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Econometric Analysis of Accessibility and Repayment Ability of Agricultural Credit among Rural Root and Tuber Crops Farmers in Oyo State Nigeria

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Abstract- This study examined the factors that contributed to the agricultural credit accessibility and repayment ability among rural tuber crops farmers in Oyo State Nigeria. The study specifically described the socio-economic characteristics of the respondents, sources of credit, conditions for obtaining credit and effects of socio-economic characteristics on repayment of credit. Random sampling technique was used to select 144 respondents in the study area, and the structured questionnaire was administered to collect data. Descriptive statistics and logit model was used in analyzing the data. The results showed that a higher percentage (56.9%) of both categories of tuber crops farmers were within the age bracket of 30-50 years. About 74.3% of those that obtained credit were male farmers. Majority of the respondents (91.7%) were married. 38.9% of the farmers have formal education. Only 48.7% of the farmers have secondary occupation. Most of the farmers have the family sizes between 6-10 people and most of the farmers had been practicing and cultivating tuber crops for at least 10-50 years. Most of these farmers are cultivating yam and cassava only a few are planting cocoyam as major or mixed crop. Majority of the farmers source for credit from cooperative societies, commercial bank, SPFS and friends.

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Keywords: root-tuber crops, rural farmers, credit repayment, logit regression.

I. Introduction

Agricultural credit has been described as loans and advances that are given to farmers to finance, service production, distribution and marketing of farm products resulting from these activities (Mgbakor et al, 2014; Ojiegbe and Duruechi, 2015). The role of agricultural credit in the development of agricultural sector cannot be over emphasized. Availability of agricultural credit is an important tool that determines the efficiency, progress, output, productivity, and access to all of the resources on which farmers depend (Adejobi and Atobatele, 2008; Kohansal et al., 2008; Oboh and Ekpebu, 2011; Ibrahim and Bauer, 2013; Filli et al., 2015; Alabi et al., 2016). Financing agricultural business in Africa is a serious task due to change and fluctuations in government policies (Lunt et al., 2016). Therefore, farming as a business must be managed very well like any other one, to do this; it requires a lot of capital which the farmers may not be able to get easily due to some shortcomings such as lack of collateral. Credit given to farmers would assist in the following ways: Procurement of new improved technology in agriculture, purchase of high yielding and disease resistant crops, put more land into cultivation and organizing the farm better and more purposeful (Kohansal et al., 2008; Chisasa, 2014; Ali et al., 2017). Agricultural credits are mostly obtained by rural farmers from personal saving, family, and friends, but this is not enough as sometimes you may not even get any from these sources (Hananu et al., 2015). However, financial institutions in Nigeria now provide funds for agribusiness but not all of them. The following are the source of getting credit by rural farmers: cooperative societies, microfinance banks, commercial banks, the bank of agriculture, the bank of industry (Nwanyanwu, 2011). Agricultural loan repayment is the act of paying back money previously borrowed from financial institutes. It usually takes the form of periodic payments that normally include part principal plus interest in each payment (Wijewardana and Dedunu, 2017). Repayment of Agricultural loans depends primarily on the successful planting and harvesting of crops. Loan repayment performance by rural farmers has been poor in Africa (Okarie, 2004; Olagunju and Ajiboye, 2010; Ibrahim and Aliero, 2012; Sileshi et al, 2012; Wongnaa and Awunyo-Vitor, 2013; Addae-Korankye, 2014; Agbo et al, 2015; Mgbenka et al, 2015; Ojiegbe and Duruechi, 2015). Credit default problem among rural farmers has been a tragedy as it leads to a system failure to implement appropriate lending strategies and credible credit policies. Also, it discourages the financial institutions

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from refinancing the defaulting members, which put the defaulters once again into a vicious circle of low productivity (Gebeyehu et al., 2013; Asfaw et al., 2016; Atinkut et al., 2016; Fentahun et al., 2018).

Yam, cassava and cocoyam are the most important annual root and tuber crops cultivated in tropical climates, especially in areas with moderate rainfall mainly for direct human consumption. They contain vitamins and minerals with a high concentration of dietary fibers which make them good diets, though they are very high in carbohydrate. They are cultivation of these crops complements food security because of their affordability (Apata and Babalola, 2012). They are cultivated in varied agro-ecologies and production systems ranging from highland densely populated regions to lowland drier areas prone to droughts or floods. These crops account for about 95% of the total root and tuber crops production in Africa and produce more than 240 million tons annually on 23 million hectares. One of the key economic values of these crops when they are processed as flour in most Africa countries. They also bring in much money to the farmers when sold in the market, hence their huge popularity (Eke-Okoro et al., 2014; Chandrasekara and Kumar, 2016).Yam is considered to have some cultural values; hence it is widely grown in Africa. Yam is easily grown here by planting the tubers or using tubers from previous planting season. Yam is used medicinally as a heart stimulant due to the presence of alkaloids. It is also used, as an industrial starch (Apata and Babalola, 2012). Cassava and cocoyam grow well under poor soil, and it can be cultivated with other crops such as vegetable, oil palm, coconut, groundnut, melon, etc. Cassava are processed into starch which serves as a very important raw material in the industry. Cassava are used as thickeners in food, stabilizer in foods such as ice-cream, glucose sugar are produced from the starch in cassava and cassava chips are also used in animal feed. It is used to produce high-value products like confectioneries, sweeteners, glue, textile, papers, and drugs (Apata and Babalola, 2012). Cocoyam contains mainly protein, starch and water and the leaves are a source of vitamin A and C. Cocoyam corm is used to manufacture drugs and paper due to its high concentration of mucilage (Apata and Babalola, 2012).

To the best of our knowledge, there is a paucity of information on the analysis of accessibility and repayment ability of agricultural loans among rural root and tuber crops farmers in Oyo State Nigeria. Therefore, the present research was undertaken with the aim of looking at sources of credit available to root and tuber crops farmers, conditions for obtaining credit among tuber crop farmers and factors affecting credit repayment among tuber crop farmers in the study area.

