emerald**insight**

International Journal of Social Economics

A comparative analysis of the practice and performance of microfinance institutions in Nigeria
Abiola Ayopo Babajide, Joseph Niyan Taiwo, Kehinde Adekunle Adetiloye,

Article information:

For Authors

If you would like to write for this, or any other Emerald publication, then please use our Emerald for Authors service information about how to choose which publication to write for and submission guidelines are available for all. Please visit www.emeraldinsight.com/authors for more information.

About Emerald www.emeraldinsight.com

Emerald is a global publisher linking research and practice to the benefit of society. The company manages a portfolio of more than 290 journals and over 2,350 books and book series volumes, as well as providing an extensive range of online products and additional customer resources and services.

Emerald is both COUNTER 4 and TRANSFER compliant. The organization is a partner of the Committee on Publication Ethics (COPE) and also works with Portico and the LOCKSS initiative for digital archive preservation.

*Related content and download information correct at time of download.

A comparative analysis of the practice and performance of microfinance institutions in Nigeria

Abiola Ayopo Babajide, Joseph Niyan Taiwo and
Kehinde Adekunle Adetiloye
Banking and Finance Department, Covenant University, Ota, Nigeria

Abstract

Purpose – The successful story of microfinance institutions is often tied to the practice and methods of credit delivery as evidence among international world class microfinance institutions across the globe. The purpose of this paper is to examine the impact of practice and methods of credit delivery employed by "non-profit" and "for-profit" microfinance institutions on financial sustainability and outreach programmes of the microfinance institutions in Nigeria.

Design/methodology/approach – The study adopts the survey research design and multi-stage stratified random sampling procedure to collect data from 372 senior management staff, managing directors and board members of microfinance institutions of both groups in Nigeria. Data collected were analyzed using descriptive statistics and multiple regressions analysis.

Findings – The findings suggest that the current practice and methods of credit delivery of microfinance in both "non-profit" and "for-profit" microfinance institutions have an inverse relationship with the financial sustainability and outreach programmes of the institutions. This study provides empirical evidence for the incessant failure of microfinance institutions in Nigeria.

Research limitations/implications – The study therefore recommends an immediate overhaul of the methodology and practice of microfinance institutions in the country to align with international best practice.

Originality/value – In spite of the huge literature on microfinance in Nigeria, there is not enough evidence to empirically prove that the practice of microfinance has affected the performance of the industry in Nigeria. This study sets out to fill that gap in the literature. The paper examines the practice of microfinancing in Nigeria *vis-à-vis* the performance of the microfinance institutions, categorized into NGO and microfinance bank "for-profit" institutions using international best practices from countries where microfinance is highly successful as a benchmark for deployment of microfinance in Nigeria, in order to proffer policy direction to stakeholders on steps to take to ensure viability in the microfinance subsector in Nigeria.

Keywords Nigeria, Credit delivery methods, Microfinance practice, Non governmental organization

Paper type Research paper

1. Introduction

In 2011, the Central Bank of Nigeria (CBN) released the revised Microfinance Policy Regulatory and Supervisory Framework (MPRSF) as a reform process taking cognizance of the past six years' implementation of the 2005 edition and the current state of the microfinance subsector. The aim of the framework, among other things, is to promote innovations and enhance rapid and balanced growth of the microfinance sector, leveraging on international best practices in microfinancing. In 2005, when the policy framework was launched, the target was to reach the majority of the economically active poor, generate employment, alleviate poverty, ensure that the percentage of microcredit in total credit to the economy increased from 0.9 percent in 2005 to at least 20 percent by 2020, and percentage of microcredit to GDP increased from 0.2 percent in 2005 to at least 15 percent in 2020. The policy target also intended to promote government participation in microfinancing through state and local government micro-credit financing by 2015, eliminate gender disparity by improving women's access to financial services by 5 percent annually, and increase the number of linkages among banks, development finance institutions, specialized finance institutions and microfinance

banks (MFBs) by 10 percent annually (Iganiga, 2008; CBN-MPRSF, 2005). Ten years later, available statistics show that 46.3 percent of the adult population, particularly those living in the rural areas, still lack access to finance. Microcredit as a percentage of total credit stood at 0.59 percent worse than the 2005 position, while microcredit as a percentage of GDP is still less than 1 percent. The under-served market is still very huge and rural poverty rate has been on the increase (Mobuogwu, 2013; Ojo and Gaul, 2011; EFInA, 2012; CBN, 2011; Idolor and Imhanlahimi, 2011). These are major concerns for a nation that is aiming to achieve 85 percent financial inclusion by 2020.

Even though microfinance predates formal banking in Nigeria, the launch of the MPRSF in 2005 was to give direction to the practice of microfinance in Nigeria, bringing all practitioners under the purview of the government except those who choose to remain in the informal sector. Despite the launch and subsequent reform in 2011, the microfinance industry in Nigeria has been full of woes, with little or no contribution to economic development in Nigeria. After the 2005 bank consolidation, 224 MFBs were liquidated, with billions of Naira of depositors' funds lost in the process. Operating licenses of another 83 were revoked and approval to liquidate them was given to Nigeria Deposit Insurance Corporation (NDIC) in 2014. Speculation is rife that another 600 may go under if they fail to meet up with the new recapitalization reforms target.

Nigeria, being a developing country with a high percentage of people living on less than $1 per day, needs an efficient microfinance system. Microfinancing is a poverty reduction strategy targeted at reaching a sector of the population that is excluded from the formal banking system. Recent statistics released by EFInA (2012) show that 46.3 percent of Nigerian adults, representing 39.2 million people, are still excluded from financial services. World Bank (2008) recommends the promotion of microfinance institutions in developing countries, where small- and medium-scale businesses are constantly challenged and small operators are shut out of the banking market due to information asymmetry in the credit market.

In the practice of microfinance across the globe, the end results of microfinance programmes have yielded mixed results: while some countries recorded a high success rate, other countries' experience is quite different. The variation in results generated has been associated with the model of practice, among many other factors (Kabir Hassan and Renteria-Guerrero, 1997; Oke and Adeyemo, 2007; Hartungi, 2007; Iganiga, 2008; Fotabong, 2011; Acha, 2012; Orodje, 2013; Alamgir et al., 2011; Egboro, 2015); while some countries recorded high success rates in terms of outreach, coverage and impact on clients, the results in other countries are directly opposite. Marulanda et al. (2010), in a study carried out in Latin America, categorize success in microfinance into two groups: one has to do with scope and penetration of the target market, the other has to do with good financial results. Scope and coverage refers to the ability of the microfinance firm (MFI) to reach the expected breadth and depth in the services it renders. This has to do with the number of customers it is able to serve with the available resources and the variety of the financial services it is able to offer the customers. Also, the impact of the MFI in providing access to finance to the poorest sectors of the population is assessed for coverage. The second aspect has to do with the institution's financial sustainability, measured in terms of growth, efficiency, control of default and profitability.

