Determinants of Loan Repayment among Small-scale Cassava Farmers in Akpabuyo Local Government Area of Cross River State, Nigeria

O. O. Kuye[1*] and T. O. Edem[1]

[1]Department of Agricultural Economics and Extension, Faculty of Agriculture and Forestry, Cross River University of Technology, Obubra Campus, P.M.B. 102, Obubra, Cross River State, Nigeria.

Authors' contributions

This work was carried out in collaboration between both authors. Author OOK designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. Author TOE managed the analyses of the study, managed the literature searches. Both authors read and approved the final manuscript.

Original Research Article

ABSTRACT

This study investigated the determinants of loan repayment among small-scale cassava farmers in Akpabuyo Local Government Area of Cross River State, Nigeria. Data were collected with structured questionnaire from 160 randomly selected farmers. Data were analyzed using simple descriptive statistics, multiple regression and likert scale. Results showed that males were dominant (56.6%) in cassava production and majority (37.5%) were between 41-50 years. About 50% had farm income of less than N100,000.00 while about 46.3% had less than N50,000.00 as their off-farm income. Also, the results found that majority (44.4%) obtained loans from informal sources. Factors that significantly affected loan repayment include off-farm income and interest rate (p ≤ 0.05) and farm income (p ≤ 0.05). The major causes of loan diversion were seasonal activities in the agricultural sector (66.9%) and inadequate sustainable income (65.6%) among others.

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Corresponding author: E-mail: dayokuye@yahoo.com;

The major constraints faced by the farmers in terms of loan repayment were high interest rate and short period of repayment among others. Government should encourage the formal loan sources to open branches in the rural areas for easy loan accessibility by farmers and to obtain loan with moderate interest rate.

1. INTRODUCTION

Worldwide, farmers are particularly in need of agricultural loan because of their seasonal pattern of farming activities and the uncertainties and risks they are facing in farming. In the developing countries, the role of agricultural credit is closely related to providing the needed resources which farmers cannot source from their own available capital. In respect to this, the provision of agricultural credit has become one of the most important government activities in the promotion of agricultural development in Nigeria [1]. Agricultural loans are granted to farmers to finance farming enterprises. The loan could be short- term, intermediate or long-term. Short-term agricultural loans are usually used by small-scale farmers to cater for the expenses on labour during land preparation and weeding and the purchase of inputs like seeds and fertilizers. Nweze [2] classified the sources of credit/loan for financing agricultural production into formal and informal sources. Formal or institutional sources include government credit institutions, cooperative, commercial banks and Bank of Agriculture (BOA). These institutions are mostly found in the urban and semi urban settings. On the other hand, informal financial sources also known as non-institutional sources consist of individuals such as money lenders, personal savings, relatives, self-help groups, friends, mutual assistance groups, and savings group [3].

Rahji and Fakayode [4] posited that credit or loan-able capital is viewed as more than just another resource such as labour, land, equipment and raw materials. Indicatively, the role of agricultural credit in alleviating poverty and increasing farmers' productivity cannot be over-emphasized. According to Echebiri and Nwaogu [5], access to agricultural micro-credit remains a critical challenge to smallholder farmers in many developing countries including Nigeria. This is because smallholder farmers often require small loans which are difficult to administer while majority of them also lack the needed collateral to be able to borrow from formal sources. Where collateral requirements are met, the sheer size of potential borrowers always seems to exclude others from borrowing. Consequently, smallholder farmers have been marginal participants in the credit market in many developing countries. As noted by Dittoh [6], access to credit is the topmost priority of smallholder farmers in Nigeria where agriculture is the main economic activity.