II. Materials and Methods

a) Study Area

This study was carried out in Ogbomoso, Oyo State, Nigeria, mainly because of some international and federal agricultural establishments are located in the state and because of its prominent agricultural activities being the primary occupation of the inhabitants of the state.

b) Sampling Technique

A multistage sampling technique was used to select 144 respondents from the state. Firstly, Ogbomoso agricultural zone was purposively chosen from the state, because a majority of the populace makes farming their primary occupation and the main source of income. The zone contains five blocks. Secondly, simple random sampling was used to select two cells from each block. Random sampling was used to select 15 farmers each from two cells, ten farmers each from six cells, seven farming household each from two cells. This selection was based on the number of registered farmers available in each cell.

c) Objectives

i. To determine the socio-economic characteristics of root and tuber crop farmers.
ii. To identify the sources of credit available to root and tuber crop farmers.
iii. To examine the conditions for obtaining credit among root and tuber crop farmers.
iv. To determine factors affecting credit repayment among root and tuber crop farmers.

d) Analytical Techniques

Various analytical techniques were used for this study. Descriptive statistics such as frequency distribution and percentages were used to analyse the socio-economic characteristics of the sampled farmers. Logit regression was used to quantitatively determine the factors that influence loan repayment among the respondents in the study area.

e) The Logistic Regression Model

A logistic model is a univariate binary model. We use a binomial logistic regression model given that the dependent variable is dichotomous: 0 when a farmer is having no access to credit and 1 when having access to credit. Due to the dichotomous nature of the independent variable, the logistic regression model was employed to assess how a set of independent variables such as sex, age, marital status, household size, level of education, farm size, farming experience etc. determine credit repayment among root and tuber crop farmers. Moreover, logit regression provides an indication of the adequacy of a set of predictors by assessing suitability and indicates the relative importance of each predictor variable or interaction among predictor variables (Hazra and Gogtay, 2017). Predictor variables are a set

of socioeconomic and demographic status indicators and dwelling endowment of the farmers. They contain both dichotomous and continuous variables. In the analysis of dichotomous outcome variable, the logit model is preferable to others, since it is extremely flexible and capable of generating meaningful interpretation (Owusu, 2017). The logit model is mathematically expressed by Olaguju *et al*., 2012 and Ololade *et al* (2013) as:

Let Pj denote the probability that the j-th farmer is having access to credit. We assume that Pj is a Bernouli variable and its distribution depends on the vector of predictors X, so that:

$$Pi\ (X) = \frac{e^{\alpha + \beta x}}{1+e^{\alpha + \beta x}} \quad \text{(i)}$$

The logit function to be estimated is then written as:

$$In\frac{Pi}{1-Pj} = \alpha + \sum_i \beta iXij \quad \text{(ii)}$$

The logit variable In{Pj/(1-Pj)}is the natural log of the odds in favour of the farmer having access to credit. Equation iii is estimated by maximum likelihood method and the procedure does not require assumptions of normality or homoskedasticity of errors in predictor variables.

III. Results and Discussion

a) *Socio-Economic Characteristics of Respondents*

This section discussed socio-economic characteristics of respondents to capture objective one: to determine the socio-economic characteristics of root and crops farmers and objective four: to determine factors affecting credit repayment among root and tuber crops farmers. The following socio-economic characteristics of both credit beneficiaries and non-beneficiaries were considered the age of farmers, gender, marital status, family size, educational qualification, religion, farm size, farming experiences, types of crop cultivated, source of credit and conditions of obtaining credit. The group's membership formation occurred without any bias toward the individual members' socio-economic characteristics.

The frequency distribution and percentages of respondents according to their ages are shown in figure 1 and table 1 respectively. Out of the total respondents, 22.2% were of age between 31-40; 34.7% were between 41-50 years of age, while 26.4% were between 50-60 years of age, and others were older than 60 years of age, revealing the respondents as financially and economically efficient middle-aged men and women. Only 4.2% were between 21-30 years of age. According to table 1 majority (34.7%) of credit beneficiaries belong to the age group of 41-50 years, while for non-beneficiaries, majority representing 43.1% also belong to the age bracket of 41-50 years. However, the results showed that a higher percentage (56.9%) of both categories of tuber crops farmers were within the age bracket of 30-50 years. This age bracket is productive age where farmers are physically and mentally fit for any agricultural activities. This age bracket agrees with the result of this study which recommended an age bracket of between 30-50 years for productive agriculture. This in line with the previous study by Badmus et al., 2015, and Ajayi et al., 2016 that stated that a large proportion of the farmers practicing organic farming were between 41-50 years showing that the farmers were mainly middle aged who are in their economically active stage and as such, can undergo the stress and this has implication for productivity of the farmers.

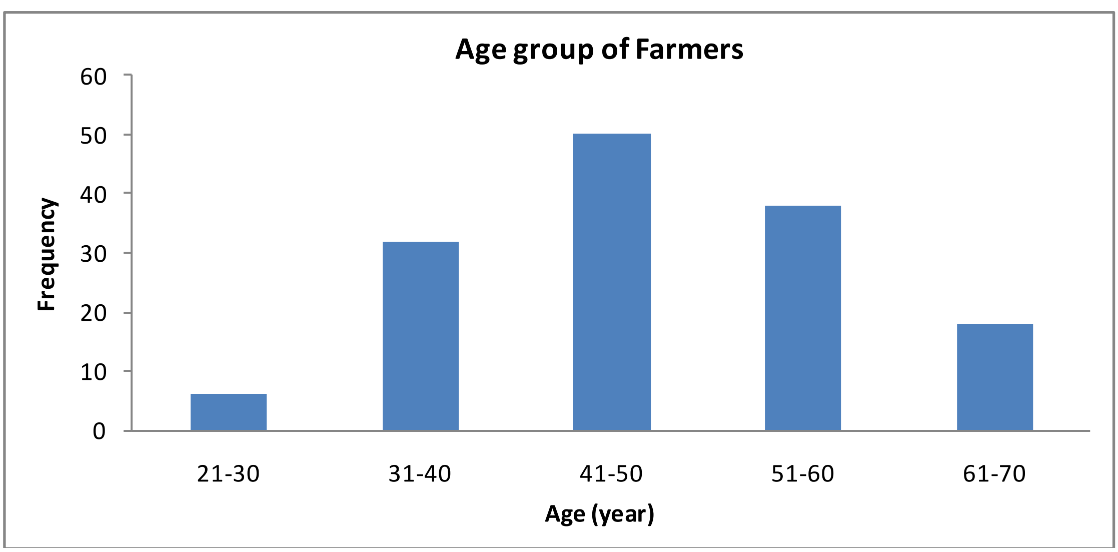

Figure 1: Frequency distribution of respondents according to age

Table 1 and figure 2 indicate that 74.3% of the respondents were male and 25.7% were female, showing that men are more actively involved in credit groups and tuber crops production. There was slight gender bias in the agricultural loan repayment in the study area because about 74.3% of those that obtained

credit were males. This shows that tuber crops production was dominated by male farmers in the study area. This has implication on gender equality and calls for main streaming of the female gender in root tuber crops production since they constitute the bulk of work force in agricultural production. This may also not be unconnected with access to credit which usually favours male respondents (Agbugba et al., 2014). This suggests that males had higher participation than females in the programme which may be due to access to resources, credit, labour task, land ownership, Leadership and membership in organizations and access to and control over income (Akter et al., 2017).