The methodological characteristics differentiate one microfinance institution from another, particularly when it comes to service delivery among MFIs (Marulanda et al., 2010). Aspects of methodology include design of credit and products offered, which vary significantly among MFIs: while some design financial products based on the peculiarity of the environment they operate in, others practice one size fits all. Some practice a small short-term graduated loan system based on solidarity of group delivery, others practice individual loans with guarantee as collateral. In some institutions, risk assessment is

decentralized; the loan officer that visits the client's premises determines the client's ability and advises the head office appropriately. In other MFIs, the loan officer supplies all necessary information on their client to a team of experts, who carefully assess the risk implication of such loan in relation to the institutional risk. Operational methodology is also developed in the form of incentives to loan officers in the area of granting quality loans and recovery of bad and doubtful loans. Pre-loan training is another methodology practice put in place by some MFIs, while to others training before financing is not necessary. Some institutions concentrate on the rural areas and target poor women, employing village banking methodology; others concentrate on the cities in pursuit of contractors and financing LPOs. Some MFIs adopt methods previously used in other places without any consideration for the need for moderation to fit local conditions. The poor or partial implementation of the processes is what contributed to the failures or successes of many MFIs.

The result of the target examination conducted by CBN and NDIC on 820 MFBs across the country shows that a total of 224 (27 percent) MFBs were terminally distressed and technically insolvent and/or had closed down for at least six months (Sunday Trust, 2010). In spite of the huge literature on microfinance in Nigeria, there is not enough evidence to empirically prove that the practice of microfinance has affected the performance of the industry in Nigeria. This study sets out to fill that gap in the literature.

This paper examines the practice of microfinancing in Nigeria *vis-à-vis* the performance of the microfinance institutions, categorized into Non Governmental Organization (NGO) "non-profit" and MFB "for-profit" institutions using international best practices from countries where microfinance is highly successful as a benchmark for deployment of microfinance in Nigeria, in other to proffer policy direction to stakeholders on steps to take to ensure viability in the microfinance subsector in Nigeria. That is the overall objective of this paper. In other to achieve the above stated objective, the following research questions are advanced for the study:

RQ1. Does the practice of microfinance have significant impact on the performance of microfinance institutions in Nigeria?

RQ2. To what extent do the practice /methodology employed enhance outreach/social performance of microfinance institutions in Nigeria?

The rest of the paper is divided into four sections. Immediately following this section is the literature review, and then the methodology of the study is explained in Section 3. The findings and discussion of results are presented in Section 4, while Section 5 highlights the concluding remarks and recommendations.

2. Literature review

The uniqueness of microfinance is in the size of the loans, advances and deposits, simplicity and flexibility of operations, and substitution of asset-based collateral with social capital. Ehigiamusoe (2005) defines microfinance as the delivery of financial services to owners of microenterprises on a sustainable basis using flexible but well-structured processes. Microfinance operators are familiar with the peculiar challenges of micro-enterprises and their owners. The microfinance system recognizes the inability of the poor to provide tangible collateral, and therefore promotes collateral substitution. Disbursement and repayment of loans are structured to suit credit needs and cash flow patterns of small business operators (Aderibigbe, 2001).

The microfinance sector has continued to grow, attracting several players and service providers and offering diverse services. The Nigerian microfinance provider base can be categorized into two. First, the informal/traditional microfinance institution, whose

operations is culturally rooted and predate modern banking era. The providers in this category include informal traditional self-help groups, rotating savings and credit associations, savings collectors/money lenders and co-operative societies. Second, the formal/modern microfinance institutions are banks in their different nomenclatures (deposit banks, MFBs and development finance institutions). The Nigerian microfinance policy framework also recognizes the existence of non-governmental credit only membership-based microfinance institutions. Registered NGO-based MFIs are required under the law to forward periodic returns on their activities to the CBN for data gathering purposes. They are not allowed under the law to mobilize deposits from the general public although some of them have compulsory/mandatory micro savings as part of their programmes; such savings activities are limited to their members only (CBN-MPRSF, 2005).

NGOs are charity-based organizations registered under the Trusteeship Act; for some organizations, microfinancing is the main object of their program, while for some it is part of their charity and social development program of poverty alleviation. In 2005, a survey carried out by CBN identified 180 registered MFIs in Nigeria, although only 99 of them participated in the survey. These MFIs have championed the cause of the micro and rural entrepreneurs, employing demand-driven rather than supply led approach credit delivery strategies. The number of NGOs involved in microfinancing activities has increased significantly since 2005 in Nigeria but there are no official data on their activities (Iganiga, 2008).

Mission-driven MFIs consistently focus on understanding the needs of the poor and always devising better ways of delivering services in line with their requirements, evolving the most efficient and effective mechanisms to deliver finance to the poor. Methodologies employed in delivery of microfinance programmes vary from one organization to another. Most NGO-based microfinance institutions employ the popular Grameen Bank methodology, while others vary the methodology to suit their organization mission/vision and environment. Even among nations, models of microfinance adopted vary between countries. This implies that microfinance has been evolving differently in different contexts. While some nations adopted models peculiar to their traditional setting, variants of it exist in other countries (ADB, 2000, 2006; Sapovadia *et al.*, 2010; Isangula, 2012). Socio-economic differences and business environment contribute significantly to the choice of methodology employed. Egboro (2015) argued that there is a need for the Nigerian government to review the current microfinance policy framework as the current one does not encourage the practice of conventional microfinance, but rather emphasizes profit maximization at the expense of socio-economic development.

Microfinance as a practice presently in Nigeria makes it difficult for MFIs to be financially or operationally sustainable (Nwayawu, 2013). MFIs are faced with huge problems, among which are poor corporate governance, incompetent management, weak internal controls, lack of well-defined operations, inadequate regulatory/supervisory structures, weak capital base, unsustainable nature of intervention programmes, weak institutional capacity, poor banking culture and low literacy level of the population, high level of fraud and loan default, absence of reliable clients/citizens, lack of unified identification system, dearth of requisite infrastructural facilities and security challenges, to mention a few. According to Orodje (2013), prior to CBN's intervention, microfinance in Nigeria was swiftly declining into the abyss. The sector was riddled with fraud and mismanagement of funds. Some of the mismanagement may have been due to a lack of understanding of microfinancing operations by the senior managers in some of the MFBs.

Since the launch of the microfinance policy framework in 2005, from practice it is obvious that many of the MFBs do not have a thorough understanding of the microfinance concept and methodology for delivery of services to the target groups. Many of the MFIs operate like micro-commercial banks and compete with Deposit Money Banks (DMBs) for customers and deposits, leaving their target market under-served. According to Atikus Insurance (2014),

Grameen Bank pioneered some of modern microfinance's early foundational principles such as group-based lending, gender-focused outreach, uncollateralized product offerings, rural presence, and social development-minded missions, and this largely accounts for the success of the bank. Isangula (2012) highlighted the features of Grameen Bank's credit delivery system as follows: exclusive focus on the poorest of the poor, small self-selected homogeneous groups of five to facilitate participatory interaction, cross-guarantee system to serve as social capital, compulsory saving to complement voluntary savings, scheduled support supervision of groups, and decentralization of operations. Loans are small, but sufficient to finance the micro-projects undertaken by borrowers. The Grameen Bank experiment set out to prove that lending to the poor is not an impossible proposition.

