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Comparative Study of Access of Group and Individual Farmer-Clients to Financial Services of Microfinance Institutions in Enugu State, Nigeria

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Abstract

This study compares the access of group and individual farmer-clients to the credit services of microfinance institutions in Enugu State, Nigeria. The study was designed to ascertain specifically the factors that determine access, the reasons for differences in the levels of access by the respondents as well as their perceptions of the effects of the credit guidelines of MFIs on their levels of access. A total of 72 respondents, 36 individuals and 36 groups, were randomly selected for the study. Multiple regression analysis, Levene's test for equality of means as well as Likert Rating Scale were used for data analysis. Regression result showed that years of experience in farming, size of farm, credit history, size of income from farming, value of collateral, interest rate, compulsory deposit requirement and distance to MFIs affected access for both group and individual clients. Levene's test for equality of mean scores of the group and the individual clients were statistically significantly ($p > 0.05$) different. Likert Rating result indicate that MFI credit guidelines such as minimum deposit requirement, interest rate and loan size were perceived as constraints by group clients while individual clients perceived, in addition to these, provision of acceptable surety as hindrances to their access to MFI credit. Group lending option scored better than the individual option suggesting that insistence on group formation still remains a better approach to accessing MFI credit.

Keywords: Microfinance, credit access, groups, individuals

1. Introduction

Credit is a necessary input in various aspects of farm operations and lack of it has always been regarded as a major problem of small scale farmers and other micro-entrepreneurs (FARM, 2006). Even when available, access to credit is usually very difficult for rural farmers. This difficulty stems from lack of requisite collaterals, low levels of education and inadequate information about sources and uses of credit facilities (Zeller & Sharma, 2006).

In Nigeria, attempts at institutionalizing agricultural credit as a means of providing finance capital to farmers began way back in the 1950s (Osamca, 2006). Several agencies and institutions have been used in the past by government to make credit available to farmers. Examples include the Bank of Agriculture (BOA), the Agricultural Credit Guarantee Scheme Fund (ACGSF), the Community Banking Scheme (CBS) and lately the Microfinance Scheme.

Microfinance institutions gained ascendancy due to the dismal performance of the other schemes. Since their emergence microfinance institutions (MFIs) have become veritable tools for sourcing finance for agriculture and other micro-enterprises in Nigeria. A Central Bank of Nigeria (CBN) study in the early life of the microfinance scheme identified as many as 160 registered microfinance institutions in Nigeria with aggregate savings worth 99.4 million naira (CBN, 2004).

Inspite of the gains already made by microfinance institutions in Nigeria there is still huge service deficit. For instance, less than one million out of the 40 million potential users of microfinance services have been reached (CBN, 2005). Also the aggregate micro-credit facilities in Nigeria account for only about 0.2 percent of GDP and less than one percent of total credit to the economy. Another challenge is that most of microfinance funding goes to the service sector to the detriment of the real sector where vital activities, especially agriculture and manufacturing, take place. Anyanwu (2004) reported that only 14.1 and 3.5 percent of total MFI funding in Nigeria went to agriculture and manufacturing respectively while 78.4 percent went to the service sector.

Typically, microfinance is associated with joint liability arising from group lending. Group lending involves administration of credit among a group whose members differ in character and reaction (Hulme & Mosley, 1996), but possess a common interest of benefitting from the group which represents their pooled resources. When borrowers form groups and are held liable for each other, lending to the poor farmer clients can be

profitable even if borrowers do not possess any collateral and lack definite credit history (Gine & Karlan, 2006). Ghatak & Guinnane (1999) agree that group lending improves the access of the poor to credit facilities. Interestingly, however, a large part of microfinance institutions do not offer group but individual loans. There is, currently, a debate taking place in microfinance circles between proponents of group loans (Khandker, 1998; Navajas, Schreiner, Meyer, Gongales, Vega & Rodrigez, 2000; Mckee, 1989) and proponents of individual loans (Morduch, 1999; Amendariz de Aghion & Morduch, 2005). Many microfinance institutions, including the Grameen Bank of Bangladesh, a pioneer microfinance institution, are reported to be moving away from the concept of group loans (Armendariz de Aghion & Morduch, 2005; Dowla & Barua, 2006).

This study which is our contribution to the on-going debate specifically seeks to:

1. ascertain factors that influence the levels of access to the services of MFIs by group and individual clients in the study area;
2. determine whether there are differences in the levels of access to the services of MFIs by group and individual clients; and
3. ascertain the clients' perception of the effects of MFI credit guidelines on their access to credit which might suggest a paradigm shift in microfinance administration in Nigeria.

