Impact of microfinance on poverty alleviation: a case of North-western Nigeria

Gambo Babandi Gumel
Department of Economics, Federal University Dutse, Nigeria

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Abstract

Despite abundant human and material resources, poverty is widely spread in Nigeria. Several efforts have been put forward at various points in time by successive governments to overcome the menace of poverty among the populace, yet no fruitful outcome was realized. Of recent, microfinance becomes a mechanism through which poverty is being challenged and the last decade had witnessed tremendous contribution of microfinance institutions in various parts of the world. The main purpose of the study is to examine the impact of microfinance on poverty alleviation in North-western Nigeria. The study uses 342 samples that were drawn from the recipients of microfinance loans through simple random sampling technique. Liker scale self developed questionnaire was used as instrument for data collection. The findings show that microfinance has positive impact on household income, assets, children education, expenditure and consumption (food security). However, implications for the study for both microfinance institutions and policy regulators have been provided and recommendations were made in line with the major findings.

1. Introduction

Global Monitoring Report (2009) defines poverty as the proportion of population in developing countries who live on less than US $1.25 a day (based on purchasing power parity at 2005 constant prices). The causes of poverty include people's lack of resources, unequal income distribution, conflict, and inadequate infrastructures in the world. World Development Report (2001) indicates that out of the world's six billion people, two billion eight hundred people (2.8 billion) or almost half of the world population live on less than US $2 a day, and 1.2 billion survive on less than US $1 a day. Similarly, International Fund for Agricultural Development (IFAD, 2011) reports that 35% of the total rural population of developing countries is classified as extremely poor, down from around 54 % in 1988, while the corresponding percentage of US $2 a day poverty line is just above 60% down from over 80% in 1988. About 1,375 million people in developing countries (25% of the population) were living in extreme poverty (Global Monitoring Report, 2009). In addition, IFAD (2011) reports that, more than 70 % of the continent's poor population reside in rural areas and largely depend on Agriculture for food and daily livelihood. The incidence of poverty in sub Saharan Africa is increasing faster than the population, where more than 218 million people live on less than US $1.25 a day. More than 60% of the population in sub Saharan Africa live on less than US $1.25 a day, and almost 90% of the population live on less than US$2 a day. This statistics indicate that more than half of the population in the sub Saharan Africa live in abject poverty due to lack of infrastructure and access to capital for investment in small and micro enterprises.

As for Nigeria, the incidence of poverty is increasing even faster than the population. In 1996, the population was about 103 million, and the incidence of poverty accounts to more than 65 percent indicating that more than 60 million people are in poverty trap. Similarly, as at 1999, the United Nations Human Development Index placed Nigeria among the 25 poorest nations in the world. Similarly, the World Bank (1999) revealed that 70 percent of the country's total population was living below the poverty line of US$ 1.25 a day. Therefore, more than half of the people in the country are living below the poverty line as a result of inadequate social and economic services that would help to reduce the incidence of poverty and improve their living standard.

Past and present governments in Nigeria have at one time or the other established several poverty alleviation policies, programs and institutions for the purpose of providing infrastructures, diversifying the economy, reducing the level of unemployment, achieving sustainable growth and improving the living standard of people. For instance, the National Directorate of Employment and Peoples Bank of Nigeria are established for the purpose of job creation and youth empowerment. However, most of these programs and institutions have not yielded the expected results. The failure of these strategies was attributed to mismanagement of resources, corruption, unemployment and limited funding (Ugoh 2009). Others believe that, high level macro-economic distortion, globalization, high population growth rate and poor human resources development are the key factors that hinder the success of poverty alleviation programs in Nigeria (Ugoh, 2009).

Moreover, a large number of people in Nigeria do not have access to financial services such as loans, insurance and transfers. Households use financial services to build incomes, investment in micro and small enterprises, purchase assets, improve their homes, improve access to health, education of children and overall household protection against vulnerability. The last decade has seen the evolution of microfinance institutions that have provided sufficient income and employment opportunities for the poor in the developing countries (Bhatt & Yan, 2001). In an attempt to fight poverty, several efforts have been put in various countries. Such efforts could be seen in ACCION's BancoSol in Bolivia, Bank Rakyat Indonesia's Unit Desa program in Indonesia, Amanah Ikhtiar Malaysia in Malaysia and the Grameen Bank in Bangladesh. It is important to note that microfinance institutions could play a significant role in poverty alleviation based on the performance of these programs.

