A Decade of Microfinance Banks’ Operations and Economic Development in Nigeria

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Abstract
This study looks at a decade of microfinance banking operations in Nigeria and its impact on Economic development. The main objective of this paper is to investigate empirically the impact of a decade of microfinance bank operations on economic development in Nigeria spanning from 2005 to 2014. The data were sourced from Central Bank of Nigeria while the Ordinary Least Squares method of multiple regression analysis and Granger Causality Test were employed to determine the short run relationship and the causality between the variables utilizing E-view 6 package. Human Development Index (HDI) is used as proxy for economic development while the two most prominent variables; Deposits and Loans are used as regressors to proxy Microfinance bank operations. The result showed that Deposit mobilization remains the key mover in microfinance bank operations and contributes positively to economic development while banks Loans exhibited a negative contributions which could be explained away by the high interest rates, diversions, heavy fees and harsh economic conditions which saw many clients always struggling to meet up with loan repayments. Outreach sufficiency is to be encouraged by ensuring the establishment of more MFBs; this will also help access to loans and entrench competition which will naturally drive down the loan charges to clients.

Key Words: microfinance bank, Economic development, Human Development Index

1. Introduction
The Gap and Exigency thesis propounded by Nwankwo(1983) highlighted the need for the State to tackle headlong and in a more result oriented manner, the problem of financial exclusion for the poor members of the society. This exclusion arose due to the reluctance of the established traditional banks to extend banking services to these segment of the society on account the heavy transaction costs associated with small volume transactions. This was the gap which the theory identified and acknowledged.

The Exigency dimension brought into focus the haste by various governments to jumpstart the economic development process of which poverty reduction was the cardinal objective. There was also this global trend to identify with the millennium development goals(MDGS) and various governments have little option than to key into the process(even if deceitfully) so as to impress as it were foreign bodies, agencies and governments who in one way or the other provide support funding for majority of the projects on poverty alleviation, eradication and reduction.

In Nigeria, there has been various poverty intervention programmes carried in the past; most of them were targeted at providing the financial inclusion for the rural and urban poor, enhancing financial empowerment and upliftment through unrestricted access to financial services. These include: the Peoples’ bank, the Rural banking Scheme, DIFFRI, FEAP, NAPEP, SMEDAN and most recently the Community Banking Scheme. Unfortunately, these interventions failed to yield the desired results as poverty and poverty related derivatives continue to escalate in Nigeria. This gave rise to a new thinking in the wake of 2005 with the birth of Microfinance Banks-a bank which will be well capitalized, well managed and technically oriented towards lending to the poor on a tripod of private sector driven approach that eliminates the weakness of government run agencies which often lose focus and end up as propaganda tools(CBN, 2005).

The provision of microcredits to willing, deserving and desiring micro clients form part of the intermediation function and early economists like Schumpeter(1911) identified the importance of banks in facilitating technological innovation due to this intermediation process. Schumpeter believed that efficient allocation of savings through identification and funding of entrepreneurs with the best chances of success are key churning out innovative products.
Microfinance is not a new concept in Nigeria; the practice has been in existence for decades through operating informally through such tribal phenomena as adasu, esusu and itutu. These are forms of rotating savings contribution schemes mostly carried out by traders to help them have period access to bulk finance needed to purchase wares.

Despite the previous efforts to tackle poverty as detailed above, its persistence and even at increased level has become worrisome. The microfinance banks operation through its sustained operations are expected to cover the majority of the active poor Nigerian with convenient access to financial services—not just credits but the entire gamut including savings, insurance, funds transfers etc. The MFBs have their peculiar challenges which militate against the achievement of the targets—inadequate capital, inadequate manpower, heavy transactions costs, outreach insufficiency, harsh business environment and even sectoral distress. The MFB operations should exhibit positive relationship with economic development in Nigeria since it is a poverty reduction initiative. The aim of this study is to examine this nexus and access its contributions to economic development as a poverty intervention agency. Has the scheme gone the way of its predecessors?

1.1 Objectives of the Paper
In the light of the above background, the main objective of this paper is to investigate empirically the impact of a decade of microfinance bank operations on economic development in Nigeria. The specific objectives of the paper include:
   a. To examine the relationship between MFBs credit/loans to their clients and Human development Index
   b. To examine if there is any significant relationship between MFBs deposits and Human Development Index
   c. To assess the impact of MFBs funds transfers services on Human Development Index in Nigeria.

