

Determinants of Farmers' Demand for Micro Finance: The Case of A Rural Community In Nigeria

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Abstract

The finance debacle must be tackled if the productivity problem facing agricultural development in under developed countries such as Nigeria is to be solved. This, in essence, implies that micro finance must be made more operational and effective in these countries since the bulk of the farmers are rural based small scale agriculturalists that lack access to the regular institutional sources of finance. This study thus examined the socio - economic determinants of demand for micro finance by farmers in a rural community in Nigeria. The study used the Tobit regression model to analyze the demand for micro finance by farmers in the study area. Five of the variables examined had significant effects on the demand for micro finance. These are household size, farm size, return from farm activities, gender, and time lag of disbursement of loan. The findings suggest that considerable opportunity exist for increased farm productivity in the area if the finance constraint is effectively handled. Relevant recommendations were offered to this regard.

Keywords: Determinants, Demand, Micro Finance, Farmers, Nigeria

1. Introduction

Some 75 percent of the world's poor live and work in rural areas. Most rural areas in Africa depend on traditional farming system that is characterized by low capital, which leads to low productivity and meager savings from agricultural investments. The rural poor in developing countries especially in Sub-Saharan Africa (SSA) are characterized by a number of general, economic, demographic and social features the most common being limited access to credit and other productive resources. Their access to credit, inputs and technology is severely limited and certain other constraints like lack of information about markets, lack of business and negotiating experience and lack of a collective negotiation deprive them of the power needed to interact in equal terms with generally larger and stronger market intermediaries (IFAD, 2001).

Agricultural productivity in many of these countries faces several problems including shortage of reproducible capital, low level of capital input, absence of specific factor inputs such as research and education, and inadequate supply of other agricultural inputs (Todaro, 1982; Oni, 1993; Falusi, 1990). Thus, enhanced accessibility to credit from both formal and the informal institutions can help overcome the agricultural stagnation in these countries and improve rural farmers' productivity. Credit for the small holder, especially in agriculture, is thus assuming increasing importance in many parts of the world in response to the needs of the less privileged entrepreneur with limited capital base (IFAD, 2001).

In recognition of this, substantial funds have been channeled into the agricultural sector in Nigeria to strengthen the formal financial market and increase the rural population's access to finance (CBN, 2000; Odeniran 2001). This is not unconnected with the facts that rural households constitute the greater proportion of the agricultural force in Nigeria (Osuntogun, 1973; FOS, 1999). In spite of the present efforts however, access to formal credit is still a major problem facing rural farmers in Nigeria due to some prevalent factors (Olomola, 1990). These factors include bureaucratic bottlenecks such as long delay in loan disbursement on the part of the bank and low

repayment rate on the part of the farmers. However, the aim of micro finance is not only to inject credit into the agricultural production process but to build up a rural financial market that would provide lasting access to financial resources and those who need them. This study therefore aimed at analysing the determinants of demand for micro finance by rural farmers with focus on Epe Local Government Area of Lagos State, Nigeria.

2. Conceptual Framework and Literature Review

Microfinance is the provision of financial services to low-income, poor and very poor self-employed people (Otero, 2000). It refers to the provision of financial services to low income clients, including the self employed. Financial services rendered generally include savings and credit and, in some cases, insurance and payment services. In addition to financial intermediation, many microfinance institutions provide social intermediation services such as group formation, development of self confidence, and training in financial literacy and management capabilities among members of a group. Thus, the definition of microfinance includes both financial intermediations and social intermediations (Ojo, 2009). According to the Central Bank of Nigeria (2005) microfinance is about providing financial services to the poor who are traditionally not served by the conventional financial institutions. Three features distinguish such microfinance from other formal financial products namely: the smallness of loans advanced and or savings collected; the absence of asset-based collateral; and simplicity of operations.

Microfinance evolved as an economic development approach intended to benefit low income men and women. It empowers the entrepreneurial spirits that exist among small-scale entrepreneurs and has the ability to strengthen micro enterprises and encourage best practices among operators of small and medium scale enterprise. Microfinance clients are typically self employed, low income entrepreneurs in both urban and rural areas such as small farmers, traders, street vendors, service providers and artisans and small producers such as blacksmiths and seamstresses.

Microfinance matters for certain reasons: it provides the financial services that many small farmers need to expand and diversify economic activities to increase their incomes and to improve their lives (Robbinson,2004). Robbinson noted that poor families tend to improve their nutrition and send their children to school when their incomes rise. Invariably, micro finance plays an important role in promoting good nutrition, education and health as well as decreasing child labour. It also provides a powerful method of building the self confidence of the poor. Microfinance can help to reduce vulnerability while at the same time contributing to agricultural growth in a number of ways (Deshingkar and Start, 2003). It can release existing funds for production purposes, or itself contribute directly to production, or mitigate the impact of shocks and stresses, either internal such as wedding or funerals, or external such as drought or flooding.

