NIGERIAN JOURNAL OF AGRICULTURE, FOOD AND ENVIRONMENT.

LOAN REPAYMENT PERFORMANCE OF BENEFICIARY FARMERS UNDER INTEGRATED FARMERS SCHEME AND BANK OF AGRICULTURE IN AKWA IBOM STATE, NIGERIA

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ABSTRACT

This study analyzed loan repayment performance of beneficiary farmers under Integrated Farmers Scheme (IFS) and Bank of Agriculture (BOA) in Akwa Ibom State. Primary data used for the study were collected with the aid of structured questionnaire. Simple random sampling technique was used to select one hundred and forty loan beneficiaries. Data collected were analyzed using mean, frequency percentages and multiple regressions. Results of performance indices estimated revealed that only 25.94% and 64.38% of the loan disbursed by IFS and BOA respectively were repaid in the period under review. Hypotheses Z- test result of difference in mean loan repayment performance between IFS and BOA beneficiaries was significant (P< 0.05). Empirical evidence from multiple regression reveal that age, loan from other source, farming experience, amount borrowed, total income and interest amount were significant variables that influence loan repayment. Based on the findings, it was recommended that in providing complementary inputs and services, emphasis should be on economic quantity and prices as this would aid optimum production, hence more income; State-owned financing programs and schemes should endeavor to follow basic principles in commercial lending and not to over-relaxed the criteria for lending also, the significant variables that determined loan repayment should be taken into consideration in policy issues because they are fundamental in checking loan repayment.

Keywords: *Loan repayment, farmer beneficiary, integrated farmers scheme, Bank of Agriculture*

INTRODUCTION

Loan is an amount of money or any scarce resource lent by a lender to borrower(s) to enable him/her enjoy some goods and services now with the hope of paying in the future with some interest Agricultural and Rural Management Training Institute (ARMTI, 2016). Loans are not obtained without some cost implications such as interest rate, certain factors are considered before it is availed to the beneficiary and one of such factors is the beneficiary's capacity to comply with the loan terms, which is also influenced by some factors such as poor loan utilization, diversion of loan and negligence of the borrower to repay (Anigbogu *et al.,* 2014).

Virtually, every business including farming has a credit relationship with financial institutions, especially banks. This is necessary because given the amount of money required to operate a farm commercially; most farmers would lack adequate equity capital to invest in agriculture, hence, necessitating the institutional agencies to avail the farmers the required capital base through credit.

Farmers borrow in order to be able to buy new agricultural technologies that resulted in increased quantity and efficiency in food production (Okpara, *et al.,* 2013; Okwara *et al.,* 2016).

The Integrated Farmers Scheme (IFS) of the Akwa Ibom State Government and Bank of Agriculture (BOA) are formal credit sources, aimed at availing credit to farmers in Akwa Ibom State. Their role in financial intermediation often shields the farmers from the exploiting tendencies of the informal credit providers. Finance has been recognized as one major

determinant of economic growth, essential and needed to expand the scale or farm operation and improve productivity. Therefore, in this regard, Banks are considered the lifeblood of any economy because of their role in financial intermediation (Anigbogu *et al.,* 2015; Akpan, *et al.,* 2013; Ashaolu *et al.,* 2011; Banga, 2013). The Bank of Agriculture is a leading agricultural finance institutions saddled with the responsibility of providing credit facilities to agriculture both at macro and micro levels.

Also the Integrated Farmers Scheme (IFS) was deliberately put up by the State government on a bid to induce investment in agriculture, exploit the vast untapped agricultural potentials of the state and improve credit supply to farmers. An important aspect of Integrated Farmers Scheme is training of her prospective beneficiaries before granting loan to them. However, the availability of credit to farmers is based on the assumption that credit enhances farmer's productivity and income earning capacity. It is equally justified when farmers have very low savings capacity, fitted by training and age, availability of suitable farm technologies whose adoption is constrained by shortage of funds and demand supply gaps.

