Scientific Papers Series Management , Economic Engineering in Agriculture and Rural Development
Vol. 14, Issue 1, 2014
PRINT ISSN 2284-7995, E-ISSN 2285-3952

LOCAL INSTITUTIONS' MICRO CREDIT DELIVERY AND EFFECTS ON RURAL FARM HOUSEHOLDS' POVERTY IN ABIA STATE, NIGERIA

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Abstract

The study examined the effect of local institutions' micro credit delivery on rural farm household poverty status in Abia state, Nigeria. Multistage random sampling technique was employed in collecting data from two hundred and four (204) rural farm households in local institutions using structured interview schedule. The data were analyzed using descriptive statistics, poverty indices, and paired t-test. The study revealed reveals that the religious association granted the highest amount of credit (₦91,950.0) to their members more than any other local institutions in the study area, while the mean amount demanded was ₦ 128,491.3. The average annual contribution of members in different local association was ₦36357.35 with a low percentage cash contribution index of 10.59%. The result of the poverty indicators of the rural farm households in local institutions showed that the poverty line (mean monthly household expenditure) of the farm households was ₦16=₦20648.94 per month or ₦ 247787.28 per annum. The incidence of poverty otherwise called the head count ratio was 0.4863 while the coefficient of poverty gap (poverty depth) was 0.2458. The result of the paired t-test showed that the local institutions' micro credits impacted significantly on the mean annual farm income and monthly expenditures of the rural farm households in the study area. It was however, recommended that the autonomous local institutions should be integrated into the current poverty alleviation programme of the government and making them channels for loan delivery with a view to strengthening the financial capacity of its members as well as achieving the Millennium development goals of reducing poverty by half.

Key words: *farm households, local institutions, micro credit, poverty*

INTRODUCTION

Poverty is increasingly being recognised as both a policy and economic problem in Nigeria. The state of rural poverty in Nigeria is no less alarming with very sharp deterioration in the living standard of the people [17]. The percentage of people living on less than US$1.25 daily (the poor) in Nigeria jumped from 47.2 percent in 1981 to 62.4 percent in 2005 [19]. Farm households in South Eastern part of the country are predominantly poor farmers that maintain their traditional occupation mainly on small scales. They earn poor incomes from farms and therefore have increasing drive to diversify income sources from off-farms [14,15,7].

Inadequate capital is a major problem confronting small-scale enterprises including farmers in Nigeria, despite the fact that small scale farmers produce the bulk of the food consumed locally and some export crops which generate foreign exchange to the country. A large proportion of Nigeria's poor lack access to financial services. This presents a fundamental challenge for the rural financial sector development in the country. Inadequate access to credit by poor rural households has negative consequences for agricultural and non-agricultural productivity, income generation and household welfare [5].

In Nigeria, the decline in food production has partly been blamed on low investment in agriculture arising from unavailability of farm credit and farmers' inaccessibility to the available formal credit facilities [18,6]. Availability of credit is truly an issue that depends on supply factors and is quite different from accessibility to credit which is a demand driven concern. These among other issues bedeviling agriculture have provoked the need to increase investment in agriculture through interventions that cushion the conditions including encouraging farmers to form groups or local institutions that enable them access micro loans from the institutions//groups or other formal lending financial sources. Operations of Nigeria's quasi formal credit such as Family Economic Empowerment Programme (FEAP), Nigerian Bank of Agriculture), National Fadama Programme, and National Investment Loans in Agriculture rely greatly on the liquidity risk management power and power of interactions of these institutions in assuring identity and accountability to the members getting involved in such programmes.

A number of farmers come together with common (unifying) interest of improving their occupational operations and hence livelihood and form a group or institution within their village or community levels. The motivation and the unifying interest amongst members in such group suggest like-mindedness and potential to work for and even help each other absorb variability in personal income and other economic shocks.