2. Research questions

Poverty as a multidimensional issue is related by limited of purchasing power, malnutrition, increase in mortality rate, and limited access to social and economic services and opportunities for income generation and investment (Ugoh, 2009). Although the existence of poverty is more pronounced in rural areas than urban, a substantial number of people remain in a destitute state. Microfinance, as one of the programs adopted to alleviate poverty, has a significant role to play in that direction especially in a developing country, such as Nigeria. There have been several attempts by the successive and present governments towards the alleviation of poverty including non-governmental organizations, private enterprises and communities. Recently, numerous microfinance institutions were registered and licensed, aiming at fostering the measures of fighting poverty. Therefore, the objective of this study is to examine the impact of microfinance in alleviating poverty among the Nigerians.

This study also aims to measure the impact of microfinance products in addressing the poverty issues among the small scale entrepreneurs who are the major beneficiaries of microfinance services. Therefore, in view of these concerns, the questions to be addressed in this study are

1. How effective are the microfinance products used in reducing poverty incidence in Nigeria?
2. Which of the microfinance intervention (NGO, private and government) is more effective in poverty alleviation?

3. Literature review

Microfinance is viewed as the provision of financial services to the poor and low income group (Microfinance Gateway, 2010). It can also be regarded as the process by which low income households will have greater access to a variety of high quality financial products to invest in their own small business enterprises. These services rendered by MFIs include credit, savings and money transfers. Microfinance clients include the poor and low income people who find it difficult to benefit from the conventional or formal financial institutions.

Microfinance has emerged as an important tool for poverty alleviation during the past two decades. The idea started in 1970s Yunus established the Grameen Bank. Today, there are more than 7000 MFIs providing financial services to more than 25 million poor around the world, of which majority of these people are women. The United Nation Development Fund declared the year 2005 as the micro credit year (Kaleem, 2009). According to United Nation Centre for Development Fund (2004), financial services clearly play a central role in the lives of the poor. The programmes in Nigeria, Haiti and Malawi all seem to be successful in reaching poor clients. Importantly, there is evidence of increased purchases of household assets, increase in welfare and secondary education of children seems to be positively correlated with participation in the program. Moreover, one of the most significant roles played by microfinance institutions seems to be helping the clients to cope with vulnerability. For almost all significant impacts the magnitude is positively related to the length of time that clients have been in the program.

In the 1980s the success of the microcredit scheme of Grameen Bank among poor women in rural Bangladesh became an example of a successful microfinance initiative. In this regards, the Grameen Bank approach of lending to poor women has attracted international interest and made the microfinance approach a new paradigm for thinking about economic development. Presently, most of bilateral and multilateral development institutions incorporate microfinance into their development projects (Rahman, 1999). Bangladesh has pioneered the microfinance program which is now a well established poverty alleviating program across the world. In recent years, the most important criterion for success of microfinance programs is determined by MFIs ability to achieve the objective of financial sustainability. Similarly, MFIs must consider whether the attainment of such sustainability involves costs in terms of clients, socio economic impoverishment (Rahman, 2010).

Dunn et al. (2001) claimed that microfinance have had positive impact on microenterprises, assets, and employment. Moreover, microcredit appeared to have positive impact on household income which is attributed to growth in enterprise revenue, which would indicate that microfinance intervention changes enterprises performance which will lead to improvement in household welfare. However, microcredit may have had negative impact on clients self esteem, which may stem from stress relating to the pressure to repay loans. Also important from policy perspective are the key findings related to gender specifically, Female clients tends to exercise more control over household, enterprise resources and also appear to save more consistently than male entrepreneurs. Microfinance by enhancing the income that households receive from microenterprises has significant positive impacts on the general welfare of households. Therefore, this study indicated that microfinance has a positive impact on client's expenditure, health care and food security or consumption needs of the household. Moreover, microfinance product assists women to acquire assets and income diversification. Sajeda et al. (2003) revealed that microfinance programs such as the popular Grameen Bank reach the poor and vulnerable Bangladeshi villages. The study also found that while microfinance is successful at reaching the poor, but unsuccessful at reaching the vulnerable. Similarly, Brett (2006) identified that the wealthier villagers are significantly more likely to participate than the poor. Xia li et al, (2011) revealed that microfinance program helps to improve household's welfare such as income and food security. However, Nadar (2008) urges that microfinance is positively connected to women socio economic status, there is a high correlation between microfinance and children's education, income and assets. However, Takahashi (2010) surveyed the short-term poverty impact of small scale collateral-free microcredit in Indonesia. The results of the survey show that, although collateral ownership is an important determinant of participation, but wealthy families gained access to microcredit programs. The impact of microfinance on various households outcome is generally statistically not significant except for nonfarm enterprises and children education expenditure for the poor. This indicates that the microfinance scheme under study might not have an immediate impact on poverty alleviation. Therefore, in assessing the impact of microfinance, number of loan cycles received by the clients should be taken into due consideration.