The result of this study is expected to be of immense benefit to the poverty alleviation initiatives of the government through appropriate targeting of financial assistance to farmers and improvement of credit delivery by the MFIs. The latent capacity of the poor for agro-entrepreneurship would be significantly enhanced through the provision of microfinance services to enable them engage in economic activities and be more self-reliant.

2. Materials and Method

2.1 Study Area

Enugu State is the study area. The state which is one of the 36 states in Nigeria lies between latitudes $5^0$56' and $7^0$06'N and longitudes $6^0$53' and $7^0$55'E (Nwafor, 2003). The state occupies an area of about 12,831 km^2 with a population of 3,257,298 persons (NPC, 2007).

The predominant agricultural practices of people of the state are crop farming in the areas of vegetables, cereals, roots and tubers. Rearing of domestic animals like poultry, sheep, goats and pigs forms part of the farming systems.

2.2 Sampling Techniques

Out of the three agricultural zones in the state two, namely Enugu and Nsukka, were randomly selected for the study.

The microfinance institutions targeted in the study were microfinance banks and formal private microfinance agencies. Six out of fifteen microfinance banks in the two zones were randomly selected. Out of five formal microfinance agencies two, namely Nsukka Amalgamated Livestock Traders United Self Help Organisation (NALT-NUSHO) and Lift Above Poverty Organisation (LAPO), were randomly selected. A list of individual and group clients of the MFIs was compiled. From this list 36 each of group and individual farmer-clients were randomly selected as indicated in table 1.

2.3 Data Collection

Data were collected using two sets of structured questionnaire, one for group and the other for individual clients. The questionnaire captured group and individual characteristic including age/years of business experience, amount borrowed, interest rates, loan periods as well as problems faced by each category of respondents.

2.4 Analytical Techniques

The objectives of this study were realized using multiple regression analysis, Levene's test for equality of means and Likert Rating Scale.

Regression analysis is concerned with the study of the dependence of one variable (dependent variable) on one or more other variables (explanatory variables). The dependent variable is assumed to be statistically random or stochastic. The explanatory variables on the other hand are assumed to have fixed values (in repeated sampling).

In this study multiple regression analysis was used to determine how group/individual characteristics of the respondents and MFI credit guidelines affected their access to credit from the MFIs. The level of access (Y) represents the amount of money the groups or individuals were able to borrow from the MFIs. Thus Y(Amount borrowed) is the dependent variable while the group and individual characteristics like years in business, size of farm, credit history (amount earlier borrowed and repaid), size of annual income from farm operation, value of collateral as well as MFI credit guidelines like interest rate, length of grace period, compulsory deposit requirement, location (distance from MFI), constitute the explanatory variables (Xn).

The model was specified thus

$Y = f(X_1, X_2 \ldots X_9) + \varepsilon$ ……. (1)

The explicit linear functional form of the equation was

$Y = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + b_7X_7 + b_8X_8 + b_9X_9$ …… (2)

Where:

Y = Amount borrowed (₦)
X_1 = Years in business
X_2 = Size of farm (hectares)
X_3 = Credit history (amount [Naira] borrowed and repaid)
X_4 = Size of income from farm operations (in Naira)
X_5 = Monetary value of collateral (₦)
X_6 = Interest rate (%)
X_7 = Length of grace period (months)
X_8 = Amount of compulsory deposit (₦)
X_9 = Distance from MFI (km)
b_0 = Intercept
b_1-b_9 = parameters (co-efficients)
ε = Error term

The mean scores of both the group and individual farmer-clients on the group/individual characteristics that affected access to MFIs services were obtained and subjected to the Levene's test for equality of means to ascertain if there were significant differences in these scores.

The mean scores of the respondents perceptions based on the 5-point scale was 5 + 4 + 3 + 2 + 1 = 15/3 = 3.0. Using an interval scale of 0.05, the upper limit cut-off was 3 + 0.05 = 3.05, the lower limit was 3 – 0.05 = 2.95. On the basis of the limit, any mean score below 2.95 (i.e. MS < 2.95) was taken as "Not serious effect", those between 2.95 and 3.05 were considered of "Serious effect" (i.e. $2.95 \leq MS \leq 3.05$), while any mean score that is greater than or equal to 3.05 (i.e. $MS \geq 3.05$) was considered of "Very serious effect".