Many of these traditional institutions and groups are social, others are economic while yet a good number serve both social and economic purposes in livelihood of their members. When the groups are social groups, they help in creating social capital which among other assets include; institutional identity, relationships within, members' attitudes, and values that govern interactions among them as a people. These contribute to economic and social development of the communities [10]. In the culture of some local institutions found in the eastern part of the country, they are characterized by some social dimensions like provision of food, healthcare services, credit facilities and day-care/primary education for children of members [16]. Within these communities abound cooperative groups, religious groups, mutual associations groups, Age grade groups and Fadama groups. The economic groups concern themselves with their mutual interest that revolve around solving problems of primary production and marketing of whatever is their products and services.

There is growing evidence that local networks can have an impact on developmental outcomes – growth, equity, and poverty alleviation. Social capital as reflected in associational activity may lead to less imperfect information and hence lower transactions costs and a greater range of market transactions which can in turn lead to better outcomes [11]. For instance, social links among borrowers may increase their ability to participate in credit transactions that involve some uncertainty about compliance. Specifically, social capital can lead to a better flow of information between lenders and borrowers and hence less adverse selection and moral hazard in the credit market. Social networks also potentially expand the range of enforcement mechanisms for default on obligations in environments in which recourse to the legal system is costly or impossible.

Effective functioning social network have fundamental roles to play in fostering development. At the level of individual livelihoods, local institutions can perform very crucial functions. They can be a principal means for the poor to get access to financial assets; through facilitating saving, they can be of importance in reducing the vulnerability associated with uneven and unpredictable year-to-year changes in circumstances, and they can help convert illiquid assets into liquid ones in the event of emergencies Meanwhile, with the introduction of micro credit programmes, the poor are provided small loans accompanied with training in business skills to expand their existing business. These small loans tend to supplement existing resources of individuals or households to engage in various business

activities including micro and small-scale production, trading activities of all kinds and provision of services that generate income for their survival, allowing them to care for themselves and their families.

Based on the foregoing, this study is anchored on the following specific objectives which includes: (i) to describe the socioeconomic characteristic of rural farm households that are members of local institutions in the study area; (ii) to analyze farm household's mean monthly contributions (savings) to local institutions in the study area; (iii) to examine the amount demanded by members vis-a vis disbursement by the local institutions in the area; (iv) to examine the poverty profiles (poverty incidence, poverty gap) of rural farm households in local institutions in the study area; (v) to determine the effect of micro credit from local institutions on farm income and expenditures of rural farm household in the study area.

MATERIALS AND METHODS

The study was conducted in Abia state, Nigeria. The state is located within the South-eastern Nigeria and lies between longitudes 04^0 45' and 06^0 07' East of the Greenwich Meridian and Latitudes 07^0 00' and 08^0 10' North of the equator. The State is blessed with young and vibrant population who are largely homogeneous in socio psychological characteristics with a lot of farmers and local organizations and very strong in terms of popular grassroots organizations. Abia state is divided into 17 Local Government Areas (LGAs), which is grouped into three (3) agricultural zones namely, Ohafia, Umuahia and Aba zones. Its population stood at about 2,883,999 persons with a relatively high density of 580 persons per square kilometre [12]. Agriculture is the dominant economic activity and main source of employment in the State providing employment and income for more than 70.0 per cent of the population. The people are predominantly farmers and have the potentials for the production of agricultural produce and products such as palm oil, cassava, vegetables, palm kernel, yam, and rice and they also engage in food processing [1].

The study adopted a multistage random sampling technique in the selection of LGA's, local institutions and farm households. In the first stage, two Local Government Areas (LGAs) were selected randomly from each of the three agricultural zones of the state, thus giving a total of six LGA's. The second stage involved a random selection of two communities from each of the Local Government Areas, giving a total of 12 communities. From each of the chosen communities, a list of local organizations was obtained from the village secretaries who were the key informants. These formed the sampling frames for the farmers association from which samples of two local organizations were randomly selected in each of the selected communities, thus giving a total of 24 local institutions. The last stage of sampling involved the random selection of ten farm households' beneficiaries of local institutions' micro credit in each of selected local institutions. In all, a grand total of two hundred and forty (240) households who have accessed micro credit from local institutions were sampled for the study, however, 204 respondents' interview schedules were found usable for analysis.

