gross Domestic Product is proxy for the growth of small and medium scale businesses as dependent variable. Time series econometrics estimation techniques were used to test the formulated hypotheses. The stationarity test revealed that all the variables of the study are stationary at first difference. Johansen co-integration test showed the existence of at least one co-integrating relationship at 5% level of significance. Vector Error Correction Model revealed that microfinance bank credit had no short-run equilibrium significant relationship with growth of small and medium scale businesses in Nigeria. Causality test indicated that microfinance bank credit had no causal relationship with growth of small and medium scale businesses in Nigeria. The study concluded that the activities of microfinance institutions have not significantly contributed to the growth and development of small and medium scale businesses (SMBs) in Nigeria. The study recommended that microfinance banks should be more concern with ethical and professional conduct by ensuring that soft loans are given to credible and promising entrepreneurs. Microfinance banks should grant soft loans to this sector of the economy and also reduced stringent measures in granting credit to the small and medium scale businesses (SMBs). Monetary authority should encourage microfinance banks to set up more branches in the rural areas in order to encourage rural based investors to save and have assesses to credit facilities.
Keywords: Microfinance, banks credit, growth, small, medium, scale businesses, Nigeria

Introduction

The importance of financial intermediation in the process of economic growth has occupied prominent position in financial economics literature in recent decades (Andabai, 2016). Microfinance banks credit and the growth of small and medium scale businesses nexus had been identified as one of the areas in the financial economics literature that can quicken the pace of growth and development in an economy such as Nigeria. The microfinance banking sector helps in making credit available through intermediation, which involves channeling funds from the surplus to the deficit units of the economy, thereby transforming bank deposits into loans or advances. Since the introduction of Structural Adjustment Programme in 1986, the private sector development policy has been reoriented to sustaining and improving the growth and development of small and medium scale businesses (SMBs) investments in Nigeria (Andabai, 2016). This can also be achieved through the establishment of vibrant microfinance banks for the growth and development of small and medium scale businesses in Nigeria.

The study carried out by Dada (2014) earmarked that governments appears to have implemented numerous national improvement plans and programmes aimed at boosting productivity, as well as placing emphasis on the growth of small and medium scale sector of the economy. Apart from the potential for ensuring a self- reliant industrialization, in terms of ability to rely largely on local raw materials; and, small scale enterprises are some of the strategies to boost the domestic economy (Idowu, 2012). Microfinance banks in Nigeria requires some informal practice such as local money lending and savings practices; that need credit from friends and relatives which enable them to achieve government owned institutional arrangements such as poverty reduction programs Kadiri (2012). The central bank of Nigeria survey in 2016 indicates that the operations of microfinance institutions in Nigeria are relatively new; because, most of them have not registered since the deregulation era of 1986. Before now, commercial banks traditionally lend to medium and large enterprises which considered being credit-worthy.

Theoretical Framework

This study is anchored on the financial intermediation theory by Gurley and Shaw (1967). The theory explains the role of bank credit in an economy. The theory stated that the business of financial intermediation in any

modern economy is to provide a mechanism to draw financial flows from financially exceeding agents to those having a financial need in the economy. This means that microfinance institutions can influence growth of small and medium scale businesses in Nigeria by extending credit to the sector. The work of Andabai (2016) observed that the role of bank credit to private sector in stimulating economic growth and development cannot be over emphasized. Thus, this is one of the most important sources of financing entrepreneurs; especially, the development of small and medium scale businesses in Nigeria. Nzotta (2014) posits that bank credit is one of the important aspects of financial intermediation that provide funds to economic entities that can put them to the most productive investment in an economy. They conclude that credit availability for consumption and investment are capable of raising the level of private sector output and create employment opportunities in the economy. Hence, microfinance banks are expected to finance any positive net present value project if the cost of investment is below the expected returns. Based on these contributions, there is a justification for anchoring this study on financial intermediation theory.

Empirical Review

Agbeja (2014) investigated the effect of the changes of capital base of micro-finance banks on the economy: A study of each bank from 1992-2007 for a period of sixteen years. The study concludes that micro finance banks had contributed to the growth of the economy. This study gives a best to the reason government and continued to supply such banks most especially is the case of Bayelsa State with the establishment of the Ijaw microfinance bank in each local government areas.

