The Place of Microfinance in Today’s Economy: Further Evidence from Nigeria

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Abstract
This study empirically investigates the place of microfinance in the Nigeria economy from 1992-2012, using quarterly data. It adopts multiple regression model and Granger causality test as methods of analysis. The regression analysis result reveals that microfinance operations (captured by the loans and advances offered to the members of the society by microfinance banks) have statistically significant positive impact on the Nigeria economy. That is, the more the activities of microfinance institutions in Nigeria, the higher would be the growth of the economy. Furthermore, the Granger causality test result shows a unidirectional causality running from economic growth to microfinance operations. Moving forward, government and policy makers should pay serious attention to the operations of microfinance institutions in Nigeria. At the same time, programmes and policies that would boost their activities and publicize their existence should be implemented. This would further position microfinance institutions to effectively service the very poor of the society who engage in micro, small and medium scale enterprises (MSMEs) which is the engine of economic growth.

Key words: CBN, economic growth, microfinance, Nigeria, poverty.

JEL Classification: E20, E58, G21, O16.

1.0 Introduction
Lack of access to credit has been identified as the reason behind the growing level of poverty in many developing countries. This further emphasises the crucial role microfinance institutions play in economic growth and development, especially in their service for unserved or underserved markets to help meet development objectives which include to reduce poverty (considered as the most important), create employment, help existing businesses to grow or diversify their activities, empower women and other disadvantaged groups, and even encourage the grow of new businesses (Khandker, 2003). Microfinance as a development
strategy has been deemed successful by many studies (Ledgerwood, 1999; Ukeje, 2005) but, its impact on socio-economic welfare on its target population relies largely on intensive financial and outreach performance. In 2009, the Consultative Group to Assist the Poor (CGAP), whose main objective is to accelerate financial inclusion for all, observes that microfinance has contributed to achieving the following development objectives; eradication of poverty and hunger, universal primary education, the promotion of gender equality and empowerment of women, reduction in child mortality, and improvement in maternal health.

Before the 1970s, the Nigerian experience in microfinance was limited to Self-Help groups, Rotating Savings and Credit Associations, Cooperative Unions, Savings Collectors, Local Money Lenders and other subsidised rural credit programmes by donors or governments, which were highly unregulated or resulted in high loan defaults, high losses and an inability to reach poor rural households (Robinson, 2001). Programmes such as the Rural Banking Programmes, Agricultural Credit Guarantee scheme, and a host of others came up between the 1980s and 1990s, but their efforts could not be described as best as they were not able to meet up with the objective of wide coverage. This led to the development of more initiatives such as the People’s Bank (1990-2002), Community Banks, Nigerian Agricultural Insurance Corporation, National Poverty Eradication Programmes and Family Economic Advancement Programmes (FEAP). Also, due to poor coverage and poor implementation plans, these initiatives were shortlived. The launch of the new Microfinance Policy by the Central Bank of Nigeria (CBN) in 2005 with the replacement of Community Banks with Microfinance Banks was a great milestone in the revitalizing microfinance operations in Nigeria. Under the New Microfinance Policy in Nigeria, microfinance institutions (MFIs) are registered as Microfinance banks and regulated by the Central Bank of Nigeria, while registered non-bank MFIs are only required to forward periodic returns on their activities to the CBN, (CBN, 2005).

