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ANALYSIS OF RURAL FARMING HOUSEHOLDS' ACCESS TO CREDIT IN KWARA STATE NIGERIA

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ABSTRACT

Agricultural credit has been identified as an important component in the development of the agricultural sector in Nigeria. Though, agricultural credit has the potentials of improved capital formation, increased resource productivity and diversified agriculture among the rural farming households, inadequate access to agricultural credit is among major factors responsible for the decline in the contribution of agriculture to Nigerian economy. This study therefore examined various sources of credit available to the famers in Kwara state, Nigeria. It also analyzed the determinants of access to agricultural credit among the farming households. A two-stage random sampling technique was used to select a sample of 90 farming households as respondents. The respondents were interviewed with the aid of well structured questionnaire. The data obtained were analyzed using descriptive statistics and Ordinary Least Square regression analysis. The study showed that co-operative societies, personal savings and rotary loan scheme 'esusu' were the regularly accessible sources of credit. The study also showed that interest rate, type of agricultural enterprise and size of farm had significant relationship with the farmers' access to credit. Lack of collateral security was also identified as a major problem faced by farmers in accessing loans. It is therefore recommended that the formation of co-operative societies should be encouraged among farmers. Also, government should adopt policies that would encourage the formal credit institutions to grant soft loan for agricultural production.

KEYWORDS: Rural Households, Cooperative, Constraints, Credit, Kwara State

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INTRODUCTION

Nigeria is a country endowed with a large expanse of land with tremendous potential resources and favourable climate for producing food and other raw materials for export and domestic industries. However, Nigeria has not been self-sufficient in food production (Spore, 1993). The performance of the nation's agricultural sector has often been described as being far below optimum (Akinbile 2003). As a result the Nigerian economy is totally dependent on oil for export earnings despite the nation's vast agricultural resource base.

The agricultural sub-sector of the economy accounts for 41.5% of the country's Gross Domestic Product (Olawunmi, 2007). According to Bello (2002), 65% of the country's population produce 41.5% of the GDP. This shows that the percentage of Nigerians engaged

in agriculture is more than the world average of 45.7% (Aina, 1995). Small-scale farmers play a dominant role in this contribution (Rahji and Fakayode 2009), but their productivity and growth are hindered by limited access to credit facilities (Odoemenem and Obinne 2010). However, the average Nigerian small scale farmer is poor, non-literate, and lacks access to most basic social amenities as well as improved varieties of inputs and modern farming implements. The consequence of these has been low production and productivity (Awoyemi, 1998).

Moreover, agriculture in Nigeria is faced with many problems among which is inadequate infrastructure, high cost of labour, technological constraints, and lack of storage facilities. However, a closer look at these problems and approaches to solving them would reveal the vital importance of credit, because in solving all these problems there is need for a huge financial outlay. There is a potentially high demand for credit by farmers in Nigeria because credit is needed to increase agricultural production. Norman (1980) emphasized access to farm credit as one of the means for improving farm capital investment. Teriba (1992) noted that rural credit was one of the pre-requisites and perhaps the most important one for rural development.

The difference in accessibility to capital resources, more than any other factor distinguishes the agricultural sector of developing countries from that of the developed countries of the world. While farmers in Africa have demonstrated that when given dynamic opportunity to earn higher income they can be dynamic producers (Harsch 1994), the Nigerian agricultural food sector is characterized by low income earners with very low disposable income. It has been observed that rural farmers do not have enough to eat and poverty is prevalent.

Consequently, savings have become an unaffordable luxury and over 60% of Nigerian farmers live below poverty line (Okunmadewa 2003). Farmers access to credit facilities is expected to be an accelerator of agricultural development through a wide spread break away from traditional technology and by fostering the generalized adoption of developed and improved technology. Flores (2004) stated that institutional credit if made available to farmers could ameliorate some of the farmers problems such as small farm size, low output, low income and low social –economic status. It can also relieve farmers of the high interest rate imposed on them by the money lenders.

In view of the foregoing, this study therefore describes the various sources of credit available to the famers, identifies the constraints faced by farmers in obtaining loan and determines the major factors militating against loan availability.

