Evaluation of Micro-Credit Programme by Microfinance Banks on Poverty Alleviation in Niger State, Nigeria

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e study examines the effects of micro-credit on poverty alleviation among the rural households in sso Local Government Area of Niger state, Nigeria. Random sampling technique was used to ntify 100 respondents: 43 participant of microcredit programme of microfinance Banks (MFBs) l 47 non-participants. Data were obtained using structured questionnaires of which only 90 were nd usable for the study. Data obtained were analysed using descriptive statistics, FGT food poverty lex and probit regression analysis. The result of the analyses revealed that users of microcredit have her literacy level and a higher per centage of food expenditure to total expenditure ratio compared the non-users of the scheme. The FGT food poverty index showed that the level of poverty among : non-users of the scheme was higher than the users. Also, a higher level of non-food poverty verity index of 0.0195) was estimated among non users of credit compared with users (severity lex of 0.0059). The probit regression showed that the food poverty status of households was luenced by family size and economic status of the household head. Also, microcredit did not show ositive significant ($P<0.01$) effect on household food poverty status. It is therefore recommended at extension education and training of users of microcredit facility be encouraged; reasonable credit nit should be adopted, while households should be provided with enabling socio-economic vironment such as access roads that could support income generating activities in the study area.

y words: **Microcredit, Microfinance Bank and Poverty alleviation.**

troduction

ackground to the study

ne concept of poverty which reflects its imerous visible attributes of poverty is multi-mensional in nature. According to Ravallion 992), poverty exists when one or more person ils to attain a level of well-being (usually aterial) that is deemed to contribute a asonable minimum by the standard of the ociety, and is a global phenomenon which reatens the survival of mankind. The structural imension appears more prominent and nanifests a vicious cycle, reflecting limited roductive resources, lack of skills for gainful mployment, location disadvantage and nadequate income to obtain the basic necessities f life. The social dimension of poverty is argely a gender issue since the greatest weight f poverty is borne by women household heads nd children from poor homes. However, the onventional notion depicts poverty as a condition in which people are below a specified minimum income level and are unable to provide or satisfy the basic necessities of life needed for acceptable standard of living. Paradoxically, the situation of Nigeria is regarded as that of poverty in the midst of plenty.

Poverty has continued to escalate in the country in spite of the rapid economic growth the country has experience since the advent of petroleum. This is because the various colonial and post-colonial polices were deficient to a large extent in poverty alleviation programs. The proportion of Nigerians living below the poverty line of one dollar a day has increased dramatically during the last two decades (ADF, 2004). Similarly, poverty in Nigeria is on the increase and its incidence and severity are more in the agricultural sector, and is a major problem which is prevalent in the rural mass as 75% of poor people in developing countries are in the rural areas (IFAD, 2001).

The willingness or inability of the formal financial institutions to provide financial services to the urban and rural poor coupled with the unsustainability of government sponsored development financial schemes gave birth to a private sector led innovative credit delivery systems known as micro-credit. It is regarded as an anti-poverty instrument in the developing world. Earlier, the United Nations has declared 1996 as the "International Year for the Eradication of Poverty and October, 17 every year as the International Day for the Eradication of Poverty" worldwide. The United Nations has also set up various targets to be met internationally in the fight against poverty. In line with the spirit of these declarations and global reawakening to vigorously address the problem of poverty, major efforts have been made to reduce the level of poverty in Nigeria through the introduction of microfinance institutions (MFIs) programmes, such as the Microstart Nigeria which started operations effectively in September/October, 2000(Ndanitsa, 2012).

MFI refers to those financial institutions that provide credit to both urban and rural productive poor. By definition, NGO-MFIs are semi-formal, non-governmental and community development organizations involved in rural development and poverty alleviation (Marx, 2001). They render both financial (micro-credit) and non-financial services (e.g. community development activities on both health and training on vocations) to their members, mainly the rural poor, especially women. They are legal entities and are mostly registered as not-for-profit companies limited by guarantee and as such are able to sue and be sued under their name (Marx, 2001).