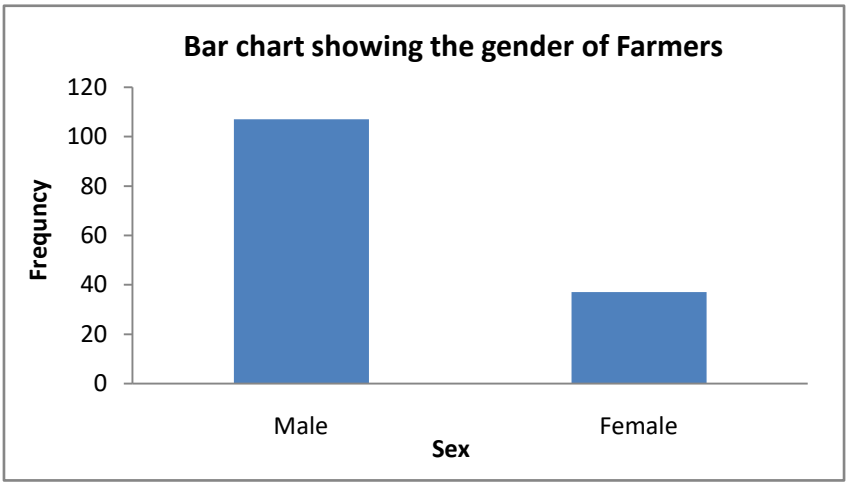

Figure 2: Frequency distribution of respondents according to their sex

Out of the total respondents, 91.7% were married, 6.9% were single, while 0.7% was a widow (er) and divorced respectively and 6.9% included single or unmarried (figure 3 and table 1). Majority of the respondents (91.7%) were married, implying that more married people are involved in tuber crops production in the study area. This is in tandem with the findings of Mbam et al. (2011), who found that 79% of sampled vegetable farmers in Ebonyi state were married. A very large proportion (90 percent) of the sample is married. Marriage is arguably one of the most respected and sacred institutions in almost all farming communities. As a result of the importance attached to the marriage institution, it is not uncommon for girls to be betrothed for marriage at a very young age. Marriage is mostly a source of prestige and may serve as a source of additional farm labour for a man and his family. A prospective husband is also a source of farm labour for his in-laws. Married farmers are more likely to take a longer time to decide as compared to unmarried farmers. Married farmers may have to either consult or reach a consensus with their spouses before making a decision such as participating in an agricultural project (Etwire et al., 2013).

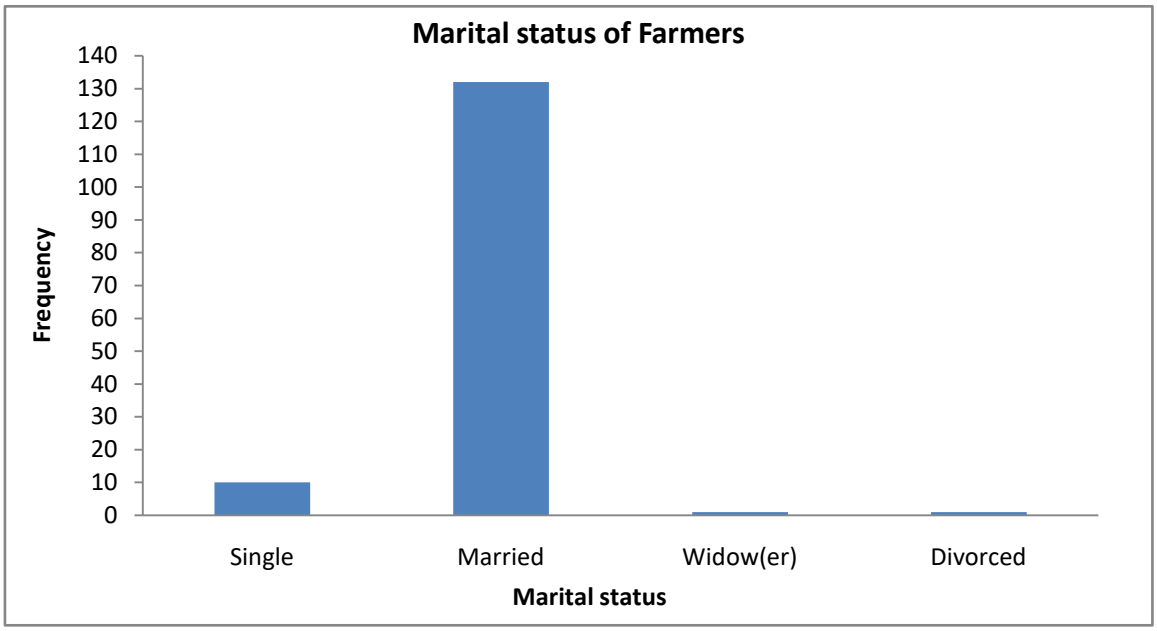

Figure 3: Frequency distribution of respondents according to their Marital Status

The study also noted that the majority of respondents, 57%, have 6-10 years of formal education, while 29.9% of the farmers have 11-15 years of formal education, only very few of them (7.6%) have between 16-20 years of formal education. The survey also notes that only 38.9% of the farmers have a formal education while majority of respondents, 61.1% did not have formal education, only 18.8% have vocational education while 20.1% have adult literacy education (Figure 4 and 5 and Table 1). Formal education is important for impacting literacy and numeracy skills which is necessary for farm planning and budgeting as well as comprehension of good agronomic practices. Farmers will not be able to read an instruction manual or a label on a seed or agrochemical package. The educational level and knowledge of farmer's literacy status is good because it makes farm resources more efficiently. This high level of literacy no doubt could affect the level of technology adoption and skill acquisition among the farmers since education enhances technology adoption and the ability of farmers to plan and the risk. Farmers with higher levels of western education are likely to be more efficient in the use of inputs than their counterparts with little or no education. The low level of formal education may not be enough to interpret instructions on agrochemicals when extension agents are not present (Okpachu et al., 2014; Owusu, 2017; Oyekale, 2018).

