

DEMAND FOR INSTITUTIONAL CREDIT AMONG ARABLE CROP FARMERS IN OBIO-AKPOR LOCAL GOVERNMENT AREA OF RIVERS STATE

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ABSTRACT

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The study examined the level of credit demanded by farmers and identified the challenges faced by the farmers in the course of credit acquisition from financial institutions in Obio-Akpor Local Government Area (LGA) of Rivers state. It also discussed the benefits of credit for agriculture in the context of a developing economy like Nigeria. The study objectives were achieved with the use of descriptive statistics and a Probit modelling. The study result revealed that the demand for institutional credit is significantly influenced by gender. The challenges that farmers encountered in demanding for credit included inadequate personal fund, high transaction cost and unacceptable physical collateral. The study also presented the need for the adoption of efficient and effective loan processing system to enable effective provision of credit to farmers. It is suggested that female farmers should be favoured as much as their male counterparts in the provision of credit by financial institutions as this would impact positively on agricultural production since women form the bulk of agricultural labour in the study area.

INTRODUCTION

Developing agriculture is very important for the attainment of a sustainable development in any country (Olalade and Olagunju, 2013). Agriculture plays an active and supportive role in rural development by providing employment, income and food (Nwayanwu *et al.*, 2014). A strong and efficient agricultural sector would ensure adequate food security for an expanding population and providing needed raw materials for industries as well as sustain the balance of payment equilibrium in an economy like Nigeria. A developed agricultural sector not only ensures industrial growth of a nation with high capacity utilization through the production and smooth flow of raw materials but also through the release of labour and consequently, employment in the economy (Famogbeile, 2013). Agriculture is important for economic growth and development. However, it is evident that the present state of agriculture in Nigeria is not effective to ensuring optimal performance as evidenced by a yearly high food import bills (CBN, 2012). Therefore there is need for sustained financing for improved and sustainable agriculture to be achieved.

Agricultural financing has become a vital input with the advent of mechanized agriculture which requires huge capital outlay. The provision of funds for agricultural operations enhances agricultural production and enables farmers to secure modern machinery, adopt new technology, hire needed labour and expand production. In addition, financing agriculture would promote enterprises that offer public benefits such as provision of water, good roads, health and education facilities etc. It will also bring about opportunities for agro-tourism, agro-entertainment, regional identity, cultural values and rural vitality (Batie, 2003). Agricultural credit is essential and needed to expand the scale or farm operations and improve productivity (Anigbogu *et al.*, 2015). However, many of the rural farmers are faced with the challenge of access to finance which impedes their ability to produce at optimum. Some of the challenges associated with finance accessibility include high operational and transaction cost, bureaucratic loan process, high incidence of non-payment of loans due to risks in production, price risk, climatic events and the seasonal nature of agricultural products among others (Kofarmata *et al.*, 2016; Carter *et al.*, 2007). It is on this note that the paper advocate for the provision of institutional credit.

However, studies have shown various factors influencing the demand for credit which though not limited to, include migration and bad harvest (Nwaru *et al.*, 2011); gender, household income, farm capital, improved technology adoption, extension contact, farm location and awareness of lending institutions in the area (Anang *et al.*, 2015), occupation type (Anyiro and Oriaku, 2011), institutional characteristics (Auma and Mensah, 2011), household size, age, experience of the household head in credit use, ownership of adequate collateral and interaction of farmer with extension services (Bendig *et al.*, 2009; Dube *et al.*, 2015). However, it is important to note that accessibility of credit is also a determinant for the demand of credit by farmers. The perceived wary attitude of Nigerian banks towards agriculture indicates that the barrier to lending also includes a lack of willingness to extend lending to agriculture. On this background, the study sets out to determine the factors affecting the demand for institutional credit among arable crop farmers in Obio-Akpor Local Government Area of Rivers State. It specifically examined the level of credit demanded by arable crop farmers in the study area, determine the factors affecting credit demand among arable crop farmers and identify the problems facing farmers in the demand for institutional credit.