Finance determines access to all of the resources on which farmers depend. It also help farmers to use improved farm inputs and on time and getting best agricultural production. However, credit could achieve all these especially under ideal socio-economic and environmental situations such as age of farmers and community status, religion, social attitudes and values, familiarity with credit agencies, concessional interest rate, complementary inputs and services offered by lenders of fund, good farm management practices, return on investment, type of farming, marketing facilities, good roads, electricity, good water supply and good healthcare facilities.

Moreover, when loans are disbursed, the next issue is proper utilization and repayment. Loan repayment is the capacity and willingness of the borrower to comply with lending obligations as was specified and agreed on the loan contract arrangement. Loan repayment is an imperative for the survival of financial institutions (Ndiege *et al.,* 2016). It is a measure of whether loans are settled up in full according to the loan agreement or not. For any public credit institutions, prompt repayment is of crucial important. This does not only ensure recycling of public fund for development, but also builds up confidence amongst the credit institutions in their clientele and among the credit users in their own ability to develop (Rathore, *et al.,* 2017)

Empirical findings from some authors including Etukumoh and Akpaeti (2015) showed that loan repayment rates have remained quite low and poor in Akwa Ibom State. Lending Institutions would grant loan to intending beneficiaries on the expectations of prompt repayment, but the finite number of potential beneficiaries seeking credit from a credit market has different propensities of either repaying or otherwise regardless of the credit contract. Most often, the expectation of lenders for full repayment of loan fails. Repayment problem occurs when a borrower delays or fails to honour his promise made to the lender. Many authors including Pasha and Tolosa (2014) have highlighted repayment problems of the credit agencies. Loan could be easily demanded or granted than prompt repayment made by the beneficiaries.

According to Aremu *et al.* (2010) regardless of the genuine efforts of parties to a loan, repayment problem can still occur. Loan repayment performance could actually be influenced by many factors such as gender, distance between home and source of credit, household size, interest rate and farm income (Osondu *et al.,* 2015; Isitor *et al.,* 2016). According to (Odoemenem *et al.,* 2013; Kiboki *et al.,* 2014) repayment could also be influenced by the process of loan acquisition, loan terms, loan components, disbursement and repayment plans, farming experience, farm size, gross farm income, interest rate, farm output and climate change. Also, high covariate risk, and the low level of commercialization in farming business add to the problems of loan repayment (Ojiako *et al*., 2014; Babalola, 2014) that impact repayment.

Most credit institutions in Nigeria were faced with lots of repayment problems. According to Ajah *et al.* (2013) Abu, *et al.,* 2017) credit administration in many parts of Nigeria has not been impressive when placed against their repayment performance. However, with the purported increased rate of low repayment performance among Nigerian farmers and particularly in Akwa Ibom State, could make the government's aim of establishing institutional credit markets as prospective credit source of loanable funds to farmers to be impaired. This development

therefore prompted the empirical examination of the loan repayment performance of farmers in Akwa Ibom State, especially under IFS and BOA since they operate in the same State. This is to ensure that interventions are guided by empirical evidence drawn from research. Hence this study examined the socio-economic characteristics of loan beneficiaries, assessed the conditions of lending, services offered, assessed the level of loan repayment of the beneficiaries and ascertained the determinants of loan repayment of the beneficiaries in the study area. Hypothesis testing: the null hypothesis of the study states that loan repayment performance of IFS and BOA farmers are not significantly different.