In a study conducted by Kono (2010) examines the effects, innovation and challenges of microfinance revolution. The study explores the impact of MFIs on the poor, the mechanism underlying high repayment rates and the innovation of new products. The study shows the need for the MFIs to improve their performance in the area of outreach performance and impact to the poor. The study further concludes that microfinance is developing in a promising direction, but has yet reached its full potential. However, Coleman (1999) conducted a study on the impact of group lending in Northeast Thailand. The outcome of the study indicated that, impact is not significant on assets, savings, labor time and most measures of expenditure on health care and education. Impact is significant and negative on expenditure for household healthcare. Moreover, Kotir and Odon (2009) identify that, at the theoretical level, microfinance is said to play a significant role in poverty reduction; Empirical study on the impact of microfinance in poverty alleviation is mixed with some studies indicating high levels of employment and income generation. Bank of Ghana studied 139 households in one rural area of the upper west region of Ghana. The study found that beneficiaries of microfinance divert a significant portion of such loans into household's consumption or food security. This implies that clients usually settle their immediate household needs before investing the loan into their business enterprises.

Oke (2007) conducted a study on the empirical analysis of micro credit repayments in south-western Nigeria; The study reveals that well established NGOs such as Farmers Development Union (FADU) carry out microfinance delivery in the study area and the primary objectives of poverty alleviation has been realized among members, were more than 97 percent borrowed from their groups and invested in various farming and non farming business. This study explains the role played by nongovernmental organizations in the provision of microfinance service and poverty alleviation as a whole. Olu (2009) also indicates that microfinance is sustainable to the development of entrepreneurship activities in Nigeria, the major contribution of MFIs to developing economy like Nigeria is its role in promoting entrepreneurship development which will lead to reduction of unemployment and poverty alleviation. Moreover, MFIs world over and in Nigeria in particular are considered to be the key players in the financial industry that have positive effects on individual and the entire economy.

4. Methodology

T he survey technique allows researcher to collect quantitative data which can be analyzed quantitatively using descriptive and inferential statistics. Moreover, the data collected using a survey can be used to suggest possible reasons for particular relationship between variables and to produce models of these relationships, survey strategy helps the researcher to have more control over the research process, and when sampling is used it's possible to obtain findings that represent the entire population (Saunders, et al 2009).

4.1 Impact Assessment Criteria & Sample Construction Issues

Hulme (1999) reports that impact assessment studies have become increasingly popular especially with international development partners. This study uses household unit of impact assessment in order to identify the impact of conventional and Islamic microfinance on poverty alleviation of a particular household. Economic indicators such as changes in the household income, level and patterns of household expenditure, consumption and assets level of clients or borrowers of micro credit have been used as criteria for measuring the impact of MFIs intervention on poverty alleviation. Similarly, social indicators comprise of health care level of household after microfinance intervention as well as the education level of children in a particular household have been employed in assessing the impact of microfinance on poverty eradication. Similar studies conducted in Kenya, Ghana, Peru and Ethiopia used these indicators and produces a useful findings. The population for the research composes of ideal and the study population. The former contains all the beneficiaries of microfinance product, while the later (study population) comprises of participants of the current research study that have been drawn from the ideal population. The importance of the sorting out of the target population of a study cannot be underestimated, and is thus normal based on the essence of our research.