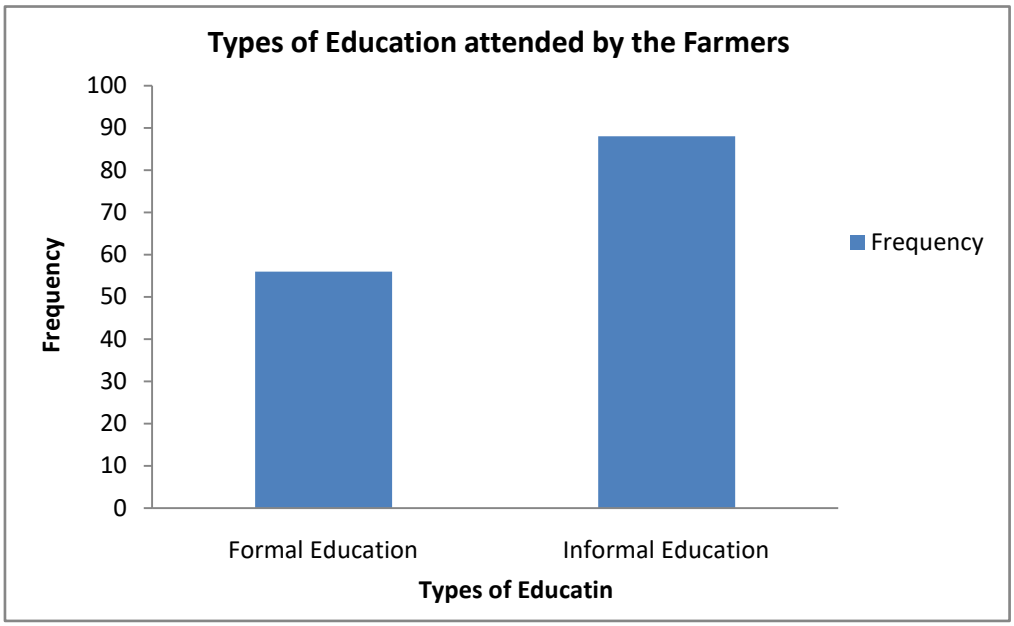

Figure 4: Frequency distribution of respondents according to their Formal Education

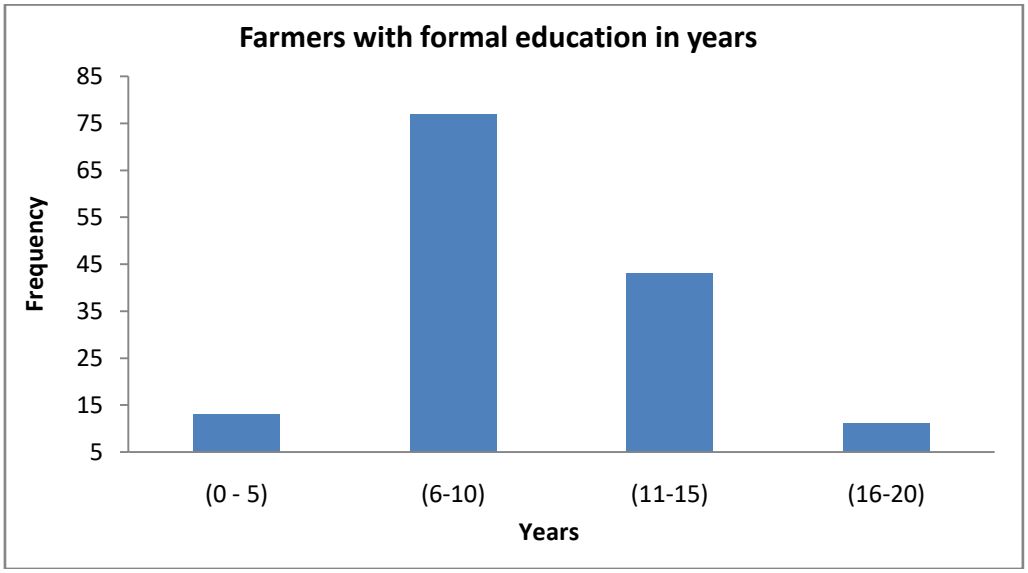

Figure 5: Frequency distribution of respondents according to their years of Education

The study also showed that a majority of the farmers are Christian (73.9%) and only a few of them are Muslim (27.1%) (Figure 6 and Table 1).