MATERIALS AND METHODS

The study was carried out in Akwa Ibom State. It is one of the thirty six states in Nigeria with Uyo as the state capital. Akwa Ibom State is located in the South-East ecological zone between Latitude $4^0 33^1$ and $5^0 35^1$ North and Longitudes $7^0 35'$ and $8^0 35'$ East. Its covers a total land area of 8,412 kilometer's square (Anukwu and Ebong, 2011). The State is bounded by Abia State in the North, Rivers State in the West, Cross River State in the East and the Atlantic Ocean in the South. It is one of the major crude oil producing states in the Niger Delta region. Akwa Ibom State falls within the humid tropics with two distinctive seasons namely, rainy season (May to October) and dry season (November to April). Annual mean rainfall ranges between 2000 mm and 2400 mm along the coast. Mean daily maximum temperatures are regular about $26^0C - 33^0C$ and the relative humidity is between 50 to 60% during the dry season and between 60 and 90% in the rainy season and has a population of about 3,920,208 people (NPC, 2006). Over 70% are involved in agriculture for both subsistence and income generation (Udoh, 2008). The State is made up of a total of thirty one (31) Local Government Areas and divided into six (6) Agricultural zones namely; Eket, Uyo, Ikot Ekpene, Oron, Etinan and Abak. The major ethnic groupings in the State are Ibibio, Annang and Oron. Ibibio language is the main language of the people of Akwa Ibom.

Sample frame: the sample frame consists of loan beneficiaries who had completed at least a cycle of farm operations, loan officers, extension agents and opinions in the study areas.

The population of the study was the beneficiaries of loan under Integrated Farmers Scheme (IFS) and Bank of Agriculture (BOA) from 2011-2015.

Sample size and Data collection: The empirical data used in this study include both primary and secondary data. The secondary data were collected from the official records of the Integrated Farmers Scheme (IFS) and Bank of Agriculture (BOA). The primary data were collected the aid of structured questionnaire, which was administered to selected IFS and BOA loan beneficiaries. Simple random sampling technique was used to select a total 140 loan beneficiaries, comprising 56 and 84 IFS and BOA beneficiaries respectively. This selection was based on the lists of loan beneficiaries obtained from both lending institutions.

Data Analysis: The first three (3) objectives were analyzed using mean, frequency and percentages while the forth objective was evaluated by level of loan repayment of beneficiaries. This involved evaluation of two indices following Udoh (2008) and Etukumoh and Akpaeti (2015). These included loan repayment index (LRI) and borrower repayment rate (BRR). Loan Repayment Index is evaluated as follows:

$$LRI = [BVR_f/VB + W_2 (BVRp/VB)]*100 \text{ --- (1).}$$

Where: LRI is loan repayment index. This shows the level of loan repayment made by a beneficiary; $W_2 = NRCp/TNLOp$; BVR_f = value of loan paid by those who made full repayment; VB = total value of loans outstanding in a particular period; BVRp = value of loans paid by those who made partial repayment; NRCp = number of borrowers who made partial repayment; TNLOp = total number of borrowers who have outstanding loan to repay.

Loan default index on the other hand shows the level of loan defaulting made by a beneficiary and measured as follows: $LDI = 100 - LRI$ --- (2)

Where: LDI= Loan Default Index; LRI= Loan Repayment Index

Borrower Repayment Rate: This is given as:

$$BRR = [BNF_f/NB + W_1(BNRp/NB)]*100 \text{ --- (3)}$$

Where: BRR is the borrowers' repayment rate, which is defined as the rate at which the borrowers repay or fulfill their loan obligation; W_1 = VRCp/TVLOp; BNF_f = number of borrowers who made full repayment; NB = total numbers of beneficiaries in a particular period; BNRp= numbers of borrowers who made partial repayment; VRCp = value of repayment collected from those who made partial repayment; TVLOp = total value of loans outstanding for those who made partial repayment. Borrowers' default index is then measured as follows:

BDR = 100 − BRR --- (4)

Where BDR is borrowers' default ratio and BRR is borrower repayment rate

To test whether there is a significant difference in loan default between IFS and BOA, the null hypothesis was tested using Z-test. The Z-test is stated as:

$$Z = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{\sigma_1^2}{N_1} + \frac{\sigma_2^2}{N_2}}} \quad\text{--(5)}$$

Where: Z = Z-test.

