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Accessibility and prudent utilization of microcredit by the poor can serve as a vital role in poverty reduction and economic development, particularly in a developing economy. This study examines the factors that determine the accessibility of the poor to microcredit loan in Nigeria. A total sum of 1,134 microfinance loan beneficiaries and non-beneficiaries were sampled from the study area. Descriptive statistics and Logit Regression Model analysis were adopted. The result revealed that Age, Household size, Business worth, Skill/Experience, Education level, Assets, Health standard, Living standard and income are significant in determining the accessibility of the poor to microfinance loan. MFIs should endeavor to create more awareness to the poor and arrange training to enhance human capital development in order to ease accessibility to microcredit.

1 Introduction

Accessibility to microcredit is one of the very important factors in the process of poverty alleviation (Asghar, 2012; El-Komi, 2010). To identify the factors that would enhance proper access to microcredit by the rural poor would not only aid rural development but can also guide the government to make more pro-poor policies that would influence more credit to be channeled to the rural areas for poverty reduction purposes.

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Microfinance, which was hitherto referred to as informal finance or rural finance evolved in some European countries in the eighteenth and nineteenth centuries; tagged as Banks for the poor. In Asian countries like China, India, Indonesia and Philippines, microfinance was presumed to have a longer history (Seibel, 2005). What can be termed as the modern microfinance has its antecedent in Bangladesh with the commencement of Grameen Bank project in 1974. Grameen Bank (defined as Rural Bank) was started by Muhammad Yunus, a Professor at the University of Chittagong, Bangladesh in 1976. Suffice to say that the rural banking operation actually commenced in 1976. The bank mainly targeted rural women for its credit programmes. More efforts were made by the international organisations to explore the benefits of microcredits in reducing poverty worldwide. For instance, it is also on record that the Microcredit Summit launched in 1997, the global campaign to expand the coverage of microfinance to 100 million of the world's poorest micro entrepreneurs by 2005. Hence, the United Nations declared year 2005 as the International Year of Microcredit (El-Komi, 2010).

Microfinance is the provision of credit, savings and insurance services to the poor and vulnerable people who could otherwise have no opportunity to them or be compelled to borrow under unfavourable conditions. In the past three decades, microfinance programmes have been considered by the development economists as one of the foremost developmental strategies for poverty reduction. The importance of microfinance in poverty reduction can hardly be overlooked as access to sustainable financial services increases income and assets of the poor (Central Bank of Nigeria, 2005).

As a banker to the poor, microfinance institutions (MFIs) face some challenges; prominent among them is accessibility of microcredit to the targeted poor. Having access to credit can be described as the right of the poor who are economically active to use or obtain such services from the MFIs in order to establish or expand micro-businesses.

Access to credit plays a prominent role in poverty reduction particularly among the rural poor. For instance, access to microcredit of a peasant farmer can assist her/him to procure materials that can serve as input for improved productivity. In the like manner, accessibility of microcredit to a rural/urban artisan or micro entrepreneur can enable him/her to increase the working capital that can boost the trade with improved customer satisfaction, increased income and eventually escape from poverty trap. All this can lead to increase in household's literacy level, improved health status and better living standard (Todaro and Smith, 2011). In addition, access to microcredit can secure working capital for microbusiness that will generate more income, create employment and eventually reduce poverty. Conversely, inaccessibility of the poor to microcredit as a result of stringent conditions from the supply side and ineligibility of the applicant can further impoverish the poor. This has been identified as one of the major causes of rural poverty (Obisesan and Akinlade, 2013). Ali, et al (2013) discovered that small businesses face difficulties as a result of the requirements demanded by microfinance banks before the loan approval. These include individual collateral, repayment capacity, security deposit and guarantor.

In the developing nations, both the public and private banks give priority to the medium and large scale industries in their loan disbursement. To this end, the cottage and small scale businesses receive small percentage of the banks' loan portfolio. This makes the services of microfinance banks inevitable for the small establishments. Even Development Banks do not help the situation since they are also concentrating their loanable funds on the medium and long term credits for large scale industrial enterprises. This is based on the argument that the micro and small enterprises' loans have high transaction costs and they cannot justify the time and efforts that will be spent on project appraisal. Hence, micro and small enterprises, which are the major hope for transformation of the poor, are denied the opportunity of accessing credit at reasonable and affordable interest rates. As a result of this anomaly, low income micro and small scale entrepreneurs which propel the development of most of the economic activities in the developing countries have to patronise the unorganized money markets; particularly in the rural areas where credits are obtained from pawnbrokers, tradespeople or money lenders at very exorbitant interest rates.