Okafor (2000) identified three categories of intermediaries involved in micro-credit delivery operations in Nigeria as (i) The informal sector savings and credit associations, (ii) public sector specialized credit institutions, (iii) banks and associated financial system institutions. Marx (2001) using CBN categorization similar to the above, evolved three groups of intermediaries involved in the rural and micro-finance institutional frame work in Nigeria. They are formal, semi-formal and informal rural and microfinance institutions (RMFIs). The formal financial institution/initiatives are: commercial banks, Development Financial Institutions (e.g.

NACRDB, NBCI, and NIDB) and Public sector initiatives (e.g. SSICS, ACCIS, SMEX, and NERFUND). The semi-formal financial institutions are: community banks (owned by communities). Microfinance banks (registered under one form of law or the other) (e.g. NGO-MFI). The informal sector comprises: unregistered informal self Help groups such as Rotating savings and credit Associations (made up of RSAs and SCA, e.g Isusu or Etotos (igbo), Esusu/Bam (Yoruba), Adashi (Hausa), Dashi (Nupe and Igalas), Efe (Ibibios) or Oku (Ijaws); Production, savings and credit groups; age grade group, cooperatives; and family and friends (among others) have developmental impact on the rural areas (Nweze and Okorie,1986; Okeibunor, 1995)

Microfinance banks therefore, were licensed community banks (CBs) that transform to operate as a unit bank on meeting the prescribed new capital and other conversion requirements by CBN within a period of 24 months (on or before December 31st, 2007) from the date of the approval of the policy. And any CB which fails to meet the new capital requirement within the stipulated period shall cease to operate as a CB.

There were to be two categories of MFBs (ie the guidelines recognize two categories of MFBs) with different capital requirements:-

i) MFBs licensed to operate as unit bank with a minimum capital requirement (or shareholders fund) of ^20 million unimpaired by loses; and

ii) MFBs licensed to operate in a state with minimum capital requirement (or stakeholders fund) of ^1 billion unimpaired by losses and after opening branches in at least two thirds of the LGAs of the state if is currently licensed to operate in, and in the view of the regulatory authorities it has satisfies all the requirements stipulated in the guidelines.

The two categories can aspire to have national coverage provided they grow organically i.e subject to their meeting the prudential requirements (CBN, 2005). The main object of the study is to carry out a quantitative evaluation of micro-credit programme of MFBs on poverty alleviation in the study area.

The specific objectives of the study however, include to:-

i) Highlight the socio-economic characteristics of microfinance bank clients in the study area;

ii) Access the poverty profile of the respondents in the study area;

iii) Estimate the determinants of poverty among respondents, and

iv) Determine the effect of participation of micro-credit in the poverty status of the respondents.

Methodology

The study was conducted in Bosso Local Government Area of Niger state. The Local Gov't Area has a population of 148,136 people (NPC, 2007). Primary data was collected for the survey. The data were obtained from records and documents of the United Nations Development Program (UNDP), World Bank-CGAP (The consultative Group to Assist the poorest) and their website from the Internet, Periodicals, Magazines, Journals, Proceedings, Textbooks, Annual Accounts and returns from the MFBs. Additional secondary data came from official documents of the state's Agency for Economic Empowerments as well as special programmes targeted at poor and rural developments. Primary data were obtained using farm households through the use of pretested, well structured questionnaires accompanied by interview schedule. Random sampling was used to draw one hundred respondents from different households. The sampling frame was provided by the State Agency for Economic Empowerment and Rural Development. The Farm households selected were all beneficiaries of the MFB micro-credit loan facility. However, household heads (HHs) were the unit of interview.