$\overline{X}_1$ = mean of IFS beneficiaries by enterprise; X_2 = mean of BOA beneficiaries by enterprise N_1 = sample size of IFS beneficiaries by enterprise; N_2 = sample size of BOA beneficiaries by enterprise; σ^2_1= variance of IFS beneficiaries by enterprise; σ^2_2= variance of BOA beneficiaries by enterprise

Two tailed decision rule:

At 5% level of significance, accept the null hypothesis of no significant difference; if Z is equal or less than 1.96 otherwise reject the null hypothesis if Z is greater than 1.96

Objective (v) Determinants of loan Repayment: this was achieved using multiple regression analysis. The multiple regression model is implicitly stated as;

$Y = f(X_1, X_2, X_3, X_3, X_4\text{-------}Xn)$ --- (6)

Where:

Y = Amount of loan repaid (in naira)

X_1 =Age of farmer (in years)

X_2 =Sex (male = 1; female = 0)

X_3 =Level of education (in years)

X_4 =Farming experience (in years)

X_5 =enterprise type (crop=1; livestock =0)

X_6 =Total income of the farmer (farm and non-farm in Naira)

X_7 =Amount of loan obtained (in Naira

X_8=loan from other sources (in naira)

X_9 = Interest amount (in naira)

RESULTS AND DISCUSSION

The socio-economic characteristics of beneficiaries are shown in Table 1.0

Table 1.0: Socio-economic characteristics of respondents

VARIABLE	IFS Number of respondents	Percentage of respondents (%)	BOA Number of respondents	Percentage of respondent%
Sex				
Male	61	72.6	36	64.3
Female	23	27.4	20	35.7
Total	84	100.0	56	100.0
Age (years)				
30-35	26	31.0	5	8.9
36-41	36	43.0	29	51.8
42-47	22	26.0	21	37.5
48 -53	-	-	1	1.8
Total	84	100.0	56	100.0
Mean	**38.0**		**40.5**	

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Marital Status				
Single	26	31.0	2	3.6
Married	53	63.1	54	96.4
Others	5	5.9	-	-
Total	84	100.0	56	100.0
Formal Education (years)				
1-6	-	-	4	7.14
7-12	6	7.14	9	16.07
13-18	78	92.86	43	76.79
Total	84	100.0	56	100.0
Mean	**15**		**13**	
Secondary Occupation				
Trading	34	40.5	44	78.57
Salary work	9	10.7	9	16.07
Hired labour	16	19.0	3	5.40
Services	25	29.8	-	-
Total	84	100.0	56	100.0
Household Size				
1-3	41	49	7	12.5
4-6	39	46	42	75
7-9	4	5	7	12.5
Total	84	100.0	56	100.0
Mean	**4**		**5**	
Farm Experience (years)				
1-5	31	37	-	-
6-10	49	58	25	44.64
11-15	4	5	26	46.43
16-20	-	-	5	8.93
Total	84	100.0	56	100.0
Mean	**7**		**11**	

The result in Table 1.0 showed that, majority 72.6% and (64.3%) of IFS and BOA respondents respectively were male. This indicated that more males benefitted from loan from IFS and BOA than female. This suggested that men met the required conditions for loan more than women. The average age of beneficiaries of IFS and BOA was 38.0 and 40.5 years respectively. This implied that, most of the beneficiaries were youthful in age. This suggested that, as the elderly farmers refused to opt for debt capital because of fear, there were younger farmers to succeed them. Majority 63.1% and (96.4%) of IFS and BOA respondents respectively were married. Consideration given to marital status of the respondents in the study was based on the fact that agribusiness is still a family enterprise in Nigeria. Also an average formal education attainment of 15 and 13 years for IFS and BOA was recorded among the beneficiaries. This means that, majority of respondents were very educated. This could be helpful in positive reactions to government lending programmes. The most important secondary occupation common among the respondents was trading. This informed that, it is possible for individual farmer to have more than a single occupation which is often motivated by income accumulation. This experience of multiple occupations is however, suited for farmers in developing economies such as Nigeria. A mean household size of 4 and 5 persons was recorded among IFS and BOA beneficiaries. This moderate household size may not have profound impact on the total family expenditure. But on the other hand, may not have some economic values such as provision of cheap and available labour force. The average farming experience of IFS and BOA beneficiaries was 7 and 11 years respectively. Farming experience can give a clue on the farmer's managerial skills and competence.