The provision of microfinance services in Nigeria dates back to centuries of years. In its traditional form, microfinance functions in Nigeria with the provision of micro-credit to rural and urban lowincome earners. They operate in form of self-help groups that rotate the savings and credits among the group members. There are other informal providers of microfinance services like cooperative societies and savings

collectors usually called "Baba Alajo". However, the major impediment of these informal microfinance institutions is the fact that they serve few people as a result of insufficient funds available to finance their customers' projects and extend the financial services to rural areas. For instance, it is on record that as at 2005, the formal financial system renders services to about 35% of the economically active population whereas the remaining 65% is left to the hands of informal financial sector like Non-Governmental Organisations (NGOs), money lenders, friends, relatives and cooperative and thrift societies. In order to improve this situation, the Nigerian government in the past had established series of financed micro/rural credit programmes that would assist the poor to fund the micro-business. Such programmes include the Rural Banking Programme, sectoral allocation of credits, concessionary interest rate, and the Agricultural Credit Guarantee Scheme (ACGS). Others are the Nigerian Agriculture and Co-operative Bank Limited (NACB), the National Directorate of Employment (NDE), the Nigerian Agricultural Insurance Corporation (NAIC), the Peoples Bank of Nigeria (PBN), the Community Banks (CBs), the Family Economic Advancement Programme (FEAP) and the National Poverty Eradication Programme (NAPEP) which was created in 2000 with the mandate of providing financial services to alleviate poverty.

The practice of these microfinance services, in particular, those sponsored by government has been the adoption of the traditional supply-led, subsidized credit approach mainly directed to the agricultural sector and other businesses such as tailoring, transportation, trading, blacksmithing, weaving and agro-processing. These programmes had contributed immensely to the economic growth but they lacked continuity and sustainability (CBN, 2005).

The new Microfinance Policy, Regulatory and Supervisory Framework were developed by Central Bank of Nigeria (CBN) for Nigeria in the year 2005. The framework created opportunity for the establishment of microfinance bank for private owned deposit taking Microfinance Institutions and adequate regulatory and supervision by the Apex Bank (CBN). This commenced the real structural changes in Nigerian microfinance banking sector which was hitherto dominated by uncoordinated Non-Governmental Organisations (NGOs), Cooperatives, Community Banks and Nonbank Financial Institutions. The development has contributed to rapid capitalisation and growth of microfinance industry in Nigeria. From the private sector, about eight hundred and seventy MFIs are owned by the private organizations all over the country. While appraising these institutions' activities in its December 2005 report, the Central Bank of Nigeria affirms that most of the microfinance banks have weak institutional capacity, inadequate capital base, not accessible to the poor and there has been a huge supply gap of unsatisfied demand in the market (CBN, 2005). Most of the formal microfinance banks transformed from Community Banks as a result of the Government's pronouncement of microfinance policy in 2005. But the traditional savings institution like Rotational Savings and Credit Associations (ROSCAS) still exist (CBN, 2005; Joseph and Imhanlahimi, 2011).

According to the National Bureau of Statistics (2012), about 70 percent of Nigerian population lives below the poverty line. In absolute terms, taking cognizance of the Nigerian population, the country has the highest number of financially excluded people compared to any other African country (Isern et al., 2008). Microfinance therefore remains the main hope to reach the unbanked people, particularly the rural areas. According to FinScope (2008) survey conducted in Nigeria by Enhancing Financial Innovation and Access (EFInA), it was affirmed that 74 percent of adults (64 million) have never been banked, only 3 percent of adults (2.6 million) currently use microfinance banks as their main bank in Nigeria; and only 15 percent of women currently have bank accounts. The research further concluded that while 71 percent of salaried workers have bank account against 15 percent farm workers, 86 percent of rural adults are unbanked. The report further confirmed that nearly 72 percent of adults (63 million) are regarded as rural dwellers and they have difficulty in accessing finance (Isern et al., 2008).

With adequate financial and operational capability, microfinance banks have the potential to expand their outreach, noting the fact that they can penetrate the rural customers and have adequate knowledge of the local financial markets. It is also a fact that the impoverished poor exist because they lack access to finance that can engender their capability to develop entrepreneurship skill and establish new enterprises. Developing finance that will be accessible to the poor would enhance their productivity and capability to procure assets and necessary facilities that can encourage productive investment through micro and small enterprises. This will therefore reduce poverty as it is clear that the

poor does not lack initiative but only constrained by finance (Yunus, 1995).

It is also asserted that the major constraint of the poor is lack of adequate capital from financial institutions because of high risk of inadequate collateral. This constraint hampers growth, increases the poverty level and leads to slow economic development. Access to microcredit by the poor will therefore improve the financial capital that will increase their productivity, reduce unemployment, enhance income and savings; and eventually reduce poverty and inequality. Therefore it is a truism that if microfinance plays its expected role, poverty will reduce and there will be more employment opportunity. This will lead to economic growth.

Researchers on microfinance have contributed immensely to the sustainability and impact of microfinance programmes on poverty alleviation. But little efforts have been made in literature to analyse the factors that determine the accessibility of microfinance loan by the rural poor particularly in the sub- Saharan Africa which is believed to harbour the highest number of rural poor. It is against this backdrop that this study aims at contributing to dearth of the literature on the subject matter. Although there has been some literature on Microfinance in Nigeria but most of the studies have been concentrated on the operations and impact of MFIs. Despite the fact that the effects of microcredit operation on poverty level in Nigeria have attracted the attention of some researchers; not much area has been covered on the factors that determine the accessibility of microfinance loan to the rural poor, particularly in the study area. It is apparent therefore that little efforts have been made to critically analyse the accessibility of microfinance programmes to the rural poor.