The practice of microfinance predicates the performance of the MFIs. Abraham and Balogun (2012) conclude that most microfinance operators in Nigeria do not possess requisite knowledge in management of microfinance institutions; this has hindered the performance of the institutions in Nigeria. Thapa (2007) explained that sustainability of a microfinance institution can be financial, managerial or organizational. More attention is often given to financial sustain because it is the premise upon which the efficiency, profitability and productivity of the institution are measured. A sustainable microfinance institution will cover all operational expenses from income earned through financial services provided after adjusting for inflation and subsidies (Natilson and Bruett, 2001; Rosenberg, 2009; Dzene and Aseidu, 2010).

The indicators for financial sustainability include return on assets (ROA), return on equity (ROE), adjusted return on asset, financial and operational self-sufficiency, and subsidy dependency indicator for subsidized institutions. The ROA is measured by dividing net operating income by the institution's total assets in the period. This measure shows the extent to which the institution uses its assets to generate profit. ROE is measured by dividing the institution net operation income by average equity of the period. This measure shows the rate of return on owners' equity. The indicators allowed donor agency and institutions to determine the impact of present subsidies extended (Natilson and Bruett, 2001; Rosenberg, 2009; Dzene and Aseidu, 2010). Both "for-profit" and "non-profit" institutions measure profitability and the result is often used to evaluate the viability and profitability of the institution by the owners/operators, investors and donor agency (Microrate, 2014; Abraham and Balogun, 2012).

Natilson and Bruett (2001) and Microrate (2014) explain the use of efficiency and productivity indicators; these they said allowed management to make informed decisions by increasing or reducing inputs that affect the ratios negatively. Efficiency and productivity indicators help the institution to know its performance among competitors in the industry and it is affected by decisions of management on credit delivery methodology, the conditions and terms of credit, and the market environment in which the firm operates (Jansson et al., 2003). Quality and number of personnel, administrative expenses, and total number of active borrowers are basic variables of measurement in this area. Other indicators in this area are: operating expenses (OE) ratio, cost per borrower, cost per unit of money lent, staff productivity ratio and client retention rate. Abraham and Balogun (2012) lamented the poor reporting state of microfinance institutions in the country makes it impossible to assess the development and impact of the industry.

3. Methods and data
Survey research method was adopted for this study; this was further complemented with secondary data sourced from the various organization websites and published financial statements and publicly available database. The success of a microfinance institution is often tied to twin objectives: outreach and financial sustainability, which is better explained by the owners and the operators of the microfinance institution.

This informed the choice of population groups adopted for this study, which consists of the owners/operators, managing directors/CEOs, and management staff/senior staff members of the microfinance institutions in both NGO-based and MFBs in Nigeria.

Multi-stage stratified random sampling procedure was used to collect data from 600 owners/operators of the two categories of microfinance institutions targeted in this study. In total, 300 copies of structured questionnaire were administered to each, that is, the NGO-based MFIs and MFBs. The respondents included MFI directors/trustees, chief executive officers/managing directors, management staff, and senior staff members of the microfinance institutions. According to the CBN, there are 790 microfinance institutions in the country as at March 2015, out of which 166, 47, 43 are in Lagos, Ogun and Oyo states, respectively, accounting for 32.4 percent of the MFBs in the country. A survey of MFIs carried out by CBN in 2005 recognized 180 registered NGO-based MFIs spread across the 36 states of the federation, with high concentrations in Lagos, Ogun and Oyo states, which informed the choice of the three states for this study. Many NGO-based MFIs are concentrated more in the rural area than in the urban area. Obtaining the perception and opinion of these categories of respondents was considered necessary for this study because of their level of knowledge and stake in the industry.

From the copies of questionnaire administered, 214 were returned from the "MFBs" bank category and 158 from the NGO-based MFI category spread across the three states selected for this study. Analysis for the study was based on the returned copies of questionnaire. Data were collected over a period of four months. Secondary data for the study were obtained from the websites of the MFIs, to which questionnaires were administered to complement information obtained from the questionnaire and personal interviews conducted.

A well-structured multi-item questionnaire was used to elicit information from the respondents. In the questionnaire, the owners/operators were required to rate or rank each item in order of importance, or fit appropriately where necessary. The scale is based on the level of importance attached to each of the items listed. Section (A) of the questionnaire highlighted the socio-economic profile of the respondents. Section (B) contained six constructs representing methods and practice as well as performance variables of MFI (methodology employed/perceived practice using international best practice as minimum benchmark, financial revenue to represent financial sustainability, level of outreach and social performance indicators, asset quality (AQ), personnel used in terms of quality, productivity and number, to know if they are adequate). There are 42 questions in this section collapsed into six constructs. A five-point Likert scale measurement was used with a rating of (5) indicating very strong, (4) strong, (3) fairly strong, (2) weak and (1) very weak. A rating of 5 or 4 signifies that the item is perceived important and an essential practice and performance of MFIs in Nigeria. A score of 3 or 2 signifies fairly important, but not essential, while a score of 1 signifies that the item is least important to the practice and performance of MFIs in Nigeria. In previous studies, Firer and Meth (1986), Courtis (1992) and Myburgh (2001) have used similar scales and they were found to be suitable for this study.

3.1 Method of data presentation and analysis

In this study, both descriptive and inferential statistics were used. Four hypotheses were formulated and the four hypotheses were analyzed using linear multiple regression analysis. This is done to test the impact of the practice and performance of the NGO-based and microfinance banking institutions in Nigeria. According to Abdelkader and Salem (2013), every MFI has social and financial objectives to attain. The financial objective entails that the MFI achieve financial sustainability. The developmental or social objective on the other hand entails that the MFI serve more poor clients, graduate the poor from extreme poor to wealth creators, consistently improve portfolio quality, and design varieties of financial product that would meet the needs of the poor. These two objectives are often taken into consideration in assessing the performance of MFIs. It is on this basis that the study

specifies output that is financial sustainability, and outreach as dependent variable, and input variables as the independent or explanatory variable based on previous studies (see Gutiérrez-Nieto *et al.*, 2009; Bassem, 2008; Cornée, 2007; Haq *et al.*, 2010; Ahmed, 2002; Adair and Berguiga, 2010; Abdelkader and Salem, 2013). For this study, four independent variables are identified for each model, as specified below for models 1(a) and 1(b) and slightly varied for models 2(a) and 2(b). The independent variables are Asset Quality (AQ), methodology employed/practice (MEP), quality, adequacy and productivity of personnel, and Operating Expenses (OE); while the dependent variables are financial sustainability(FS) and outreach/social performance indicator measuring depth and breadth of outreach, which is number of active borrowers. The number of active borrowers reflects breadth of the program and social performance indicators such as perceived impact of MFI in the target community. According to Bassem (2008), outreach is the ability of the MFI to use its resources to serve maximum number of customers. The depth of outreach is defined by Navajas *et al.* (2000) as "the value the society attaches to the net gain from the use of the micro credit by a given borrower." Regarding the depth of outreach, the study uses social performance indicators (see description below).

3.2 Model specification

Four models in multiple regression Equation are specified for this study. The main models are models 1 and 2 subdivided into (1a) (1b) (2a) and (2b). Both models utilized response from owners/operators of the microfinance institutions across three states and data generated from secondary sources to assess the practice/performance of microfinance institutions in Nigeria.