The study employed primary data for its analysis which elicited information on membership to local groups/institutions, benefits (income) of members from groups/institutions, consumption expenditure, contribution of members to local institutions. Six enumerators who administered the questionnaire by personal interview method were consistently used in generation of this information, two for each agricultural zone of the state collecting the same data from the same farm households using the same semi-structured questionnaire.

The data collected were analyzed both descriptively and inferentially. Descriptive statistics such as frequencies, means, tables and percentages were used to analyze the socioeconomic profiles of the rural farm households in local institutions. Per-capita poverty indicators were used to draw

conclusion on poverty incidences while paired 't' test analysis was carried out to determine the effect of local institutions' micro credit on farm income and expenditures of rural farm households.

The following specifications were used to determine poverty level according to Ezeh and Anyiro [8].

$H = q/n$ …… (1)

Where:

H = the head count ratio

q = numbers of rural farm household living below the poverty line

n = the total number of rural farm households

The poverty gap will be calculated as

$I = \{(Z-Y)/Z\}$ ……..(2)

Where

I = the poverty gap

Z = the poverty line using the mean household expenditure

Y = the average income of rural poor farm household.

Paired treatment test (paired't' test) was used according to Ezeh and Anyiro [8]; Nwachukwu and Ezeh [13] as follows:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}} \quad \ldots\ldots\ldots\ldots .. (3)$$

$n_1+n_2 - 2$ degree of freedom.

Where:

t = paired t statistic

$\bar{X}_1$ = Mean parameters of farm households before accessing micro loans from local institutions

$\bar{X}_2$ = Mean parameters of farm households after accessing micro loans from local institutions

S_1^2= Variance of parameters of farm households before accessing micro loans

S_2^2= Variance of parameters of farm households after accessing micro loans.

n_1 = number of selected farm households before accessing micro loans

n_2 = number of selected farm households after accessing micro loans

RESULTS AND DISCUSSIONS

Socio-Economic Characteristics of Farm Households

The socio-economic characteristics of the respondents are shown in Table 1. The table shows that 52.0 percent of the rural household heads in local networks were males while 48.0% of them were females. This implies that male headed farm households were more interested in membership of local level institutions and possessed the ability to form social capital than female headed households. This result is in consonance with Christoforou [4] that women headed households tend to have significantly lower membership and levels of overall civic participation in social networks than males. The mean age of rural farm households was 40.79 years. This is an indication that the farm households involved in informal local networks in the study area were mostly middle aged that were within the active productive work force. Majority (90.7%) of the rural farm households in local institutions were literate possessing divers formal educational levels that ranged from primary school education to tertiary school education with a mean household size of 3.79 persons. This presupposed that educated households will generally appreciate the need to engage more in social networks in order to receive and evaluate information for business improvement and productivity [2]. The result also shows that the mean number of years spent in local institutions by the sample households was 23.12 years. This indicates a relatively high membership experience in social networks in the study area. It has been reported that higher social capital benefits accrue to individuals with a relatively longer period of local organization affiliation [3]. It may be noted that individuals do not affiliate without expectations of some social, psychological or material rewards. The mean annual income of the farm households in local institutions was ₦766,326.5. The relatively high income status of the rural farm households has implication for households' welfare, expenditures as well as their cash contribution to their associations. The mean

monthly household expenditure of farm households in local organizations in the study area was ₦20,648.94. This significantly low proportion of household expenditures on consumption and production outlets suggest and underscore the insidious and endemic nature of poverty often engulfing most rural households in Nigeria. Low expenditure and by extension low investment in agriculture result in low output and by extension low income and invariably the food sufficiency gap widens [8].

