

INVESTIGATING THE DETERMINANTS OF LOAN REPAYMENT PERFORMANCE AMONG COOPERATIVE BENEFICIARIES IN THE SOUTH-SOUTH, NIGERIA.

Aniekan Jim Akpaeti¹ and Aniefiok Akpan Umoren²

¹Department of Agricultural Economics and Extension, Akwa Ibom State University, Nigeria, Obio Akpa Campus, P.M.B. 1167, Uyo, Akwa Ibom State, Nigeria

²Department of Agricultural Economics and Extension, University of Uyo, Akwa Ibom State, Nigeria

Correspondence Email: aniekanakpaeti@aksu.edu.ng

ABSTRACT

The investigated the determinants of loan repayment performance among Cassava cooperative beneficiaries in South-South, Nigeria. A multi-linear regression, as well as Likert scale techniques, were used. The results of the simple linear regression analysis revealed that education, farming experience, farm size, interest rate, amount accessed are the only determinants of loan repayment performance that significant difference in the study. Insufficient loan amount, high-interest rate, no plan to help beneficiaries during adverse business period, low loan duration, lack of good grace area, the untimely release of the fund and lack of pre-loan disbursement training are the constraints to loan repayment in the study area. It is recommended that a pre-loan orientation exercise should be conducted to the intended beneficiaries for the proper handling of the loan before the loan is given. Also, adequate supervision and appraisal of the agricultural project should be regularly done. The outcome will enable the farmers to be careful so as not to lose their group assets that are mortgaged for loans as well as avoiding embarrassment by group members and lose their group confidence and integrity.

Keywords: Determinants, Loan, Repayment, Performance, Cassava Cooperatives

INTRODUCTION

In many of the developing nations such as Pakistan, Guyana, Thailand, Mexico, Iran, Kenya, Ivory Coast, Ghana, Nigeria, agriculture plays a vital role in their economies. In Nigeria, for instance, these roles include the provision of food, income, employment, raw materials for industries, foreign earnings that support the nation's external reserves, and many others (Umoren, Akpan and Ebong, 2016; Izuchukwu, 2011). In realization of these vital roles, the Federal Government of Nigeria promoted and also supported agricultural financing through conscious policies formulation, implementation/execution via strategies, programmes, schemes, and institutions. The efforts were made in order to channel loans/credits to the agricultural sector as to increase production and income of the farmers that would enhance the improved standard of living through various agricultural enterprises such as rice, maize, yam, Cassava. Rahman and Awerije (2016) stated that Cassava is one of the major food crops in Nigeria, with multiple uses from human consumption to industrial applications. Demand for cassava derivatives, such as starch, gari (a type of processed Cassava), and tapioca, had increased over the years. The establishment of the

cassava Bread Development Fund (CBDF) and the Cassava Transformation Project by the Federal Government of Nigeria further raised hopes for improving the cassava sub-sector (Natsa, 2014). Furthermore, Olutosin and Sawicka also noted that Cassava is regarded as the second most important staple food crop in Nigeria after Maize. Cassava is mainly produced by micro-small scale agro-entrepreneurs that cultivate not more than five hectares of arable land whose primary challenge is finance. Farmers' Cooperatives have attempted to address the challenge via internal lending among their members over the years.

Cooperatives, as any other business, are formed by people of common interests; Nwafor, Agu, Anibogu, and Umebali (2018) maintained that through cooperatives, farmers mobilized their scarce resources together as to improve agricultural production. They collectively accessed loans from financial institutions and lend to themselves to increase farm capitals in order to take advantage of current opportunities in the area. Farmers' Cooperatives are one of the vital channels through which loans can be administered to the beneficiaries for efficient loan repayment because of inherent saving mobilization and thrift culture coupled with good corporate governance. The importance of loans to the farmers, whether large, medium, and small or micro-agro-entrepreneurs need not be over flogged as remarked by Enimu, Eyo, and Ajah (2017). Indeed, Agricultural loan is needed not only for improving the conditions of the farm environment, enhance the standard of living of the farm families and promote development but also to increase farm outputs (Nwafor, Agu, Anibogu and Umebali 2018). Agricultural loans are capitals needed to finance other factors of production, which include land, labour, and management. Farm loans may be obtained from formal or informal sources. Kuye et al., (2019) maintained that the sources of credit/loan for financing agricultural production could be grouped into formal and informal sources. Beneficiaries may access agricultural loans either as household/individuals, small, medium, or large scale or by the cooperatives. Kuye and Edem (2019) conducted a study in Akpabuyo, Cross River State, Nigeria, to determine the loan repayment among small scale cassava farmers. The results of the study revealed that the amount of loan collected, age, farming experience with credit utilization, and level of education were the major significant socio-economic factors determining loan repayment in the area. Loan

repayment is a crucial indicator of the strength of the financial institution. The sustainability and continuity of financial institutions and schemes could only be achieved when these institutions can increase the volume of loanable funds in order to stimulate farm production. However, poor loan repayment performance may endanger the survival of the financial institutions, which may pollute the financial sector in the long run. Wongaa and Awunyo-Victor (2013) and Aquah and Addo (2011) maintain that loan repayment performance acts as a positive gauge for either to increase or to decrease the volume of loanable funds to the various sectors of the economy.