Model 1a: NGO-based MFI

Assuming a linear relationship between the variables, the specification of the regression equations for the main models (1) and (2) can be explicitly stated as:

Output $= F$ (Input)
Financial Sustainability $= f$ (AQ, MEP, OExP, QAPP)
Model 1b: MFB
Output $= F$ (Input)
$FS = f$ (MEP, OExP, AQ, QAPP)
Model 2a: NGO-based
Outreach $= f$ (MEP, OExP, AQ, QAPP)
Model 2b: for-profit
Outreach $= f$ (MEP, OExP, AQ, QAPP)

where AQ, Asset quality; MEP, Methodology employed/practice; OExP, Operating expenses; QAPP, Quality, adequacy and productivity of personnel.

The equations can be written in the explicit forms as follows:

Model 1a:

$$FS = \alpha_0 + \alpha_1 AQ + \alpha_2 MEP + \alpha_3 OExP + \alpha_4 QAPP + \varepsilon_t \tag{1a}$$

Model 1b:

$$FS = \beta_0 + \beta_1 AQ + \beta_2 MEP + \beta_3 OExP + \beta_4 AQAPP + \varepsilon_t \tag{1b}$$

Model 2a:

$$\text{Outreach} = \varphi_0 + \varphi_1 MEP + \varphi_2 OExP + \varphi_3 AQ + \varphi_4 QAPP + \varepsilon_t \tag{2a}$$

Model 2b:

$$\text{Outreach} = \psi_0 + \psi_1 MEP + \psi_2 OExP + \psi_3 AQ + \psi_4 QAPP + \varepsilon_t \tag{2b}$$

3.3 Measurement of variables, scaling and composite indices

As mentioned earlier, data for the study were collected using survey research design. Variables used were drawn from literature and data were collected to represent each variable. For each of the variables, set of questions were formulated and data collected were collated, transcribe, weighted and averaged to form a composite indices for each construct except data for financial sustainability and AQ that were gathered from secondary sources that relates to MFI/MFB used in the study.

Computation of composite indices is not uncommon in the field of quantitative social science today. Bandura and Martin del Campo (2006) reviewed the phenomenal growth of composite indices and found over 160 composite cross-country indices in existence among which are Doing Business indicator, Gender Empowerment Measure indicator, Worldwide Governance Indicator (WGI), Global Entrepreneurship Monitor Index, Corruption perception Index, Human Development Index to mention a few (Foa and Tanner, 2012).

Where there are no reliable data to work with, international organizations and researchers have resolved to constructing composite indices to summarize complex or multidimensional issues in a simple manner making it possible for policy maker to get an idea of the exact situation in a country and thereby evolve an important point to start up a debate.

In this study, variables representing microfinance practice and performance were drawn from literature and categorized into input and output variables, the output variables are financial sustainability (FS) and outreach (Outreach), while the input variables are Methodology employed/practice (MEP), quality, adequacy and productivity of personnel (QAPP), Operating expenses (OExP) and Asset quality (AQ). Each component for the study was oriented such that desirable positive response received higher positive values and less desirable outcome received lower value or zero. Principal Component Analysis (PCA) was applied and Cronbach Alpha result generated was 0.833 for reliability check. Thematic clustering was applied because of the large number of items considered (see below). It is not uncommon to use large item measures for assessment of national context, Reynolds *et al.* (2005) reported that international organizations as well as other use large number item to develop index and indices for nations most of which we use for research today. Responses from respondents were then aggregated, weighted equally and averaged to form composite indices for each variable in the study.

Measurement of explanatory variables. Financial sustainability (FS). Data were gathered from secondary sources, such as financial statement, website and publicly available database in respect of MFBs/MFIs used in the study. The variables measured are: consistent increase in profit over the last five years proxy by net profit margin, consistent increase in ROE over the last five years after adjustment for subsidy, consistent increase in portfolio yield over the last five years, adequate liquidity position over the last five years proxy by current ratio, consistent increase in return on asset over the last five years after adjustment for subsidy. Actual position of the MFIs for five years were obtained and growth rate $(GR = \{(FS_t/FS_0)^{1/n} - 1\} \times 100)$ was applied for each of the component measure, where FS_t is the current year, FS_o is the base year, n is the number of years, in this case five years while GR is the growth rate. The financial sustainability index was obtained by computing the coefficient of variation for all the key measures, the outcome was aggregated and the mean computed and expressed in percentages to arrive at the firm level index since all the measures are in rates.

AQ. Similar step taken for financial sustainability was repeated here. Data were gathered from secondary sources and complimented with primary sources from the semi structured interview where necessary. The variables measured are: portfolio-at-risk over the month PAR/30 level is maintained at 5 percent over the last five years after adjustment for restructured loan proxy by firm par/30 level, adequate provision has been made for doubtful and non-performing loans proxy by provision expense ratio calculated by dividing the loan

loss provisioning expense for the period by the period's average gross portfolio, the risk coverage ratio calculated by dividing loan loss reserves by the outstanding balance in arrears over 30 days plus refinanced loans over the last five years, and the write-off ratio calculated by dividing total write-offs for the period by the period's average gross portfolio over the last five years for the institution. Actual position of the MFIs for five years were obtained and growth rate $(GR = \{(AQ_t/AQ_0)^{1/n}-1\} \times 100)$ was applied for each component measure, coefficient of variation was derived, outcome was aggregated and the mean computed to arrive at AQ index. One (1) was added to the outcome if the quality of collateral/collateral substitute is sufficient to make up for any loan loss and zero (0) if otherwise.

MEP. Data for this variable was gathered from primary sources in an approach similar to what Reynolds *et al.* (2005) refer to as "expert respondents." The variables measured are: MFI practice short term/graduated loan portfolio, MFI practice solidarity group base method, MFI practice centralized risk measurement, MFI concentrate more in rural areas, MFI concentrate more on women group only, MFI target active poor only, site selected for this MFI is base on high concentration of poor people in the location, projection meetings precedes siting of MFI, MFI practice custom-made product design, MFI give pre-loan training, MFI ensure group integration and recognition, MFI practice staggered loan disbursement, MFI insist on compulsory/mandatory microsavings, loan proposal approval at the group level, MFI ensure close supervision of client by field officers and transparency of clients operations. Respondents ranked these expressions based on their perceived practice of microfinance in their respective institutions. Ranking here range between five (5) to one (1) and zero (0) if not practice. Rating of (5) indicates very strong, (4) strong, (3) fairly strong, (2) weak (1) very weak and zero (0) not practice. The practice is scored five (5) for strong affirmation of the practice of microfinance and lesser value applied if otherwise as perceived by the respondent. A rating of five (5) and four (4) signifies strictly practice, three (3) and two (2) signifies fairly practice, one (1) signifies weakly practice and zero (0) not practice. The methodology employed/practice index was obtained by computing the coefficient of variation for all the key measures and the outcome aggregated, equally weighted and mean value computed for methodology employed /practice index.

OExP. Similar method used in computing MEP index was repeated for all the other variables using structured questionnaire and semi structured interview sources. The components measured are: operating expense ratio has been consistently low over the last five years compared to increasing portfolio size, the OExP of the institution are relatively lower compared to other financial institutions of its size, cost per borrower is consistently low over the last five years. The response is scored five (5) for positive affirmation of the perceived expense operation and lesser value applied if otherwise as perceived by the respondent. The responses were aggregated, equally weighted and composite index computed for the operating expense index.