Bearing in mind that microfinance programmes were designed with the belief that the poor has no access to credit facilities, it is expedient to analyse the accessibility of the poor to microfinance in order to confirm whether microcredit reach the poor. A key question to examine in literature is: Has microfinance loan reached the rural poor? After all, Hulme and Mosley (1997) (as cited in Dulal, 2007) opine that microcredit has not effectively reached the poorest. It is against this backdrop that this study is set to test the hypothesis and widen the

horizon on the accessibility of microfinance loan and its consequences on poverty reduction.

In particular, the paper analyses the determining factors that contribute to the accessibility of microfinance for poverty reduction and adequate development to enhance economic growth. It examines the influence of these factors on both beneficiaries and non-beneficiaries of microfinance loan.

It is also observed that microfinance serves as a financial instrument to assist the poor to escape from the poverty trap and by extension as catalyst for economic development of most economies of Sub-Saharan Africa and other developing countries. Ironically, most of the developing policies of these countries always neglect the necessary machinery that would ensure the delivery of the microcredit to the poor in order to alleviate poverty. The significance of this study is therefore to evaluate the accessibility of the poor to microfinance loan with the aim of making the necessary recommendations to the policy makers in order to correct the anomaly where necessary. MFIs have come of age to assist in financing the poor for poverty reduction and economic growth.

2. Theoretical Framework

The theoretical concept of the accessibility to microfinance loan can be explained with the Discrete Choice Theory where the individual has the choice to either apply for the loan or not. The choice to apply for the loan portents that the applicant or household intends to maximize his utility by borrowing from the lender with the opportunity cost of interest rate.

From the supply side of microfinance loan accessibility, the Credit Rationing Theory is applicable. The lender requests for collateral security and increase the interest rate if the demand for the loan is more than supply. The lender can then ration the loan and by implication, some applicants will receive full amount or part of the amount applied for while others will be disappointed when their applications are not approved (Zeller, 1994). This can be adduced to principal agent problem (Stiglitz, & Weiss, 1980).

Access to microcredit connotes the ability and willingness to borrow and repay the lender at the price that will cover his cost (Mukherjee, 2014). It reflects how comfortable an individual or enterprise can make optimal use of the financial services (Gehringer, 2014). The concept of microcredit or microfinance development is based on the fact that the poor possesses the ability to generate wealth through the "income generating economic activities" but is handicapped by the lack of credit, savings and insurance facilities. Providing the poor with necessary credit will not only empower them to increase their wealth but also create needed economic opportunities for economic growth. It should be noted that the key motivator for the establishment of microfinance programme was poverty eradication (Brau and Woller, 2004). The development of microfinance therefore has been tailored towards the provision of socioeconomic services to the poor in order to achieve their intended goals (Arun et al, 2005). Microfinance is always referred to as the bank for the poor because it provides financial services to the poor who are directly and indirectly alienated from the formal financial systems. It is also believed that the basic idea behind microfinance programme is to alleviate poverty and at the same time work efficiently for favourable results including profitability. Thereby, the Microfinance Institutions (MFIs) are "doing well by doing good" as they render social services and at the same time ensure profitability in their operations (Brau & Woller, 2004).

Although MFIs majorly provide microcredit, other financial services rendered by the institutions include savings deposits, micro-leasing, payment transfers and micro-insurance to the economically active poor, especially in rural and other less developed areas, in order to establish or expand their businesses. Hence, MFIs serve as development organizations that provide financial services to the poor (Osotimehin et al, 2011).

However, several opinions have sufficed that MFIs have become prominent in the crusade of poverty reduction; moreover, analysis from the other camp have revealed that microfinance loan does not reach the poor (Hulme and Mosley, 1997). This controversy notwithstanding, studies have shown that in spite of the fact that microcredit can assist the economically active poor to enlarge their business enterprises and improve their standard of living; accessibility of the rural poor (especially women) to formal finance institutions for credit is being hampered by lack of collateral, inadequate skill, non-operation of bank account and inability to pay loan back due to low per capital income (Joseph and Imhanlahimi, 2011). Although microfinance cannot perform magic by playing the pivotal role of poverty alleviation, it is the general view that the programme can only increase the standard of living of people if and only if it is strategically designed and properly implemented (Snow and Buss, 2001).

The access to microfinance reduces the propensity to borrow from informal lenders as the interest rate of the former is less than the latter. Hence, borrowers from Microfinance Institutions are expected to benefit from income growth as a result of increase in savings and investment in the long run (Islam et al, 2015). In addition, literature has testified to the fact that microfinance interest rates are significantly lower than that of informal lenders (Islam et al, 2015; Khandker and Samad, 2013; Khandker and Samad, 2014).

Microfinance programmes are implemented with different models. Prominent among them are village banking, group lending/ savings otherwise known as Grameen Model, and individual lending Scheme. The peer pressure under the group lending can compel the borrower to take "risk-averse activities" by ensuring frequent loan repayment instalments. This can lead to the depletion of borrower's capital (Todaro and Smith, 2011: 742).