Adebayo and Adeola [7] reported that farmers relied on loan from financial institutions to increase their productivity. In spite of government effort towards establishing the Bank of Agriculture for the provision of cheap and affordable financial assistance to the agricultural sector, access to loans by rural farmers is affected by different variables [8]. Most paramount among these variables according to Kuye [9] are high interest rate, filling of many forms, number of guarantors, distance from bank and high transport cost. Also, Adejobi and Atobatele [10] and Agnet [11] reported that farmers' access to credit is hindered by high loan default and cumbersome loan acquisition procedures operated by commercial banks. Oji [12] noted that one of the factors limiting commercial banks from extending loans to rural farmers include location of the bank branches only in the urban areas. Adegbite [13] stated that some banks were reluctant to extend loans to farmers because of high administrative costs and their perception that default rate might be high among farmers.

The major issue in agricultural business financing is loan repayment. According to CBN [14], loan repayment ensures availability and sustainability of credit facilities to others. According to Ume, Ezeano and Obiekwe [15], the major factor that is capable of affecting loan repayment ability of farmers is the banks' lending policies such as changes in repayment schedule, nominal interest rate, grace period and moratorium. This makes the issue of low loan repayment unacceptable to financial institutions. Some of the factors responsible for loan repayment default according to Kuye [9] are loan diversion, unwillingness to

repay, poor monitoring and supervision, high interest rate and untimely disbursement of loan. The consequence of high default rate include considerable reduction in the availability of loan-able funds for many loan applicants, increase in administrative cost and time to recover the loans from the defaulters. High loan default rate has discouraged most financial institutions from extending credit to farmers, especially small-scale farmers who are in dire need of loan facility. Abula and Ediri cited in Ibitoye, Shaibu, Opaluwa and James [3] posited that rural farmers are illiterates, low income earners, maintain large family size with small and scattered farm holdings without adequate collateral to guide against default in loan repayment.

Nigeria is the largest producer of cassava in the world with an annual output of over 34 million tons of tuberous roots [16]. Cassava production has enjoyed a tremendous boost through both the Root and Tuber Expansion Programme (RTEP) introduced in 2000 and the Presidential Initiative on Cassava Production and Export Programme introduced in 2007 by President Olusegun Obasanjo. These programmes had contributed immensely to the tremendous growth in cassava production for domestic consumption and exportation of its by-products. Cassava is majorly produced by small-scale farmers cultivating less four hectares of land. Their production is characterized by low productivity which results in low farm income. Cross River State ranks first as the largest cassava producing state in the South-south of Nigeria and fifth in the country (1,958,000 MT/annum) [17]. According to IITA [18], Nigeria cultivated cassava more than other countries in the world reaching her peak of production (34,476,000 MT/annum) as at 2002. African countries produce over 103 million metric tons of cassava per annum with Nigeria accounting for approximately 35 million metric tons per annum [19].There is an emerging consensus on the fact that, to increase the level of food crops (cassava) production in the country, rural peasant farmers need to be strengthened financially. This implies that inadequate flow of credit into agriculture is a critical factor against incremental food production in Nigeria [20]. Access to credit is the topmost priority of smallholder farmers in Nigeria where agriculture is the major economic activity [6]. Access to credit would change the way smallholder farmers perceive agriculture and their farming techniques. This would enable them select better varieties of crops, plant early and

maintain sustainable practices [21]. Access to credit affects farm productivity because farmers facing binding capital constraints would tend to use lower levels of inputs in their production activities compared to those not constrained [22]. Awotide, Abdoulaye, Alene and Manyong [23] opined that agricultural loans/credits improve farm productivity, capability to adopt new technologies and increase farm income. Small-scale cassava farmers in Akpabuyo Local Government Area in Cross River State as in other parts of Nigeria are constrained by inadequate loan to carry on with meaningful agricultural activities particularly from the formal sources. This could be caused majorly by inability of the banks to meet the loan needs of the farmers. It could be as a result of the farmers' default in previous loan repayment influenced by some factors which could be social or economic in nature. These factors could positively or negatively influence farmers' repayment of loan or affect their inability to access loan as they wanted. It is against this backdrop that this study was designed to investigate the determinants of loan repayment among small-scale cassava farmers in Akpabuyo Local Government Area of Cross River State, Nigeria. Specifically, it described the socio–economic characteristics of the respondents, identified the sources of loan to the farmers, determine factors affecting loan repayment among cassava farmers, causes of loan diversion and constraints farmers faced in loan repayment.