1.2 Hypotheses(Null forms)
   a. H01: There is no significant relationship between microfinance banks credits and Human development index in Nigeria
   b. H02: There is no significant relationship between microfinance bank deposits and Human development index in Nigeria
   c. H03: There is no significant relationship between microfinance bank funds transfer services and human development index in Nigeria.

2. Literature Review
Economic development can be seen as various stages and processes through which a population with sustained growth from a simple low income economy to a modern high income economy. The scope includes the process and policies by which nations improve the economic, political and social well being of its people. The World Bank is the primary international organization that measures economic development. It has over 2000 indicators in its kitty for this assessment but the most common ones include: Gross Domestic Product(GDP), Trade Balances, Credit Rating, National debt, Human Development Index(HDI) and Human Poverty Index(HPI). Most of the studies reviewed used GDP which is the most popular proxy of economic development but GDP as a measure of economic development does not capture human welfare, activities that lower the environment. The HDI does. The major constituents are life expectancy(longevity), knowledge(literacy/education) and standard of living(GDP per capital and purchasing power parity). The HDI has sterling qualities because it is an index and mostly denominated on population. Another proxy very suitable for assessment of MFB operations would have been the HPI (Human Poverty Index) but issues of consensus on the definition of the term poverty plagues any meaningful deployment as a study variable. The generous definition of poverty is an economic condition of lacking both money and the basic necessities of successful living-food, water, shelter education and health care. The dilemma and controversy stem from the distinction between absolute and relative poverty and the staggering differences in wealth of nations.

Microfinance is seen as movement whose object is a world in which as many and near poor households as possible have permanent access to an appropriate range of high financial services including not just loans but also savings, insurance and funds transfers(Christen, Rosenberg and Jayadeva,2004). Ehigiamusoe(2008) portrays microfinance as meaning more than delivery of small units of financial services. It goes beyond disbursements of loans and collection of loan repayments. It also refers to the flexible structures and processes by which affordable financial services are delivered to the owners of microenterprises on sustainable basis. Some of the strategies put in place by the microfinance policy framework(2005) are (a) make financial services available and accessible to a large number segment of potentially productive Nigerian population which
otherwise would have no access to financial services and (b) mobilize domestic savings and promote banking culture among low income groups and individuals. The operation of microfinance banks is relatively new in Nigeria. Feigenberg, Field and Pande(2011) believe that due to broad range of microfinance services, it is difficult to assess impact and very few studies have made such attempts. It is also important to note the dimensions of the pathway of microfinance in its quest to affect poverty. There are two extremes used as benchmarks in assessing impact of microfinance-the poverty approach and the self sustainability approach. The former targets poor clients who are very costly to serve and like relief efforts, it measures success by how well it fulfills the need of the poorest in the short run. In this poverty approach, donations cover the shortfall between revenue of MFIs derived from clients and cost of supply. The self sustainability targets less poor clients on the fringes of the formal financial system. Like development efforts, it measures success by how well it expands the frontier of the mainstream economy(Von Pischke,1991). This study pinches its tent in line with the self sustainability approach and reviews its bearings on economic development in Nigeria.

Wright(2000) conducted a study in Bangladesh on the impact of microfinance operations on health and nutritional indicators seem to improve where members were likely to use contraceptives to reduce family size-these members had earlier received basic health tips from the MFI. To understand impact, it is necessary to go beyond describing changes in status. To make an objective conclusion on impact, a follow up analysis should compare clients to non clients or understand the processes of changes taking place and how these changes relate to broader factors in clients’ lives.

The Consultative Group to Assist the Poorest, CGAP(2009) whose main objective is to accelerate financial inclusion for the poor, observed that microfinance has contributed in achieving the following developmental 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. The promotion of savings culture is at the heart of microfinance and poor people in their bid to save often lose money due to the absence of a formal and convenient outlet to save money. Wright and Mutesasira(2001) studied the informal method of savings in Uganda and concluded that those with no option to save except in the informal sector are almost bound to lose some money-probably 25% of what they save there. Rutherford (2009) confirmed this trend. A study of the saving up project in the slums of Vijawada, India found that out of 220days of daily payment of 5 Rupees, the peripatetic collector keeps 20 days’ payments or 100 Rupees. The risk of losing this money compels their willingness to pay up to 30% of what they save to ensure safety. Rutherford reported that the project though crude and informal has benefits which include empowerment of women, and giving women ability to save money for their children’s education. In other words, a safe and flexible place to save money and access it when needed is also very essential for the management of household and family risk.