Park et al (2003) posited that lack of credit is a barrier to investment and income growth of poor households in developing countries of the world. Access to credit is an antidote to poverty reduction among rural poor. Access to credit enhances the adoption of new and more risky technologies that will improve farmers' levels of income and hence, alleviate their poverty. Additional capital as a result of access to credit enhances the level of household's productive assets, and also raise their expenditure and it is that expenditure that lead to improvement in consumption (food and non-food) of the rural poor (Eswaran et al, 1990 and Haddad et al, 1997). The provision of credit to farmers improves efficiency and expands production (Feder Luo, 1990). Credit is needed to expand the scale of farm operation and for introducing supplementary enterprises that could increase labour utilization and promote steady flow of income. Credit facilities also act as fillip to the process of commercialization of the rural economy (Ogunfowora et al, 1972; World Bank, 1975).

Alemayehu et al (2006) examined the link between finance and poverty using the rich household panel data of urban and rural Ethiopia. The result indicated that access to finance is an important factor in the consumption decision and hence in poverty reduction. Access to micro-credit affects household welfare outcomes through one or more of three pathways viz;

- alleviation of capital constraints for productive activities (such as income generating activities),
- increasing household risk-bearing ability (a buffer to change and crisis),
- consumption smoothing (access to one set of resources can off-set or generate multiplier in other areas thereby enhancing the net productivity of household labour) (Zeller et al, 1997; Piagne and Zeller 2001).

The practice of microfinance in Nigeria is culturally rooted and dates back several centuries (CBN, 2005). The traditional microfinance institutions provide access to credit for the rural and urban, low-income earners. They are

mainly of the informal Self-Help Groups (SHGs) or Rotating Savings and Credit Associations (ROSCAs) types. Other providers of microfinance services include savings collectors and co-operative societies. The informal financial institutions generally have limited outreach due primarily to paucity of loanable funds (CBN, 2005). Hence, the government has over the years had cause to intervene in the provision of micro -credit through various development schemes and programmes. However, these programmes have generally been unsustainable due to a host of socio -cultural and political factors causing many to die within a short period of their establishment.

These shortcomings led, in 2005, to the development of a formal Microfinance policy for the country by the Central Bank of Nigeria. This was consequent to a survey carried out by the Development Finance Department of the Central Bank of Nigeria on “Developing appropriate policy, regulatory and supervisory framework for the operations of Micro Finance Institutions (MFIs) in Nigeria”, which indicated that as at 2001 there were 160 registered MFIs in Nigeria located in 28 out of the 36 states in the country and that their operation are largely in the rural area (Anyanwu, 2004).

Balogun and Yusuf (2011) noted that the number of research on demand for credit among rural household is still few in developing countries. They however noted that most of the available studies affirm the importance of socio-economic / demographic variables such as transaction cost, collateral risk, and asymmetric information in demand for credit. In a study of the demand for loans from the Ogun State (of Nigeria) Agricultural and Multipurpose Credit Agency by fish farmers, Olaoye, Ashaolu, Idowu, Akintayo and Talabi (2009) found that the educational level of farmers and their years of experience were the significant factors affecting demand for loans. Rweyemamu, Kimaro and Urassa (n.d) in their study on semi informal micro finance institutions in Tanzania concluded that transaction cost, disbursement lag period, input expenditure, farmers household income, education and experience are all significant determinants of demand for credit.

3. Methodology

3.1 Area of Study

The study was carried out in Epe Local Government Area of Lagos State, Nigeria, a predominantly rural society. The area is tropical climate marked with dry and rainy seasons. It is characterized by high rainfall and low temperature during the raining season, which often lasts for about 7 months (April – October). The dry season period is characterized by high temperature and very erratic rainfall and it lasts for about 5 months (November – March). The entire area is transversed by a major river that leads into the Lagos lagoon. The major occupation in the area is farming, mainly fish farming and cultivation of arable crops.

3.2 Sources of Data

The data for the study were primary data collected with the help of a structured questionnaire administered to the rural farmers by the researchers. These data relate to the farmers’ credit financing and production activities. A total of 60 respondents were sampled.

3.3 Sampling Procedure

A multistage random sampling technique was employed in selecting the respondent farmers used for the study using the list of farmers in the study area compiled by two state - owned agricultural development institutions namely; the Lagos State Agricultural Development Authority and FADAMA (a Federal Government Agricultural Development Agency) as the sampling frame. In the first stage, three zones within the Local Government Area were chosen at random. In the second stage, two villages were randomly selected from each of the zones using the Agricultural Development Project (ADP) list of villages. The last stage was the random selection of farmers from households within the village.