Table 1.Socioeconomics of rural farm households in local institutions in Abia State Nigeria

Variables	Mean
Age (years)	40.79
Household size (number)	3.79
Number of Years spent in local institution	23.12
Annual Income (₦)	766,326.5
Monthly expenditure (₦)	20,648.94
Gender of household head	**Percentage**
Male	48.0
Female	52.0
Education level	**Percentage**
No formal education	9.3
Primary education	21.67
Secondary education	27.5
Tertiary education	41.7

Source: Field Survey data, 2013:
Note 1 USD = ₦160

Annual cash contribution of members of local institutions

Cash contributions are made by households to their associations. Part of this savings are used for general running of the association and loaned as micro credit to members who signify interest in loan. Table 2 shows the distribution of the respondents according to their annual cash contributions to local level institutions in Abia State. The table revealed that a fairly good proportion (38.0%) of the rural farm households contributed between ₦20,000 and ₦39,000 annually to their local organization while 5.39% of them made annual cash contribution of ₦80,000 and above. These contributions include payment of membership dues, marriage levies, burial levies, project/ development levies, among others. The average annual contribution of members in different local association was ₦36,357.35. Of the maximum 100 score, the cash contribution scores averaged 10.59%. Given the low cash contribution index to different association, most farm households would seem not to partake in these associations for economic gains.

Table 2.Distribution of respondents according to their annual cash contribution to local level institutions in Abia state, Nigeria

Cash contribution (₦)	Frequency	Percentage
< 20,000	118	57.84
20,000-39,000	38	18.63
40,000-59,000	29	14.22
60,000-79,000	8	3.92
80,000 and above	11	5.39
Total	204	100.00
Minimum cash contribution (₦)	150	
Maximum cash contribution (₦)	150000	
Mean cash contribution (₦)	36357.35	
Standard deviation	120448.1	
Percentage Cash contribution index (%)	10.59157	

Source: computed from Field Survey data, 2013

Loan size demanded and disbursed by local institutions

The mean amount of credit demanded by farm households vis-a vis disbursement by their local institutions in Abia state is presented in Table 3. The table reveals that the religious association granted the highest amount of credit (₦91,950.0) to their members more than any other local institutions in the study area, while the mean amount demanded was ₦ 128,491.3. The reason could be attributed to the involvement of virtually all household members in religious activities and the dire need to reinforce their faith and belief in God and giving the desired assistance to their members. Also, farmers associations, age grades, village associations and gender based groups disbursed an average amount of ₦61,300.51, ₦45,975.38, ₦36,780.3, 30,650.25 respectively to their members, while the mean amount demanded was ₦ 85,660.89, ₦64,254.68, ₦51,396.53 and

₦42,830.5 respectively This indicate high influence of group dynamic effects.

The other local institutions: self help groups, cooperative societies, traders association and fadama groups granted a mean loan of ₦26,271.64, ₦24,520.2, ₦22,987.69 and ₦21,635.47 respectively to their members, while the mean loan amount applied to these local institutions were ₦36,711.81, ₦34,264.36, ₦32,122.83 and ₦30,233.26 respectively. Overall, the result shows that these local institutions' micro credit nearly bridged the credit supply and demand gap in the rural areas.

Table 3.Mean Distribution of loan Applied and disbursed by local institutions

Type of Local Institution	Mean Total amount applied by households (₦)	Mean total amount granted by institutions (₦)
Religious meetings	128491.3	91950.76
NGOs	-	-
Age grades	64254.68	45975.38
Gender-based	42830.45	30650.25
Dance groups	-	-
Parents/Teachers association	-	-
Village associations	51396.53	36780.3
Cooperative societies	34264.36	24520.2
Fadama groups	30233.26	21635.47
Farmers associations	85660.89	61300.51
Trader associations	32122.83	22987.69
Self help group	36711.81	26271.64

Source: Field Survey Data, 2013

Poverty profile of the rural farm household heads in local institutions

The poverty indicators of the rural farm household head in local institutions in Abia State are shown in Table 4. The table shows that the poverty line (mean monthly household expenditure) of the farm household heads was ₦20,648.94 per month or ₦ 24,7787.28 per annum. The incidence of poverty otherwise called the head count ratio [9] shows that the poverty incidence for rural farm household heads was 0.4863. This implies that 48.63% of the rural farm household heads in the study area were poor because their income fell short of the mean household expenditure used as poverty line.