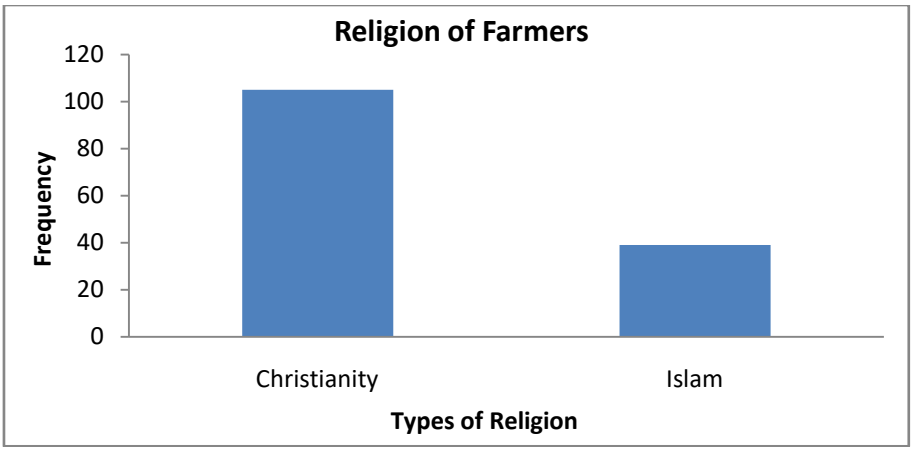

Figure 6: Frequency distribution of respondents according to their Religion

Table 1 and figure 7 also demonstrate that 18.8% of the respondents were into livestock keeping, 11.1% were into food processing, 14.6% are civil servants, 4.2% were artisans, meanwhile, 51.3% of the farmers have no secondary occupation, that means only 48.7% of the farmers have a secondary occupation. In line with this, as shown in the table, very few of the respondents obtained income from only one source as almost three-quarters of the household heads engaged in a combination of farm and nonfarm activities. Highlights of the occupational analysis of the respondents revealed that more than half of the respondents were engaged in farming as their primary occupation, indicating that farming is the predominant occupation in the study area. This is expected as most households in the rural areas depend mainly on agriculture as their primary source of livelihood. However, studies have shown that diverse income portfolio, create more income and distribute income more evenly. Thus, it is easier to adopt the combined livelihood strategies than switching full time between either of them (Adepoju and Obayelu, 2013).

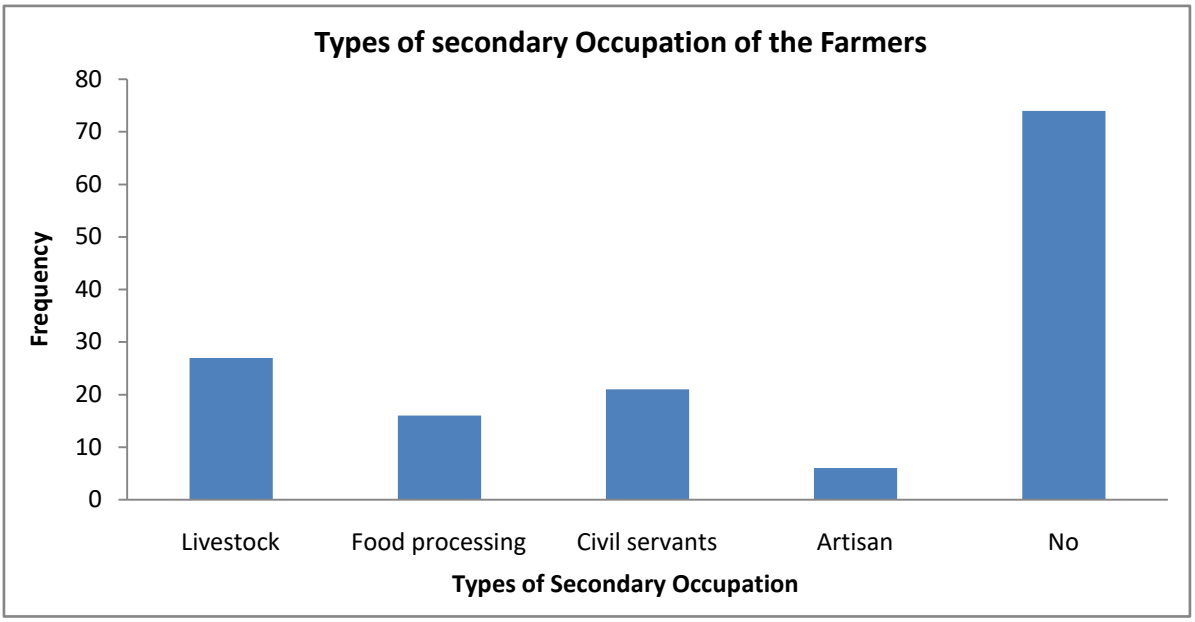

Figure 7: Frequency distribution of respondents according to Secondary Occupation

75% of the respondents had household sizes ranging from 6-10 people while 25% had 1-5 (table 1 and figure 8). Household size can be a proxy for family labour. Availability of family labour implies that the household head may have time to engage in other activities including participating in an agricultural project. Household size is also sometimes perceived as an indication of manliness or wealth (Etwire et al., 2013). Large family size serves as a means of generating family labour and since women and children can participate in crop production, processing and marketing, farming practices and use of technologies are related to family size status. The results are contrary to that of Ojiako and Ogbukwa, 2012 who in their study of loan repayment capacity of small holder cooperative farmers in Yewa North Local Government Area of Ogun State, Nigeria, found that household size impacted negatively on loan repayment performance of rural farmers.

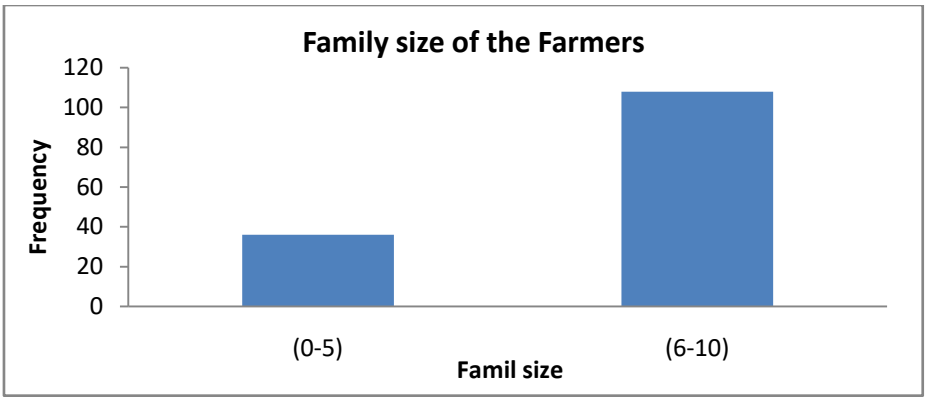

Figure 8: Frequency distribution of respondents according to the Family Size

Regarding the years of experience as farmers, 22.2% of the farmers had been practicing tuber crops farming between 1-10 years, 34.7% had been producing tuber crops f between 11-20 years, 16.7% had been engaging in this crop production between 21-30 years, 21.5% have between 31-40 years of tubers crops productions and only 4.9% of the farmers have between 41-50 years of planting and producing tubers crops (table 1 and figure 9). The relative high percentage of household size of non-beneficiaries to agricultural loans explain why this categories of farmers do not seek for credit this is because they see this large household size as aid or assistance to agricultural production.