Agricultural loans granted to farmers to finance farm enterprises may be short term, intermediate or long term. Nwafor, Agu, and Anibogu and Umehali (2018) studied loan repayment behaviour among farmers' multipurpose cooperative societies in Anambra State, and the objectives include to investigate the socio-economic factors affecting farmers' loan repayment ability and also to ascertain major problems affecting farmers in loan repayment using a regression model. The result revealed that the unprofitable scale of operations, defective management and shortage of workforce, and farm inputs, storage, administrative bottleneck, as well as corruption and issue of integrity among loan officers were among the factors affecting loan repayment. Also, Adefila and Madaki (2014), in a study on the roles of farmers' cooperative in agricultural development in Sabuwa Local Government Area of Katsina State, remarked that the provision of loans to farmers' cooperatives was targeted at helping beneficiaries increase their production and obtain a better standard of living. The results of their study revealed that the amount of loan collected, age, farming experience with credit use, and level of education were the major significant socio-economic factors that determined loan repayment in the study area.

Furthermore, Adeyonu (2016) in a study on determinants of loan repayment among smallholder cooperative farmers in Remo Division of Ogun State, Nigeria, using the probit regression model revealed that farming experience, level of education, age, and farm size collectively determined loan repayment among the beneficiaries. However, none of these studies has attempted to investigate loan repayment performance among Cassava farmers' cooperative in the South-south of Nigeria. Therefore, with the increased focus of the Federal Government of Nigeria in diversifying the economy and improving the status of the micro-small scale agro-entrepreneur via massive cassava transformation programme, there are urgent needs to investigate the determinates of loan repayment performance among farmers' cooperatives. The study shall also consider the constraint to loan repayment among Cassava Cooperative Beneficiaries in the study area as part of its objective.

2. RESEARCH METHODOLOGY

2.1 Area of Study

This study was conducted in the South-South region of Nigeria that is made up of six states. Akwa Ibom State was selected to represent the region as a state that produces cassava predominantly. In the state, Etinan Agricultural Zone was selected for the data collection. The Agricultural Zone is made up of four (4) Local Government Areas, which includes: Nsit Ibom, Nsit Ubium, Nsit Atai, and Etinan, which is the Headquarters. The area lies in the tropical rain forest belt and has two distinct seasons- the rainy and dry seasons. The vegetation is evergreen and has large deposits of mineral resources such as clay, glass, sand, and sharp sand. Agricultural resources include; palm produce, cassava, and yam.

2.2 Sampling Procedures and Sample Size

The multi-stage sampling method was adopted in selecting the respondents for this study. The first stage was the selection of Akwa Ibom State from the Niger Delta Region; then we had the purposive selection of three (3) of the four (4) Local Government Area (L.G.A) in Etinan Agricultural zone that is known for their involvement in cooperative using the bureau of cooperative. The four (4) Local Government Area that made up Etinan Agricultural Zone were: Nsit Ibom, Nsit Ubium, Nsit Atai, and Etinan Local Government Area while the three (3) selected Local Government Areas were: Nsit Ibom, Nsit Ubium, and Etinan Local Government Area. The second stage was the selection of villages for in-depth study. Four (4) groups of villages were chosen from the three selected L.G.A.s to give twelve (12) villages. The first six (6) groups of villages were known cassava cooperative villages from the bureau of cooperative which are: Ikot Ntan Nsit and Oboetuk in Nsit Ibom L.G.A., Edem Idim Okpot and Ikot Edibon in Nsit Ubium L.G.A.; Ikot Ebiyak and Ikot Ebo in Etinan L.G.A. While the second group was a random selection of six (6) non-cassava cooperative Villages which were: Afaha Offiong and Edebom one in Nsit Ibom L.G.A, Ikot Imoh and Ekpene Ukim in Nsit Ubium L.G.A., Ikot Ibok/Ikot Nte and Etinan in Etinan L.G.A. The third stage was the random selection of fifteen (15) cassava farmers in each of the Twelve (12) villages. These gave a total sample size of One Hundred and Eighty (180) respondents.