3. Results and Discussion

3.1 Factors that Affected Level of Access to MFI Credit by Group Clients

Regression analysis (OLS) was used to ascertain the factors that influenced the access of groups and individual clients to the services of the MFIs. The explanatory variables were years in business (X_1), size of farm (X_2), credit history (X_3), income from farming (X_4), monetary value of collateral (X_5), interest rate (X_6), length of grace period (X_7), compulsory deposit (X_8) and distance from MFI (X_9).

The semi-log functional form of the OLS regression gave the best R-squared (R^2) value and highest number of variables whose co-efficients had correct signs and magnitudes and thus became the lead equation.

The result of the regression analysis for groups (table 2) showed that years of experience in farming business (X_1), size of farm (X_2), credit history (X_3), size of income from farming (X_4), value of collateral (X_5), interest rate (X_6), length of grace period (X7), compulsory deposit (X_8) and distance from MFIs (X_9) affected access of the group clients to credit from the MFIs.

The relationship between interest rate and access was found to be inverse indicating that the higher the interest rate the less clients are prepared to borrow. The inverse relationship between access and size of compulsory deposit is also an

indication that the higher the amount required as compulsory deposit by MFI, the less are clients able and willing to access their credit facilities.

Years in farming business is an index of experience. Those with many years of experience stand better chances of accessing MFI credit. This agrees with the result of the regression analysis. The size of farm gives an idea of economies of scale. Those with larger farm sizes are in a better position to use additional funds more effectively. In this study size of farm was found to be a positive attribute that enhanced farmers' access to MFIs credit.

Those who have borrowed in the past and repaid are more likely to be favoured when there is high demand for MFI funds and available funds are inadequate. Credit history was therefore a positive attribute that affected access to funds in the study.

Size of farm income is a reflection of the size of farm operations. Just as the size of farm holdings is an attribute that promotes access to MFI funds so also is the size of income from the farm. The more income the group makes from farming the higher the equity they can commit into the farming business. Most lenders are more comfortable to lend when borrowers have commensurate equity participation in the business funded.

Most often MFIs in Nigeria do not ask for collateral but they insist on borrowers' opening account with them and having in their account at least one-third of the sum they are applying for. The higher the deposit in the borrower's accounts the brighter the chances of accessing MFIs funds. Such funds in the account of the borrower serve as collateral for the amount borrowed.

Length of grace period, though important, was not found significant in the study. This may be due to the fact that the grace period offered by the MFIs is usually so short that they make very little impact on clients' decision to borrow.

Distance to MFIs locations has some implications. For instance distance affects cost of transportation. It may also have implications for the awareness of the services of MFIs. It is very likely that groups located nearer to MFIs may be more aware of MFI services. This may count for them with respect to the degree of their access.

The regression result for the individual clients was not quite different from that of the group (table 3).

Except for higher R^2 and stronger t-score for some of the variables the regression results for group and individual clients follow the same pattern of relationship. However, individual clients are more likely to face problems with respect to providing collateral and meeting the compulsory deposit requirement. The scale of operation and income from farming are also likely to be smaller thereby putting individual clients in a position of disadvantage when compared with their group counterparts.

3.2 Levene's Test for Equality of Means

To test whether the mean scores of groups and individual clients were significantly different in their basic attributes like (1) years of experience in farm business (2) size of farm (3) credit history (4) size of income from farming (5) monetary value of collateral (6) amount of compulsory deposit and (7) distance from MFI the Levene's test for equality of means was conducted.

Results from Levene's test for equality of means (Table 4) indicate that the differences between the means of the attributes under consideration were statistically significant at 0.05 probability level. The mean differences, except in the case of distance to MFI, were positive indicating higher scores for group clients. Higher scores could translate into better access for groups than for individual clients.

3.3 Clients' Perception of the Lending Policy of the MFIs

Some of the policies that governed MFI credit in the study were (a) compulsory opening and operating an account with the MFI for at least three months before loan request (b) a minimum deposit in that account of not less than one-third of the amount requested (c) an interest rate of ₦100 per mille and (d) provision of an acceptable surety for the loan. Likert scale rating of clients' perception of these credit guidelines on their access to MFI credit is presented in table 5.

Both clients did not perceive compulsory account opening as a constraint to their access to MFI credit. However, both clients saw minimum credit requirement as an impediment to their access to credit. Minimum credit

requirement also has an implication for loan size. The more deposit one is able to make the higher the loan size one could obtain. Both clients also saw loan size as a serious constraint possibly because they required bigger sums than what they could presently obtain due to restrictive lending policies.

Group formation might have accounted for the reason why group clients did not find provision of acceptable surety as a constraint unlike the case of individual clients. Group liability might have counted in the favour of the groups pointing to the fact that MFIs are more likely to favour groups more than individuals.