2. MATERIALS AND METHODS

This study was conducted in Akpabuyo Local Government Area of Cross River State, Nigeria. It is one of the 18 Local Government Areas in the state. It occupies an estimated land area of 124 km² and has a population of 271,395 [24]. It shares the Atlantic coastline with Bakassi to the East and the Republic of Cameroon to the West. It is situated in the Southern Senatorial District with its headquarters in Ikot Nakanda. It consists of 10 (ten) Council Wards, namely: Idundu/Anyananse, Atimbo East, Atimbo West, Ikot Edem Odo, Eneyo, Ikot Nakanda, Ikot Eyo, Ikang North, Ikang South and Ikang Central. The people of Akpabuyo Local Government Area are predominantly farmers and fishermen. Crops like cassava and cocoyam are the major crops grown in the area. They rear poultry birds, sheep and goats.

A multi-stage random sampling technique was employed in the selection of the smallholder

cassava farmers who had obtained loans for cassava production during the 2016/2017 farming season. The first stage entailed random selection of 5 wards from the 10 wards namely: Atimbo East, Ikot edem odo, Eneyo, Idundu/ Anyanganse and Ikang North. The second stage involved the random selection of 2 villages from the selected wards, to give a total of 10 villages. The third stage involved obtaining a list of cassava farmer loan beneficiaries in the 10 villages from the Agricultural Development Programme Extension Office in the Local Government. The list contains 1,600 farmers. This constitutes the sampling frame. A proportionality ratio of 10% was applied to randomly select 160 farmers from the sample frame of each of the 10 villages which vary between 160 and 210.

Data collected were analyzed using descriptive statistics, ordinary least square (OLS) regression and 5-point Likert scale. Four functional forms namely; linear, semi-log, double-log and exponential, were fitted to select the lead equation based on econometrics and statistical criteria. The multiple regression model is implicitly specified as:

$$Y = f (X_1, X_2, X_3, X_4 \text{ ---------- } X_{11}, e)$$

Where, Y = Loan repayment, X_1 = gender (dummy variable Male = 1; Female = 0), X_2 = age (years), X_3 = marital status (dummy variable Single = 1; Married = 2), X_4 = education level (years of schooling), X_5 = family size (numbers), X_6 = farm size (ha), X_7 = off-farm income (₦), X_8= farm income (₦), X_9 = source of loan (dummy variable Formal = 1; semi-formal =2; informal=3) X_{10} = interest rate (%), X_{11} = repayment period (yr), e = error term.

Likert type of scale was used to identify the constraints encountered by farmers in loan repayment. The mean scores were obtained after respondents' responses were gathered using the five-point Likert scale specified as:

Opinion	Point
Very Severe Constraint (VSC)	5
Severe Constraint (SC)	4
Moderate Constraint (MC)	3
Low Constraint (LC)	2
No Constraint (NC)	1

The mean response to each item was calculated using the following formula:

$$\overline{X} = \frac{\sum FX}{N}$$

Where:

$\overline{X}$ = mean response, $\sum$ = summation, F = number of respondents choosing a particular scale point, X = numerical value of the scale point and N = total number of respondents to the item.

Decision Rule: the mean of these weights is 3 that is, [(5+4+3+ 2 + 1) ÷ 5 = 3]. A mean score of 3 and above implies a severe constraint.

Test of hypothesis: A single null hypothesis was formulated and tested to guide the study's major objective.

Ho: Some socio-economic factors have no significant effect on loan repayment. In the same vein multiple regressions was used to test the hypothesis.

Limitation of study: The study covered only 5 wards in the Local Government due to time factor and limited fund.