The high costs of traditional microfinance loans limit their effectiveness as a poverty fighting tool. These costs are effectively passed on to the poor clients. MacFarquhar(2010)reported that the global average rate of interest/fee is estimated at 38% in the microfinance subsector (with rates reaching as high as 70%). The main reason for the high cost microfinance loan is the high transactions costs of traditional microfinance operations specifically in relation to loan sizes and deposit mobilization efforts and logistics. It is therefore an irony that the world’s poorest pays the highest cost of small business capital. In a recent survey in Ghana, published by the Centre for Financial Inclusion(GCFI,2011), more than one third of businesses surveyed/respondents) reported struggling to repay their loans. Some even resorted to measures such as reducing their food intake or taking children out of school in order to pay microfinance debts that have not proven sufficiently profitable. Littlefield et al(2003) studied FOCCAS(Uganda) and found that poor people were investing their income in their children’s education. Babagan(2010) studied the impact assessment of the role played by microfinance banks in promoting small and medium enterprises(SMEs) in Bauchi, Nigeria. The study revealed that MFBs have contributed positively to the promotion of SMEs growth in Nigeria.

Akinboyo(2007) highlighted the roles of microfinance policy and asserts that it is the most effective poverty alleviation intervention tool worldwide.

- It enables its clientele to become more self reliant in their business endeavours especially in the face of mass unemployment in the country.
- It helps to enhance the mobilization of local savings into productive ventures.
- It helps to increase access to finance which will equally result in financial deepening.
- It causes growth and improves income distribution of the populace.
If the provision of the above enumerated services is carried out efficiently by microfinance banks and related institutions, it will be difficult to visualize how these lofty ideals will not impact positively on economic development especially on the human development indices and poverty reduction.

Akujuobi and Onuora (2008) had earlier evaluated Community banks role in Nigeria and found out that due to inadequate capital structure, the banks gave nearly half of their credit facilities to commerce subsector that did not significantly contribute to economic development. Babagana (2010) carried out a study on impact assessment of the role of Microfinance banks in promoting small and medium enterprises (SMEs) in Nigeria. The area covered by the study was Bauchi in Bauchi State of Nigeria. The study revealed that Microfinance banks have contributed to the promotion of SMEs growth in Nigeria. Okpara (2010) focused on the critical factors that cause poverty in Nigeria and investigated the role of Microfinance banks in poverty alleviation. The data on reasons for poverty was generated by national Bureau of Statistics and the method of factor analysis was employed. The researcher equally employed regression analysis in quadratic equations model which is found to be most appropriate in explaining the variations between the two variables. The study identified five factors as critical. These are: low profit, high prices of commodities, harsh economic times, lack of finance to start or expand business and poor performance of business. Kehinde and Adejuwon (2011) researched on Financial Institutions as catalyst to economic development: the Nigerian experience and record that bottlenecks in the entire financial system retards development. In their opinion, the efficiency of the system rather than the volume of financial activities is deemed vital to facilitate development. It seems to us that both system efficiency and transactions volumes and varieties are both vital to economic growth and development.

Nwanyanwu (2011) collected data on microfinance banks from secondary sources and these were analyzed descriptively. The work concludes with the view that microfinance scheme holds a lot of prospects for the Nigerian economy as it is expected to empower low income earners, reduce poverty, generate employment among others. Cabraal (2011) who studied the impact of microfinance on clients capabilities noted that the social impacts of microfinance enhanced greater freedom, empowerment and confidence, sense of equality, well being and sense of achievement. Idolor and Imlahimini (2011) studied the impact of microfinance banks on the rural poor dwellers in Edo State, Southern Nigeria based on survey reports. They reportedly found minimal impact on the livelihood of the economically active poor. Yahaya, Osemene and Abdulraheem (2011) examined the effectiveness of microfinance banks operations and services on poverty alleviation in Kwara State, Nigeria. The data was analyzed through the use of T-test and ANOVA (Analysis of variance). The result indicates that microfinance has significant role to play in the economy as it helps to reduce poverty by providing financial services to the active poor, helps in employment generation and also provides loans to grow small businesses.