3.4 Model Specification and Estimation

The Tobit regression model was used to analyze the demand for micro finance by farmers in the study area. This model has the capability of estimating an equation system inversely so that the probability of an event happening or not can be captured in the dependent variable. The Model is expressed thus:

$$Y_i = X_i\beta + \mu_i, \quad \mu_i \sim N(0, \sigma^2)$$

$$Y_i = Y_i^* \quad \text{if } Y_i^* > 0$$
$$= 0 \quad \text{if } Y_i^* \leq 0$$

$$X = 1, 2, 3, \dots, n$$

and $Y_i = f(X_1, X_2, X_3, \dots, X_n)$

where:

Y_i = Total Credit received (Naira)

X_1 = Age of the farmer (Years)

X_2 = Size of farmer's household

X_3 = Years of farming experience

X_4 = Interest charged (%)

X_5 = Farm size cultivated (ha)

X_6 = Group membership or not

X_7 = Returns from farming activities (Naira)

X_8 = Gender

X_9 = Time lag

The model uses the method of Maximum Likelihood (ML) to carry out the estimation.

4.0 Results and Discussions

Table 1 presents the result of the estimated model. The R^2 and the Likelihood Ratio value indicate a goodness of fit for the equation. The age variable (X_1) has negative signs but is not statistically significant. The remaining variables carry positive sign implying that increase in these factors will improve the likelihood of seeking loan approval. Farming experience has the expected sign but is not significant. Interest charged and group membership are also not significant contrary to expectation. However, Household size, Farm size, Returns on farming activities, Gender and Time lag for loan disbursement are all significant at 1% level implying that these variables determine the demand for microfinance.

Table 1: Tobit Regression Model Result

Variable	Parameter	t - Value
Age (X_1)	-0.1924 (0.2439)	0.7888
Household Size (X_2)	0.8064* (0.3240)	2.4889
Farm Experience(X_3)	0.1786 (0.1643)	1.0870
Interest Charge in percentage (X_4)	0.5781 (0.4650)	1.2432
Farm Size (X_5)	0.6342* (0.2473)	2.5645
Group Membership (X_6)	0.1254 (0.1486)	0.8439
Returns from farming activities (X_7)	0.7632* (0.2248)	3.3950
Gender (X_8)	0.4016* (0.1523)	2.6369
Time Lag(X_9)	0.6460* (0.2572)	2.5117
Constant	-2.0323	2.6482
R^2	0.6258	
Likelihood Ratio	184.2451	

* - Significant at 1% level

N.B: Figures in parentheses are standard errors.

The time lag for loan disbursement is of major concern. Time lag can significantly increase borrowing transaction cost and also contribute to higher default (Olomola, 1990). The time lag which is defined as the time interval between the submission of loan application and actual collection of loan (months) also serve as impediments to credit acquisition. The lower the time lag, the lower the default rate and the higher the rate at which the loan would be utilized for the purpose for which it was sought. Loans through private organization takes few months to be disbursed when compared to financial institutions like Nigeria Agricultural Co-operative and Rural Development Bank (NACRDB). It has a positive significant effect in total credit obtained showing that if the loan delivery misses the critical period of use, due to excessive delays of loan processing stage, there is tendency that such a loan is likely to be diverted for another use that is not meant for. Gender also had positive sign showing that demand for micro-finance is gender biased. That is, demand for credit is positively related to the borrower's gender. Farm size, was also found to have positive significant effect on total credit. Those with large farm size are more likely to demand for finance. This may be because land provides collateral for low-income households.

5.0. Conclusion and Recommendations

Developing the agricultural sector in developing countries such as Nigeria must of necessity concentrate on the country's teeming population of rural, small holder's farmers who constitute the larger bulk of agricultural

producer. Strategies must be put in place to ensure that many of these farmers gain greater access to institutional credit source because non-institutional credit sources have proven inadequate in generating the financial resource needed to raise the productivity of the rural farmers. There is an urgent need for greater flexibility in the lending procedure of financial institutions so as to reduce the time lag involved in loan procurement. The time lag involved in application for, processing and actual approval or granting of loan need to be greatly reduced since this serves as impediment to effective use of fund and also encourage default on loans since in most cases when the loan is actually approved it is diverted due to its delay and actual time of farming would have lapsed.

Government should strengthen existing farmers' co-operative societies. The societies could help in improving the mobilization of saving from the farming sector thereby facilitating credit provision. In many cases, large scale production could not be engaged in by many farmers due to the problem of credit shortage. Yet, there is the need to encourage expansion in the scale of operation of the farmers. There is thus the need to implement a more effective and operational micro finance scheme that addresses the constraints posed by farmers' socio-economic deficiencies to their ability to access adequate credit.

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