MATERIALS AND METHODS

Area of Study

The study was carried out in Kwara State of Nigeria, which has about 75% of her population living in the rural areas. Over 90% of the rural population engage in various sizes and forms of agricultural activity (KWADP 1989-1993) .The state is divided into 16 Local Government Areas (LGAs), namely Barutin, Kaimma, Edu, Patigi, Irepodun, Ifelodun, Oyun, Offa, Isin, Ekiti, Oke-ero, Ilorin west, Ilorin east, Ilorin south, Moro and Asa.

Sampling Technique

The population for this study consists of rural farming households. A two stage simple random sampling method was used to collect the sample for the study. In the first stage, three Local government Areas namely, Ifelodun, Irepodun and Isin were randomly selected. The second stage was the random selection of thirty (30) farming households from each of the selected LGAs. In all, ninety (90) farming households were selected for the study.

Method of Data Collection

Primary data for this study were obtained by using structured questionnaire, personal interview and observation in the course of study. Secondary data were obtained from related literatures like journals, reports and publication etc. Data were collected on the socio-economic characteristics of the farmers, problems encountered in securing loan, problem encountered in repaying the loan etc

Method of Data Analysis

Descriptive statistics such as frequency distribution, percentages and averages were used to describe the various sources of credit available to the famers and identify the constraints faced by farmers in obtaining loan. The Ordinary Least Square Regression Model was used to determine the major factors militating against loan availability.

The variables for Regression Model for this study are specified as follows

$Y = f (X_1, X_2, X_3, X_4, X_5, X_{6,}U)$

Where:

Y= farmers access to credit measured by the proportion of credit obtained in relation to credit applied for,

X_1= age of farmers (years), X_2= level of education, X_3= interest rate (%),X_4=type of enterprise involved

X_5=size of farm (ha), X_6=years of farming (yrs) and U= error term

Four functional forms, the linear, double log, semi log, and exponential forms were fitted in each multiple regression model in order to select the best regression fit.

The following production functions were fitted to the model:

Linear function: $Y = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6$

Semi-Log function: $Y = b_0 + b_1\log X_1 + b_2\log X_2 + b_3\log X_3 + b_4\log X_4 + b_5\log X_5 + b_6X_6$

Cobb-Douglas Function or Double-Log function:

$\text{Log } Y = b_0 + b_1\log X_1 + b_2\log X_2 + b_3\log X_3 + b_4\log X_4 + b_5\log X_5 + b_6\log X_6$

Exponential function: $\text{Log } Y = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6$

The lead equation was chosen based on the following criteria:

(i) Magnitude of the coefficient of multiple determinations (R^2)
(ii) Significance of the overall function as judged by F-value
(iii) Number of significant variables
(iv) Conformity to the apriori expectation.

The functional forms used include the linear, exponential, semi-log and double log.

RESULTS AND DISCUSSION

The socio-economic characteristics of the households is summarized in Table 1

The mean age of the respondents was 43 years, 57% of the respondents were between the ages of 31 and 50 years. Majority of the respondents were therefore in their active economic and productive stage (Asiabaka, 1998).

In terms of educational status, 81% of the farmers were educated. On the other hand, 19% of the respondents have no form of education. Education affects the way farms are managed as well as overall production (Nkang et al., 2009). Educational level plays a good role in adoption of new policy and undertaking risks.

Majority of the farming households, represented by 77% of respondents had farm size less than 2.5ha. This may be because majority of the farmers were still operating at the subsistence level of farming. According to Ejembi, Omoregbe and Ejembi (2006), the length of service is probably an indicator of a person's commitment to the chosen career.

Sources of Credit

Table 2 shows that 39% of the farmers obtained their credit from co-operatives. This tends to show that shows that co-operatives were the most accessible means of credit. Ajetomobi and

Olagunju (2000) reported that a large percentage of farmers obtain credit from cooperatives. Nweze (1994) stated that the objectives of cooperative associations were to pool capital resources, labour for farm work, provision of financial assistance to members in need and community development. Cooperatives have been identified to be a better channel of credit delivery to farmer than the NGO's in term of its ability to sustain the loan delivery function (Alufohai, 2006).