3. Review of Empirical Literature on Microfinance Accessibility

Microfinance is an economic development strategy that aims at poverty reduction by providing financial services to the poor, low income earners and micro-entrepreneurs that are deprived of getting the same services from the formal financial market. These services include savings, credit, insurance and other development services like health, education, human empowerment, skill acquisition, training and environmental protection.

MFIs which were originally designed to assist the poor households and advance credits to entrepreneurs also provide services like savings, rural credit, agricultural credit, consumer credit and other financial services (Duku, 2002). Microfinance connotes the procedure of making available very small range of financial services to the poor with the purpose of

making them take up new opportunities and participate in productive activities. Microfinance is therefore an economic phenomenon that enhances the potentials of low income group.

Microcredit is a subset of microfinance. It finances microenterprises and poorest people that cannot afford to pledge collateral security to obtain loan from conventional banks.

Studies have revealed that countries with well-organized and efficient financial intermediaries recover faster from poverty and inequality than their counterpart with moribund financial development and uncoordinated microfinance services (for example, Kalirajan and Singh, 2009; Yang et al, 2011). It is an essential aid for increase in productivity of the poor and essential ingredient for economic development (El-Komi, 2010). Microfinance enhances standard of living if properly managed (Bashir et al, 2010; Muller and Bibi, 2010).

The operation of microfinance can only thrive if the repayment schedule is met promptly by the customers. Empirical studies have shown that loan repayment is determined by the quality of the beneficiaries and other factors like education, distance of the lender to the customer's business, amount of loan, duration of the loan, gender and sanction threat to the borrowers (Roslan and Abd Karim, 2009; Smith, 2010; Tang, 2002). It was also asserted that loan repayment would be more effective when the Microfinance Institutions relax their stringent conditions and give the programmes adequate supervision with realistic loan repayment procedure. This encourages adequate participation of the poor (Abu-Hadi et al, 2013).

Accessibility to microcredit is another determinant of the effectiveness of the loan. Education, gender, family size, household expenditure and group lending are some of the factors that make microfinance loan accessible to the poor (Yusuf and Shirazi, 2013). In fact more researchers have identified variables like gender, age, marital status, household size, experience/skill in business, level of education and income as impetus to the accessibility of credit and eventually facilitate poverty reduction (see for example, Arun et al, 2006; Ashraf and Ibrahim, 2014; Balogun and Yusuf, 2011; Obisesan and Akinlade, 2013).

It has also been asserted that women have no free access to microfinance loan due to the fact that they lack required assets to be pledged as security. For instance, women are unable to inherit land and other property like their male counterparts which can be used as collateral. Also they have no freedom to obtain loan without their husbands' consent. To encourage women to access microfinance would therefore require the assurance that their deposits are safe; the MFIs are ready to charge low interest on loan, allow convenient savings and easily disburse credits for the operation of the businesses in order to increase their wellbeing (Okojie et al, 2009). After all, the world wide experience has shown that when the poor rural women have access to microcredit, there is always high saving rates, microenterprises growth are enhanced, child nutrition improves and there is upliftment of general welfare, family health, shelter provision, household sanitation and education (Okojie et al, 2009).

For microfinance to be easily accessible to the rural poor there would be a need for provision of adequate infrastructural facilities in the rural areas that would encourage the presence of large number of the banks in such communities. Also the banks should be able to secure more funds to be released to their clients in rural areas (Christopher, 2008; Joseph and Imhanlahimi, 2011). Moreso when research has confirmed that rural poor are at disadvantage when their accessibility to loan is compared with urban poor; due to lack of adequate infrastructure. To that effect, they receive fewer funds and save more (Oluyombo, 2010).

In addition, the inaccessibility of microfinance credit by the poor was adduced to strict requirement of collateral, long duration of approval, unfamiliar terms of repayment and high cost of securing the loan (Siyad, 2013).

In their study, Dimoso and Masanyiwa (2008) conclude that most of the poor people cannot access microfinance loan because of the fact that they lack adequate assets and cannot afford necessary savings and deposits that will serve as collateral. Microfinance Institutions and government are therefore implored to design the programmes that will assist the poor to have easy access to microcredit.

To achieve a sustainable economic development, there is need for microcredit that will empower the ambitious entrepreneurs to engage the necessary inputs for efficient production. If properly used, microfinance services can solve the problem of unemployment, enable the dependants to be independent in economic wealth and improve the income of an average household.

However, Brau and Woller (2004) suggest in their study that for the microfinance institutions (MFIs) to be more vigorous and efficiently perform their expected responsibility, they need to raise funds from the capital markets. This will enable them to be sustainable and self-sufficient to tackle the poverty- alleviation mechanism.

The above review of literature on the accessibility of microfinance identifies some factors that can influence the access to microcredit. However, the literature reviewed failed to consider the role of business worth of the potential borrower as one of the important factors that can determine the accessibility. This is one of the contributions of this study.

4. Methodology

In order to identify the factors that determine the accessibility of microfinance loan in the study area, the logistic regression model was adopted. Logit and probit models are the binary choice models usually used to analyse the accessibility of households to credit in literature (Xia, Chistopher, & Baiding, 2011). Based on the fact that the dependent variable for the model of this study is dichotomous, it would not be appropriate statistically to use linear regression of ordinary least squares (Green, 2012). To this end, the logit model is considered as most efficient to estimate the model since logit model possesses the ability to approximate the normal distribution very well and for the fact that it exhibits analytical convenience (Xia, *et al.*, 2011).