METHODOLOGY

The study was carried out in Obio-Akpor Local Government Area (LGA) of Rivers state, Nigeria. The Local Government Area is located in the metropolis of Port Harcourt, one of the major commercial nerves of Nigeria and a major city of the Niger Delta. Obior-Akpor covers 260 km² and according to the 2006 Census Report, the area had a population of 464,789 (Kotingo *et al.*, 2014). Obio-Akpor LGA lies in the tropical wet climate zone, characterized by abundant rainfall with little dry season. It lies between latitudes 4° 45' N and 4° 60' N and longitude 6° 50' E and 8° 00' E. Obio-Akpor is generally a lowland area with an average elevation below 30 meters above sea level. It comprises about 62 communities with its headquarters at Rumuodumaya. The population of study comprised of all the registered arable crop farmers within the LGA as provided by the Agricultural Development Programme (ADP) office in Rivers State. Forty (40) arable crop farmers were randomly surveyed from each of three purposively selected communities, giving a total of 120 arable crop farmers. The instrument used for data collection was a questionnaire which was structured into three sections comprising questions that would elicit information needed to achieve the objectives of the study. Data collected were analysed using descriptive statistics and Probit multiple regression model. The Probit model specification used in the analysis is expressed as:

$$Y^*_i = B_1X_1 + e_{ii} \quad (1)$$

$$Y^*_i = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + B_5X_5 + B_6X_6 + B_7X_7 + B_8X_8 + e_{ii} \quad (2)$$

Y^*_i = binary variable for the probability of farmer's demand for credit.

X_1 = high loan transaction cost: yes=1, other = 0

X_2 = age of the farmer in years

X_3 = Gender (male=1, female=0)

X_4 = household size (number of persons)

X_5 = educational attainment (years)

X_6 = farming experience (years)

X_7 = farm size (ha)

X_8 = type of crop planted (crop diversification indicated by number of crops)

e = error term

RESULTS AND DISCUSSION

Socioeconomic characteristics of the arable crop farmers

The result of the socioeconomic characteristics of the farmers in the study area is presented in Table 1. The results showed that majority 40.8% of the farmers fall within the age range of 51-60 years, followed by those within 41-50 years (26.7%) indicating that arable farming is practiced by an ageing population. It is observed that 60.8% of the surveyed farmers are females as against 39.2% males implying that more of females are involved in arable farming in the study area. Agreed, there is increasing recognition of the significant contributions of women to agriculture in Nigeria and other parts of Africa, thus resulting in some lending institutions targeting women farmers (Anang *et al.*, 2015). About 50.8% of the respondents had a household size of 9-12 members; household size was expected to negatively affect the demand for credit. This is because larger households especially those with more children and elderly people who are less economically active are more likely to consume a large share of their income thereby having less collateral in form of accumulated assets (Tang *et al.*, 2010).

With regards to the literacy level, 63.3% of the sampled households had no formal education and 5% of the respondents attained tertiary education. It was observed that 80.8% of the respondents had farm sizes that were less than one hectare while 19.2% of them had farm sizes ranging from 1 – 2 hectares of land. It was also revealed that 47.5% of the sampled farmers had farming experience of 31 – 65 years, followed by farmers (28.3%) with 21 – 30 years of farming experience. The level of farm engagement showed that 68.3% of the respondents were part time farmers, who engaged in non-farm activities, so as to boost their income. In terms of crop diversification represented by the number of crops planted by a farmer, majority of the sampled farmers in addition to other crops, planted cassava (93.5%) followed by vegetable farmers (78.3%).