3. RESULTS AND DISCUSSION

3.1 Socio-economic Characteristics of Farmers

The results of the analyzed data on socio-economic characteristics of cassava farmers in the study area are presented in Table 1. It shows that majority (56.6%) of the cassava farmers were males while 44.4% were females, implying that men were more involved in cassava production than females in the study area. This finding agrees with the observations of Ugwumba [25]; Kuye [26] and Akerele [27] who reported that males are dominance in cassava production in their study areas. Majority of the farmers were in the range of 41-50 years (37.5%) indicating that the farmers were young, energetic, still active in farming and dynamic. This is in line with the findings of Isito, Otunaiya, Adeyonu and Fabiyi [28] who reported an average of 47 years for small holder farmers. This result is slightly higher than those of Abula, Otitolaiye, Ibitoye and Orebiyi [29] who reported a mean age of 44 years for farmers in their findings. The result also means that the farmers are capable of active production of cassava in the area and would

likely be experienced farmers. Majority (48.1%) of the farmers were married. Anozie, Ume, Okelola, Anozie, and Ubani [30] asserted that married farmers are likely to incur extra expenditures for family livelihood from the loan, thereby threatening their loan repayment ability.

Also, majority (35.6%) had secondary education which implies that the respondents were moderately educated. Mesike and Okoh [31] and Ugwumba and Okwukanaso [32] reported that the probability of credit demand was more with experienced, educated farmers who spent higher amount of money on farm inputs.

Education increases the awareness of farmers on the benefits of loan. It exposes them to where and when to go for the loan and timely repayment of the loan.

Table 1 further showed that majority (73.8%) of the farmers cultivated between 1-3 hectares of cassava. This indicates that respondents were mainly smallholder farmers. They may have difficulties in accessing credit facilities in most financial institutions especially the deposit money banks because of their nature of smallholding farming. According to Kuye [9], banks prefer giving loans to medium-scale and large-scale farmers, because of high management cost on micro loans. However, small-scale farming limits farmers from engaging in large-scale production as well as access to bigger credit facilities. Results on family size revealed that majority (48.8%) had a large family size of 4-7 persons. This conforms with the findings of Isito et al. [28] who reported an average of 6 members per family. Having a larger family especially those with higher number of adult children would enable small-scale cassava-based farmers to have enough labour to work in the farm. This would likely facilitate loan repayment. Majority (41.9%) of the famers had farming experience between 6-10 years, meaning that they were reasonably experienced in cassava cultivation. Also, their experience in farming would enable them to understand the need for loan, how to access it and willingness to repay.

Majority (50%) of the farmers had less than ₦100,000 as their annual farm income and 46.3% earned below ₦50,000 from off-farm income. This implies that they were smallholder farmers with low productivity and low income. They would need to obtain loan to boost their production level.

3.2 Sources of Loan to Farmers

Table 2 reports the percentage distribution of sources of loan to cassava farmers. Majority (44.4%) of the farmers obtained loans from informal sources while about 38% obtained from formal sources. The informal sources include age-grades (19.4%) as the highest, followed by money lenders (12.5%) while the least, "osusu" and RoSCA (Rotatory Savings and Contribution Associations) were 3.1% respectively. The formal sources of loan to the farmers were Bank of Agriculture (BOA) (15.6%) as the highest followed by Ekondo Micro Finance Bank (12.5%) while the least was First Bank (9.4%). They charged between 15% and 27% interest rates while the informal sources charged from 20% - 31% and above. Also, majority of the farmers (51.3%) were able to repay their loans within a year (67.5%) and obtained between ₦51,000 and ₦100,000 as loan (31.3%). These results showed that the major source of loan to the cassava farmers was from the informal sources, which had been reported by so many authors [33,34]. The high percentage of farmers that patronized informal sources in the study area can be traced to the readiness and easy access to loan by farmers. However, the disadvantages of informal sources of micro credit include cut-throat interest rate and inability to get the required large amount at the time needed, among others [9].