2.0 Background of the Study
Microfinance is not a new concept in Nigeria as it has been in existence through such phenomenon such as ‘Esusu/Itutu/Adashi’ – a rotating contribution savings scheme mostly seen among market traders. What is new is the measure taken by policymakers to ensure financial inclusion for all, whether be rich or poor, live in urban or rural areas. In 2005, the Central Bank of Nigeria (CBN) formulated a new policy framework to enhance the access of financial services to microentrepreneurs and low income households who require such facilities to expand and modernise their operations and then contribute to rapid economic growth in Nigeria. The objective is in line with the institution’s policy on ensuring financial inclusion for all such that, financial services reach the poor whether in rural or urban communities, as this would help improve their productivity levels and also help contribute to the nation’s gross domestic product. The growth of microfinance institutions has been largely due to the inability of the formal financial institutions to provide financial services to both the urban and rural poor (CBN, 2004). In view of the need for financial inclusion, both the government and non-governmental agencies have over the years implemented series of microfinance programmes and institutions as well as government agencies providing policy strategies needed to improve the sub-sector. Community Banks which have been transformed into Microfinance Banks were developed as self-sustaining financial institutions owned and managed by local communities such as community development associations, town unions, cooperative societies, farmers’ group
social clubs. Their aim was to promote rural development and enhance economic development at the grassroots level. The formal Microfinance Institutions in Nigeria include the Development Finance Institutions (DFIs) and Community/Microfinance Banks. Consequently, there are four types of MFIs, namely, the non-governmental organisation (NGO) MFIs, government-supported MFIs or Development Finance institutions, Private sector-operated MFIs such as community/microfinance banks and Cooperative societies, and informal sector MFIs or Self-Help groups (SHGs). Currently there are about 872 Microfinance Banks in Nigeria according to CBN.

3.0 Statement of the Problem
The role of microfinance in the achievement of economic growth and development in Nigeria can never be overstated. This is so because microfinance institutions cater for more than half of the economically active Nigeria population who are not served by the conventional financial institutions like the commercial banks since most of them are poor. These set of people engage in micro, small and medium scale enterprises (MSMEs) that has long been recognized as the engine of growth for any economy. However, despite its importance, microfinance institution have not received the due attention and support it deserves. Emphasis and importance have overtime been placed more on the mainstream financial institutions like the commercial banks at the expense of microfinance banks that cater for more than half of Nigeria economically active population. Therefore, the essence of the study is to bring to the fore the place or importance of microfinance in the Nigeria by empirically assessing its impact on the economy using a quarterly time series data from 1992-2012. The rest of the paper is outlined as follows – section four reviews various related literature, section five discusses the methodology, section six presents the data analysis and interpretation of findings and section seven provides conclusion and recommendations.

4.0 Review of Literature
4.1 Conceptual Framework
Microfinance is a concept through which financial services are provided for entrepreneurs and small businesses lacking access to banking and related services due mostly to their income status. It is provided either through joint-liability group or individual-based lending. It reflects both the provision of microcredit and microsavings to low-income people but more than that microfinance services incorporates microcredit (small loans), microsavings (small deposits), micro insurance, funds transfer, pensions and payments services and other ancillary products targeted at low-income clients (Otero, 1999). Their clients include micro and small microenterprises, traders, street vendors, small farmers, service providers such as (hairdressers, tailors, seamstresses, shoe-cobblers, bus and taxi drivers), artisans and small producers such as blacksmiths. Schreiner and Colombet (2001) define microfinance as the “attempt to improve access to micro-savings (small deposits) and loan advances for the poor and under-privileged groups who are neglected by banks and other financial institutions. The definition of who is poor or disadvantaged varies by country and region, but largely includes those who work within the informal economy in developing countries. The poor are defined here following (Oji, 2008) as those who require financial services but lack accessibility to conventional services providers like commercial banks for reasons such as (i) inadequate asset-based collaterals to secure loans; (ii) failure to meet minimum terms and conditions required
for opening and operating different bank accounts; (iii) physical inaccessibility of banks due to their location in far away distant urban centers; and (iv) inappropriate services provision documentation and tools for microenterprise operators. Three features distinguish microfinance from other financial products; 1) smallness of loan advances and deposits 2) absence or reduced emphasis on asset-based collateral, and 3) simplicity of operations and contracts, which are mostly achieved by applying the concept of group lending (CBN, 2011).