Hossain (2012) carried out social impact assessment of microfinance bank operation of BRAC, a leading microfinance institution in Bangladesh on the life cycle of clients. 208 clients who came under BRAC facilities were selected from a village. Comparative data tables between pre and post joining of BRAC microfinance services were used to determine social impact. The study underscored on four social aspects to measure the social impact of microfinance operations on the beneficiaries. The analysis of the findings showed that the overall impact of microfinance operations in the social sphere was positive though the extent of the impact on the selected social aspects is not alike. An insignificant impact was recorded in the areas of health, nutrition and family planning and a moderate impact on children’s education of sample borrowers. A significant impact was observed on potable water and on sanitary conditions (toilet facilities) of the respondents.

Olumuyiwa and Oluwatosin (2012) studied the impact of microfinance banks on standard of living on hairdressers in Oshodi, Isolo Local Government area of Lagos State. The study was to examine impact measured by asset acquisition and savings. A total of 120 hairdressers who registered with the local government area were used as study sample. The estimation technique used by researchers was Spearman’s rank correlation coefficient analysis. At 5% confidence level, the result revealed that there is significant relationship between microfinance banks’ efforts and standard of living of hairdressers.

Nuno (2012) examines the nexus between bank credit and economic growth in the European Union. The study covers the period, 1990 – 2010. The dynamic panel data (GMM-Systems Estimator) was employed due to its superior capacity in resolving problems associated with serial correlation, heteroskedacity and endogeneity which often accompany the explanatory variables employed in the study. The results show that while savings promote economic growth, inflation and bank’s credits negatively impact on economic growth. This is a very remarkable finding! Rapidly assessed domestic credit if not checkmated, has the potential of weakening the banking system because it has inherent capacity to discourage savings accumulation and investments. It can create financial crises.
Even in Ethiopia, Musty, Sailaja and Demissie (2012) examine the long run impact of bank credit on economic growth. A multivariate Johansson’s cointegration approach on time series data over the period 1971/72 to 2010/2011, the results provide the same evidence-positive impact. Farouk Ahmeti(2013) studied the impact of microfinance on war ravaged Kosovo and found that microfinance registered tremendous success as a tool in post conflict reconciliation. In Kosovo, the war resulted in declining Gross Domestic Product(GDP) per capita by more than 80% plummeting from USD3300 in 1990 to USD650 in the year, 2000. 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 microfinance 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.

Eigbimorelen and Anaduaka (2014) researched on the place of microfinance in today’s economy – further evidence from Nigeria. They employed a multiple regression model based on ordinary least squares(OLS) technique to assess the impact of microfinance banks operations on economic growth. Interest rates and inflation rates were included as related control variables. The model variables were:RGDP – Real Gross Domestic Product, a proxy for economic growth; MFLA – Microfinance Loans and Advances, a proxy for microfinance bank operations; RINT – Real Interest rate and INF – Inflation rate. The result revealed that using quarterly data from 1992-2012, the loans and advances granted by microfinance banks to the members of the public have statistically significant positive impact on Nigerian economy.

The above findings were corroborated by Nwakanma, Nnamdi and Omojefe(2014) who dwelt on the contributions of microcredits to Nigeria’s economic growth. They employed the Auto Regressive Distributed Lag(ARDL) approach in analysis of the time series data. The study finds significant long run relationship between Nigeria’s economic growth and microcredits disbursed. The period covered was 30 years(1982-2011). Ojua, Tiku and Agbor(2014) reflected on Microfinance operations and socio economic development of Nigeria’s rural communities and recommended that programmes which promote awareness of business opportunities and microfinance banks as viable sources of finance must be encouraged by Government.