Following Gujarati and Porter (2009:555) in the estimation of Logit model, we find the natural log transformation of the equation as follows:

$$L_i = \ln(\frac{P_i}{1-P_i}) = Z_i = \beta_0 + \beta_j \sum_{j=1}^k X_i + u_i$$

This implies that L, the log of the odds ratio, is linear in both Xs and the parameters.

It should also be noted that as P varies from 0 to 1, Z goes from - ∞ to + ∞ .

In the same vein, model for this study can be specified as follows:

$$L_{i} = ln(\frac{Pi}{1-Pi}) = f(X_{1}, X_{2}, X_{3}, X_{4}, X_{5}, X_{6}, X_{7}, X_{8}, X_{9}, X_{10})$$

where,

 P_i is a binary Dependent variable. $P_i=1$; if the person is Microfinance loan Beneficiary and $P_i=0$; if the person is Microfinance loan non-Beneficiary but eligible applicant.

$$X_1 = Age$$

$$X_2 = Gender$$

- X_3 = Household size
- $X_4 = Business worth$
- $X_5 =$ Skill in Entrepreneurship
- $X_6 =$ Education level
- X₇ =Assets

 $X_8 =$ Health Standard

 $X_9 =$ Living Standard

 X_{10} = Monthly Income

In this model, microfinance is considered as dependent variable, while Age, Gender, Household size, Business-worth, Skill in Entrepreneurship, Education level, Assets, Health Standard, Living Standard and Monthly Income of household head are considered as explanatory or independent variables.

5. Data Sources and Measurement of Variables

To achieve the objective of this study, primary data were collected from the study area: South-West Nigeria. South-West Nigeria is one of the six geo-political zones of Nigeria. South-West geo-political zones has a population of 27,722,432 people out of the Nation's total population of

140,431,790 (National Population Census, 2006). The zone has six states comprising Ekiti, Lagos, Ogun, Ondo, Osun and Oyo states. The typical vegetation of South-West Nigeria is rainforest with about 12% (114, 271km²) of Nigeria's 923, 768 square kilometers. The people in the study area are mainly engaged in microenterprises, farming, light cottage industry, livestock business, motorcycle transport business, retailing, motor and motorcycle repairs, furniture works, tailoring, and other artisan works. The zone has the highest concentration of Microfinance Institutions in Nigeria. It accommodates 346 (about 40%) of the total 870 Microfinance Institutions in six geopolitical zones in Nigeria, while the balance of sixty percent is shared among the remaining five Geo-political zones (National Bureau of Statistics, 2013).

This study used cross-sectional data collected through the structured questionnaire. Three states were selected out of six states from the Geographical zone namely Ogun, Oyo and Osun states. There are 594 loan beneficiaries and 540 non-beneficiaries, making total of 1,136 questionnaires collected from the sampled respondents while 1,134 were effectively used for the analyses.

The loan beneficiaries are those individuals who obtained microfinance loan in at least previous three years. Non-Beneficiaries are those who have similar characteristics with the latter and applied for microfinance loan in the previous three years but could not obtain approval for the loan. Being an individual beneficiary of microfinance loan is regarded as a derived one from the household perspective. In essence, if one or more members of a household obtain microfinance loan, the entire household is classified as beneficiary (Ashraf and Ibrahim, 2014).

Data collected included the demographic characteristics of the respondents, business and owner's profile, consumption expenditure, loan procurement procedure, assets and business management among others.

6. Empirical Results

Table1 shows the demographic statistics of the respondents. The percentage of the gender distribution is almost similar – Male 53% and Female 47%. This means that both males and females in the study area are equally eligible to obtain microfinance loan. Education of the

household heads in the study area is either primary school (23.6%) or high school (27.5%). This implies that Microfinance Institutions usually target clients with low level of education. Age distribution in percentages shows that about 48% of the respondents fall between ages of 31-40 years and the mean age for the sample is 39.22 years. This indicates that most of the eligible candidates for microfinance loan in the study area are still in their productive age. Majority of the respondents (77.8%) are married. The religion of the respondents is mainly Islam (42.5%) or Christianity (52.7%). Those who have Traditional belief only share 4.8%. This percentage distribution reflects the population characteristics of religion.

Table 1 also depicts the profiles of the respondents. About 74.3% of the respondents have less than 10 years' skill/ experience in entrepreneurship. The mean year in Business experience is about 8.57 years. The proportion of the household size in the sampled survey shows that 55 percent of the respondents have 2-4 persons as members of the household while almost 22 percent are with less than two persons per household. About 24 percent of the respondents accommodate above five persons as members of each household. The mean household size is about 2.05.