Lending conditions for granting loan by IFS and BOA

Lending conditions are specific requirements that farmer borrowers must meet/accept before they can be granted loan by the lending institutions. The lending conditions for granting loan by IFS and BOA were assessed and presented in Table 2

Table 2.0: Lending condition s by IFS and BOA

Financial institution	Lending condition
Integrated Farmers Scheme (IFS)	(i) Opening of individual account (ii) Filling of application form (iii) Personality as guarantor (iv) Interest rate of 10% (v) loan amount between ₦ 450,000 and ₦ 500,000 (vi) 60 months duration on loan repayment
Bank of Agriculture (BOA)	(i) Opening of individual account. (ii) Filling of application form (iii) Guarantor/collateral such as landed property (iv) Interest rate of 14% (v) Operating the account for about six months with 20% savings in proportion to loan amount. (vi) Detailed and bankable business plan (vii) loan amount between ₦ 500,000 and ₦5,000,000 (viii) 36 months duration on loan repayment

Result in Table 2.0 showed that IFS and BOA have different lending conditions for granting loan. Areas of disparity are collateral requirement on loan, interest rate, saving account in proportion to loan account, detailed and bankable business plan, loan amount and duration for the loan. They were similar in the requirements for opening of account, filling application form and presenting a guarantor. Information in the Table 2.0 suggested that farmers could easily borrow from IFS. In BOA, any amount greater than N250, 000.00 is said to be secured with a collateral security (ARMTI, 2016).

Complementary services and farm inputs that lenders of fund offered to beneficiaries

Complementary services are those services the lenders of fund give to their loan beneficiaries in order to make use of loan effective and enhance repayment. The complementary services/farm inputs offered to beneficiaries by IFS and BOA are shown in Table 3.0

Table 3.0: Complementary services that banks offered to borrowers

LENDER	IFS		BOA	
Service	Number of respondents	Percentage of respondents	Number of respondents	Percentage of respondents
Improved livestock breeds	29	34.52	20	35.71
Sale of produce	46	54.76	35	62.5
Others (free consultation)	8	9.52	3	5.36
Fertilizer supply	40	47.62	-	-
Insecticides	31	36.90	-	-
Tractor hiring services	25	29.76	-	-
Extension education services	81	96.43	-	-
Improved planting materials	37	44.01	-	-

- Services not accessed

Result in Table 3.0 showed that most of loan beneficiaries of IFS 96.43% benefitted from extension services. This service was meant to educate the farmers on the best way to use the loan and achieve loan repayment. The beneficiaries who got fertilizer in form of services offered by the IFS were 47.62%. Other services were improved planting materials; improved livestock breeds getting market outlets for farm produce, insecticides and herbicides. On the other hand, the services rendered by BOA to their customers were sourcing sales outlet for farmers produce, supply of improved livestock breeds and free consultation/supervision. These services were meant to enhance farmers' repayment ability. However, the increased services

and inputs for IFS beneficiaries could not place them on advantage over their BOA counterpart in loan repayment performance as indicated in Table 6.0. The reason for this might not be unconnected with the fact that, the wide range of services and inputs for IFS beneficiaries were not in enough quantities and the prices of these inputs could also made it difficult for farmers to acquire inputs in quantities capable of making desirable impact on production and total revenue. Also, untimely delivery of these inputs and services due to bureaucratic procedures of government dealings coupled with the poor attitude (laziness and lack of understanding the farming conditions of which farmers operate) of some government staff in credit administration. This could eventually make the IFS beneficiaries to get low return in their investment, hence the lower repayment performance. However, the summary of loan repayment performance of IFS and BOA is presented in Table 4.