QAPP. The components measured are: certified microfinance practitioners are more in employment of the institution proxy for training and development; average time spent in school by most employees of this MFI is over 15 years (Olomola, 2002), most of the employees possess at least five years in microfinance-related employment (Hartungi, 2007), personnel strength is adequate to attend weekly group meetings and monitor clients. Similar step taken in computation of MEP index was repeated here to compute a composite index for the QAPP variable. The response is scored five (5) for positive strong affirmation of the perceived QAPP in employment of the microfinance institutions and lesser values applied if otherwise.

Outreach. Outreach is measured based on averaging ten social development indicators; factors used are number of active borrowers as a percentage of total borrowers is high for this MFI, percentage of women in active borrowers, community perception of the MFI, net gain from the use of microcredit, involvement of women in social/political meetings,

increasing participation of women in community development, improved nutrition and maternal care in the community, increase in number of children in school, increase in earnings from entrepreneurial activities, improved sanitation in the community. The variables were also ranked based on respondent perception on a scale of five (5) to zero (0).

All the questions were stated in the positive form to give uniform reaction and ease of coding and averaging.

ε_t: the error term. The parameters of the models are such that: a priori

$$\alpha_1, \alpha_2, \ldots \ldots \ldots \alpha_5 > 0, \ \beta_1, \beta_2 \ldots \ldots \ldots \ldots \beta_{5>} 0, \ \varphi_1, \varphi_2 \ldots \ldots \ldots \ldots \ldots \ldots \ldots \varphi_5 > 0,$$

$$\psi_1, \psi_2 \ldots \ldots \ldots \ldots \ldots \psi_5 > 0$$

4. Result presentation and discussion

This section presents results which begin with the description of the profiling of the respondents. The hypotheses formulated for this study guided the arrangement of the tables. A summary of the main findings follows each hypothesis.

Table I shows the profile of the respondents. Total number of respondents for the study is 372, segmented into NGO-based MFIs, which is 158 representing 42 percent of the total sample, and 214 MFB respondents, representing 58 percent of the total respondents. Total males represented in this study is 236 (63 percent) against females 136 (37 percent). This is expected because of the quality of staff used for this study, there are fewer women in senior management

Item	NGO-based MFIs	%	Microfinance banks	%	Total	%
Male	104	66	132	62	236	63
Female	54	34	82	38	136	37
Total	158	100	214	100	372	100
Qualification						
HND	43	27	46	22	89	24
BSc/BA	72	46	112	52	184	49
MBA/MSc/MA	42	27	48	22	90	24
PhD	1	0.0	8	4	9	0.02
Total	158	100	214	100	372	100
Professional qualification in microfinance						
Yes	92	58	114	53	206	55
No	66	42	100	47	166	45
Total	158	100	214	100	372	100
Work experience in MFI-related firm						
0–5yrs	34	22	58	27	92	25
6–10	66	42	74	35	140	38
11–15	20	13	44	21	64	17
16–20	28	18	38	18	66	18
> 20	10	6	–	–	10	3
Total	158	100	214	100	372	100
Designation of respondents						
Senior manager	84	53	98	46	182	49
Management staff	50	32	84	39	134	36
Managing director/Branch manager	16	10	22	10	38	10
Board member/trustee	8	5	10	5	18	5
Total	158	100	214	100	372	100

Source: Field Survey (2015)

Table I.
Profile of respondents

position in most organizations. The study focuses on senior management level position respondents that will be able to give the correct position of their institution. The results obtained for qualification show that all the respondents are graduates of tertiary institutions. A total of 89 (24 percent) have Higher National Diploma qualification, 184 (49 percent) have a Bachelor's degree, 90 (24 percent) have a Master's degree and nine (2 percent) are PhDs. The latter are probably researchers attached to the institutions or consultants to them.

Table I also shows that 206 (55 percent) have microfinance-related qualifications; this is probably associated with the mandatory microfinance certification qualification imposed on all staff MFIs by the regulators. Only 166 (45 percent) indicated they do not have a microfinance-related qualification. Examining the years of experience in microfinance-related jobs for the respondents, the results show that 92 (25 percent) have spent 0-5 years in the industry, 140 (38 percent) 6-10 years, 64 (17 percent) 11-15 years, 66 (18 percent) 16-20 years and ten (3 percent) more than 20 years, those who indicated greater than 10 years experience in Microfinance related jobs are perhaps former Community Bank employees that remain in the employment of the institutions after it transform from Community Bank to MFI in 2005. On designation of the respondents, 182 (49 percent) are senior staff members of their respective institution, 134 (36 percent) management staff, 38 (10 percent) managing director/CEO/branch manager, and 18 (5 percent) members of the board of directors/trustees. This is very important because of the peculiarity of the required responses.

Table II shows estimations of the effect of microfinance practice on financial sustainability of the NGO-based MFIs and MFBs institution. The estimations allow us to test for the relationship between methodology employed /practice along with other variables such as AQ, OExP, QAPP use and social performance (outreach) and financial sustainability of microfinance institutions. The result of the estimate are in two columns; column I shows the result of NGO-based MFIs, while column II show result of the government regulated MFBs.

First, we test for the effects of AQ on financial sustainability of the two categories of microfinance institutions (NGO-base and MFBs) using multiple regression analysis. The result for the NGO-base estimation shows that AQ has positive and significant effect on financial sustainability of the institutions. The significant high positive effect of AQ on financial sustainability tells us how much of the total variance in financial sustainability

	Column I β	NGO-MFI sample SE	Coefficient t-statistics	Column II β	Microfinance Bank SE	Coefficient t-statistics
Constant	−2.641	1.007	−2.622 (0.007)	0.999***	0.258	3.877 (0.000)
Independent/Explanatory variables						
AQ	0.569***	0.152	3.742 (0.000)	−0.261***	0.058	−4.528 (0.000)
MEP	0.289	0.356	0.812 (0.418)	−0.623***	0.091	−6.825 (0.000)
OExP	0.645***	0.071	9.110 (0.000)	0.429***	0.074	5.821 (0.000)
QAPP	0.238**	0.135	1.766 (0.079)	0.081	0.076	1.070 (0.286)
R^2	0.399			0.492		
Adjusted R^2	0.384			0.482		
No. of observations		158			214	
No. of branches/ institutions		39			79	
F-test statistics		25.432 (0.000)			50.551 (0.000)	

Table II.
Practice of microfinance and financial sustainability

Notes: Dependent variable: financial sustainability. Explanatory variables: AQ – asset quality, MEP – methodology and practice of microfinance, OExP – operational expenses, QAPP – quality, adequate and productivity of personnel. p value in parethesis. *$p < 0.10$; **$p < 0.05$; ***$p < 0.01$

that is uniquely explained by AQ and the extent of contribution of AQ to the NGO-based financial sustainability equation. The result for the MFB institutions shows a negative significant relationship between AQ and financial sustainability of the institutions. The significant negative effect of AQ on financial sustainability of MFB institutions suggests poor AQ. Poor AQ and incessant write-offs are identified in literature as one of the reasons for MFIs failure (Marulanda *et al.*, 2010).