Microfinance is believed to continue to play an ever increasing role in poverty alleviation programmes which include helping women and other under-privileged groups to engage in productive economic activities which can help boost their income levels and thus help boost the income level of the economy. The institutions can be non-governmental organisations, savings and loan cooperatives, loan unions, government-owned banks and or non-bank financial institutions (World Bank, 2007). Their objectives include;

1) Promotion of rural development through financial intermediation.
2) Encouraging entrepreneurship and self-sufficiency especially among the poor whether those in the rural and/or urban areas
3) Help households mitigate risk through microsavings and microinsurance.
4) Empower women and other disadvantaged groups by supporting their economic participation and thus helping to promote gender equity and reducing poverty.
5) Encourage the development of banking habits and ensuring the development of an integrated national financial system (CBN, 2008).

4.2 Theoretical Literature

A microfinance bank as described by the CBN microfinance policy refers to; ‘any company licensed to carry on the business of providing microfinance services, such as savings, loan, domestic fund transfer, and other financial services that are needed by the economically active poor, micro, small, and medium enterprises to conduct or expand their businesses as defined by these guidelines’ (CBN, 2005).

Joint liability lending was exclusively the focus of the first wave of theoretical work on microfinance. Joint liability lending is usually used when there is the existence of the inability of one individual to repay his loan hence, the need for group members who are expected to repay the loan on his behalf. Such repayments can be enforced through the threat of common punishment, typically the denial of future credit to all members of the defaulting group, or by drawing on a group savings fund that serves as collateral (Fischer and Ghatak, 2009). An institution that gives poor people the proper incentives to utilize information about their neighbors and to apply non-financial sanctions to delinquent borrowers can do better than a conventional bank (Ghatak and Guinnane, 1999). Other mechanisms employed by microfinance include frequent repayment, sequential lending and dynamic incentives (e.g., Jain and Mansuri, 2003; Roy Chowdhury, 2005 and Fischer and Ghatak, 2009), collusion (Laffont, 2003), group composition and matching (Bond and Rai, 2009). The theory of the firm is also very crucial in analysing the impact of microfinance with the bank capital channel and agency theories as complimentary theories. The theory of the firm study the behaviour of enterprises in respect of: (i) production inputs; (ii) production methods; (iii) quantity produced; and (iv) the price of the final product (Samuelson and Nordhaus, 1996). The bank capital channel theory views a change in interest rate as affecting lending through bank’s capital, particularly when banks’
lending is constrained by a capital adequacy requirement. Thus, an increase in interest rates will raise the cost of banks’ external funding, but reduce banks’ profits and capital. The response is for a reduction in actual loans approved, if the capital constraint becomes binding.

Basically, banks are subjected to both market and regulator who imposed capital requirements. For prudential purposes, banks regulators generally require banks to maintain capital at not less than a stated fraction of the bank’s total assets. For instance, microfinance banks are expected to maintain a minimum of 40 per cent liquidity ratio of total deposits. Thus, the ability of banks to grant loans is constrained by the amount of financial resources at their command, based on the capital requirements. The agency theory is concerned with how agency affect the form of the contract and the way they are minimized, particularly, when contracting parties are asymmetrically informed. Asymmetric information refers to situations in which one party to a transaction has more information about the transaction than the other. This situation could cause markets to deviate from the conventional behaviour patterns and lead to moral hazards and adverse selections (Akerlof, 1970). Most often than not, microfinance organizations use high frequency repayments, where loan recipients are required to repay their loans in regular installments, beginning soon after the loan, inducing ‘fiscal discipline’ among the borrowers (Jain and Mansuri, 2003).

4.3 Empirical Literature
Several studies have been carried out to examine role or importance of microfinance in the economy and there seems to be a consensus from most these studies that microfinance contribute meaningfully to economic growth and development. A review of a few of the empirical literature is provided below.

Nwankwo, Olukotu and Abah (2013) examined the impact of microfinance on rural transformation in Nigeria. The methodology used by the researcher was descriptive research. The findings of the study shows that micro-finance has impacted positively on the rural poor by providing loans and advances for agriculture, investment opportunities, savings mobilization and credit delivery; asset financing and community development financing. Despite the achievements of microfinance in transforming the rural areas they have been met with stiff difficulties like repayment problem, illiteracy among the poor and inadequate or non-monitoring of micro and small enterprises by the micro financial institutions. The following recommendations were made by the author to address the issues: To match products to customer needs, examination of cash flows and repayment cycles, broaden the range of products and services to the poor and regulatory authorities should look closer to the activities of the microfinance banks.