Nacem (2014) wrote on the impact of micro finance on women entrepreneurs. Using a cross section of research model based on household in Quetta, Pakistan, the study revealed that micro-finance had been helpful in empowering female entrepreneurs economically. The study was conducted on a face to face interview with women who had benefited from the credit facility for more than two years.

Dada (2014) examined the consistently repeated complaint of SMEs about their problem regarding access to finance is highly relevant constraint that endangers the development of the sector in Nigeria and investigating the effect of commercial banks' credit on SMEs development employing Ordinary Least Square (OLS) technique to estimate the multiple regression models. The findings revealed that commercial banks credit to SMEs and the saving and time deposit of commercial banks exert a positive and significant influence on SMEs development proxy by wholesale and retail trade output as a component of GDP, while exchange rate and interest rate exhibit adversative effect on SMEs development.

Afolabi (2013) evaluated the effect of SMEs financing on economic growth in Nigeria between 1980 and 2010 the study employed Ordinary Least Square (OLS) method to estimate the multiple regression models. The estimated model results revealed that SMEs output proxy by wholesale and retail trade output as a component of gross domestic product and commercial banks' credit to SMEs exert positive and significant impact on economic development proxy real gross domestic product while lending rate is found to exert negative effects on economic growth.

Idowu (2012) asserted that the major barrier to rapid development of the SME sector is a shortage of both debt and equity financing. Accessing finance has been identified as a key element for SMEs to succeed in their drive to build productive capacity, to compete, to create jobs and to contribute to poverty alleviation in developing countries. Small business especially in Africa can rarely meet the conditions set by financial institutions, which see SMEs as a risk because of poor guarantees and lack of information about their ability to repay loans.

Imoughele and Ismaila (2014) examined the impact of commercial bank credit on the growth of small and medium scale enterprises: Econometrics evidence from Nigeria (1986-2012). The study used Augmented Dickey-Fuller (ADF) and Ordinary Least Squares (OLS) for the analysis. Output 0f SMEs, Commercial Bank credit to SME, Savings and time deposit with banks, Exchange rate and Interest rate were used. The SMEs and selected macroeconomic variables have long -run relationship with SMEs output performance in Nigeria. Savings time deposit and exchange rate are the main determinants of Nigeria SMEs performance.

Onakoya, Fasanya and Abdulrahman (2013) examined the impact of financing small scale enterprises on economic growth using quarterly time series data from 1992 to 2009 the study revealed that loan to small scale entrepreneurs have a positive impact on the economic performance and conclude that access to capital or finance is necessary but not a sufficient condition for successful entrepreneurial development.

Methodology

The study applied *ex-post-facto* research design to source requisite information. An *ex-post-facto* research design is a systematic empirical inquiry that requires the use of variables which the researcher does not have the capacity to change its state or direction in the course of the study (Onwumere, 2009). Data for this study were sourced from the Central Bank of Nigeria Statistical Bulletin, 2016. The rationale of selecting this period is because of the problem of availability of data. The variables used for this study are stated as: (MFBCSMBs,

INTR and M_2). Where: MFBCSMBs = Microfinance Bank Credit to Small and Medium Businesses, INTR= Interest Rate and M_2 = Broad Money Supply used as the independent variables; whereas, Gross Domestic Product is proxy for the growth of small and medium scale businesses and used as dependent variable.

Model Specification

Multivariate linear regression model is used to test the null hypotheses proposed for this study: There is no causal relationship between microfinance banks' credit and the growth of small and medium scale businesses in Nigeria; Microfinance banks has no positive significant long-run equilibrium relationship between the growth of small and medium scale businesses in Nigeria. Based on these hypotheses, a model is adapted from the work of Aliyu (2014) and stated as: GDP = *f*(MFBCSMEs, INTL);Where: GDP = Gross Domestic Product as proxy for economic growth MFBCSMEs = Microfinance Bank Credit to Small and Medium Scale Enterprises, INFL= Inflation Rate,M_2 = Broad Money Supply. The above model is modified in this study by introducing broad money supply and was employed as explanatory variable. The modified model is stated as: GDP = *f*(MFBCSMBs, INTL, M_2)……(i)

The equation form can be written as:

$GDP_{(SMEs)} = \delta_0 + \delta_1 MFBCSMBs + \delta_2 INT + \delta_3 M_2 + \mu$ ……(ii)

Where: $GDP_{(SMEs)}$ = Gross Domestic Product as proxy for the growth of small and medium scale businesses in Nigeria, MFBCSMBs = Microfinance Bank Credit to Small and Medium Businesses, M_2 = Broad Money Supply, INT = Interest Rate, δ_0, δ_1, δ_2 and δ_3 are parameters or coefficient of the model, δ_0 = intercept and δ_1, δ_2 and δ_3 are the coefficients of the regression equation. μ is the stochastic or error term while Ln is the natural log of the variables. Log transformation is necessary to reduce the problem of heteroskedasticity because it compresses the scale in which the variables are measured, thereby reducing a tenfold difference between two values to a twofold difference (Gujarati, 2004).