The informal source of credit is more popular among small scale farmers which may be due to the relative ease in obtaining credit devoid of administrative delay, non-existence of security or collateral, flexibility built into repayment which is against what is obtained in the formal sources. Furthermore, 23% of the respondents obtained credit from personal savings.

Constraints in Obtaining and Repaying Loans

Table 3 identifies the constraints faced by farmers in obtaining loan

Provision of security was the major constraint of farmers in obtaining credit, about 32% of the farmers considered provision of security first before applying for credit. According to Okojie *et al* (2010), the lack of bank accounts, collateral, and information regarding the procedure for accessing credits from banks limit rural farmer's access to credit from formal institutions.

However, while it is expected that credit when used for production purposes would easily be repaid, this study showed that the respondents faced some challenges in repaying loans obtained from various sources. These challenges are as presented in Table 4.

Family responsibility was identified as the major factor militating against loan repayment. It may therefore be stated that the financial burden on the respondents with respect to the needs of the members of the households was so much that the credit obtained was not used entirely for production. This therefore constituted a hindrance to the ability of the respondents to repay loans obtained. Ogunfowora *et al*. (1972) reported that credit was not only needed for farming purposes, but also for family and consumption expenses. Rising cost of production, natural disasters and low market price of products also hindered the prompt payment of loans.

FARMERS ACCESS TO CREDIT

Rural farmers have different level of access to credit. The determinants of such access which were determined using regression analysis are as presented in Table 5.

X_1= age of farmers (yrs), X_2=level of education, X_3= interest rate (%), X_4=type of enterprise involved

X_5=size of farm (ha), X_6=years of farming (yrs) and U= error term

Of all the models shown in Table 5, the linear function was chosen as the lead equation as it has the highest adjusted R^2 value. It was also chosen based on the significance of the overall function as judged by F-value and the number of significant variables.

$$Y=45.797-0.293X_1 -1.610X_2+0.601X_3+12.04X_4+16.785X_5-0.967X_6$$

t-values (2.349)*(0.608) (-1.653) (0.498)*(2.792)*(3.120)*(-1.755)

From the lead regression equation, only three variables were statistically significant in explaining the variation in farmer's access to credit. The statistically significant variables at 5% level of significance were interest rate (X_3), type of enterprise (X_4), and size of farm (X_5).

The coefficient for interest rate (X_3) was positive and statistically significant; it had a strong relationship with credit acquisition. This showed that as the value of interest rate increased, the money given out also increased. This may be explained by the fact that as more money was recovered by the financial institutions, they would be willing to give out more so that they could gain more. Adegbite (2009), stated that financial lending institutions in Nigeria often shied away from giving loans to farmers because of the high cost of administering such loans and the perceived high default rates among farmers. However, with increasing interest rates, financial lending institutions will be more willing to give out loans.

The coefficient for type of enterprise (X_4) was positive and statistically significant. This means the more the enterprises in a particular farm the more credit the farmer tends to get. This may be so because the financial institution would consider the various enterprises and accordingly increase the volume of loan to accommodate the enterprises. The coefficient for size of farm (X_5) was positive and statistically significant. Farm size is an indicator of wealth and perhaps a proxy for social status and influence within a community. This implies that the bigger the size of a particular farm, the easier for the owner to acquire more credit from the credit institution. The increase in size of farm would lead to an increase in credit acquisition and in turn increase productivity. In the views of Olayide (1980) most of the rural farmers in Nigeria are small scale farmers, and are unable to secure loans.

CONCLUSION AND RECOMMENDATIONS

Farmers rely more on credit from sources like co-operative and Esusu (rotary loan scheme) for their financial needs. However, farmers are faced with problems in obtaining and repaying loans. In order to facilitate effective access to credit among farmers, the following recommendations are suggested.