3.3 Determinants of Loan Repayment by Farmers

Double-log function was chosen as the lead equation based on having the highest value of the coefficient of multiple determination (R^2) and having more significant variable coefficients. The results showed that off-farm income (X_7) and interest rate (X_{10}) were positive and significant at 5% while farm income (X_8) was positive and significant at 10%, implying that the greater the farm and off-farm income the higher the rate of loan repayment by farmers while the higher the interest rate the higher the loan repayment default. This is because with loan facility, farmers can increase the number of heaps planted with cassava in their farms, purchase improved cassava cuttings, herbicides and other inputs. He must have judiciously used the loan with the expectation of getting increased output and returns enough to repay the loan he collected. More so, income realized from off-farm activities like trading can be used to support the family needs with little dependence on farm profit during the loan period.

Table 1. Socio-economic characteristics of cassava farmers in the study area

Variables	Frequency	Percentage
Gender		
Male	89	55.6
Female	71	44.4
Age (years)		
Less than 20	3	1.9
21 – 31	23	14.4
31 – 40	57	35.6
41 - 50	60	37.5
51 and above	17	10.5
Marital status		
Married	77	48.1
Single	44	27.5
Widow	24	15.0
Divorced	15	9.4
Educational level		
Never attended school	23	14.4
Primary education	36	22.5
Secondary education	57	35.6
Tertiary education	44	27.5
Farm size (ha)		
Less than 1	20	12.5
1 – 2	59	36.9
2.1 – 3	59	36.9
3.1 – 4	22	13.8
Farm type		
Crop farming	72	45.0
Animal farming	22	13.8
Mixed farming	66	41.3
Family size (No of persons)		
1 – 3	43	26.9
4 – 7	78	48.8
8 – 11	33	20.6
12 and above	6	9.8
Farming experience (years)		
1 – 5	44	27.5
6 – 10	67	41.9
11 – 15	31	19.4
16 and above	9	5.6
Other crops		
Groundnut	39	24.4
Maize	23	14.4
Yam	53	33.1
Potatoes	21	13.1
Vegetables	24	15.0
Off-farm Income (Naira)		
< 50,000	74	46.3
50,001 – 100,000	58	36.3
100,001 - 150,000	11	6.9
150,001 – 200,000	12	7.5
200,001 and above	5	3.1
Farm income (Naira)		
<100,000	80	50.0
100,001 – N150, 00	54	33.8
150,001 – N200, 000	14	8.8
200,001 and above	12	7.5
Total	160	100.0

Source: Field survey data, 2018

Table 2. Sources of loan and other parameters

Sources of loan	Frequency	Percentage (%)
Sources of loan		
Formal	60	37.5
Semi-formal	29	18.1
Informal	71	44.4
Formal sources		
First Bank Plc	15	9.4
BOA	25	15.6
Ekondo Microfinance Bank	20	12.5
Semi-formal sources		
Cooperative society	29	18.1
Informal sources		
Money lender	20	12.5
Age grade	31	19.4
Friends and family	10	6.3
Osusu	5	3.1
RoSCA	5	3.1
Total	160	100.0
Interest rate charged		
less than 10	1	0.6
15 - 20%	4	2.5
21 - 25%	23	14.4
26 - 30%	61	38.1
31% and above	71	44.4
Repayment period		
Within a year	105	65.7
Within 2 years	42	26.3
3 years and above	13	8.1
Methods of savings		
Bank Deposit	83	51.9
Osusu	37	23.1
Personal savings	40	25.0
Loan amount obtained		
<50,000	48	30.0
51,000 - 100,000	50	31.3
101,000 - 150,000	19	11.9
151,000 -200,000	24	15.0
201,000 and above	19	11.9
Ability to repay loan		
Yes	82	51.3
No	35	21.9
Loan usage		
Purchasing of farm inputs	59	36.9
Acquisition of new farmland for cultivation	30	18.8
Weeding	19	11.9
Harvesting	11	6.9
Hiring labour	20	12.5
Farmstead	17	10.6
Purchase of farm tools	4	2.5
Total	160	100.0