In survey design, determining sample size and dealing with non response bias is essential, and a common goal of survey research is to collect data representative of a population. The sample for the research work has been drawn from the ideal population and the research used 342 samples that have covered small scale entrepreneurs comprising of traders and skill acquisitions such as tailors that constitute the customers of microfinance banks. This category constitutes individuals with small scale business that can access the microfinance schemes being in operation.

4.2 Data Source, Instrument and Collection

Primary source of data was employed in the study due to non availability of reliable and accurate secondary data in African countries like Nigeria. The instrument used in generating data from the respondents in the research was self developed questionnaire. Every step has been designed carefully because the final results will be genuine and academically sound. Although questionnaires may be cheap to administer compared to other data collection methods, it is a bit expensive in terms of design, time and interpretation. Consistent studies conducted in Ghana, Kenya, Ethiopia and Pakistan using instrument explained above were found to be very useful. Pilot study was conducted using convenience sample of 50 household beneficiaries of microfinance. The purpose of pilot study is to assess the reliability and validity of the scales. The researcher has personally administered 400 instruments (questionnaire) with the help of research assistant and the customer relation officers of particular microfinance institution and a total of 342 questionnaires were returned successfully. The instrument was translated into Hausa language (local language of the study area) to enable the respondents to understand the questions easily. The rationale behind the use of questionnaire is that it is a data collection technique in which each person is asked to respond to the same set of questions in a predetermined order (Saunders et al, 2009). Nor (2009) also identifies that liker scale questionnaires are used to determine the relative intensity of different items.

4.3 Data Analysis Procedure

This is a process of transforming and modelling data aimed at making it more meaningful in order to answer the research questions thereby involving them in the decision making that affects their livelihood. The study uses SPSS 18 software in running the analysis and relevant statistical tests have been used to answer each of the research questions.

5. Empirical Result

The purpose of this study is to examine the impact of microfinance loan on poverty alleviation. The table show the descriptive statistics of samples drawn from different microfinance institutions affiliation.

Table 5.1

Total Sample of Microfinance Institution Affiliation

N	Valid	342
	Missing	0
Mean		1.5058
Median		1.0000
Std. Deviation		.64868
Minimum		1.00
Maximum		3.00

Table 5.2

Descriptive statistics showing the frequencies and percentage of each MFI affiliation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	private	198	57.9	57.9	57.9
	government	115	33.6	33.6	91.5
	NGO	29	8.5	8.5	100.0
	Total	342	100.0	100.0	

The above tables indicate that private MFIs have the greater sample of 57.9% with a frequency of 198 compared with Government and NGO based MFIs with a total frequency of 115 and 29 respectively. The findings also show that total number of samples is 342 and no missing sample or date occurred.

5.1 Impact of Microfinance on Poverty

The purpose of this study is to identify the impact of microfinance institution intervention on poverty alleviation in northern Nigeria. Economic and social indicators such as household income, education, health and consumption were used as yardstick for measuring poverty. The table below shows the Pearson correlation analysis computed between microfinance loan and household education, health, income, and consumption (food security).

Table 5.3

Pearson Correlation Test between Microfinance loan and Income, Consumption, Education and Household Health

		Microfinance loan	Income	Consumption	Education	Health
Microfinance loan	Pearson Correlation	1	.214**	.291**	.227**	-.173**
	Sig. (2-tailed)		.000	.000	.000	.001
	N	342	342	342	342	342

Income	Pearson Correlation	.214**	1	.759**	.011	-.018
	Sig. (2-tailed)	.000		.000	.835	.733
	N	342	342	342	342	342
Consumption	Pearson Correlation	.291**	.759**	1	.072	-.038
	Sig. (2-tailed)	.000	.000		.181	.483
	N	342	342	342	342	342
Education	Pearson Correlation	.227**	.011	.072	1	-.116*
	Sig. (2-tailed)	.000	.835	.181		.032
	N	342	342	342	342	342
Health	Pearson Correlation	-.173**	-.018	-.038	-.116*	1
	Sig. (2-tailed)	.001	.733	.483	.032	
	N	342	342	342	342	342

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed). Field Survey 2011

The above table depicts the correlation analysis between microfinance and some economic and social indicators used in measuring poverty alleviation. The findings show that strong positive relationship was found between conventional microfinance and household income with a correlation coefficient (r=0.214, p=0.01, 2-tailed), indicating that microfinance is effective in improving household income. The reason behind this result can be due to availability and accessibility of microfinance as well as better outreach performance of microfinance institutions (CBN, 2004). Strong positive relationship was also found between microfinance and household consumption (food security) with a correlation coefficient (r=0.291, p=0.01, 2-tailed) which indicates a significant impact of microfinance on improving household consumption. These findings can be possible as consumption largely depends on income, as income increases consumption will also increase and vice versa. Noreen (2010) study supported these findings.