A household generally is considered to have access to microcredit if the household head or the spouse is participating in a microcredit programme of the MFB. Meanwhile, only ninety questionnaires were usable for the study due to wrong and inappropriate completion of some of the questionnaires and cases of non-returned questionnaires. Forty three (43) out of these 90 were microcredit programme participants. Data collected include information on household income (wages and salaries from farm and non-farm activities) and consumption expenditure (amount spent on food, shelter, children education, clothing, transportation, health/medicine), households' socio-economic and demographic data as well as the information on credit accessibility, utilization, and repayment. The survey was actually conducted between November, 2011 and January, 2012.

Measurement of variables

Poverty line is the value of income or consumption expenditure necessary for a minimum standard of living. For the purpose of this study, the poverty line used is the two-third (2/3) of the mean per capita household expenditure (2/3 MPCHHEXP). This approach was adopted by the World Bank (1996) study on poverty assessment of Nigeria. In this approach, "total per capita expenditure was used as the proxy for the standard of living of the households in the study area. Total expenditure is the summation of cash expenditure on consumption of goods and services, the value of own production of goods and services, transfers and remittances received on barter transition. Similarly, the approach is based on the classification of the poor and non-poor households in relation to their level of food and non-food items. The total expenditure is calculated for a month and then corrected for household size by dividing each household monthly expenditure by the household size, i.e. Per Capita expenditure = Total household monthly expenditure/household size, i.e. The Mean per capita household expenditure/Total number of households.

From MPCHHE, two lines sets, relative to the standard of living of the respondents were established viz: i) the moderate poverty line equivalent to two-thirds of the mean per capita household expenditure and ii) A core poverty line equivalent to one-third of the mean per capita household expenditure.

Based on these lines sets, Households were therefore categorized into the following poverty classes; namely; (i) Very poor (ii) Moderately poor and (iii) Non-poor. Accordingly, any household whose expenditure falls below the moderate poverty line (2/3 mean per capita household expenditure) is regarded as being poor while above it are regarded as non-poor (Awoniyi 2004 and Ndanitsa, 2012).

The headcount ratios/ incidence of poverty: This is the ratio of the number (or percentage) of poor individuals in the population,i.e. the measure of the percentage of the population that falls below the poverty line. The poverty headcount, H or Po can be expressed as:

$$H = Po = q/n \quad\text{.........................} \quad (i).$$

Where q = number of people below the poverty line, and

N= Total number of people in the population.

The headcount index is useful in tracking changes in the percentage of the population living in poverty.

Expenditure Distribution below Poverty line

A class of additively decomposable measures (P) was proposed by Foster *et al* (1984). The P α measures subsumes the headcount index and provides distributionally sensitive measures through the choice of a "poverty aversion" parameter the greater the weight given by the index to the severity of poverty.

The FGT measure of the ith subgroups (P α) is given as :

$$P_{\alpha}' = \frac{1}{n} \sum_{i=1}^{q} [\,(z - \frac{y}{z})\,]^{\alpha} \quad\text{..........................}(ii)$$

Where $\alpha = 0$, $P_o = \frac{1}{n} \sum_{i=1}^{q} [\,(z - \frac{y}{z})\,]^{0} = \frac{q}{n}$ ...(iii)

Food poverty incidence or head count $\alpha = 1$

$$P_1 = \frac{1}{n} \sum_{i=1}^{q} [\,(z - \frac{y}{z})\,]^{1} \quad\text{......................} \quad (iv)$$

Food poverty gap or depth

$$\alpha = 2, \; P_2 = \frac{1}{n} \sum_{i=1}^{q} [\,(z - \frac{y}{z})\,]^{2}\text{.............} \quad (v)$$

Food poverty severity

Where, P_{α} is the weighted poverty index; n is the total number of households; q is the number of household in poverty; y is the per capita expenditure of households (yi), Z is the poverty line and α is the degree of concern for the depth of poverty (IFAD, 2001). $\alpha = O$ gives the incidence of poverty, $\alpha = 1$ gives the depth of poverty and $\alpha = 2$ gives the severity of poverty.