Analysis and Discussion of Findings

The test for stationary of the variables were done using the Augmented Dicker Fuller (ADF) Unit Root Test. The result in **table 1** shows that all the variables are integrated at first difference i.e. 1(1) at the 5% or 1% level of significance.

Table 1: Unit Root Tests Analysis

Variables	ADF test Statistics	Mackinnon critical vale @ 5%	No of the time difference	Remark
$GDP_{(SMEs)}$	3.1002675	-0.335779	I(1)	Stationary
MFBCSMBs	-6.2746674	-2.030155	I(1)	Stationary
INT	-5.8860041	-2.163038	I(1)	Stationary
M_2	3.7380072	-1.046164	I(1)	Stationary

Notes: (1)1% level of significance, 5% level of significance, 10% level of significance.

(2) The test accepted at 5% level of significance.

(3) Decision rule -The critical value should be larger than the test statistical value for unit root to exist. **Source:** Researcher's Estimation using- E-views 8.0.

Co-integration Test

Having established that all the variables in the model are stationary, the study then moves on to test for long-run relationship between the dependent and the independent variables using the Johansen Co-integration test (Johansen, 1991).

Table 2: Co-integration Test for $GDP_{(SMEs)}$, MFBCSMBs, M_2, INT

Hypothesized	Max-Eigen		Trace	
No. of CE(s)	Statistic	Critical Value	Statistic	Critical Value
None	31.25131*	13.82671	12.25173*	35.81889
At most 1	19.21526	24.52534	35.16402	47.263783
At most 2	11.15278	22.13162	15.00252	29.115273
At most 3	4.002413	11.025360	4.500265	15.835271

Trace test indicates 1 co-integrating equation (s) at 5% significant level

Max-eigenvalue test indicates 1 co-integrating equation (s) at 5% significant level

* denotes rejection of the hypothesis at 5% significant level

Source: Author's computation from E-views 8.0

The result in table 2 examines the presence of long-run relationship among microfinance bank credit variables (M_2, MFBCSMBs and INT) and small and medium scale businesses growth ($GDP_{(SMEs)}$). Based on the FPE and AIC lag selection criteria, the lag length adopted for the model is 1 to 2. From the results in table 2, Max-Eigen and Trace statistics indicate the presence of one co-integrating equation in the model.

Vector Error Correction Mechanism

Vector Error Correction Mechanism (VECM) was conducted to determine the speed of adjustment between microfinance bank credit and small and medium scale businesses growth in Nigeria. Hence, this is to find out whether short-run disequilibrium can be returned to long-run equilibrium trend.

Table 3: Vector Error Correction Mechanism Test for Microfinance Bank Credit and $GDP_{(SMEs)}$,

Error Correction:	$D(GDP_{SMEs)},)$	D(MFBCBs,)	D(INT)	$D(M_2)$
CointEq1	**0.000121**	-0.020475	-14.92466	-0.023053
	(0.024161)	(0.01763)	(2.44259)	(0.00839)
	[0.17665]	[-1.48784]	[-6.130166]	[-2.72677]

() is standard error and [] are the t-statistics

Source: Author's computation from E-views 8.0

From table 3 the error correction result is positive (0.008221) therefore not rightly signed. This shows that the short-run adjustment to long-run equilibrium is not statistically significant. The study therefore, concludes that microfinance bank credit has no significant short-run relationship with small and medium scale businesses growth in Nigeria.

Granger Causality Analysis

Granger causality test is used to examine the causal direction; that is, which of the variables (dependent and independent variable) influences the relationship between them. The null hypothesis is: Independent variable does not granger cause the dependent variable.