Distribution and level of credit demand among the farmers

Table 2 showed that 31.6% of the farmers have applied for credit while majority (68.3%) have not. It was found that majority (93.9%) of the farmers practiced subsistence farming which contributed to their lack of interest (60.8%) in considering demand for institutional credit. More so, 82.9% of the farmers indicated that poor knowledge of lending institution and the long procedures involved in loan acquisition (58.5%) affected the level at which they applied for credit. It was also gathered that 81.6% acquired credit from cooperative societies. About 71.1% of the respondents reported to have applied for credit from the commercial banks and 57.9% of farmers from the community banks. The need to increase income recorded the highest response (94.7%) for the purpose of applying for credit among respondents, followed by the need to expand (57.9%) and cultivation of new crop (10.5%). The result support the study of Anyiro and Oriaku (2011) which found that many farmers demanded for credit to expand the scope of their farming because of its benefits. The result revealed that 53% of those who applied for credit were granted the credit. In addition, Table 2 showed that the farmers who didn't get the credit were mostly denied due to their inability to provide suitable farm records followed by inadequate personal fund

availability which recorded 80% of the respondent. Majority (55.6%) of the respondents claimed that their loan application took longer than three months to process.

Table 1: Socioeconomic characteristic of surveyed farmers

Variables	Frequency	Percentage
Age		
≤ 30	1	0.8
31 – 40	12	10.0
41 – 50	32	26.7
51 – 60	49	40.8
> 60	26	21.6
Gender		
Male	47	39.2
Female	73	60.8
Household size		
1 – 4	10	8.3
5 – 8	34	28.3
9 – 12	61	50.8
13 and Above	15	12.5
Level of education		
No formal education	76	63.3
Primary	24	20.0
Secondary	14	11.7
Tertiary	6	5.0
Farm size in hectares		
< 1	97	80.8
1 – 2	23	19.2
Farm experience in years		
1 – 10	5	4.16
11 – 20	21	17.5
21 – 30	37	28.3
31 – 65	57	47.5
Farming status		
Full time	28	23.3
Part time	82	68.3
Crops planted*		
Maize	54	45.0
Vegetable	94	78.3
Cassava	112	93.3
Yam	84	70.0
Number of respondents	120	

*Multiple responses recorded. Source: Field Survey Data, 2016

Table 2: Distribution and level of credit demand among the farmers

Statements	Frequency	Percentage
Have applied for credit		
Yes	38	31.6
No	82	68.3
Reasons for non-application of credit		
Lack of interest	50	61.0
Poor knowledge	68	82.9
Fraudulent practices	48	58.5
Subsistence farming	71	93.9
Inadequate information	21	25.6
Source of credit		
Commercial bank	27	71.1
Community bank	22	57.9
Cooperatives	31	81.6
Purpose of credit demanded		
Expansion	22	57.9
New crop cultivation	04	10.5
Purchase of farm inputs	02	5.3
Increase income	36	94.7
How often do you apply for credit		
Yearly	22	57.9
Twice in a year	16	42.1
Has your loan been granted		
Yes	20	52.6
No	18	47.4
Reasons for loan denial		
Lack of personal funds	16	88.9
Poor farm records	18	100.0
Incomplete application	10	55.6
Small farm size	13	72.2
Duration of credit processing		
1 month – 3 months	8	44.4
4 months – 6 months	10	55.6

Note: multiple responses were sometimes recorded. Source: Field Survey Data, 2016

Determination of factors affecting credit demand among arable crop farmers

The result of the Probit analysis on the factors affecting the demand for institutional credit among arable crop farmers in the study area is shown in Table 3. It can be observed from the Probit result in Table 3 that only gender had significant relationship on the probability of farmers demanding for credit. Male farmers were 0.81 points more likely to demand for credit than their female counterparts. The chi-square statistic of the Pearson goodness-of-fit test (0.284) which is not significant implied that the probit model adequately fits the data. Thus, it is inferred that the major factor influencing the application for credit by farmers in the study area is their gender. This result agrees with the findings of Nwaiwu (2015) that gender is a significant factor in institutional credit demand among arable crop farmers. Some of the variables had negative signs although not significant. For instance, it is seen that the likelihood of demanding for credit declined among farmers who perceived loan transaction to be high. Similarly, demand declined among farmers as they aged, had bigger household size and engaged in crop diversification.