2.3 Analytical Technique

Multiple Linear Regression Analysis was to estimate factors influencing loan repayment performance among cassava cooperative beneficiaries. The Model is explicitly stated as below;

$$Y = b_0 + b_1 \text{HHS} + b_2 \text{EDU} + b_3 \text{AGE} + b_4 \text{GEN} + e \quad (1)$$

Where Y = repayment performance of respondents

HHS = Household Size (Number)

EDU = Educational Level of Respondents (Years)

AGE = Age of Respondents (Years)

GEN = Gender (Male =1, Female 0)

MS = Marital Status (Married = 1, Others = 0)

FAS = Farm Size (Hectares)

FAE = Farming Experience (Years)

INR= Interest Rate Charge (Percentage)

ALC= Amount of Loan Accessed (Naira)

MIR=Monthly Income of Respondents (Naira)

LOD = Loan Duration

EXV = Extension Visit

e = that is the stochastic error term

Objective 2: (Identify the constraint to loan repayment among Cassava Cooperative Beneficiaries) was analysed using a 4-point Likert Scale rating technique. The Scale was labelled Strongly Agree (4) Agreed (3) Disagreed (2) and Strongly Disagree (1). The mean response was computed as:

$$\frac{4 + 3 + 2 + 1}{4} = \frac{10}{4} = 2.5 \quad (2)$$

Therefore, any constraint with a mean of 2.5 and above was regarded as a severe constraint and vice-versa.

FINDINGS AND DISCUSSION

3.1 Determinants of Loan Repayment Performance

Table 1 presents the result of the ordinary least square (O.L.S.) regression estimates for the determinants of loan repayment performance among Cassava cooperative farmers in the study area. Result reveals an R^2 value of 0.5238, indicating that about 52.4% of the variability in loan repayment is explained by the explanatory variables included in the model. The F-statistic is significant at the 1% level of significance, denoting the goodness of fit of the explanatory variables. Findings show that the estimated coefficient for education positively signs and is significantly related to loan repayment at the 1% probability level. This indicates that loan repayment performance will increase with an increasing level of educational attainment. This result is expected because education facilitates the adoption of innovation among farmers and enhances their access to modern production inputs and services such as credit and extension contact that can be harnessed to boost productivity. With such enhanced productivity, farmers' net return will be enhanced, which will increase their liquidity and loan repayment position. This finding supports those of Bassey, Agom, and Ikpe (2016) and Bassey, Attairot, Nkeme, and Udoh (2014). The result for farming experience is negative and significantly related to loan repayment at the 10% probability level indicating that loan repayment will decrease with increasing

experience. This is in line with apriori expectation because highly experienced farmers known where to secure a low-interest rate and long-term loan with the less stringent condition that they can quickly repay without stress. Besides, they are also very knowledgeable in productivity-enhancing production technologies that can enhance their net returns through which they can repay their loans. This finding supports those of Afolabi (2010) and Bassey et al. (2014).

Empirical result for farm size carried the expected positive sign and is significantly related to loan repayment at the 1% level of probability. Larger farm sizes facilitate the adoption and use of sophisticated and mechanized production equipment that will enhance output. It is also facilitating economies of scale. That is associated with the bulk purchase of inputs. Therefore, farmers operating larger farm sizes will enjoy discounts from input purchases as well as higher output resulting from mechanization that they can market and use to offset their loans. This result compares favourably with Ezihe, Akpa, and Ayiola (2016). The result further reveals that the interest rate coefficient is positive and significantly related to loan repayment at 5% level of probability. This is surprising given that a higher interest rate is expected to reduce loan repayment by lengthening the repayment period. However, the result might be attributed to the effect of joint liability associated with group lending since respondents are cassava cooperators who are members of groups that operate mostly by joint liability. They might have also cope with the high-interest rate charged in the area for fear of losing their group assets that are mortgaged for loans, as well as avoiding embarrassment by group members and loss of their group confidence and integrity. The outcome might have partially accounted for the low loan volumes in the study area. This finding conflicts with those of Afolabi (2010) and Bassey et al. (2014), who report state that higher interest rates reduce loan repayment.

Regarding the amount of loan accessed, finding reveals a positive and significant relationship with loan repayment of a 1% level of probability. This is justified in that large loan volume will enable farmers to enjoy economies of scale and to expand their scope of production as well as intangible investment assets that can be used to enhance productivity, output, and net return that will assist them to fulfill their loan obligation. This finding support Afolabi (2010) and Conflict with those of Bassey, Attairot, Nkeme, and Udoh (2014) in the study area.