Loan Repayment Performance of IFS and BOA beneficiaries

The loan summary by enterprise is presented in Table 4.0

Table 4.0 Loan summary of beneficiaries

Description	Enterprise				
IFS	**Food crop** ₦,000.00	**Fishery** ₦,000.00	**Piggery** ₦,000.00	**Poultry** ₦,000.00	**Total** ₦,000.00
Number of beneficiaries	45 (53.57)	13 (15.48)	11 (13.09)	15 (17.86)	84 (100)
Amount granted as loan (₦)	20,250 (50.94)	6,500 (16.35)	5,500 (13.84)	7,500 (18.87)	39,750 (100)
Number of clients who fully paid	3 (6.67)	2 (15.38)	1 (9.09)	2 (20.00)	8 (9.52)
Amount fully paid (₦) **BOA**	1,350 (6.67)	1,000 (15.38)	500 (9.09)	1000 (13.33)	4,350 (10.94)
Number of beneficiaries	-	19 (33.93)	12 (21.43)	25 (44.64)	56 (100)
Amount granted as loan (₦)	-	27,923 (33.93)	17,636 (21.43)	36,740 (44.64)	82,300 (100)
Number of beneficiaries who fully paid	-	12 (63.16)	7 (58.33)	13 (52.00)	32 (57.14)
Amount fully paid (₦)	-	N9,348 (33.48)	6,876 (38.99)	11,287 (30.72)	27,511 (33.43)

Figure in bracket is percentage

Result in Table 4.0 showed that out of ₦ 39, 750,000.00 granted to IFS beneficiaries as loan ₦ 4,350,000.00 (10.94%) were fully repaid as at when due. Accordingly, ₦ 82, 300,000.00 of the loan granted to BOA beneficiaries ₦ 27,511,000.00 (33.43%) were promptly repaid as at when due. However, the loan repayment among BOA beneficiaries was higher than their IFS counterpart. Poor repayment performance discouraged financial institutions to continue on their role of lending credit to farmers sustainably, hence impacting negatively on agricultural development. However, to fully assess the level of loan default, loan performance measures were estimated and shown in Table 5.0

Table 5.0: Loan repayment performance of IFS and BOA beneficiaries

SOURCE Enterprise	IFS				BOA			
	LRI (%)	LDI (%)	BRR (%)	BDR (%)	LRI (%)	LDI (%)	BRR (%)	BDR (%)
Poultry	11.54	88.46	63.15	36.85	83.75	16.259	63.02	36.98
Piggery	6.82	93.18	32.67	67.33	41.39	58.61	59.79	40.21
Fishery	10.87	89.13	42.01	57.99	68.28	31.72	76.65	23.35
Food crop	74.52	25.48	9.57	90.43	-	-	-	-
Mean	25.94	74.06	36.85	63.15	64.38	35.62	66.49	33.51

Source: computed from equation 1, 2, 3 and 4;- no food crop enterprise, LRI=Loan repayment index; BRR=Borrowers repayment rate; LDI=Loan default index; BDR=Borrowers default rate

Result in Table 5.0 showed the various measures of loan performance computed. Information in the Table showed that only 25.94% of the loan granted to the IFS borrowers during the period under review was repaid when due. For BOA, only 64.38% of the loan granted to the borrowers during the period under review was also repaid when due. These results indicated low level of repayment among the benefitting farmers across both lending sources. This result of low level of loan repayment was similar to the findings of Ojiako and Ogbukwa (2012).