3. Research Design

To achieve the objective of this study, the methodology adopted for this test of relationship is non experimental in that secondary data will be analyzed. This relationship between microfinance bank operations and Human Development index in Nigeria is best captured in the multivariate regression model specified below:

\[ HDI = \beta_0 + \beta_1 Loan + \beta_2 Dep + \mu \]

\[ (\beta_1 > 0, \ \beta_2 > 0) \]

Where

HDI=Human Development Index(a proxy for economic development)
Loan= loans/credits extended by Microfinance banks to their clients(a proxy for MFB ops)
Dep =total deposit liabilities of MFBs(another proxy of MFB operations)
\( \beta_0 \) is the intercept
\( \beta_1, \beta_2 \) = parameters and
\( \mu \) = error term

The a priori expectation is that the parameters(coefficients) are positive and greater than zero

To estimate the multiple regression model stipulated in A above, the annual data on the specified variables were sourced from Central Bank of Nigeria Statistical Bulletin, World bank Report and Index Mundi (online). The period covered is from 2005 to 2014. This data is presented in Table 1(see appendix) and were analyzed with the econometric software package E-Views 6.1

4. Analysis and Results

This section presents the analysis of the study. The summary of the descriptive statistics is as presented below in table 2.
4.1 Descriptive Statistics

Table 2

<table>
<thead>
<tr>
<th></th>
<th>HDI</th>
<th>LOAN</th>
<th>DEP</th>
<th>FTR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>0.455500</td>
<td>52917.42</td>
<td>72736.98</td>
<td>5476.030</td>
</tr>
<tr>
<td>Median</td>
<td>0.450500</td>
<td>51897.90</td>
<td>68653.85</td>
<td>4214.250</td>
</tr>
<tr>
<td>Maximum</td>
<td>0.504000</td>
<td>94055.58</td>
<td>121787.6</td>
<td>8959.800</td>
</tr>
<tr>
<td>Minimum</td>
<td>0.420000</td>
<td>16450.20</td>
<td>34017.70</td>
<td>2712.200</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>0.028325</td>
<td>26391.16</td>
<td>29778.87</td>
<td>2452.701</td>
</tr>
<tr>
<td>Skewness</td>
<td>0.764434</td>
<td>0.154911</td>
<td>0.360483</td>
<td>0.402874</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>2.468745</td>
<td>1.812631</td>
<td>1.885526</td>
<td>1.401974</td>
</tr>
<tr>
<td>Jarque-Bera</td>
<td>1.091529</td>
<td>0.627431</td>
<td>0.734101</td>
<td>1.334549</td>
</tr>
<tr>
<td>Probability</td>
<td>0.579399</td>
<td>0.730727</td>
<td>0.692775</td>
<td>0.513105</td>
</tr>
</tbody>
</table>

This table shows that the highest amount disbursed by Microfinance Banks to their customers per annum for the period under consideration is N94bn while the least was N16.5bn. Similarly, the minimum and maximum deposits stood at NN34bn and N122bn respectively and the variability in deposit is evidenced from the wider standard deviation. Obviously the savings are not enough to bring about sufficient impact on human development index; perhaps many poor people still fill reluctant to save their meagre income in Microfinance banks.

4.2 Correlation Matrix

Table 3

<table>
<thead>
<tr>
<th></th>
<th>HDI</th>
<th>LOAN</th>
<th>DEP</th>
<th>FTR</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDI</td>
<td>1.000000</td>
<td>0.545885</td>
<td>0.640670</td>
<td>-0.170046</td>
</tr>
<tr>
<td>LOAN</td>
<td>0.545885</td>
<td>1.000000</td>
<td>0.987178</td>
<td>0.049142</td>
</tr>
<tr>
<td>DEP</td>
<td>0.640670</td>
<td>0.987178</td>
<td>1.000000</td>
<td>-0.034858</td>
</tr>
<tr>
<td>FTR</td>
<td>-0.170046</td>
<td>0.049142</td>
<td>-0.034858</td>
<td>1.000000</td>
</tr>
</tbody>
</table>

From the above result, it is glaring that Dep and Loan have very strong correlation. It is not a case of perfect collinearity anyway. This is not unusual as banking theory has established the linkage that loans can only be created from deposits. It is consequently a common practice that loans are made from deposits/savings. The HDI-Loan/Deposit link is fair enough for our purposes.

4.3 Level Series Multiple Regression Analysis

Savings rather than loan is at the heart of microfinance not merely because savings mobilization sustains microfinance bank operations but enhances poor people’s survival and thus lifts them above poverty. Table 4 below captures the result of our regression analysis. The variables used as proxies for microfinance bank operations are restricted to the two most essential pre occupations of microfinance phenomenon-savings mobilization and credit disbursement.