The Probit regression model was used to determine the effect of participation in micro-credit programme of MFBs on the status of respondents in the study area

The Probit regression model is given as:

$$Y (\beta X_1) = \int_{b}^{hcn} \frac{1}{\sqrt{2t}} \exp (-t^2/t)^2 dt \text{.............}$$

(vi)

Where Y is the dependent variable, which is credit utilization. O = non-participants of micro-credit and 1 = participants of microcredit programme. Where t is the random variable, which is distributed as a standard normal deviate. β is a vector of unknown coefficients, X_1 is the vector of characteristics of the ith individual and is the independent variables, which are defined as follows. X_1 is the gender of household head (D = 1 for male, 0 for female), X_2 is age of household head (in actual years), X_3 is asset ownership (D =1 for ownership, 0 for otherwise), X_4 is educational status of household head, X_5 is occupation of household head, X_6 is household size (numeric number), X_7 is years of business experience (in actual years), X_8 is years of membership in the credit group, X_9 is household poverty levels (D = 1 for non-poor,0 for core poor) and Y (βX_1) is the probability that credit will have an impact on the ith household's poverty level. The larger the value of βX_1 the more likelihood that credit will have an impact on the household's poverty level. An iterative maximum likelihood algorithm was used to estimate the empirical model.

Results and Discussion

Socio-economic characteristics of users and non-users of micro-credits from MFBs

Table 1 presents the socio-economic characteristics of users and non-users of micro-credits in the study area.

1: Socio-economic characteristics of the Household

)les	USER		NON-USERS	
r	Frequency	Percentage	Frequency	Percentage
	32	74.42	40	85.10
;	11	25.58	7	14.90
	43	100.00	47	100.00
tional status:				
c Education	5	11.63	26	55.32
x	3	6.98	10	21.28
lary	25	58.14	8	17.02
y	10	23.25	3	6.38
	43	100.00	47	100.00
hold size				
	6	13.95	7	14.90
	24	55.81	34	72.34
	6	13.95	4	8.51
	2	4.65	1	2.13
	5	11.63	1	2.13
	43	100.00	47	100.00
	6.5		7.4	
n years):				
	3	6.98	4	8.51
	5	11.63	6	12.77
	10	23.26	8	17.02
	18	41.86	22	46.81
	6	13.95	5	10.64
	1	2.33	2	4.25
	43	100.00	47	100.00
	45		43	
of experience in ess (in years)				
	7	16.28	3	6.38
	22	51.16	20	42.55
	10	23.26	18	38.30
	4	9.30	6	12.77
	43	100.00	47	100.00
	18		15	
of membership in finance Programme of (Years)				
	1	2.33	-	-
	28	65.12	-	-
	12	27.91	-	-
	3	6.98	-	-
	43	100.00	-	-
	7.5			

e: Field survey, 2011.

2: Poverty Incidence, Depth and Severity of Respondents

)ENCE, DEPTH AND SEVERITY.	USERS	NON-USERS
	0.2143	0.2346
	0.0195	0.0380
	0.0059	0.0085

e: Field survey, 2011.

The poverty incidence in the study area (Table 2) shows that among the participants, 21% of the population were poor while 23% of the population were very poor. The poverty depth of the participating and non-participating household was 0.0195 and 0.0059 respectively. This suggests that their per capita household expenditure would need to be increased by 2.36% and 2.98% respectively for them to come out of poverty and become non-poor. The poverty severity measures the distance of each poor person to another. Among the participating individuals the distance is 0.0059 while in the non-participants 0.0085. Similarly, a comparison of the poverty status of micro-credit participants and non participants show that the poverty status of non-participants were higher than that of the participants. This is expected as increased access to capital would help in increasing their investment and productivity level which will invariably enhance their purchasing power which translates to improvement in the standard of living of households

Furthermore, for the users of micro-credit, their MPCHHEXP was ₦875.85 and it gives a moderate poverty line (2/3 MPCHHEXP) of ₦583.90 and core poverty line (1/3 MPCHHEXP) of ₦291.95. For non-participating households, their MPCHHEXP was ₦765.46 and it gives a moderate poverty line (2/3 MPCHHEXP) of ₦225.15. Hence, for users whose monthly per capita total expenditure falls between ₦583.90 and ₦291.95 are regarded as moderately poor while those who fall below ₦291.95 were regarded as core poor and those who are above ₦583.90 were regarded as non-poor. For non-participating households whose monthly per capita expenditure falls between ₦510.31 and ₦255.15 were regarded as core or very poor and those who are above ₦510.31 are regarded as non-poor.