The decision to obtain microfinance loan or not has been described as a free will (Ashraf and Ibrahim, 2014; Pitt and Khandker, 1996), implying that the poor can either avail him/herself of the opportunity to join microfinance programmes or not. Table 2 exhibits the empirical results of microfinance loan accessibility model through the estimated logistic regression analysis. The results identify the explanatory variables determining the household accessibility to microfinance loan. In the overall results, the logistic model correctly classified about 71.4 percent of the sample cases as the percentage accuracy in classification (PAC); and nine out of the ten explanatory variables are found to be statistically significant. It is therefore safe to conclude that the explanatory power of the estimated logit regression model is satisfactory and can be used to explain the likelihood of accessing microfinance loan by the poor in the study area. The full model (model 4) comprising all the independent variables (predictors) is statistically significant; the chi-square test statistic of overall fit test is 336.16 with 10 degrees of freedom.

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	Total Sample
	1134 (100%)
Gender	
Male	53
Female	47
Education Level	
No formal education	13.8
Primary education	23.6
High school	27.5
National Diploma	19.5
Higher Diploma/University degree	15.5
Age (in years)	
20 - 30	16.1
31 - 40	48
41 - 50	26.2
51 - 60	7.6
>60	2.7
Total	100
Mean Age	39.22
Marital Status	
Single	14.3
Married	77.8
Divorced	4.9
Widow	2.6
Widower	5
Religion	
Islam	42.5
Christianity	52.7
Traditional	4.8
Skill/Experience in Business	
(in years)	
≤ 10	74.3
11 - 20	23.5
21 - 30	2
> 30	.5
Mean Experience in Business	8.57
Household Size (members)	
Less than 2 persons	21.4
2 - 4 persons	55.3
Above 5 persons	24
Mean Household Size	2.05

Table 1: Demographics of Respondents

Source: Field Survey Data (2014)

The model, which has microfinance beneficiaries or non-beneficiaries as its dependent variable aims at predicting the factors that determine access to microfinance loan by the poor in South-West Nigeria. To this end, specific characteristic variables of the respondents like age, gender, education level and household size were included in the explanatory variables. This goes in line with some previous literature on the subject matter that included such demographic variables to explain the dependent variable (for example, Arun, et al, 2006; Ashraf and Ibrahim, 2014; Balogun and Yusuf, 2011; Obisesan and Akinlade, 2013).

The model estimates that for a year increase in age, the likely accessibility of the poor to microfinance loan (odds ratio of success against failure) is increased by a factor of 1.035, other factors remain constant. This is supported by the previous studies like (Arun et al, 2006; Din Khoi Phan, 2012). However, for a proportionate increase in household size, the likelihood of accessing the loan by the poor reduces by a factor of 0.433, other things remain the same. This can be explained by the fact that increase in household size can reduce the future per capital income of the household and this can serve as constraint to the repayment of microfinance loan. This finding supports the result of a similar study conducted by Xia Li (2010).

For a substantial increase in the business-worth of a micro-entrepreneur, the odds of probability to access microfinance loan increases by a factor of 1.115. Business-worth means Total Assets less Total Liabilities. This implies that MFIs' clients with improved business-worth would be able to make repayment of loan regularly and increase the probability of accessing the loan in the future. Also, acquiring more skill by the poor affects the odds ratio by reducing the likelihood of accessing microfinance loan by a factor of 0.946. In the same vein, improvement in the level of education leads to reduction of odds ratio of the likely accessibility of microfinance loan by a factor of 0.806 other factors being constant. The model further explained that increase in assets acquired reduces the odds of poor to likely access microfinance loan by a factor of 0.486. These results signify that mainly poor households with low education are the likely targets of MFIs (Arun et al, 2006). This corroborates the findings of Ashraf and Ibrahim (2014). However, improvement in the health standard increases the probability of the poor to access microfinance loan by 61percent. In the case of proportionate increase in the living standard, the odds ratio increases the likelihood of accessing microfinance loan by a factor of 1.617 other things being equal. This indicates that poor people with good health and improved status have high probability of accessing microfinance loan in the study area.

The odds ratio implies that the likelihood of the poor accessing microfinance loan will reduce by a factor of 0.414 if there is one unit increase in income. This is another testimony that the poor and those that are vulnerable to poverty trap have more chances to access microfinance loan than the elite.

The Model estimates shown in Table 2 confirm high significance of the explanatory variables of Age, Household size, Business-worth, Skill/Experience in entrepreneurship, Education level, Assets, Health standard, Living standard and monthly income of the household head with the overall significance level of one percent. This confirms the fact that the model rejects the null hypothesis that the estimates of the parameters of the model are jointly equal to zero at 1 percent level of significance. In other words, there is more than 99 percent chance that the parameters of the variable estimates are not zero.