The result for MEP shows positive non significant effect on financial sustainability for NGO-based institutions and negative significant effect for MFBs institutions. This implies that there is no direct relationship between MEP and financial sustainability of NGO-based MFIs in the study area, while the negative significant effect for MFBs implies that the current practice is not enhancing the financial sustainability of the MFBs institutions. The practice and methodology employed in the delivery of microfinancing in Nigeria has come under serious criticism due to sub-optimal performance of the industry, as highlighted in the background of study and shown by previous studies (see Egboro, 2015; Oladejo, 2013; Nwayawu, 2013; CBN, 2011). On a recent visit to Nigeria, Professor Yinus commented that the Nigerian microfinance institutions operate like micro-commercial banks, contrary to the fundamental philosophy of microfinancing.

OExP results show clearly a positive relationship between financial sustainability and decreasing OExP in Nigeria. The results obtained for the two categories of MFIs shows significant positive effect of decreasing OExP on financial sustainability for the two categories of MFI institutions, at 0.01 significance level. Although the world microfinance results show Sub-Saharan Africa have the highest OE ratio in the world, recent developments after 2012 show that the results have improved significantly, with the world average of operating expense ratio being 16.2 percent in 2012 (Microrate, 2014). The result on QAPP shows positive effect on financial sustainability. The result is significant at 0.10 level for NGO based institution and non-significant for MFB institutions, which implies no direct relationship between the quality and adequacy of personnel used and financial sustainability of the institutions. The descriptive result shows that 55 per cent of the respondents have microfinance-related certification (proxy for training and development of personnel), which should enhance quality and productivity of microfinance institutions personnel. There may be a need to look into the curriculum of the certification program or the practice of microfinance in the country, which if not properly conceived may hinder the delivery of microfinance benefits in the country. Hartungi (2007) finds well trained and dedicated staff operating simple and transparent system contributes to success and sustainability of microfinance institution. There is a need for the regulators to go back to the drawing board and re-examine the methodological practice in the sector in order to enhance financial sustainability of microfinance institutions in the country. The overall results show that the model is fit at sig. = 0.000, $p < 0.0005$ and the predictor variables explained 38 and 48 percent of the dependent variables for NGO-based and MFB models, respectively.

Table III shows the results of the estimate of microfinance methodology and practice and outreach. The estimate helps to show the effect of methodology employed on microfinance outreach as measured by number of active borrowers and social development indicators. The first result shows a negative significant effect of AQ on outreach program of NGO based microfinance institutions. This implies that the assets in use right now are not enhancing outreach programmes in the study area. For the MFBs, the result shows a positive effect of AQ on outreach program of MFBs institution, the result obtained is significant at 1 percent. This implies that assets in use by the MFBs enhances their outreach program and this may be as a result of the strong stance taken by the regulator on AQ in the industry. The MEP variable result shows negative significant effect on outreach programs for both NGO-based and MFB institutions, the result is significant at 0.01 level. This implies that the methodology employed and practice is not

1534

	Column I β	NGO-MFI sample SE	Coefficient t-statistics	Column II β	Microfinance bank SE	Coefficient t-statistics
Constant	6.394	0.925	6.916 (0.000)	1.986	0.262	7.590 (0.000)
Independent/explanatory variables						
AQ	−0.252***	0.070	−3.596 (0.000)	0.248***	0.059	4.240 (0.000)
MEP	−0.438***	0.164	−2.672 (0.008)	−0.698***	0.093	−7.527 (0.000)
OExP	−0.234***	0.033	−7.186 (0.000)	−0.259***	0.075	3.456 (0.001)
QAPP	0.356***	0.062	3.736 (0.000)	−0.096	0.077	−1.241 (0.216)
R^2	0.527			0.386		
Adjusted R^2	0.515			0.374		
No. of observations		158			214	
No. of institutions/ branches		39			79	
F-test statistics		42.604 (0.000)			32.845 (0.000)	

Notes: Dependent variable – outreach measured by number of active borrowers and social development indicators. Explanatory variables – AQ, asset quality; MEP, methodology and practice of microfinance; OExP, operational expenses; QAPP, quality, adequate and productivity of personnel. p value is in parethesis. $*p < 0.10$; $**p < 0.05$; $***p < 0.01$

Table III.
Practice of microfinance and outreach

enhancing the outreach program of the microfinance institutions in the study area. This is suggestive of the need to review methodology and practice of microfinance institutions in the country. The outreach/social performance index is the prove of the acceptability of the microfinance program in a local environment, the higher the index the better for the institution (Ganesh and Singh, 2015). The result for OExP shows negative significant effect for both NGO-based MFBs institutions and this is significant at 1 percent. This implies that decreasing OExP is not enhancing the outreach program of the microfinance institutions. The microfinance institutions may not be using their assets and liability efficiently to support their internal operations. Loan size, portfolio size, credit methodology, and market price will help to put the efficiency of an institution in context. The benefit of economies of scale from portfolio size often diminishes in importance once portfolio size of institution exceeds $5million (Microrate, 2014). This result shows inefficiency on the part of the institution as average portfolio size in Nigeria is estimated at $2.6 m (Abraham and Balogun, 2012). The result is contrary to expectation.

The result of personnel quality, adequacy and productivity predictor shows a positive significant effect for NGO MFI outreach program and a negative non significant effect for MFBs. This implies that the quality, adequacy and productivity of the personnel employed measured by training and development programs, number of years spent in school, years of experience on microfinance related employment and staff strength are adequate for the NGO-MFIs outreach program in the study area and significant at 0.01 level. The overall result shows that the two models have a good fit at sig. = 0.000 and $p < 0.005$, the predictor variables explained over 50 and 38 percent of the dependent variables for the NGO – MFI and MFBs, respectively. The results obtained can be used to make inference for the entire microfinance industry in Nigeria.

5. Summary, conclusion and recommendations
Microfinance is critical to the attainment of the sustainable development goals, particularly those related to poverty reduction, gender equality and sustainable livelihoods for vulnerable low-income groups in Nigeria. This is why the design, supply and delivery of microfinance are very important in achieving economic development and improving human

development index. This paper has critically examined the methodology and practice of existing microfinance systems in Nigeria, relating the practice to the performance of the institutions for both "non-profit" and "for-profit" institutions with a view to generate issues that will inform policy agenda for the industry to define the future of microfinance industry in Nigeria.

The findings from this study show that the current practice of microfinance is not enhancing the sustainability and outreach operations of the microfinance institutions. The fundamental issue of competing with the deposit money banks has to be corrected immediately since they have different clientele if microfinance is to achieve the purpose of its establishment. In Nigeria there is a need for a total overhaul of the industry as present practice will not sustain the industry in the future. It is on these findings that we recommend as follows:

- There should be an overhaul of the present microfinance system in the country, benchmarked on international best practice for microfinancing in the country. The fundamentals should be addressed by the regulators of MFIs in the country. A re-orientation of the object of the institutions for social development should be emphasized and sustainability should be driven by all stakeholders, particularly for the regulated MFBs.