Source: Field survey data, 2018

The result is in conformity with the findings of Isito et al. [28] that increase in the net farm income of the farmers increases the likelihood that the farmers will repay the loan obtained within the stipulated time. However, farmers with higher farm income and off-farm income are more likely to repay their loans than those with lower farm and off-farm incomes. Also, interest rate has a direct relationship with loan repayment. This is because loans received at

lower interest rate are likely to be repaid when due than those received at higher interest rate. This is because according to Bob et al. [35] higher interest rate increases the likelihood of loan repayment default as the cost of servicing the loan increases. Farmers who collected loans with higher interest rates repay more than those with lower interest rate. This result is in accordance with the findings of Mgbasonwu and Umejiaku [36] and Akerele [27] that interest rate had a positive and significant relationship with loan repayment. Gender (X_1), age (X_2), education level (X_4), family size (X_5), farm size (X_6), sources of loan (X_9) and repayment period (X_{11}), though are positive, none had significant effects on loan repayment by the farmers. This indicates that these factors are insensitive to loan repayment.

Again, the high number of explanatory variables insensitive to loan repayment might have contributed to the lower coefficient of determination (R^2) value of 0.336. It could also be that some important variables that affect loan repayment like loan amount obtained, distance from loan source, collateral and time of disbursement might have been erroneously omitted from the model. The coefficient of multiple determination (R^2) value of 0.336 indicates that the explanatory variables accounted for only 33.6% of the total variation in loan repayment by the smallholder cassava farmers. The result of the F-ratio aimed at determining if some socio-economic variables have significant effect on loan repayment is shown in Table 3. The result indicated that some socio-economic variables had significant effect $(p \leq 0.1)$ on loan repayment.

3.4 Causes of Loan Diversion

The results shown in Table 4 revealed that the major causes of loan diversion among farmers are seasonal activities in the agricultural sector (66.9%), inadequate sustainable income (65.6%), family responsibilities (64.4%), the need for diversification (63.8%), and short repayment period (63%) among others. However, the table also revealed that uncertainty and high risk of business failure, social activities and burial ceremonies are minor causes of loan diversion among cassava farmers in the study area. Ambachew [37] reported that farmers who divert their loans for other purposes like social activities instead of farming activities are more likely to default than those who use their loans for the original purpose.

3.5 Constraints to Loan Repayment by Farmers

The results in Table 5 reveals that high interest rate with mean value of 3.95 ranked first among the severe constraints farmers are facing in loan repayment in the study area. This is followed by short period of repayment and high taxation (3.76 each) among others. Judging from the mean value of 3.0 criteria as severe constraint, the results on the Table showed that all the constraints were severe, though their degree of severity ranged from 1st to 13th position. This implies that while all were severe constraints some were severer than others. Abdu et al. [38] and Ezihe et al. [39] in their studies reported high interest rate as one of the major constraints militating against loan repayment.

Table 3. Results of multiple regression analysis on the factors that determine loan repayment by farmers