Explanatory Variables	Model 1	Model 2	Model 3	Model 4	
v al lables	Estimated Coefficients	Estimated Coefficients	Estimated Coefficients	Estimated Coefficients	Odds Ratio
Age	0.022**	-	-	0.034***	1.035
Gender	-0.210*	-	-	-0.140	0.868
Household size	-0.110	-	-	-0.243**	0.784
Skill	-0.076***	-	-	-0.055***	0.946
Education	0.173***	-	-	-0214***	0.806
Bus. worth	-	0.126***	-	0.109***	1.115
Assets	-	-0.029	-	-0.719***	0.486
Income	-	-0.148***	-	-0.880***	0.414
Health status	-	-	0.572***	0.480^{***}	1.617
Living std	-	-	0.160***	0.602***	1.825
McFadden R- Squared (Pseudo R ²)	0.0319	0.013	0.11	0.2251	
Correctly Predicted (%)	61.34%	56.07%	65%	71.36	
Log Likelihood	-758.965	-748.795	-702.642	-584.082	
LR statistics: Chi- Squares (Sig.)	50.07(0.000)	19.15(0.000)	149.02(0.000)	336.16(0.000)	
Degree of Freedom	5	3	2	10	

Table 2: Results of Logit estimates on Determinants of Accessibility to Microfinance loan

Source: Field Survey Data (2014)

Note ***=significant at 1%; **=significant at 5% level; *=significant at 10% level

Further analysis was carried out (Model 1-3) for robustness check of the full model. The results in Model 1-3 in table 2 show that most of the variables tend towards the initial analysis (Model 4). This confirms the evidence of structural validity; and that the model is well specified and well structured.

7. Conclusions

This study examines the important role of microfinance in poverty reduction and evaluates the factors that determine the accessibility of the poor to microfinance loan in the South-West Nigeria. The outcome of the analysis revealed that the identified factors that determine the accessibility to the loan include age, business worth, health status and living standard. Variables like skill of the applicant in entrepreneurship, assets, income, education and marital status have negative relationship with microfinance access. Therefore, the study concludes that inaccessibility to microfinance loan by the poor is mainly caused by the MFIs' terms and conditions. This view is supported by the findings of Atieno (2001) and Umoh (2006) among others. Government is therefore implored to pay more attention to the operations of MFIs in order to reduce poverty in Nigeria. Also, there is the need to assist the rural poor with micro-credit that would be disbursed with concessional interest rates without collateral conditions.

This study has identified that poverty in Nigeria is a rural phenomenon; the Government is therefore implored to create an enabling environment for MFIs in the rural areas in form of physical, economic, financial and social facilities. To enable MFIs achieve the objective of poverty reduction, the Government should intensify efforts in their supervisory and regulatory functions of the Institutions that will smooth their operations. Efforts should be geared towards the provision of supportive services like education and training on entrepreneurship, increase in health facilities and provision of other social services for unemployed, poor and those who are vulnerable to poverty.

References

Ali,A.H, Abu-Hadi, A.O., and Ali, A.Y.S. (2013). "The Accessibility of Microfinance for Small Business in Mogadishu, Somalia", *International Journal of Humanities and Social Science*, Vol. 3, No. 11, pp.172-180.

Arun, T.,Imai, K. and Sinha, F. (2006). "Does the Microfinance Reduce Poverty in India? Propensity Score Matching based on a National-level Household Data", *The University of Manchester Economics Discussion Paper*: EDP-0625, September.

Ashraf, M.A. and Ibrahim, Y.B. (2014). "Poverty Alleviation and Identifying the Barriers to the Rural Poor Participation in MFIs: A Case Study in Bangladesh", *Journal of Economic Cooperation and Development*, Vol. 35, No.3, pp. 99-132.

Balogun, O.L. and Yusuf, S.A. (2011). "Determinants of Demand for Microcredit among the Rural Households in South- Western States, Nigeria", *Journal of Agriculture and Social Sciences*, Vol.10, pp. 41-48.

Bashir, M.K., Amin, A. and Naeem, M.K. (2010). "Micro-credit and Poverty Alleviation in Pakistan", *World Applied Sciences Journal*, Vol.8, No.11, pp.1381-1386.

Brau, J.C. and Woller, G.M.(2004). "Microfinance: A comprehensive review of the existing literature", *Journal of Entrepreneurial Finance*, Vol.9, pp. 1-27.

Central Bank of Nigeria. (2005). *Microfinance Policy, Regulatory and supervisory Framework for Nigeria*, CBN.

Dimoso, P.J. and Masanyiwa, Z.S. (2008). "A critical look at the role of microfinance banks in poverty reduction in Tanzania: A case of Akiba Commercial Bank Limited", *Eldis Poverty Resource Guide*.

Duku, O.P. (2002). "A critical assessment of Jamaica's national poverty eradication programme", *Journal of International Development*, Vol.14, No. 6, pp. 773-788.

Dulal, H.B. (2007). *Role of Microcredit in Rural Poverty Alleviation: A Case study of Grameen Bikas Bank in Eastern Development Region, Nepal* (Doctoral dissertation). Available from ProQuest Dissertation & Theses: Full Text (UMI Number: 3251246)

EFInA. (2008). Access to Financial Services in Nigeria 2008 Survey, (October).

El-Komi, M.S. (2010). *Poverty Alleviation Through Microfinance and Implications on Education*, Dissertation Publishing UMI13421471, ProQuest.

FinScope Survey, 2008. Available [on line] at: http://www.efina.org.ng

Gehringer, A. (2014). "Financial liberalization, financial development and productivity growth: an overview", *Int. J. Monetary Economics and Finance*, Vol.7, No. 1, pp. 40-65.

Grameen Bank Web page, http://www.grameen-info.org.

Gujarati, N. and Porter, D.C. (2009). *Basic Econometrics*. Singapore: McGraw-Hill.