Table 4

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>t-stat</th>
<th>p-Value</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>0.360902</td>
<td>12.5828</td>
<td>0.0000</td>
<td>Significant</td>
</tr>
<tr>
<td>Loan</td>
<td>-0.000492</td>
<td>-2.1116</td>
<td>0.0726</td>
<td>Significant @ 10%</td>
</tr>
<tr>
<td>Dep</td>
<td>0.00560</td>
<td>2.5916</td>
<td>0.0359</td>
<td>Significant @ 5%</td>
</tr>
<tr>
<td>F- statistics</td>
<td>5.822508</td>
<td></td>
<td></td>
<td>Significant @ 5%</td>
</tr>
<tr>
<td>R²</td>
<td>0.625%</td>
<td>Adj. R² = 52%</td>
<td>Durbin-Watson Stat=-2.5</td>
<td></td>
</tr>
</tbody>
</table>

The model equation from the above regression result is:

\[ \text{HDI} = 0.360902 - 0.000492\text{Loan} + 0.0056\text{Dep} \]

From the results above, the deposit variable is highly significant with the right sign showing that savings mobilized from the poor have positive influence on Human Development Index(and by extension economic development in Nigeria). A unit increase in deposits mobilized causes a 0.0056 unit increase in HDI. This is
understandable as HDI is a population based index. Savings may help to build a cushion to confront future shocks as reflected in Randomized Control Trial (RCT) study of Dupas and Robinson (2002). Udry et al. (2010) lend credence to the above result.

The same cannot be said about the Loan variable— not only that the parameter is negatively signed (against of course, a priori expectation) but also insignificant statistically at 5% level. In other words, loans granted by MFBs for the ten years of operations in Nigeria contributed negatively to economic development. Many poor families/people are struggling to repay the loans due to high charges and economic down turn. The Ghanaian Centre for Financial Inclusion (GCFI, 2010) reported that many poor families have to reduce their nutritional intakes while others tended to withdraw their children/wards from school in other to meet up with the repayments of loans whose utilization have not proven profitable. Nuno (2012) equally found out that while savings promote economic growth, inflation and banks credit have negative impact on same. The regressors were able to explain 65.5% of the variations in the HDI which makes the model a good fit. The F statistics which is significant at 5% equally confirms the overbearing influence of Deposit variable. The adjusted R squared of 52% is equally fair for the purposes of inferences. The 34.5% unexplained variation was due to other variables not captured by our model. These may include: funds transfer services, insurance, business advisory services, transaction costs (interest charges, fees), etc. The Durbin-Watson result suggests presence of autocorrelation, one may be tempted to conclude that the results of the estimated model should not be relied upon for analysis and policy making but arguably this is not obtainable. The R$^2$ of 0.65 < than the DW figure of 2.5 hence a case of spurious regression is ruled out. Auto correlation and multicollinearity are essentially data problems and loans cannot be divorced from deposits as far as banking theory is concerned.

4.3 Unit Root Test

<table>
<thead>
<tr>
<th>Variables</th>
<th>Critical Values</th>
<th>ADF t-stat</th>
<th>Order</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDI</td>
<td>1%: -4.582648</td>
<td>-4.131652</td>
<td>I(0)</td>
</tr>
<tr>
<td>Loan</td>
<td>5%: -3.320969</td>
<td>-6.918067</td>
<td>I(1)</td>
</tr>
<tr>
<td>Dep</td>
<td>10%: -2.841819</td>
<td>-4.803313</td>
<td>I(1)</td>
</tr>
</tbody>
</table>

The ADF test confirms that both Loan and Dep variables (regressors) are stationary at first differencing and hence integrated at order 1 while the regessand, HDI is stationary at level that is order zero. The exhibition of these attributes by the series makes them amenable for econometric use. The above notwithstanding, the tests for cointegration cannot be carried out as the data size is relatively very small.

4.4 Test of Hypotheses

Hypothesis 1

The estimated result shows that loan has an inverse relationship with HDI which is contrary to a priori expectation, the P-value of 0.0726 though not statistically significant at 5% level is significant at 10% level. The null hypothesis of no significant relationship is not rejected though with a caution since the alternative hypothesis can be accepted at a 10% level of significance and for its economic significance.

Hypothesis 2

From Table 4, the Dep variable has a positive relationship with HDI which is in line with our a priori expectation with a coefficient of 0.000526 and a p-Value of 0.0359 which is very significant. We therefore reject the null hypothesis and accept the alternative which states that there is a significant relationship between Microfinance Deposits and HDI in Nigeria.