Variables	Linear	Semi-log	Double-log	Exponential
Constant	0.563 (0.755)	1.282 (2.492)**	0.187 (0.863)	0.007(2.693)
Gender (x_1)	0.044 (0.227)	0.125 (0.456)	0.036 (0.315)	0.024(0.034)
Age (x_2)	0.045 (0.407)	0.102 (0.314)	0.013 (0.097)	0.008(1.164)
Marital status (x_3)	-0.048 (-0.49)	-0.193 (-1.027)	-0.067 (-0.840)	-0.006(-2.566)
Education level (x_4)	0.002 (0.026)	0.335 (1.350)	0.133 (1.273)	0.004(1.265)
Family size (x_5)	0.008 (0.063)	0.064 (0.261)	0.034 (-0.334)	0.006(1.334)
Farm size (x_6)	0.062 (0.538)	0.106 (0.433)	0.071 (0.682)	0.011(1.332)
Off farm income (x_7)	0.178 (1.733)**	0.408 (1.986)*	0.199 (2.299)**	0.007(0.256)
Farm income (x_8)	0.612 (4.942)*	1.204 (5.354)*	0.459 (4.836)*	0.009(1.036)
Source of Loan (x_9)	-0.108 (-0.952)	-0.281 (-1.400)	-0.085 (-1.004)	-0.005(-1.001)
Interest Rate (x_{10})	0.145 (1.204)	0.376 (1.679)**	0.211 (2.235)**	0.003(2.667)
Repayment Period (x_{11})	0.067 (0.563)	0.020 (0.085)	0.052 (0.460)	0.068(2.116)
R^2	0.305	0.332	0.336	0.334
Adjusted R^2	0.253	0.283	0.286	0.246
F-ratio	5.894*	6.695*	6.801*	6.801*
Durbin Watson	1.920	1.875	1.918	1.912

*Source: Field survey data, 2018; Figures in brackets are t-ratios; *Significant at 10%; **Significant at 5%; ***Significant at 1%*

Table 4. Causes of loan diversion among farmers

Causes of loan diversion	Frequency (Yes)	Percentage (%)
1. Family responsibilities	103	64.4
2. Uncertainty and high risk of business failure	77	48.1
3. Social activities (marriage, child dedications)	76	47.5
4. Natural disaster	84	52.5
5. Execution of other projects	90	56.3
6. Burial ceremonies	48	30.0
7. Small and fragmented land	96	60.0
8. Short-term repayment	102	63.8
9. Seasonal activities in the agricultural sector	107	66.9
10. Inadequate sustainable income	105	65.6
11. The need for diversification among farmers	102	63.8

Source: Field survey data, 2018

Table 5. Constraints to loan repayment by farmers

Constraints	VSC	SC	MC	LC	NC	Sum	Mean	Rank
High interest rate	70	34	39	12	5	632	3.95	1st
Short period of repayment	62	33	40	14	11	601	3.76	2nd
High taxation	66	29	37	16	12	601	3.76	3rd
High cost of production	50	42	30	30	8	576	3.60	4th
Poor supervision	53	34	28	26	19	556	3.48	5th
Small farm size	40	41	40	29	10	552	3.45	6th
Late disbursement	44	37	37	29	13	550	3.44	7th
Lack of collateral	40	40	39	30	11	548	3.43	8th
Large family size	44	40	36	16	24	544	3.40	9th
Inadequate extension agents	57	19	35	24	25	539	3.37	10th
Low market price of farm produce	36	8	44	32	10	538	3.36	11th
Low profit margin	39	31	37	37	16	520	3.25	12th
Crop failure	32	39	35	33	21	508	3.18	13th

Source: Field survey data, 2018; NB: VSC = very severe constraints; SC = severe constraints; MC = moderate constraints; LC = low constraints; NC = no constraints

4. CONCLUSION

This study revealed that farmers obtained loan majorly from informal sources at high interest rate. It affirms that off-farm income, farm income and interest rate are statistically significant as they affect loan repayment in the study area. Among the severe constraints farmers faced according to their degree of severity are high interest rates, short repayment period, high taxation and high cost of production. The study recommends that Extension personnel should educate farmers on the relevance of prompt loan repayment. Government should encourage banks to open their branches in the rural areas for easy loan accessibility by farmers and obtain loan with moderate interest. More so, farmers should be encouraged to join cooperatives so as to benefit from dividend of cooperatives.

Further researches should be carried out in the future to incorporate the missing socio-economic variables like loan amount, distance of farmers from sources of loan, collaterals and time of loan disbursement.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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