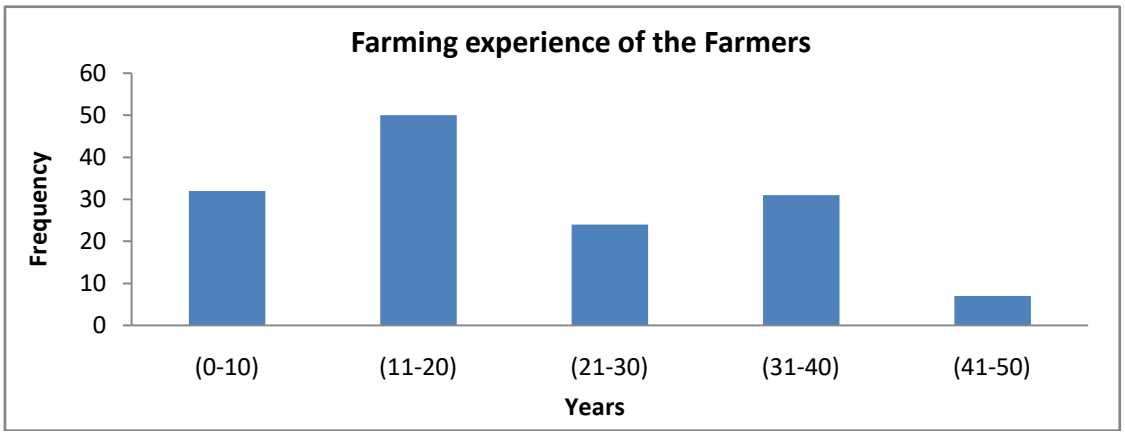

Figure 9: Frequency distribution of respondents according to the Farming Year of Experience

Table 1 and figure 11 showed that out of the root and tuber crops farmers in the locality, 59.0% of the respondents cultivating cocoyam. This might be due to the rate of consumption of these root and tuber crops constraints associated with the production of the crops and market structure of the study area.

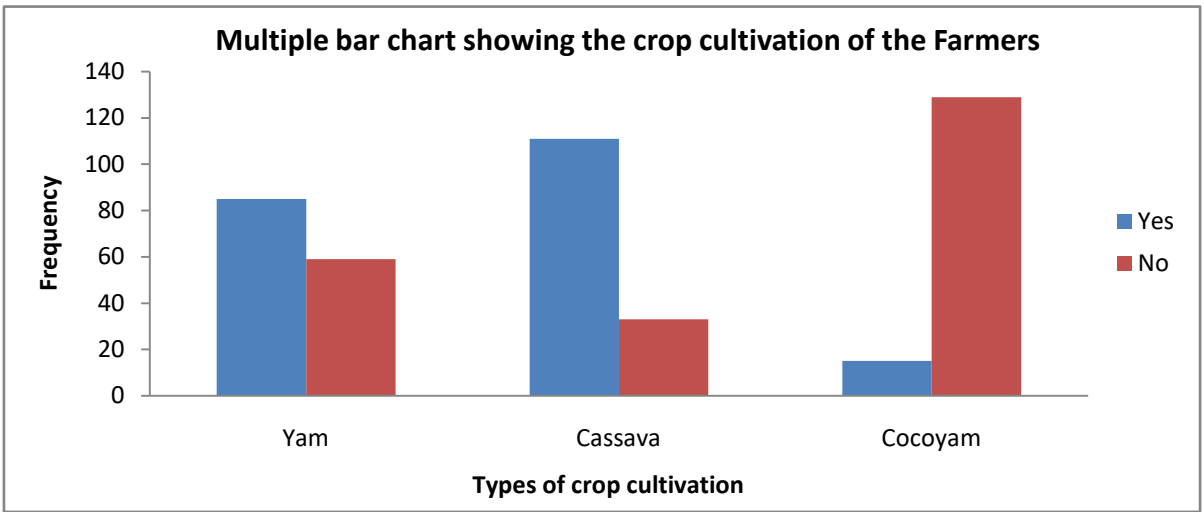

Figure 10: Frequency distribution of respondents according to Types of Crop Cultivated by the Farmers

Table1: Socio-economic Characteristic of Root and Tuber Crops Farmers

Factor	Frequency	Percentage (%)
Age Group (years)		
21-30	6	4.2
31-40	32	22.2
41-50	50	34.7
51-60	38	26.4
61-70	18	12.5
Gender		
Male	107	74.3
Female	37	25.7
Marital Status		
Single	10	6.9
Married	132	91.7
Widow(er)	1	0.7
Divorced	1	0.7
Formal Education (years)		
(0 - 5)	13	9
(6-10)	77	53.5
(11-15)	43	29.9
(16-20)	11	7.6
Formal Education		
Vocational Education	27	18.8
Adult Literacy Education	29	20.1
No informal Education	88	61.1
Religion		
Christianity	105	73.9
Islam	39	27.1
Secondary Occupation		
Livestock	27	18.8
Food processing	16	11.1
Civil servants	21	14.6
Artisan	6	4.2
No	74	51.3
Family Size		
(0-5)	36	25
(6-10)	108	75
Farming Experience		
(1-10)	32	22.2
(11-20)	50	34.7
(21-30)	24	16.7
(31-40)	31	21.5
(41-50)	7	4.9
Yam		
Yes	85	59
No	59	41
Cassava		
Yes	111	77.1
No	33	22.9
Cocoyam		
Yes	15	10.4
No	129	89.6

Analyzed Field Survey Data, 2018

b) *Sources of Credit Available to Root and Tuber Crops Farmers*

According to figure 11 and table 2, the farmers in the study area source for credit from sources for financing their farm activities. A Large percentage (72.9%) of the tuber crop farmers are members of cooperative societies, therefore able to collect loans from this cooperative societies, while only 27.1% of the

farmers did not source for credit from cooperative society. Only a few (21.5%) of the farmers get loans from commercial banks while a larger percentage (78.5%) did not apply for a loan in commercial banks. Only 13.9%, 14.6%, 25.7%, 29.2%, 3.5% and 25.0% of the farmers collect credit from National Agricultural Cooperative and Rural Development Bank (NACRDB), ATF, Special Programme for Food Security (SPFS), friends, money lenders and relatives respectively, while majority (86.1%, 85.4%, 74.3%, 70.8%, 96.5% and 75.0%) of them did not source for agricultural credit from these sources. This data showed that half (50.0%) of them gets their capital from group contributions (Esusu) while 50% percentage of the farmers in the study area did not source for farming credit from group contributions (Esusu).