Since co-operatives seem a more accessible source of credit to farmers, co-operative formation should be encouraged. This would go a long way in ameliorating the non-availability and complex loan procurement procedures involved in loan securing, particularly from financial institutions. Cooperative societies should provide on-lending facilities to the

farmers. This will not only provide increased access of farmers to credit but reduce the administrative cost which the credit institutions incur when dealing with individual farmers.

Central bank should provide better incentives to the commercial banks to grant more loans to the farmers and be more flexible in their demand for the provision of collateral which most small farmers cannot provide. Besides, commercial banks should adopt other criteria for the determination of credit worthiness for the farmers. This may include the ability of the farmer to use credit judiciously in

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Table 1: Socioeconomic Characteristics of the Respondents

Characteristics	Frequency	Percentage
Age (years)		
21 – 30	11	12
31 – 40	24	27
41 – 50	27	30
51 – 60	20	22
61 and above	8	9
Total	**90**	**100**
Mean	**43**	
Level of education		
No form of education	17	19
Quranic	7	21
Adult	4	4
Primary	22	25
Secondary	18	20
Post secondary	10	11
Total	**90**	**100**

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Farming experience		
Not more than 10	21	27
11 – 20	39	43
21 – 30	17	19
31 – 40	6	7
Above 40	7	8
Total	**90**	**100**
Farm size (Ha)		
Less than 1.5	31	34
1.5 – 2.4	39	43
2.5 – 3.4	14	16
Above 3.4	6	7
Total	**90**	**100**

Source: Field Survey 2010

Table 2 describes the various sources of credit available to the famers in the study area.

Table 2: P**ercentage Distribution of Farmers According to their Source of Obtaining Credit**

Sources of Credit	**Frequency**	**Percentage (%)**
Personal Savings	21	23
Friends and Relatives	10	11
Esusu Contribution	11	12
Co-operatives	35	39
Commercial Banks	13	15
Total	**90**	**100**

Source: Field Survey 2010

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Table 3: Percentage Distribution of Farmers According to the Constraints Faced in Obtaining Credit

Constraints	**Frequency**	**Percentage**
Provision of Security	29	32
Registration of land	5	6
Long Distance	3	2
Lack of knowledge of rules and regulations	6	7
Lending policies of credit institutions	6	7
Discriminatory attitude of lending institutions	5	6
Non co-operation of staff of credit institution	5	6
No problems	10	11
Not applicable	21	23
Total	**90**	**100**

Source: Field Survey 2010

Table 4:Percentage Distribution of Farmer According to the Problem of Loan Repayment

Problems	**Frequency**	**Percentage**
Rising cost of production	15	21.7
Low market price	8	11.6
Family responsibility	25	36.2
Natural disaster	10	14.5
No problems	11	15.9
Total	**69**	**100**

Source: Field Survey 2010
NB : 21 Farmers did not obtain loans

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Table 5: Regression Result on the Analysis of Farmers' Access to Credit

Forms of Equation	**Constant**	**Regression Coefficients**						**R^2**	**F-value**
		X_1	**X_2**	**X_3**	**X_4**	**X_5**	**X_6**		
Linear	45.798	-0.293	-1.610	0.601	12.04	1.678	-0.957	0.436	5.186
		(-0.608)	(-1.653)	(0.498)*	(2.792)*	(3.120)*	(-1.755)		
Semi-Log	108.661	-24.421	19.358	-6.369	5.1444	15.1584	1.6184	0.197	1.348
		(0.709)	(1.009)	(-2.064)*	(0.189)	(0.994)	(0.082)		
Double-Log	2.028	-0.119	0.111	8.64E.02	2.078E02	8.905E0	3.480E03 3.481(0.33)	0.192	1.310
		(-0.640)	(1.077)	(-2.024)	(0.149)*	(1.055)	-6.39E.03		
Exponential	2.039	-2.26E.031	-8.32E03	-3.43E03	5.880E02	5.966E.03	(-2.530)	0.260	3.698
		(-1.076)	(-1.545)	(-0.689)	(2.663)	(0.248)			

Source: 2010 Data Analysis
Note: - The figures in brackets are the t-ratio
**Asterisk- those that are significant at 5%*