Olumuyiwa and Oluwatosin (2012) studied the impact of Microfinance bank on standard of living of hairdressers in Oshodi-Isolo local government area (LGA) of Lagos State as a Poverty eradication strategy among the society. The objectives of the study examine how Microfinance bank in Oshodi-Isolo has impacted greatly on the business of hairdressers in the local Government and to also examine the impact of Microfinance on asset acquisition and savings of hairdressers in that LGA. A total of 120 hairdressers who registered with Oshodi-Isolo LGA were used as study sample. However, primary data of questionnaire analysis was adopted and Spearman’s rank correlation coefficient analysis was used as the estimation techniques. More
so, the hypotheses of the research were tested at 5% level of significance and the result revealed that there is a significant relationship between Microfinance bank efforts and standard of living of hairdressers in Oshodi-Isolo local Government area of Lagos state, and the implication of this is that due to the existence and help of Microfinance bank, Poverty has reduced a little bit among the hairdressers association in Oshodi Isolo LGA. In conclusion, the study recommend that Government at Local, State and Federal levels through the Central bank of Nigeria should ensure that Microfinance bank loans are easily obtainable and repayment should include a grace period with reasonable schedule instead of weekly payment period that is commonly found among the microfinance banks in Nigeria.

Babagana (2010) in his study examined the impact of the role played by microfinance banks (MFBs) in promoting the growth of SMEs in Nigeria. An empirical study was carried out using Garu Micro Finance bank in Bauchi, Bauchi State being one of the most successful Micro Finance Banks in North East sub region to determine impact of the role of MFBs in promoting small and medium enterprises growth. Out of the total number of employees in the bank, 15 members of staff whom constitute the middle and management staff were used as respondents. Questionnaire was developed and distributed to them which they all filled and returned. The study revealed that MFBs have contributed to the promotion of small and medium enterprises growth in Nigeria. It was recommended that government should further encourage the activities of Micro Finance Banks (MFBs) by creating enabling environment so that they can further support SMEs growth.

Okpara (2010) focused on the identification of critical factors that cause poverty in Nigeria and the investigation of the extent to which microfinance institutions have helped in the alleviation of poverty. To identify the critical factors, the researcher adapts the data on reasons for poverty generated by National Bureau of Statistics and employed the method of factor analysis. For the purpose of investigating the contribution made by the microfinance institutions in poverty reduction, the researcher uses the method of regression analysis on a quadratic equation model which is found to be most appropriate in explaining the variations between the two variables. Also, the microfinance – poverty trend is presented for analysis. The result of the analysis identifies five factors: low profit, prices of commodities are too high, hard economic times, lack of finance to start or expend their business, and business not doing well, as critical factors causing poverty. The analysis also reveals that the impact of microfinance on poverty in Nigeria can be explained in two phases. The first phase, the take-off stage, sees poverty as increasing though at a decreasing rate as microfinance credit increases. In the second phase, precisely starting from the year 2001, persistent increase in microfinance credit reduces drastically the poverty index in Nigeria. Thus, currently, microfinance credit lowers poverty in Nigeria. The researcher therefore, calls on the monetary authorities to put in place the financial superstructure necessary for making mandatory the establishment of microfinance banks in every community, if poverty will be aggressively fought.

Yahaya, Osemene and Abdulraheem (2011) examined the effectiveness of microfinance banks in alleviation of poverty in Kwara State, Nigeria. The data collected were analyzed through the use of t-test and Analysis of Variance (ANOVA). From the research findings, results reveal that microfinance has significant role to play in the economy, as it helps reduce poverty by providing
financial services to the active poor, helps in generating employment and also provide small loans to grow small businesses. Therefore, microfinance policy should further be publicized so that members of low income groups will be aware of what microfinance institutions have to offer them and how they can obtain financial services to grow their small businesses.