Table 4: Granger Causality/Block Exogeneity Wald Test for Microfinance Bank Credit and **S**mall and Medium Scale Businesses Growth in Nigeria

Variable	Chi-sq	Df	Prob.
MFBCBs,	0.341527	1	0.7832
INT	6.31E-05	1	0.8737
M_2	0.282538	1	0.6889
All	0.934623	4	0.8475

Note: Dependent variable: $GDP_{(SMEs)}$, * denotes significant at 1%, ** denotes significant at 5%; *** denote significant at 10%. **Source:** Author's computation from E-views 8.0

Based on the Chi-Square statistics and their corresponding probability values, none of the microfinance bank credit variables (MFBCBs, M_2, and INT) has a causal relationship with small and medium scale businesses growth in Nigeria. The joint Chi-Square values and its corresponding probability values also indicate that bank credit variables do not jointly granger-cause small and medium scale businesses growth. Hence, the study concludes that microfinance bank credit variables (MFBCBs, M_2 and INT) do not have a causal relationship with small and medium scale businesses growth in Nigeria.

Conclusion and Recommendations.

The findings indicate that microfinance bank credit has no significant relationship with small and medium scale businesses growth in Nigeria. This is consistent with the study carried out by Onakoya, Fasanya and Abdulrahman (2013) that the small and medium scale businesses sector appears to have failed to meet the expectations of the Nigerian economy in terms of its contribution to the growth of the Gross Domestic Product. The study recommends that more attention be given to the issue of interest rate and its negative implications on the economy. Microfinance institutions should channel reasonable proportion of their loans to the productive sector in order to facilitate growth and development in the economy. Microfinance banks should be more concern with ethical and professional conduct by ensuring that soft loans are given to credible and promising entrepreneurs. Microfinance banks should grant soft loan to this important sector of the economy and also reduced stringent policy in supply of credit to the small and medium businesses (SMBs). Monetary authority should encourage microfinance banks to set up more branches in the rural areas in order to encourage rural based investors to save and have assesses to credit facilities. The monetary authorities should stabilize the interest rate which is capable of ensuring price stability and maintaining inflation to a single digit. This may build confidence in the banking institutions and will enable them to introduce innovations to the sector`s output in the economy. The study suggests that CBN and the policy makers should have a common ground in order to establish specialized banking institutions that will be responsible for financing the manufacturing investments in the economy.

Contribution to Knowledge

The study was able to modify the model, expand the existing literature and updated data that will enable

researchers and scholars to use it for further studies. The study concludes that the activities of microfinance banks credit have not significantly contributed to the growth and development of small and medium scale businesses (SMBs) in Nigeria. The factors responsible for this can be traceable to economic and political instability and inability to implement the formulated policies by the regulatory authorities (Central Bank of Nigeria and Federal Ministry of Finance).

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Appendix 1: Microfinance Banks Credit and Economic Growth in Nigeria (1990-2016)

YEAR	$GDP_{(SMEs)}$ (N'BILLION)	Microfinance Bank Credits (N'BILLION)	Interest Rate (%)	Broad Money Supply (N' Billions)
1990	5.7	167.98	25.50	52.86
1991	9.4	164.64	20.01	75.40
1992	11.8	167.47	29.80	111.11
1993	15.5	176.52	18.32	165.34
1994	19.9	179.35	21.00	230.29
1995	26.6	178.36	20.18	289.09
1996	31.0	182.93	19.74	345.85
1997	36.2	183.52	13.54	413.28
1998	48.0	193.34	18.29	488.15
1999	53.1	200.07	21.32	628.95
2000	59.1	277.67	17.98	878.46
2001	78.6	385.19	18.29	1,269.32
2002	94.4	488.05	24.85	1,505.96
2003	118.6	592.09	20.71	1,952.92
2004	166.1	655.74	19.18	2,131.82
2005	215.3	797.52	17.95	2,637.91
2006	250.3	1,316.96	17.26	3,797.91
2007	266.5	1,739.64	16.94	5,127.40
2008	306.6	2,693.55	15.14	8,008.20
2009	347.7	4,118.17	18.99	9,419.92
2010	394.7	5,763.51	17.59	11,034.94
2011	456.3	5,954.26	16.02	12,172.49
2012	539.7	6,531.91	16.79	13,895.39
2013	627.6	8,062.90	16.72	15,158.62
2014	3,188.2	8,656.12	16.55	17,680.52
2015	1,363.6	5,794.99	16.53	15,158.62
2016	2,853.3	5,474.65	17.34	17,680.52

Sources: Central Bank of Nigeria Statistical Bulletin 2016.