Table 1: O.L.S. result for the determinant of loan repayment

Variable	Coefficient	Standard error	t	Pz/t/
Age	6344.11	4001.406	1.59	0.115
Gender	-104741.8	70347.88	-1.49	0.138
Education	29553.97	9060.717	3.26***	0.001
Household size	1950.904	16064.78	0.12	0.903
Farming experience	-8888.01	5220.501	-1.70*	0.090
Farm size	192278.4	45996.98	4.18***	0.0000
Interest rate	7828.33	3022.051	2.59**	0.010
Amount accessed	0.7826018	0.0785988	9.96***	0.000
Monthly Income	-0.3416016	10051722	-0.32	0.746
Marital Status	46767.81	69687.57	0.67	0.503
Loan Duration	7055.491	9441.353	0.75	0.456
Extension Visit	-12066.81	24514.69	-0.49	0.623
Constant	-750293.5	236099	-3.18***	0.002

F (12, 185) = 16.96
 Prob > f = 0.0000
 R² = 0.5238

Source: Output of STATA software *, ** and * are significantly different at 1%, 5% and 10%.**

3.2 Constraints to Loan Repayment in the Study

Table 2 presents the various constraints militating against loan repayment in the study area. This is measured using a four-point Likert Scale rating with strongly agreed, agreed, strongly disagreed, and disagree as options. Findings reveal that only seven out of the twelve constraints are adjudged critical to loan repayments while five are not. Insufficient loan amount was ranked first ($\bar{x} = 3.3$) followed by high interest rate charged ($\bar{x} = 2.87$). The insufficient loan amount will lead to willful default arising from diversion of the loaned sum to other ventures other than the intended purpose it was meant for. The high-interest rate charged will add up to the loaned sum and invariably lengthen the loan repayment period. Respondents also complained that there are no plans by lenders to help loan beneficiaries as a bailout during periods of adverse farm conditions. This is necessary because most times, cases of low yield and other unexpected shock associated with farming affects farmers and crippled their loan repayment capacity.

In addition, low loan duration period ranked 4th ($\bar{x} = 2.73$), followed by untimely release of fund ($\bar{x} = 2.59$), lack of sufficient grace period ($\bar{x} = 2.61$) and lack of pre-loan disbursement training ($\bar{x} = 2.57$) respectively. It is noticed that most of the loans accessed are for less than one year. This is not adequate for agricultural investments and enterprises that are characterized by long gestation periods. Also, almost respondents complained about a lack of pre-loan disbursement training. This might be because a greater part of the credit accessed was from informal sources. Respondents also report a lack of sufficient grace period in the study area. This is necessary because a sufficient grace period enables unwilling defaulters to adjust, re-strategize, and evolve a good approach and strategies to fulfill their debt obligation. A study by Edache (2006) report that in his study that 13.32% of cassava farmers reported that the amount they collected as credit could not meet up their farm production needs and poor extension services ($\bar{x} = 1.43$).

Table 2: Constraints to Loan Repayment in the Study Area

S/N	CONSTRAINTS	F	\bar{X}	REMARK	RANK
1	Insufficient loan amount	660	3.30	Critical	1st
2	Untimely releasing fund	518	2.59	Critical	6th
3	Lack of ready market to sell the product	337	1.68	Not critical	9th
4	Plan to help beneficiary during the adverse business period	560	2.80	Critical	3rd
5	Poor extension services	285	1.43	Not critical	12th
6	The high cost of inputs	296	1.48	Not critical	11th
7	Poor membership of the social organization	420	2.10	Not critical	8th
8	Lack of pre-loan disbursement training	514	2.57	Critical	7th
9	High-interest rate	574	2.87	Critical	2nd
10	Poor loan monitoring by supervisors	306	1.53	Not critical	10th
11	Low loan duration	546	2.73	Critical	4th
12	Lack of sufficient grace period	522	2.61	Critical	5th

Source: Field Survey, 2019

CONCLUSION AND RECOMMENDATIONS

The study seeks to investigate the determinants of loan repayment performance among Cassava cooperative beneficiaries in South-South, Nigeria. The results of the simple linear regression analysis revealed that education, farming experience, farm size, interest rate, amount accessed are the only determinants of loan repayment performance that significantly different in the study. In contrast, insufficient loan amount, high-interest rate, no plan to help beneficiaries during adverse business period, low loan duration, lack of good grace area, the untimely release of the fund and lack of pre-loan disbursement training are the constraints to loan repayment in the study area. From the stated determinants and constraints, it is, therefore, necessary for a pre-loan orientation exercise to be conducted to the intended beneficiaries for the proper handling of the loan before the loan is given. Also, adequate supervision and appraisal of the agricultural project should be regularly done. This will enable the farmers to be careful so as not to lose their group assets that are mortgaged for loans as well as avoiding embarrassment by group members and lose their group confidence and integrity. This would eventually lead to the farmer enjoying economies of scale, the enlarged scope of production, and investment intangible assets that can be used to enhance productivity, output, and net return that will assist them in fulfilling their loan obligation.