- There is a need for more cohesive, regular, professional risk-based supervision of the MFIs. The study shows that the AQ is thus inhibiting the performance of the MFIs. With regular risk-based supervision, MFIs will be forced to make adequate provisions for portfolio at risk and the MFI sustainability will be enhanced.

- Emphasis should be placed on quality of personnel engaged in the MFIs. Professionals with requisite knowledge of the industry should be employed particularly at the senior level to standardize operations of the MFIs. They should also be taken through continuous professional training that will enhance their productivity. Also, salaries and allowances paid to MFI staff should be moderate and within international best practice for the industry.

- MFBs need to work more extensively on their outreach program. The resources at their disposal can reach more people than they are currently doing if efficiently managed. They should concentrate more on microcredit delivery to generate interest income rather than fund placement as deduced from their financial statement, because for majority of the MFIs the highest percentage of their income comes from investment income and not interest income. They are not doing enough microcredit delivery.

- There is a need for infrastructure development that will enhance growth of the microfinance industry and reduce their operational expenses considerably so that their financial sustainability can be enhanced.

References

Abdelkader, I.B. and Salem, A.B. (2013), "Islamic *vs* conventional microfinance institutions: performance analysis in MENA countries", available at: http://thejournalofbusiness.org/index. php/site/article/viewFile/21/20 (accessed October 12, 2015).

Abraham, H. and Balogun, I.O. (2012), "Performance of microfinance institutions in Nigeria: an appraisal of self-reporting institutions to mix market", *International Journal of Humanities and Social Science*, Vol. 2 No. 15, pp. 32-50.

Acha, I.A. (2012), "Microfinance banking in Nigeria: problems and prospects", *International Journal of Finance and Accounting*, Vol. 1 No. 5, pp. 106-111, doi: 10.5923/j.ijfa.20120105.04.

Adair, P. and Berguiga, I. (2010), "Les facteurs déterminants de la performance sociale et de la performance financière des institutions de microfinance dans la région MENA: une analyse en coupe instantanée", *Région et Développement*, Vol. 32, pp. 91-119, available at: article/toujournl/v_3a32_3ay_3a2010_3ap_3a91-120.htm

ADB (2000), "Finance for the poor microfinance development strategy. Asian development bank", available at: www.adb.org/documents/policies/microfinance/financepolicy.pdf (accessed April 26, 2015).

ADB (2006), "Beyond microfinance:building inclusive rural financial markets in central Asia", available at: www.beta.adb.org/publications/beyond-microfinance-building-inclusive- rural-financial-markets-central-asia (accessed April 26, 2015).

Aderibigbe, J.O. (2001), "The role of the federal sector in poverty reduction", *CBN Bullion*, Vol. 39 No. 4, pp. 13-24.

Ahmed, H. (2002), "Financing micro enterprises: an analytical study of islamic microfinance institutions", *Journal of Islamic Economic Studies*, Vol. 9 No. 2, pp. 27-64.

Alamgir, D.A.H., Hassan, M.K. and Dewan, H.H. (2011), "A comparative review of islamic versus conventional microfinance in Bangladesh", *8th International Conference on Islamic Economics and Finance, Sustainable Growth and Inclusive Economic Development from an Islamic Perspective, Doha, 18th-20th December*, available at: http://conference.qfis.edu.qa (accessed October 19, 2015).

Atikus Insurance (2014), "Microfinance status report", available at: http://static1.squarespace.com/static/52e2e22de4b0c76cfdc528c2/t/541cc5f9e4b0394ddbf2a23c/1411171833384/Atikus+-+Microfinance+Status+Report+-+2014.pdf (accessed September 15, 2015).

Bandura, R. and Martin del Campo, C. (2006), "A survey of composite indices measuring country performance: 2006 update", Office of Development Studies, United Nations Development Programme, New York, NY, November 17, available at: www.eldis.org/vfile/upload/1/document/1112/measuring_country_performance_2006update.pdf

Bassem, B.S. (2008), "Efficiency of microfinance institutions in the Mediterranean: an application of DEA", *Transition Studies Review, Mediterranean and Middle East Papers*, Vol. 15 No. 2, pp. 343-354, available at: https://doi.org/10.1007/s11300-008-0012-7

CBN-MPRSF (2005), "Microfinance policy regulation and supervisory framework", available at: www.cenbank.org/out/publications/guidelines/dfd/2006/microfinance%20policy.pdf (accessed May 5, 2014).

Central Bank of Nigeria (2011), "Microfinance policy framework for Nigeria (revised – 29th april 2011)", available at: www.cenbank.org/Out/2011/pressrelease/gvd/Revised%20Microfinance%20Policy%20July%2012%202011.pdf (accessed May 25, 2015).

Cornée, S. (2007), "Au-delà de la Nécessité de Considérer les Performances Sociales dans la Microfinance: Une Proposition d'Evaluation Conjointe des Performances Sociales et Financières en Microfinance", Document de Travail No. 3, Cerise, pp. 1-17.

Courtis, J.K. (1992), "The reliability of perception- based annual report disclosure studies", *Accounting and Business Research*, Vol. 23 No. 89, pp. 31-43, available at: www.researchgate.net/publication/233368168_The_Reliability_of_Perception-Based_Annual_Report_Disclosure_Studies (accessed December 16, 2014), doi: 10.1080/00014788.1992.9729858.

Dzene, R. and Aseidu, K.F. (2010), "Gender composition, competition and sustainability of micro finance in Africa: evidence from Ghana's microfinance industry", available at: www.csae.ox.ac.uk/…/175-Dzene (accessed August 17, 2014).

EFInA Report (2012), "EFInAx – access to financial services in Nigeria 2012 survey", available at: www.efina.org.ng/assets/ResearchDocuments/2013-Documents/EFInA-Access-to-Financial-Services-in-Nigeria-2012-surveyKey-Findings2.pdf (accessed July 7, 2014).

Egboro, E.M. (2015), "Creation of microfinance banks in Nigeria: what is their main object?", *British Journal of Economics, Management & Trade*, Vol. 7 No. 3, pp. 158-174.

Ehigiamusoe, G. (2005), "Tested institutional practices for effective microfinance services delivery", *Proceedings of Seminar in Microfinance Policy, Regulatory and Supervisory Framework for Nigeria, Abuja, December*.

Firer, C. and Meth, G. (1986), "Information disclosure in annual reports in South Africa", *Omega*, Vol. 14 No. 5, pp. 373-382, available at: http://EconPapers.repec.org/RePEc:eee:jomega:v:14:y:1986:i:5:p: 373-382 (accessed October 5, 2015).

Foa, R. and Tanner, J.C. (2012), "Methodology of the indices of social development", ISD Working Paper Series, No. 2012-04, available at: http://hdl.handle.net/1765/50510

Fotabong, L.A. (2011), "Comparing microfinance models; MC2 model versus other microfinance model", available at: www.fgda.org/dati/ContentManager/files/Documenti_microfinanza/Comparing% 20Microfinance%20Models.pdf (accessed June 3, 2014).

Ganesh, P. and Singh, P. (2015), "Social performance and microfinance institutions in India: developing an impact index based on firm variables", *South Asian Journal of Management*, Vol. 22 No. 4, pp. 101-117.