Table 3 shows the results of the probit regression model. The result shows that the probability of households being poor or non-poor was determined by family size and the occupational status of the family household head. Accordingly, the family size had a negative and significant effect on household poverty status. This suggests that the larger the family size of the households the poor the households becomes. This is as a result of the fact that the members of such households would have to depend on the limited resources that is available to the households thereby reducing the capita expenditure of households. Baba and Etuk (1993) and Baba and Wando (1998) also revealed that the implication of the large family sizes is that family expenditure tends to draw more on family income so that only a meager sum is saved and invested eventually on farming. However, Olufe (1988), in his study of resource productivity in food-crop production in Kwara state, Nigeria reveals the importance of large family size in traditional agriculture. According to the study, family labour accounted for a significant proportion of the total labour force, thereby enabling the cultivation of large hectarage of farm land and reducing the cost of hiring labour for farm operations. Lending credence to this assertion, Eboh (1995) also concluded that large family size positively influence household food security if the members helped to reduce expenses on hired labour in farm production/operations.

The coefficient of occupational structure was also significant at 1% level. This significance confirms with a priori expectation because of the wage profit that is determined by the type and nature of occupation carried out by the household head. For example, household heads engaged in high yielding enterprises whose enterprises generate higher incomes would have enhanced purchasing power which will increase their per capita expenditure. Although, credit has a positive effect on household poverty status, it is not a significant variable on household poverty status in the study area, which therefore calls for concern. There is therefore need for credit supply to be backed up with improved seed variety and it should be made available on time due to the sensitivity of time on enterprises especially agriculture as well as huge investment in social infrastructures and human capital so as to enhance income generation for the beneficiaries of MFB microcredit programme which translates to improved standard of living and household welfare.

Probit Regression Analysis on Factors that determine the impact of Participation in Microcredit on poverty status of farm households

	Coefficient	Standard error	t-value	P(z/>z)
erm	13.2162	4.1453	2.7328	0.0091
	-0.0396	0.0438	-1.0452	0.0364
	0.5824	0.5979	0.9376	0.3291
size	-1.5242	0.3969	-1.4312	0.0014***
al status	0.02469	0.0592	0.3212	0.7563
it	0.2724	0.2631	0.6728	0.6431
on in t	0.01429	0.0314	0.4627	0.6994
~ nal	0.4001	0.2142	1.9001	0.0713***

632. F

t at 10%; ** significant at 5%; *** significant at 1 %.
ta Analysis/Computer Printout, 2011.

1 and Recommendation

conclusion, microcredit has not shown significant effect on household food tus. However, the study suggests that be the sole instrument for poverty to the rural poor as it (Microcredit) not increase productivity of farm and increase their income levels. nese revelations, the followings were ed:

That credit limit should be set such that it can make economic impact on the activities of the beneficiaries while at the same time pursuing a progressive increase in the scale of production

That a two-prong approach to empowerment and extension education of the poor should be pursued in the sense that the government on their own part should continue to invest in quality education for the children of the poor (especially the girl-child

education) so as to prevent poverty being passed on from generation to generation, and the microcredit into their programmes.

(iii) The households should be provided with socio-economic environment that could make them establish income generating activities in the study area, for example access roads has the advantage of mitigating cost of doing business and provide broader spectrum of choice in business concerns and

(iv) There should be minimum capital for MFBs- the Microfinance policy requires MFBs to have a capital base of N20,000,000.00 to be licensed and to ensure their viability. It has been suggested that this should be increased for unit banks to enable them make a greater impact on poverty alleviation among farm households.

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