Table 6.0: Z- test result of difference in mean loan repayment performance between IFS and BOA beneficiaries

Loan source	N	Mean	Standard Deviation	Z calculated	Z critical	P	Decision
IFS	4	36.8	22.2				
BOA	3	66.49	8.95	2.42	1.96	.05	Reject H_0

Result in Table 6.0 showed that there was significant difference on loan repayment performance between IFS and BOA beneficiaries in the study area. The low repayment performance was higher among IFS beneficiaries than among BOA counterparts. The reason for lower repayment performance among IFS beneficiaries could be due to the fact that IFS being a State intervention project might have relaxed their lending conditionality and compromised some basic principles and guidelines of commercial lending. For instance, the lower interest rate on loan might have attracted people who might not be genuine farmers who might acquire the loan with conflicting interest of never to use the loan in agricultural production and also paying back. Prospective beneficiaries of government supported loan schemes should be properly screen to select genuine farmer with ability and good intentions of using the loan on intended projects and repayment. This is because low repayment of loans impedes viability and sustainability of lending schemes.

Loan repayment determinants

The semi-log was chosen as the lead equation because it had the best fit. The regression line gave a coefficient of multiple determinations (R^2) of 82.70% or goodness of fit to the true line. This implied that, the six explanatory variables explained 82.70% of the variation in the independent variable. The result of the determinants of loan repayment is shown in Table 7.0

Table 7.0: Determinants of loan repayment

Variable	Linear function	Exponential	+ Semi-log	Double log
Intercept	-548172.976	5.494	-19206569.25	1.051
	(-1.308)	(13.305)***	(-10.352)***	(0.715)
Sex	-132095.895	-0.208	-26457.650	-0.198
	(-1.536)	(-2.530)**	(-0.265)	(-2.509)**
Age	10889.139	0.004	272022.9	0.283
	(0.926)	(0.355)	(2.61)**	(0.334)
Farm type	43756.508	-0.115	29240.984	-0.072
	(0.430)	(-1.186)	(0.235)	(-0.729)
Education	2968.280	-0.003	134516.305	-0.005
	(0.328)	(-0.303)	(0.477)	(-0.024)
Loan from other sources	226610.813	0.292	434832.386	0.287
	(1.959)	(2.686)**	(3.233)***	(2.697)**
Farming experience	227.070	0.012	320125.3	0.184
	(0.020)	(1.115)	(2.72)**	(1.146)

Amount borrowed	0.480 (8.973)***	1.822 (5.274)***	1842501.375 (8.691)***	0.223 (1.328)
Total income	0.251 (8.884)***	-0.286 (-0.642)	1315611.375 (6.520)***	0.468 (2.929)**
Interest amount	100903.5 (0.86)	.1166901 (0.97)	-314131.3 (-2.67)**	-.2678891 -2.08)**
R^2	0.763	0.331	0.827	0.360
Adj.R^2	0.754	0.290	0.799	0.321
F ratio	62.855***	8.096	70.147***	9.211***

Figures in brackets are t-values. ***, **, * = significant at 1%, 5% and 10%; + = the lead equation.

Result in Table 4.20 showed that age of the farmer was directly related to the amount of loan repaid and significant at 5% level of confidence. This implied that as the farmer's age increased, repayment also increased. This might have resulted from the fact that older people had become more established economically and gotten more experience in farming and have more sense of responsibility on loan repayment. Therefore in administering loans, most lenders were thought to consider age as a serious factor, that they based their facts on the reason that, apart from farming being a strenuous business, requiring energy, it is not at the same time for very young minds that will not put into effective use the loanable funds. Therefore, lending to older people as implied by the result will lead to better repayment. This result agreed with the findings of Okorji and Mejeha (1993) but contrary to the findings of Nwosu *et al.* (2014).