Problems encountered by farmers in institutional credit demand

The various problems encountered by arable crop farmers in the demand for institutional credit is presented in Table 4. The result in Table 4 revealed that all (100%) of the respondents agreed that the long period of loan processing is a challenge that affects the progress of agricultural activities which is seasonal. Therefore, early disbursement of funds will enable the farmer to plan appropriately. More so, 100% of the farmers agreed to the fact that financial institutions often disburse smaller amounts of loans against the actual amount of loan requested

by the farmers resulting in low demand for institutional credit by the farmers. Also, 66.7% of the sampled farmers agreed that the problem of inadequate financial institution in the study area and the unavailability of funds hindered their demand for institutional credit. High loan transaction cost had a positive response of 72.2% from the respondent who applied for institutional credit. Furthermore, a majority of the farmers (83.3%) reported that long distance to credit institutions was a challenge to the demand of credit from financial institutions as well as the long bureaucratic procedures (83.3%). The result also agrees with the findings of Ololade and Olagunji (2013) and Anigbogu *et al.* (2015) that revealed that unacceptable physical collateral (73.3%) is a problem encountered by farmers.

Table 3: Estimates of Probit analysis

Variable	Coefficients	Std. Error	Z	p-value
High loan Transaction Cost	-.0111	0.252	-0.439	0.660
Age of Farmer	-0.003	0.012	-0.212	0.832
Gender	0.813	0.268	3.036	0.002*
Household Size	-0.050	0.041	-1.217	0.224
Educational Status	-0.003	0.143	-0.023	0.981
Farming Experience	0.000	0.014	0.029	0.977
Farm Size	0.096	0.196	0.488	0.625
Type of Crop Planted	-0.157	0.171	-0.919	0.358
Intercept	0.105	0.805	0.130	0.897
Pearson Goodness-of-Fit Test	119.025			0.284

*Relationship is significant at 0.05 level of significant. Source: Field Survey Data, 2016

CONCLUSION

The results showed that many young people do not engage in farming activities and as such farming is practiced by an ageing population. A larger population of the farmers was observed to have no formal education and which could hinder farmers' demand for institutional credit as they are unable to read and write. It was further observed that majority of the farmers were unable to apply for credit from financial institutions as a result of their small scale system farming. Notably, high transaction cost, small amount of loan, long period of waiting to obtain loan after submission of application were among the major problems encountered by farmers in the demand for institutional credit. In addition, it was inferred from the Probit analysis that the major factor influencing the application for institutional credit by farmers in the study area is gender. The result implied that the male farmers were more likely to demand for credit than the female farmers. Based on the findings, the study recommends that female farmers should be more engaged in adult education to boost their literacy skills to enhance their capability to apply for institutional credit and there should be improvement of farmers' access to extension services and extension related activities that exposes the farmers to information on credit as well as enhances their access to formal credit. In addition there should be an improved publicity mechanism for dissemination of information to create an excellent awareness among farmers.

Table 4: Problems encountered by farmers in credit demand

Problems	Yes	Percentage	No	Percentage
Inadequate finance in the institution	12	66.8	6	33.3
High interest rate	8	44.4	10	55.5
Unavailability of funds	12	66.7	6	33.3
Small amount of loan	18	100.0	0	0.0
Unacceptable physical collateral	14	77.9	4	22.2
Long waiting period to obtain loan after application	18	100.0	0	0.0
High transaction cost	13	72.2	5	27.8
Unable to read or write	10	55.5	8	44.4
Excessive bureaucratic procedures	15	83.3	3	16.7
Refusal to invest in agriculture	7	38.8	11	61.1
Repayment period	7	38.8	11	61.1
Long distance to credit institution	15	83.3	3	16.7

Multiple responses recorded. Source: Field Survey Data, 2016

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