Similarly, Strong positive relationship was found between microfinance and household education with a correlation coefficient (r=0.227, p=0.01, 2-tailed). The reason for these findings could be attributed to the fact that most of the microfinance clients emphasis more of providing better education to their children as well as providing basic needs of the family. The findings of correlation analysis between microfinance and household health show that negative relationship was found (r= -.173, p=0.01, 2-tailed) indicating that conventional microfinance is not effective in improving the health care status of recipients. These findings are supported by Noreen (2010).

5.2 Impact of Microfinance Loan Based On MFIs Affiliation

Microfinance service providers in Nigeria can be private, government or nongovernmental organizations. In order to identify the impact of microfinance based on the clients MFI affiliation, descriptive statistics was computed in the table below.

Table 5.4
Descriptive Statistics for Impact of microfinance based on clients MFI affiliation

MFI	N	Mean	Std. Dev
Private	198	4.11	.45
NGO	29	4.08	.51
Government	115	3.87	.51

Field Survey 2011

The results reveal that a significant difference was found indicating that clients affiliated to private and NGO owned microfinance institutions have better impact (m= 4.11 &4.08; SD=.45 &.51) compared to clients affiliated to government owned microfinance institutions (m=3.87 & SD= .51). The reasons for these findings could be attributed to the fact that private owned MFIs have better outreach performance as well as availability of credit facilities.

5.4 Multivariate analysis

In order to strengthen the argument, multiple regression analysis was computed to assess the impact of microfinance on poverty alleviation. Certain amount of microfinance loan was used as dependent variable, while indicators such as household income, education, health and consumption (food security) stand as independent variables. The table below shows the multiple regression analysis predicting the effectiveness of microfinance loan on poverty alleviation.

Table 5.5

Summary of Multiple regression analysis predicting the impact of microfinance on household income, education, health and consumption

Variables	Constant	B	Beta	T	R^2	F	Sign
Income	-.699	1.145	.880	34.188	.774	1167.45	.000
Education	.077	.936	.659	.16.137	.434	260.401	.000
Consumption	1.329	.614	.370	7.344	.137	53.931	.000
Health	.138	.909	.550	12.146	.303	147.53	.000

B=Unstandardized coefficient, Beta=Standardized coefficient, t=test of sign, R^2=variance explained, F= test, DF=335 and *p<.05 Field Survey 2011

The results show that microfinance loan is significant predictor of the above variables related to household. For household income, the variance explained accounts for 77%, indicating that income of the household clients is improved significantly as a result of microfinance intervention. Moreover, the R^2 for children education account for 43% with F-value 260.401 indicating significant improvement in children education of household clients. Similarly, consumption and healthcare status of clients improved significantly as a result of microfinance institutions intervention with 13% and 30% of the variance explained. These findings show that microfinance intervention has little impact on household consumption and this could be attributed to the nature of microfinance clients, commonly peasant farmers who satisfied their consumption needs from agriculture.

6. Conclusion

The study has examined the impact of microfinance on poverty alleviation. Samples were drawn from the recipient's of microfinance loan from some selected microfinance institutions in north western Nigeria. The review of literature shows that microfinance institutions have provided useful credit facilities to the poor and the vulnerable households. The findings of the study show that microfinance can be regarded as powerful and effective tool in poverty alleviation, because results show that there is significant improvement on the client's household income, children education and consumption (food security) as a result of microfinance loan received. However, no significant impact or relationship was found between microfinance intervention and improvement in healthcare status of clients. Moreover, the study found that clients affiliated to private and NGO owned MFI have better impact of microfinance than clients of government owned MFIs. Despite the limitations, the study makes significant contribution in the literature of microfinance impact assessment in general and Nigeria in particular.

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