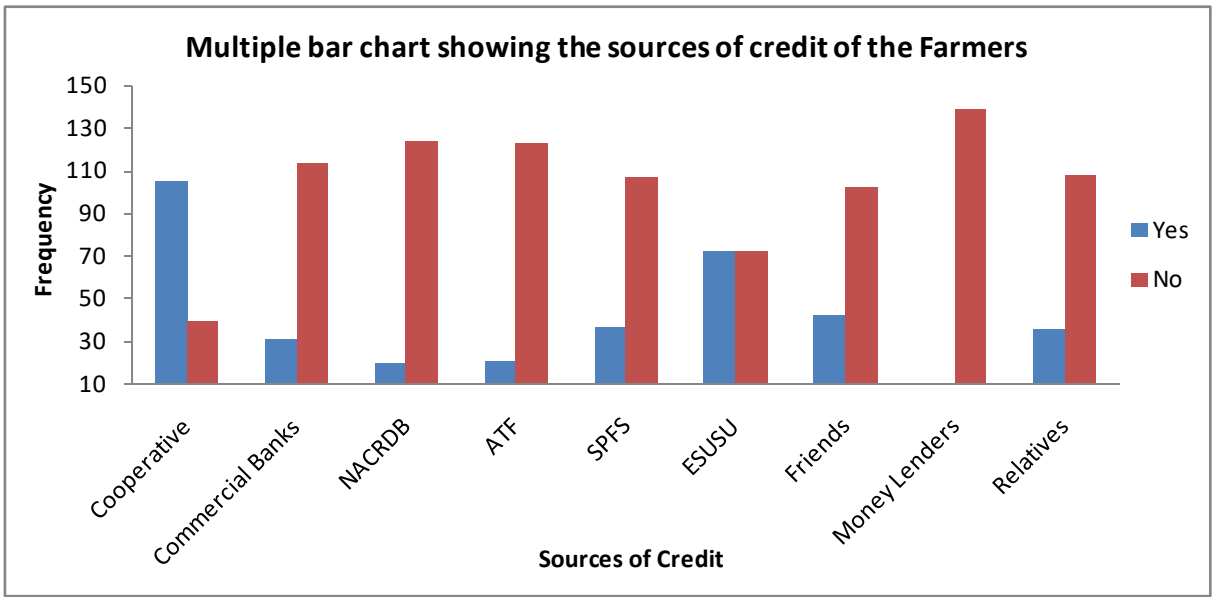

Figure 11: Frequency distribution of respondents according to Sources of Credit

Table 2: Sources of Credit Available to Root and Tuber Crop Farmers

Source	Frequency	Percentage (%)
Cooperative		
Yes	105	72.9
No	39	27.1
Commercial Banks		
Yes	31	21.5
No	113	78.5
NACRDB		
Yes	20	13.9
No	124	86.1
ATF		
Yes	21	14.6
No	123	85.4
SPFS		
Yes	37	25.7
No	107	74.3
ESUSU		
Yes	72	50
No	72	50
Friends		
Yes	42	29.2
No	102	70.8
Money Lenders		
Yes	5	3.5
No	139	96.5
Relatives		
Yes	36	25
No	108	75

Analyzed Field Survey Data, 2018

c) Conditions for Obtaining Credit among Root and Tuber Crop Farmers

Based on figure 12 and table 3, A larger percentage (77.1% and 70.8%) of the root and tuber crop farmers acknowledged that being members of cooperative societies and farmers associations respectively are conditions to obtain credit. One-third (35.4%) of the farmers acknowledged ownership of collateral as condition to obtain credit will two-third (64.6%) of the farmers did not acknowledge ownership of collateral as condition to obtained credit. Moreover, only 41.7% of the farmers acknowledged participate in extension service as condition for obtaining credit.

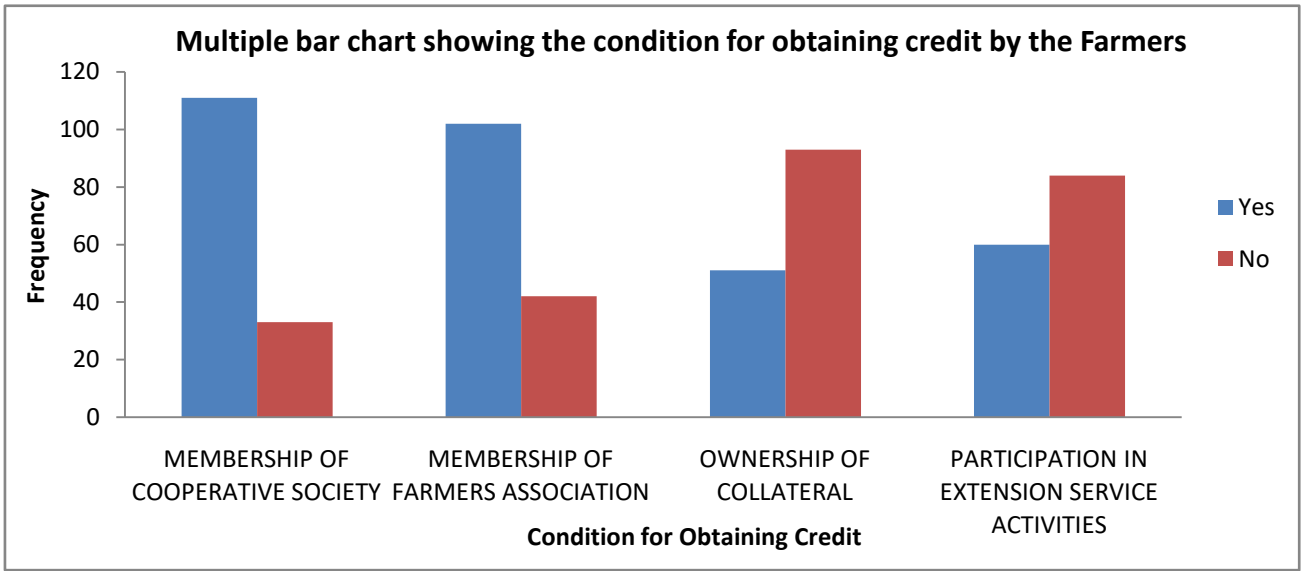

Figure 12: Frequency distribution of respondents according to Conditions of obtaining Credit