Isern, J., Agbakoba, A. Flaming, J., Mantila, J., Pellgrini, G.and Tarazi, M. (2009). Access to Finance in Nigeria: Microfinance, Branchless Banking, and SME Finance, CGAP, World Bank.

Islam, A., Nguyen, C. and Smyth, R. (2015). "Does microfinance change informal lending in village economies? Evidence from Bangladesh", *Journal of Banking and Finance*, Vol.50, pp. 141-156.

Joseph,I.E 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*, Vol.10, pp. 327-359.

Kalirajan, K., and Singh, K. (2009). "The pace of poverty reduction across the globe: an exploratory analysis", International Journal of Social Economics, Vol.36, No.6, pp.692-705.

Khandker, S.R. and Samad, H.A. (2013). *Are Microfinance Participants in Bangladesh Trapped in Poverty and Debt?* World Bank Policy Research Working Paper 6404.

Khandker, S.R. and Samad, H.A. (2014). *Dynamic effects of microfinance in Bangladesh*, World Bank Policy Research Working Paper Series 6821.

Li, X. (2010). An empirical analysis of microcredit on China rural household (Doctoral dissertation). Available from Lincoln University Digital Thesis.

Mukherjee, A.K. (2014). "Microfinance and credit to the ultra-poor", *International Journal of Social Economics*, Vol. 41, pp. 975-993.

Muller, C. and Bibi, S. (2010). "Refining Targeting against Poverty: Evidence from Tunisia", *Oxford Bulletin of Economics and Statistics*, Vol. 72, No.3, pp. 381-410.

National Bureau of Statistics. (2012). *Nigeria Poverty Profile 2010*, Available [on line] at: http://reliefweb.int/report/nigeria/nigeria-poverty-profile-2010-report

Obisesan, A.A and Akinlade, R.J. (2013). "Credit Constraints and Poverty among Nigerian Farming Households", *Agricultural Journal*, Vol.8, No.2, pp. 94-100.

Okojie, C.E.E., Eghafona,K., Osaghae, G., Monye-Emina, A. and Ehiakhamen, J.O. (2009). 'Institutional Environment and Access to Microfinance By Self-employed Women in the Rural Areas of Edo State, Nigeria,' *Nigeria Strategy Support Program (NSSP)* Background Paper No. NSSP 003, September.

Onafowokan, O.O. (2010). Assessment of Rural Sustainable Development By Microfinance Banks in Nigeria, Proceedings of Conference: IESD PhD Conference: Energy and Sustainable Development Institute of Energy and Sustainable Development, De Montfort University, Leicester, UK, May. Osotimehin, K.O., Jegede, C.A. and Akinlabi, B.H. (2011). "Determinants of Microfinance Outreach In South-Western Nigeria: An Empirical Analysis", *International Journal of Management and Business Studies*, Vol. 1, pp. 001-007.

Phan,D.K. (2012). An Empirical Analysis of Accessibility and Impact of Microcredit: the Rural Credit Market in the Mekong River Delta, Vietnam, 'Lincoln University Digital Thesis.

Pitt, M.M. and Khandker, S.R. (1996). Household and Intrahousehold Impact of the Grameen Bank and Similar Targeted Credit Programs in Bangladesh, World Bank.

Roslan, A. and AbdKarim, M.Z. (2009). "Determinants of Microcredit Repayment in Malaysia: The Case of Agrobank", *Humanity and Social Sciences Journal*, Vol.4, No.1, pp.45-52.

Seibel, H. D. (2005). 'Does History Matter? The Old and the New World of Microfinance in Europe and Asia', *in Southeast Asia's credit revolution institutional, economic and cultural perspective, An interdisciplinary workshop* (pp. 1–10).

Siyad, A.D. (2013). *The Effect of Microfinance Institution Lending on the Growth of Small and Medium Enterprise in Somalia*,' Research Project submitted in Partial fulfilment of the requirement for the award of a Master of Science in Finance Degree, School of Business, University of Nairobi, November.

Smith, N. (2010). "Economic inequality and poverty: where do we go from here?", *International Journal of Sociology and Social Policy*, Vol.30,No.3/4, pp.127-139.

Snow, D.R. and Buss, T.F. (2001). "Development and the Role of Microcredit", *Policy Studies Journal*, Vol. 29, pp. 296-307.

Tang, S.and Bhatt, N. (2002). "Determinants of Repayment in Microcredit: Evidence from Programmes in the United States", *International Journal of Urban and Regional Research*, Vol.26, No.2, pp.360-376.

Todaro, P.T and Smith, S.C (2011). *Economic Development*. England: Pearson.

Yang, B., Jialali, P., andWei, X. (2011). "Microfinance in China's Poor Area and Its Impact to Loan Type- Evidence from Xinjiang Uygur Autonomous Region", *Fourth International Conference on Business Intelligence and Financial Engineering*, pp.486-490.

Yusuf, M.B.O., Shirazi, N.S. and MatGhani, G. (2013). "The impact of Pakistan Poverty Alleviation Fund on Poverty in Pakistan: an emperical analysis", *Middle-East Journal of Scientific Research*, Vol.13, No.10., pp. 1335-1344.