4.5 Granger Causality Test

The granger test is to determine the direction of causality between microfinance bank operations and economic development in Nigeria. This could be unidirectional or bidirectional. The null hypothesis simply tests the independence of the variables. In our three variable model, it may be necessary to establish linkages and the impact of one variable on another. The work and its use is credited to Granger (1969). It is used to test short run direction of causality between variables say X and Y. the test is based on the estimation of the bi-variate regressions as below:

$$Y_t = \sum_{i=1}^{n} \alpha X_t + n-k$$
The result of the Granger(Pair wise) tests is as below:

Table 6 –Granger Causality Test

<table>
<thead>
<tr>
<th>Pairwise Granger Causality Tests</th>
<th>Obs</th>
<th>F-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loan does not Granger Cause HDI</td>
<td>8</td>
<td>21.3111</td>
<td>0.0169</td>
</tr>
<tr>
<td>HDI does not Granger Cause Loan</td>
<td></td>
<td>1.46742</td>
<td>0.3594</td>
</tr>
<tr>
<td>Dep does not Granger Cause HDI</td>
<td>8</td>
<td>17.3834</td>
<td>0.0224</td>
</tr>
<tr>
<td>HDI does not Granger Cause Dep</td>
<td></td>
<td>1.46573</td>
<td>0.3597</td>
</tr>
<tr>
<td>Dep does not Granger Cause Loan</td>
<td>8</td>
<td>3.02272</td>
<td>0.1910</td>
</tr>
<tr>
<td>Loan does not Granger Cause Dep</td>
<td></td>
<td>6.12878</td>
<td>0.0872</td>
</tr>
</tbody>
</table>

It is obvious from the result that Loan granger causes HDI since the P-value is highly statistically significant. It is a unidirectional causality flowing from Loan to HDI. Causality equally flows from Dep to HDI but independence exists between Loan and Dep variables.

5.0 Conclusion and Recommendations

This paper set out to investigate the relationship between microfinance bank operations and economic development, put another way how far has the intermediation, inclusion and intervention roles of microfinance banks and its operation enhanced the economic development of the citizenry both as a people who now have unfettered access to micro finance products and as Nigerians who have been long taunted by poverty. Unfortunately too, many previous works avoided the use of savings variable. This study in its purity captures microfinance banks’ two main activities- provision of savings facility and disbursement of loans to clients. The study reinforces the role of provision of savings facilities for poor clients- mobilization efforts as well as cultivation of the savings culture as very key to upliftment of standard of living and other human development indices. A large outreach will rake into MFBs very low cost funds which equally have the capacity to sustain their loans and advances. While savings will help the clients to resist shocks, well managed loans will enhance profitability, build up assets and help to improve and sustain family life.

Our recommendations are as follows:

Large scale sensitization is very necessary; many poor people are still unaware of the existence of microfinance banks – what they do and how help can come from them. Significant outreach is required to ensure financial inclusion is achieved. The present ratio of microfinance banks in Nigeria to the population (882/180m) remains a mockery of the outreach target. Again the breakdown shows that the number is highly skewed in favour of Southern Nigeria which further compounds the problem since the Northern part is believed to be more populated than the south. The government should do more by way of incentives to encourage more private entry into the microfinance subsector.

The data emanating from MFBs operations may be highly deficient and hence responsible for posting the type of result we get from our analysis. It is very obvious that the Central Bank of Nigeria needs enhanced capacity to effectively superintend all financial institutions within its purview. Our new thinking is that CBN should divest itself of some of the activities which places serious constraints on its manpower resources (MFBs regulation and supervision fall into this category).

Finally, the negative relationship exhibited by the loan variable suggests a fundamental flaw in the loan administration system. Two great explanations easily come to mind: either the loan size and tenor do not match the needs of the clients or the loans were diverted to other uses which proved unprofitable. The recent announcement by CBN of N60bn bad loans in the subsector puts everyone at alert and further erodes the confidence of the poor people to increase patronage.
The above notwithstanding, time is of major essence in this study. Ten years of operation of MFBs in Nigeria may not clearly reveal or pinpoint impact direction with economic development—further studies in this area is highly recommended.

References