REFERENCES

- Adefila, J. and Madaki, J. (2014) Roles of Farmers' Cooperatives in Agricultural Development in Shauwa Local Government Area of Katsina State, Nigeria. *Journal of Economic and Sustainable Development*, 5 (12):80-87.
- Adeyonu, A. G. (2016). Determinants of Loan Repayment among Small Holder Cooperative Farmers in Remo Division, Ogun State, Nigeria. *Journal of Agricultural Science*, 8 (1): 92-99.

- Afolabi, J. A. (2010). Analysis of Loan Repayment among small scale farmers in Southwestern Nigerian, *Journal of Social Science*, 22 (2): 115-119.
- Bassey, N. E., Agom, D.I and Ikpe, I.K. (2016). Joint Liability Approach, A Loan default mitigating strategy among beneficiaries of microfinance bank loan in Akwa Ibom State, Nigeria. Paper presentation on the Annual national conference of Nigeria Association of Agricultural Economics (NAAE), held at the Federal University of Technology, Owerri October 20th, 23rd, pp103-109
- Bassey, N. E., Attairot, E. A., Nkeme, K.K and Udoh, E. S. (2014). Determinants of loan repayment, a study of rural woman fish traders in Akwa Ibom State, Nigeria. *British Journal of Economics Management and Trade*, 4 (4): 541 -556.
- Edache, E.A. (2006). New Strategies for achieving a 10 percent growth rate in Nigeria Agriculture. A paper presented at the 5th Nigerian Economic Summit Group (NESG) Agriculture Summit: Abuja, F.C.T., Nigeria, November 2006.
- Ezile, J.A., Akpa, J.A. and Ayoola, J.B. (2016). Accessibility and repayment of agricultural loans among farmers in Benue State, Nigeria; *Journal of Agriculture and Veterinary services*. 7 (8): 39-46.
- Kuye, O. O and Edem, T. O. (2019). Determinants of Loan Repayment among Small scale Cassava Farmers in Akpabuyo Local Government Area of Cross River State, Nigeria. *Asian Journal of Agricultural Extension, Economics and Sociology*, 35 (3): 1-11, 2019.
- Nwafor, G.O., Agu, A. F., Anibogu, T. and Umehali, E. E. (2018). Loan Repayment Behaviour among Members of Farmers' Multipurpose Cooperative Societies in Anambra State

- International Journal of Community and Cooperative Studies 6 (1): 28-49.
- Nwibo, S. U. and Nwakpu, C. (2017). Loan Repayment Capacity of Cooperative Farmers in Ohaukwu Local Government Area of Ebonyi State, Nigeria Journal of Agriculture and Veterinary Science. 10 (5): 47-53.
- Oladeebo, J. O. and Oladeebo, O. E. (2008) Determinants of Loan Repayment among Smallholder Farmers in Ogbomoso Agricultural Zone of Oyo State, Nigeria. Journal of Social Science, 17 (1): 59-62.
- Olutosin, A. and Sawicka, B. (2019). Cassava, A 21st Century Staple Crop: How can Nigeria Harness Its Enormous Trade Potentials? Acta Scientific Agriculture, 3 (8):194-202.
- Umoren, A. A. (2008). Analysis of Agricultural Credit Guarantee Scheme Loans Default among Beneficiaries in Akwa Ibom State from 1990-2005. Unpublished M.Sc. Thesis. Department of Agricultural Economics and Extension, University of Uyo, Uyo, Nigeria Pp 20-50.
- Umoren, A. A., Akpan, S.B. and Udoh E.J. (2014). Analysis of Agricultural Credit Guarantee Scheme Loans Default among Beneficiaries in Akwa Ibom State from 1990-2005. African Journal of Agricultural Economics and Rural Development, 2 (2):121-128.
- Rahman, S. and Awerije, B. O. (2016). Exploring the Potential of Cassava in Promoting Agricultural Growth in Nigeria Journal of Agriculture and Rural Development in the Tropics and Subtropics 117 (1): 149–163.