5.0 Methodology
A multiple regression model based on Ordinary Least Square (OLS) technique would be employed in assessing the impact of microfinance banks operations on economic growth in Nigeria. Ordinary least square (OLS) is extensively used in regression analysis primarily because it is intuitively appealing and mathematically much simpler than any other econometric techniques (Gujarati, 2003). In order to obtain robust estimates, this study would include real interest rate and inflation as related control variables. The model is specified as follows:

\[ \text{LOG(RGDP)} = \gamma_0 + \gamma_1 \text{MFLA} + \gamma_2 \text{RINTR} + \gamma_3 \text{INF} + U_t \]  \tag{1}

Where;
RGDP = Real Gross Domestic Product (a proxy for economic growth)
MFLA = Microfinance Loan and Advances
RINTR = Real Interest Rate
INF = Inflation
\( \gamma_0 \) = Intercept of relationship in the model
\( \gamma_1 - \gamma_3 \) = Coefficient of each exogenous or explanatory variable.

Furthermore, In order to capture the direction of causality between economic growth and microfinance bank operations, the Granger Causality test would be employed. It can be stated thus:

\[ \text{RGDP}_t = \sum_{i=1}^{n} \alpha_i \text{MFLA}_{t-i} + \sum_{j=1}^{n} \beta_j \text{RGDP}_{t-j} + U_{1t} \]  \tag{2}

\[ \text{MFLA}_t = \sum_{i=1}^{n} \lambda_i \text{MFLA}_{t-i} + \sum_{j=1}^{n} \delta_j \text{RGDP}_{t-j} + U_{2t} \]  \tag{3}

Where \( U_{1t} \) and \( U_{2t} \) are assumed be uncorrelated.

6.0 Data Analysis and Interpretation

6.1 Stationarity Test
In a bid to obtain robust estimates and avoid spurious results, a stationary test was carried out to determine the stationarity level of our data set. The Augmented Dickey-Fuller (ADF) test was used for this analysis since it adjusts for serial correlation. If the calculated ADF test statistic is greater than the MacKinnon critical values (both in absolute term) at the chosen level of significance, the null hypothesis of non-stationarity would be rejected. The result is summarized in table I below.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Adf Test Statistics</th>
<th>0.05 Level</th>
<th>Order of integration</th>
</tr>
</thead>
<tbody>
<tr>
<td>RGDP</td>
<td>-9.401019</td>
<td>-2.897678</td>
<td>I(2)</td>
</tr>
<tr>
<td>MFLA</td>
<td>-4.973061</td>
<td>-2.901217</td>
<td>I(2)</td>
</tr>
<tr>
<td>RINTR</td>
<td>-4.145574</td>
<td>-2.900670</td>
<td>I(1)</td>
</tr>
<tr>
<td>INF</td>
<td>-3.217670</td>
<td>-2.901217</td>
<td>I(0)</td>
</tr>
</tbody>
</table>
The results from table I above clearly reveal that second differencing is sufficient in modeling this study.

6.2 Cointegration Analysis

Theoretically, it is expected that a regression involving non-stationary time series variables may produce spurious (non-meaningful) results. Economically speaking, two variables will be cointegrated if they have a long-run or an equilibrium relationship between them (Gujarati, 2004:822). Therefore, the essence of cointegration test is to prove that although two or more variables are not stationary (at level form), they will generate reliable estimates as long as they are cointegrated. The Engel and Granger (1987) cointegration test, which entails performing ADF test on the regression residuals, was utilized to determine the existence of long-run relationship among the variables. The ADF unit root test on the residuals work with the same decision rule as unit root test. For cointegration, it tests for unit root in the residuals obtained from the ordinary least square (OLS) regression results. The cointegration test is summarized in table II below:

Table II: Engel and Granger Cointegration Test

<table>
<thead>
<tr>
<th>ADF UNIT ROOT TEST ON RESIDUALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADF Test Statistics</td>
</tr>
<tr>
<td>1% Critical Value</td>
</tr>
<tr>
<td>5% Critical Value</td>
</tr>
<tr>
<td>10% Critical Value</td>
</tr>
</tbody>
</table>

The result in table II above shows that the ADF test statistics is greater than the critical values at the 0.01, 0.05 and 0.1 levels respectively, all in absolute terms. This implies that the residuals are stationary, leading us to conclude that the variables are co-integrated. That is, the linear combination of these variables cancels out the stochastic trend in the series. This will prevent the generation of spurious (i.e., non-meaningful) regression results. Therefore, the regression results are presented in table III below.