Generally speaking the individual clients appeared to have been more constrained than the group since they perceived all but only one of the lending policies of the MFIs as very serious obstacles to their access.

4. Conclusion and Recommendations

This study showed that farming experience, size of farm, credit history, size of income from farming, value of collateral, interest rate, size of compulsory deposit as well as the distance to MFI locations were the factors that determined clients' access to MFI credit. Levene's test for equality of means confirmed that the mean scores on the factors that determined access to MFI credit by groups and individual clients were statistically significantly different ($P < 0.05$).

The MFIs lending policies, with the exception of compulsory account opening requirement, were perceived by individual clients as very serious constraints to their access to credit. For groups only minimum deposit requirement, interest rate policy and loan size were perceived as very serious constraints.

Therefore, results from this study do not suggest any need for paradigm shift from lending through groups to lending through individuals since groups performed better in all the criteria of assessment in the study. Based on the findings of the study the following recommendations are made:

1. MFIs need to re-visit the factors that have been identified to affect access to their credit services with a view to modifying areas like insisting on determining the size of loan through the size of compulsory deposit;
2. Credit history should be a more positive and appropriate way for assessing eligibility of clients;
3. Group lending should be emphasised since the group platform offers an alternative avenue for loan guarantee through group liability.

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Table 1: Number of group and individual farmer clients of microfinance institutions sampled

	Enugu Agricultural Zone		**Nsukka Agricultural Zone**	
MFIs	**Group Clients**	**Individual Clients**	**Group Clients**	**Individual Clients**
LAPO	7	8	6	7
NALT-NUSHO	6	5	6	5
MFBs	6	6	5	5
Total	19	19	17	17

Table 2: Result of the OLS regression analysis of factors that affected access of group clients to MFI Credit

Y	**=**	**b_0**	**X_1**	**X_2**	**X_3**	**X_4**	**X_5**	**X_6**	**X_7**	**X_8**	**X_9**
Coef	=	0.421	0.798	0.267	0.341	3.270	6.892	-0.381	-0.781	-0.681	3.783
t-score	=	0.712	*3.781	*2.537	*5.433	*2.851	*3.873	-*2.771	-0.563	*-2.533	*2.607
Std. error	=	0.713	0.218	0.089	0.075	1.421	1.651	0.134	1.231	0.189	1.708

$R^2 = 0.707$
* = Significant at 1% probability
Source: Computed from field survey data (2012)

Table 3: Result of the OLS regression analysis of factors that affected individual clients' access to credit from MFIs

Y	**=**	**b_0**	**X_1**	**X_2**	**X_3**	**X_4**	**X_5**	**X_6**	**X_7**	**X_8**	**X_9**
Coef	=	1.483	2.371	2.810	0.570	7.921	5.791	-0.531	-0.520	-0.719	3.462
t-score	=	*6.812	*2.921	*7.480	*3.560	*2.730	*3.480	-*2.729	0.281	*-2.181	*2.813
Std. error	=	0.251	0.715	2.512	0.412	3.132	0.570	1.218	1.322	0.278	1.273

$R^2 = 0.826$
* = Significant at 1% probability
Source: Computed from field survey data (2012)

Table 4: The Levene's test for equality of means of the attributes of group and individual farmer clients of MFIs

Attributes	Mean difference	Std Error difference	T-score
YOFEXP	8.315	0.682	*3.327
SIZ FARM	3.571	1.355	*4.718
CRHIST	5.180	0.633	*3.201
SIZFCOME	14,892.112	11,218.205	*4.322
MVCOLLAT	29,378.821	18,715.316	*2.812
COMPDEVP	13,171.052	9,237.015	*5.215
DISMFI	-21.312	-8.228	*3.670

* = Significant at 0.05 probability level
YOF EXP = Years of farming experience, SIZFARM = Size of farm
CRHIST = Credit history, SIZFCOME = Size of farm income
MVCOLLAT = Monetary value of collateral, COMPDEP = Compulsory deposit
DISMFI = Distance from MFI
Source: Computed from field survey data (2012)

Table 5: Mean distribution of the clients' perception of the effects of lending policy of MFIs on their access to MFI credit

Credit policy	Mean for group clients	Mean for individual clients
Compulsory account opening	2.85*	2.79*
Minimum deposit requirement	3.53***	3.86***
Interest rate policy	2.98**	3.08***
Loan size	3.18***	4.26***
Provision of an acceptable surety	2.76*	3.71***

* stands for not serious effect
** stands for serious effect
*** stands for very serious effect
Source: Computed from field survey data (2012)

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