Guitiérrez-Nieto, B., Serrano-Cinca, C. and Molinero, M. (2009), "Social efficiency in microfinance institutions", *Journal of the Operational Research Society*, Vol. 60 No. 19, pp. 104-119, available at: http://dx.doi.org/10.1057/palgrave.jors.2602527 (accessed December 18, 2014).

Haq, M., Skully, M. and Pathan, S. (2010), "Efficiency of microfinance institutions: a data envelopment analysis", *Asia-Pacific Financial Markets*, Vol. 17 No. 1, pp. 63-97, available at: http://dx.doi.org/ 10.1007/s10690-009-9103-7

Hartungi, R. (2007), "Understanding the success factors of micro-finance institution in a developing country", *International Journal of Social Economics*, Vol. 34 No. 6, pp. 388-401, available at: http:// dx.doi.org/10.1108/03068290710751803

Idolor, E.J. and Imhanlahimi, J.E. (2011), "Access and impact assessment of micro finance banks on rural poor in Nigeria: a case study of edo state", *Indian Journal of Economics and Business Audience*, Vol. 10 No. 2, available at: www.freepatentsonline.com/article/Indian-Journal-Economics-Business/267808357.html (accessed October 15, 2015).

Iganiga, B.O. (2008), "Much ado about nothing: the case of Nigerian microfinance measures, institutions and operations", *Journal of Social Science*, Vol. 17 No. 2, pp. 89-101.

Isangula, K.G. (2012), "Improving women and family's health through integrated microfinance, health education and promotion in rural areas", *Journal of Sustainable Development*, Vol. 5 No. 5, pp. 76-89, 10.5539/jsd.v5n5p76URL, available at: http://dx.doi.org/10.5539/jsd.v5n5p76

Jansson, T., Stauffenberg, V.D., Kenyon, N. and Barluenga-Badiola, M. (2003), *Performance Indicators for Microfinance Institutions: Technical Guide*, MicroRate and Inter-American Development Bank, Washington DC, available at: www.microrate.com/media/docs/research/technical-guide-3rd-edition-english.pdf (accessed August 20, 2015).

Kabir Hassan, M. and Renteria-Guerrero, L. (1997), "The experience of the grameen bank of Bangladesh in community development", *International Journal of Social Economics*, Vol. 24 No. 12, pp. 1488-1523, available at: http://dx.doi.org/10.1108/03068299710193949

Marulanda, B., Fajury, L., Paredes, M. and Gomez, F. (2010), "Failures in microfinance: lesson learned", available at: www.calmeadow.com/pdf/failures.pdf (accessed August 15 2014).

Microrate (2014), "Technical guide: performance and social indicator for microfinance institutions", available at: www.microrate.com/media/downloads/2014/05/MicroRate_-Technical-Guide-20 142.pdf (accessed August 19, 2013).

Mobuogwu, M. (2013), "Rural land and credit access in nigeria, focus on land in Africa", available at: www.focusonland.com/fola/en/countries/brief-rural-land-and-credit-access-in-nigeria/ (accessed August 16, 2015).

Myburgh, J.E. (2001), "The informativeness of voluntary disclosure in the annual reports of listed industrial companies in South Africa", *Meditari Accountancy Research*, Vol. 9 No. 1, pp. 199-216, available at: https://doi.org/10.1108/10222529200100011

Natilson, N. and Bruett, T.A. (2001), "Financial performance monitoring: a guide for board members of microfinance institutions", Microenterprise Best Practices, Development Alternatives, Inc., Ohio state, Abuja, available at: http://pdf.usaid.gov/pdf_docs/Pnado583.pdf (accessed June 18, 2015).

Navajas, S., Schreiner, M., Meyer, R.L., Gonzalez-Vega, C. and Rodriguez-Meza, J. (2000), "Micro credit and the poorest of the poor: theory and evidence from Bolivia", *World Development*, Vol. 28 No. 2, pp. 333-346, available at: http://dx.doi.org/10.1016/S0305-750X(99)00121-7

Nwayawu, O.J. (2013), "Micro finance in Nigeria: problems and prospects", *African Research Review*, Vol. 5 No. 2, pp. 87-103.

Ojo, A. and Gaul, S. (2011), "Nigeria: exploratory analysis of local needs and microfinance supply", available at: www.themix.org/publications/mix-microfinance-world/2011/11/nigeria-microfinance-supply‡ixzz29Og9WzqQ (accessed June 18, 2015).

Oke, J.T.O. and Adeyemo, R. (2007), "Impact of non-governmental organizations (NGOs) on rural poverty alleviation in south-western Nigeria", *International Journal of Applied Agriculture & Apicultural Research*, Vol. 4 No. 1&2, pp. 1-13.

Oladejo, M. (2013), "Evaluation of the Nigerian microfinance banks credit administration on small and medium scale enterprises", *International Review of Management and Business Research*, Vol. 2 No. 2, pp. 505-517.

Olomola, A.S. (2002), *Social Capital, Microfinance Group Performance and Poverty Implications in Nigeria*, Nigerian Institute of Social and Economic Research, Ibadan, available at: www.csae.ox. ac.uk/conferences/2002-upagissa/papers/Olomola-csae2002.pdf

Orodje, G. (2013), "Microfinance in Nigeria two year after CBN intervention, microfinance Africa", available at: http://microfinanceafrica.net/editors-views/microfinance-in-nigeria-two-years-after-cbns-intervention (accessed March 3, 2015).

Reynolds, P., Bosma, N., Autio, E., Hunt, S., De-Bono, N., Servais, I., Lopez-Garcia, P. and Chin, N. (2005), "Global entrepreneurship monitor: data collection, design and implementation (1998 2003)", *Small Business Economics*, Vol. 24, pp. 205-231, doi: 10.1007/s11187-005-1980-1.

Rosenberg, R. (2009), *Measuring Results of Microfinance Institutions Minimum: Indicators That Donors and Investors Should Track – A Technical Guide*, CGAP, Washington, DC, avaialable at: www.cgap.org/sites/default/files/CGAP-Technical-Guide-Measuring-Results-of-Microfinance-Institutions-Minimum-Indicators-That-Donors-and-Investors-Should-Track-Jul-2009.pdf (accessed March 3, 2015).

Sapovadia, V.K., Patel, K.V. and Patel, S.V. (2010), *Micro Finance Models*, Lambert Academy Publishing, Germany, available at: http://works.bepress.com/vrajlal_sapovadia/34/ (accessed June 21, 2015).

Sunday Trust (2010), "Press conference by the deputy governor, financial system stability (FSS), central bank of Nigeria on the status of microfinance banks in Nigeria", *Sunday Trust*, Vol. 26, September, Abuja, p. 11.

Thapa, G. (2007), "Sustainability and governance of microfinance institutions: recent experiences and some lessons for southeast Asia", *Asian Journal of Agriculture and Development*, Vol. 4 No. 1, pp. 17-37.

World Bank (2008), "Appraising microfinance institutions", CGAP Brief, ©World Bank, Washington, DC, License: CC BY 3.0 IGO, URI, available at: https://openknowledge.worldbank.org/handle/10 986/9502 http://hdl.handle.net/10986/9502

Corresponding author
Abiola Ayopo Babajide can be contacted at: abiola.babajide@covenantuniversity.edu.ng