Loan obtained from other sources contributed positively to loan repayment and significant at 1% level of probability. This showed that loan repayment will increase for the beneficiaries with multiple loan sources. This implied that, as money borrowed by farmers from other sources increased, the loan amount repaid also increased. This could be explained by the fact that Agricultural sector has been underfinanced (Global Agricultural Information Network, 2011). Farmers can hardly get adequate finance for their investment through a single source of borrowing. Multiple sources of borrowing also saved time, since farmers could easily borrow from secondary sources and use such fund as foundation to establish their farms while waiting for the institutional loan for investment. Moreover, the more a farmer can adequately mobilized capital, the more likely that he will have a better purchasing power for effective management of his enterprise resulting in higher income hence repayment of loan. This is possible due to the advantages associated with the economies of scale which come through the expansion of purchases and production (Okorji and Mejeha, 1993). This result was in line with Aryeetey (1995) who examined the determinants of repayment in the Gramen Bank in Burkina Faso that beneficiaries with multiple sources of loan had low level of defaults and were credit worthier.

Farming experience had a positive relationship with amount of loan repaid and significant at 5% level of confidence. This indicated that as the number of years put in by the farmer in farming business increases, the amount of loan repaid also increases. This could be explained by the fact that as farmers put in more years, they developed their credit utilization and management skills that helps them to repay loans timely. Farming experience could help farmers to navigate the turmoil business environment and in making good farm level decisions (Amare and Bekabil, 2008; Tundui and Tundui (2013) and Otunaiya *et al.,* (2014).

Amount of money borrowed contributed positively to loan repayment and significant at 1% level of confidence. This indicated that, as the amount of loan granted to farmer increased, the loan amount repaid also increased. This could be explained by the fact that, with adequate amount of money borrowed farmers could have good purchasing power, buy inputs in enough quantities capable of making desirable impact on production and total income. This is to say that, the higher income could be possible with increased loan volume because of the advantages associated with economies of scale which come about through expansion of purchases and production. This result was in tandem with the findings of Nwosu *et al.* (2014); Ajah *et al.* (2013) ; Ajah *et al,*(2014) ; Dadson (2012) who established that loan volume disbursed was a significant determinant of loan repayment among farmers. However, this result was contrary to the findings of Tundui and Tundui (2013); Edeth *et al.* (2014); Tesfaye (2014) and Aliye (2016) who found no positive significant relationship between loan size and loan repayment. The

conflict arising from these studies may likely be due to the peculiarity of the study locations and type of loan under consideration.

Total income of the farmers was directly related to the amount of loan repaid and significant at 1% level of confidence. This indicated that, as the total income of the farmer increased, the loan amount repaid also increased. This was explained by the fact that when total income of the farmer increased, he got enough money to meet family needs and also meet loan obligations. This result corroborated the findings of Ajah *et al.,* (2014).

Interest amount was negatively related to repayment and significant at 5% level of confidence. This showed that as interest amount on a loan increased, amount repaid reduced. This could be explained by the fact that increased interest amount adds to production cost. This reduced income and eventually repayment ability. This result corroborated the finding of Kariuki and Ngahu, (2016).

CONCLUSION AND RECOMMENDATIONS

Based on the findings from this study, well-educated young married male farmers with moderate household sizes dominated the lending schemes. They had adequate farming experience with trading as a major secondary occupation. Lending conditions of IFS and BOA varied and wide range of complementary services were more open to IFS beneficiaries. There has been a general low repayment performance with significant difference existing between the two schemes. The repayment performance was lower among IFS beneficiaries than their BOA counterparts. Important variables that significantly affected loan repayment included age, loan from other source, farming experience, amount borrowed, total income and interest amount. From the result of the study, the following recommendations were made: in providing complementary inputs and services by financiers to clients, emphasis should be on economic quantity and prices as this would aid optimum production, hence more income; State-owned financing programs and schemes should endeavor to follow basic principles in commercial lending and not to over-relaxed the criteria for lending also, the significant variables that determined loan repayment should be taken into consideration in policy issues because they are fundamental in checking loan repayment.

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