The poverty gap (poverty depth) also known as the income short fall allows for the assessment of the depth of poverty among the rural farm household heads in local institutions in the study area. Table 4 shows that the poverty gap was 0.2458. This implies that the poor rural farm household heads in local institutions require 28.58% of the poverty line to get out of poverty. This amounts to ₦5,281.10 per rural farm household head per month or ₦63,383.99 per annum.

Table 4. Poverty Indicators of Rural farm household heads in local institutions in Abia State, Nigeria

Poverty indicators	Values
Mean monthly expenditure (₦)	20648.94
Poverty line (₦)	20648.94
Poverty incidence	0.4863
Poverty gap (Poverty Depth)	0.2458

Source: Field Survey Data, 2013; 1 USD = ₦160

The effect of micro credit accessed from local institutions in Abia State

The result of the paired t-test for difference in farm income and expenditures of rural farm households heads before and after accessing micro credit from local institutions is shown in Table 5.

The result shows that the mean farm income of the farmers before and after accessing micro credit from local institutions was ₦430611.22 and ₦ 766326.5 respectively. The mean difference between the two farm income levels was ₦335,715.28 with a standard error of 15975.7. The paired 't' result showed that this is statistically significant at 1.0% risk level because the calculated 't' = 4.5272 > the tabulated "$t"_{0.025}$ = 2.58. Therefore the null hypothesis is rejected. This implies that the farm income of the rural farm households after accessing micro credit from their local institutions was greater than their farm income before accessing micro loans. Therefore, the hypothesis of no significant difference in annual farm income of the farmers before and accessing micro loans from local institution is rejected.

The mean monthly expenditure value of the rural farm households before accessing micro credit from local institutions was ₦20648.94 while their mean monthly expenditure after accessing micro credit was ₦14306.38. The mean difference between the expenditure levels of the farm households was ₦6342.553 with a standard error of 1771.302. The paired 't' result showed that this is statistically significant at 1.0% risk level because the calculated 't' = 3.5807 is greater than the tabulated "t"$_{0.025}$ = 2.58. Therefore the null hypothesis is rejected.

Table 5: Result of paired t-test for difference in farm income and expenditures of rural farm households before and after accessing micro credit from local institutions in Abia State, Nigeria

Variable	Individual mean	Mean difference	Standard Error	T-value
Farm Income after accessing micro credit (Naira)	766,326.5			
Farm Income before accessing micro credit (Naira)	430,611.22	335,715.28	159,758.7	4.5272
Monthly expenditure after accessing micro credit (Naira)	20,648.94			
Monthly expenditure before accessing micro credit (Naira)	14,306.38	6,342.553	1,771.302	3.5807

Source: Field Survey data, 2013.

CONCLUSIONS

Based on the empirical evidence emanating from both descriptive and inferential statistics employed for this study, the following conclusions can be drawn on the findings: The mean annual cash contribution to local institution was surprisingly low while less than half of the farm household in local institutions were living below poverty line. Meanwhile, the local institutions' micro credit nearly bridged the credit supply and demand gap in the rural area. The research revealed also that the local institutions' micro credits impacted significantly on the mean annual farm income and monthly expenditures of the rural farm households in the study area.

Based on the findings of the research, the following recommendation will suffice;

The level of funding by the local institutions should be increased as evidence has shown that an appreciable number of their members were living below poverty line. Therefore, increase in the volume of credit disbursed to rural farm households has the attendant effect to enable them to meet up with their financial needs and help realize the much needed food security objectives.

The study observed a significant impact of local institutions' micro credit on the mean annual farm income and monthly expenditures of the rural farm households. Therefore, policy makers interested in improving the living conditions of farm households are advised to consider promoting social capital through group as one relevant ingredient to achieve the Millennium development goals of reducing poverty by half.

In terms of policy, the autonomous local institutions should be integrated into the current poverty alleviation programme of the Government. Their performance in finance-related and productive activities can be enhanced if they are linked up with basic skill acquisition schemes under the poverty reduction programmes of both the federal and state governments.

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