Table: III: Regression Estimates

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Independent Variables</th>
<th>Coefficients</th>
<th>t-statistics</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOG(RGDP)</td>
<td>CONSTANT</td>
<td>12.81981</td>
<td>136.4748</td>
<td>0.0000*</td>
</tr>
<tr>
<td></td>
<td>MFLA</td>
<td>0.0000146</td>
<td>18.02549</td>
<td>0.0000*</td>
</tr>
<tr>
<td></td>
<td>RINTR</td>
<td>0.001232</td>
<td>0.245420</td>
<td>0.8068</td>
</tr>
<tr>
<td></td>
<td>INF</td>
<td>-0.005462</td>
<td>-5.965325</td>
<td>0.0000*</td>
</tr>
</tbody>
</table>

R²                      0.865595
F-statistics            171.7398

Note: * indicates significance at 0.05 level.
The result of the regression (table III) shows that the independent variables (MFLA, RINTR and INF) jointly explained about 86% variations or changes in economic growth. More specifically, the result reveals that a microfinance bank operation (MFLA) has a positive impact on economic growth. Holding all other variables constant, the growth rate of the economy will increase by 0.0000146 on the average for every 1 unit increase in MFLA. Furthermore, the result indicates that microfinance bank is statistically significant in explaining economic in Nigeria. That is, MFLA plays a vital role in the achievement of economic growth in Nigeria.

6.3 Granger Causality Analysis: The granger causality testing procedure is stated as follows:

\[
F = \frac{(RSS_R - RSS_{UR})/m}{RSS_{UR}/(n-k)}
\]

Where;

\(m\) is equal to the number of lagged \(M\) terms and \(k\) is the number of parameters estimated in the unrestricted regression. As a way of decision, the null hypothesis is rejected if the probability value is less than the 0.05 level. The granger causality test result between economic growth (RGDP) and microfinance bank operations (MFLA) is presented in table IV below.

<table>
<thead>
<tr>
<th>Null Hypothesis</th>
<th>F-Statistics</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFLA does not granger cause RGDP</td>
<td>1.17776</td>
<td>0.3135</td>
</tr>
<tr>
<td>RGDP does not granger cause MFLA</td>
<td>8.30976</td>
<td>0.0005</td>
</tr>
</tbody>
</table>

The result in table IV above reveals that economic growth granger causes the operations of microfinance banks in Nigeria. This means that microfinance bank operations can be predicted with great accuracy by using past values of RGDP, all other thing remaining unchanged or held constant. On the other hand, microfinance bank activities not granger cause economic growth. This outcome is in line with the common saying that relationship or dependence/correlation does not necessarily imply causality (Gujarati, 2004). Therefore, the causal relationship between MFLA and economic growth in Nigeria is unidirectional in nature.

7.0 Conclusion/Recommendations

This study, using the multiple regression model and the Granger causality test empirically examines the impact of microfinance on the Nigeria economy from 1992-2012, using quarterly data. The regression analysis result reveals that microfinance operations (captured by the loans and advances microfinance banks offer to the members of the society) have statistically significant positive impact or effect on the Nigeria economy. That is, the more the activities of microfinance banks in Nigeria, the higher would be the growth of the economy. Furthermore, the Granger causality test result shows a unidirectional causality running from economic growth to microfinance banks operations. Therefore, government and policy makers should pay serious attention to the operations of microfinance banks in Nigeria. At the same time, programmes and policies that would boost their activities should be implemented. This would further position microfinance banks to effectively service the very poor of the society who engage in micro, small and medium scale enterprises (MSMEs) which is the engine of economic growth.
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