Table 3: Conditions for Obtaining Credit by Root and Tuber Crops Farmers

Condition	Frequency	Percentage (%)
Membership of Cooperative Society		
Yes	111	77.1
No	33	22.9
Membership of Farmers Association		
Yes	102	70.8
No	42	29.2
Ownership of Collateral		
Yes	51	34.4
No	93	64.6
Participation in Extension Service		
Yes	60	47.7
No	84	58.3

Analyzed Field Survey Data, 2018

d) Factor Affecting Credit Repayment

Logit regression analysis was carried out to determine factors that influence rural farmers' loan repayment in the study area. The result of the estimations of loan repayment is presented in table 5. Using SPSS software package, from table 1, the coefficient of determination (r^2 = 0.26) indicates that 26% of the variation in the value of all the explanatory variables (independent variables). Thus, this leaves only 74% of the variation in the dependent variable (credit repayment) to be explained by other factors. The test of significance helps to indicate the importance of the variables in explaining credit repayment by the tuber crop farmers. The variables used in the models include the followings: age, gender, marital status, secondary occupation, family size, farming experience, ownership of land, ownership car, farm machinery, storage system, low productivity, low demand for a product, health problem. From table 4 above, under exponential better (β) it can be observed that gender, marital status, secondary occupation, farming experience and storage system all have values less than one (1). This signifies that they all contribute to none repayment of credit. That is, the inability of the farmers to repay their respective loans. Logit regression estimated for the credit repayment showed that secondary occupation, family size, and farming experience are significant variables at 0.5 level of significance, while others did not contribute significantly to the credit repayment. Secondary occupation (X4) was found to have a negative sign and significant at 5% level on the agricultural credit repayment model. This means that farmers who have off-farm occupations have the chances of servicing and repaying a loan than their counterparts that depend on farming only. This finding is similar to the findings of Wongnaa and Awunyo-Vitor, 2013 from Ghana who found out that farmers who have access to off-farm income are 49.7% more likely to be able to repay their loans than yam farmers who depend solely on their farm income.

The study also showed that the family size (X5) of respondents in the study area is significantly related to the amount of credit repaid at 5% level. It bears a

positive sign, which explains that a unit increase in family size decreases the cost of labour and increases the probability of loan repayment. This is in disagreement with the study of Haile, 2015 who found a negative relationship between family size and loan repayment performance in the Harari regional state, Ethiopia. Increasing farmers' household size by one person decreases the likelihood of been able to repay one's loan. This means that the smaller the size of the farm family, the higher the probability that farmers will be able to repay their loans and vice versa. This could have probably resulted from the fact that large household sizes increased the household head's domestic responsibilities and thereby constituted leakage to the household's income stream. As household income depleted the liability of the household increased, and there would be greater tendency to divert loans meant for production resulting in default in loan repayment (Ojiako et al., 2012). Another variable with significant positive influence on repayment capacity was the farming experience. Farming experience has a positive coefficient, and it is significant at 5% level. It explains that a unit increase in the year of farming experience increases the loan repayment ability of the farmers. This is in correlation with the study of Afolabi, 2010 who reported that positive effect of farming experience on loan repayment might be because the farmers are becoming more knowledgeable in farming practices which can increase their level of income and hence loan repayment capacity. The loan repayment capacity of farmers could increase with increases in the years of farming was not surprising. The implication was that as the farming experience years increased, they became more inclined toward commercialization and more likely to adopt improved technologies and farm management systems. This would lead to increase in their levels of efficiency and profitability and by extension capacity to repay the borrowed fund.

Table 4: Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	52.629(a)	.261	.536

Table 5: Logit Regression of the Factors Affecting Loan Repayment

Factor		B	S. E.	Wald test Statistic	df	Sig.	Exponential Better (β)
Step 1(a)	Age (X1)	.076	.052	2.175	1	.140	1.079
	Gender (X2)	-1.309	1.214	1.164	1	.281	.270
	Marital Status (X3)	-1.671	1.410	1.405	1	.236	.188
	Secondary Occupation (X4)	-1.484	.552	7.231	1	.007	.227
	Family Size (X5)	1.968	.632	9.714	1	.002	7.159
	Farming Experience (X6)	-.237	.072	10.714	1	.001	.789
	Land (X7)	.295	.888	.111	1	.740	1.343
	Car (X8)	.236	1.022	.053	1	.817	1.266
	Farm Machinery (X9)	22.080	4918.124	.000	1	.996	3884284107.197
	Storage System (X10)	-2.572	1.481	3.018	1	.082	.076
	Low Productivity Due to Out Break of Pest and Diseases (X11)	1.443	1.570	.845	1	.358	4.232
	Low Demand for the Produce (X12)	1.551	1.846	.706	1	.401	4.715
	Health Problem (X13)	2.559	2.026	1.595	1	.207	12.926
	Constant (β_0)	-1.307	3.477	.141	1	.707	.271

IV. Conclusion

This study showed that majority of the root and tuber crops farmers that are loan beneficiaries in the study area were able to service and pay back their loans collected from various sources of getting agricultural credits. Logit regression analysis for the credit repayment showed that secondary occupation, family size, and farming experience are significant variables at 5% level of significance while other factors did not contribute significantly to the credit repayment. The credit institutions or lending agencies should make the agricultural credit and capitals accessible to these rural farmers, educate them through extension services to be able to properly used the loans for the purposes for which the loans were given. Farmers can be made to improve on their repayment of farm credit by adoption of income support measures which would serve as a panacea. Lending institutions should ensure that whoever they are lending to meets a minimum threshold in asset value before loans are accessed. This will also help in reducing loan defaulters. Farm records and income generated by these farmers who are loan beneficiaries should be used by the credit providers to assess the performance of farmers who utilized resources well for the provision of more agricultural credit for rural farmers. The credit providers and farmers should put in place while planning on the loan they want to obtain from any of these sources their repayment, and put your repayment plan and capability first, this is to ensure that they do not get indebted to these financial

institutions and also be able to maximize the uses of the loan with great achievement. The study showed that improved access to credit facilities would improve farmers' production, their annual farm income, and well-being.

Conflict of Interest Statement

The authors declare that there is no conflict of interest that could be perceived as prejudicing the impartiality of research reported.

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