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Performance of Bank of Agriculture Beneficiaries in Delta State Nigeria

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Abstract

Credit intervention for farmers sustainability necessitates information. There is lack of empirical information on among of credit accessed and its contributing factors. This issue deserve in-depth investigation. The study analyzed the impact of Bank of Agriculture credit on farmers beneficiaries. Primary data were gleaned with structured questionnaire on 280 BOA credit beneficiaries. Both descriptive and inferential statistics such as percentage, frequencies, means, Eta squared formular, t-test and regression model were applied for data analysis. The outcome showed that BOA credit had direct impact on beneficiaries income, output, farm size and labour employed. The finding on t-test showed significant increase after receiving credit from BOA for their farming activities. The Eta square method showed significant impact existed after benefiting from BOA credit. The result on the amount received by beneficiaries revealed an average of ₦332, 964.29K. The result of regression model showed that age, farming experience, educational level, farm size, cooperative association, household size, loan repayment, marital position and income level influenced amount of credit accessed. Credit policy to tackle the issue of credit disbursement to protect the farmers is recommended.

Keywords: Credit; beneficiaries; bank of agriculture; eta square formular.

1.Introduction

Agricultural financing is the potency for agricultural growth and development (Abula et al., 2013). It is increasingly recognized that the economic improvement of farmers could only be enhanced by credit accessibility. Moreover agricultural credit is understood to amplify agricultural productivity as well as effectiveness of land, water, capital and human resources (Okulegu et al., 2014). Agricultural credits are finances to farmers to produce, store, process and sell agricultural products. Depending on its length, these loans can be short, medium or long term. The use of credit in agriculture is extremely necessary to improve production rates, productivity, efficiency and ultimately farm income (Hazneci & Ceyhan, 2015; Terin et al., 2014).

Agricultural finance funds activities such as input supply, development, transformation and distribution in agriculture. Nevertheless, inadequate capital was described as the limiting factor in the growth of their food supply farms by beneficiaries. As a consequence of the lack of timely credit facilities, many farmers, who are willing to buy better seed and dung, or have no other better methods or production techniques were unable to purchase them (Gbigbi, 2017). However, the financial package for the beneficiary farmers in emerging countries, particularly without access to essential market infrastructure, is seriously inadequate (Kloeppinger-Todd et al. 2010). This finding indicates that the country remains unautonomous as it does not yet meet demand in food production (Dzadze et al., 2012). This is due in part to the lack of opportunities for agrarians to produce on a commercial basis, which is why subsistence farming dominates (MoFA, 2007).

Borrowing restriction is one of the world's biggest threats to developing countries. Observations have shown that insufficient access to credit is a major constraint to enhancing prolific activities that can

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upgrade rural living standards. In addition, the diversification of household standards by access to credit facilities into other fields, such as non-farm activities, is also crucial (Baffoe et al., 2014).

Mechanization, purchase of inputs, adoption of technologies and other management practices for production is a function of finance, devoid of which will hamper agricultural production and development. Omiti et al. (2009) observed in their studies that one limitation facing farmers is inaccessibility to formal sector credit to allow them to take advantage of economic opportunities to augment their level of output to move out of poverty.

Fletschner & Guirkinger (2010) also show that credit restrictions affect farm income significantly. They record a $1,477 mean adjusted profit loss for inefficient households in financial terms. Similarly, Baffoe et al. (2014) shows that the exposure to loans increases farm profitability. These results indicate that farmer productivity without access to credits cannot be increased because it restricts their skill to acquire much needed inputs like fertilizer, enhanced crops, or soil for their agriculture activities.

Farmers have inadequate access to credit sources and thus complain of insufficient production inputs. Due to limiting financial conditions and failure to acquire finance from formal institutions to tender collateral securities, farmers sometimes venture into borrowing from private sources that charge exorbitant interest rates- thus leaving them with a discouraging net farm income (Gbigbi 2019; Amjad & Hasnu, 2007). Informal lending is categorized giving to the customized nature of the contracts. Based on personal relationships, all borrowers will possibly loan anyone who is prepared to pay interest and comply with collateral requirements (Tsai, 2004). Accordance with Diagne & Zeller (2001), a farmer borrow from any of the loan sources either institutional or non-institutional. The quantity of credit accessed is the maximum volume a farmer can borrow from financial source at one time. In most cases, small-scale farmers can only apply for small amounts of credits to buy crops, fertilizers, and pesticides, but because of inadequate collateral, they cannot apply for credits to buy tractors, tube wells, and farm machinery (Hussain & Thapa, 2012).

There is evidence of that, without availability and ease of access to loan, smallholder farmers cannot contribute substantially to intensify output and alleviate poverty. Sufficient and timely loan is essential for utilization of modern technologies and boost the acquisition and usage of better inputs to encourage agricultural operations (Gbigbi et al. 2019).

In a bid to develop the agrarian sector and achieve corresponding benefits, financial institutions in Nigeria were directed by government policy to extend credit to the smallholder farmers to enhance greater productivity. Despites the government efforts to extend credit, credit programmes had often failed at different epochs to achieve intended purposes. The problem of inaccessibility to adequate credit by smallholder farmers has generated a lot of interesting research work and debates arising from the agitations in the brilliant minds of economic thinkers in recent time in Nigeria. This steered the formation of BOA to tackle the obstacles of credit supply.

Several research studies into farmers 'access to credit in evolving nations have considered a number of factors and concluded that factors affecting farmers' access to loans differ across geographical areas vis-a-vis socio-economic setting under which production takes place (Baffoe & Matsuda, 2015; Dzadze et al. 2012, Filli et al. 2015; Hananu et al. 2015, Kaşık, 2015; Saquip et al. 2017; Hayran et al. 2020). All of these studies on farmers access to credit on agricultural production were carried out elsewhere. Studies which evaluate the influence of BOA financing and its correlates therefore are scarce in the Delta State context, which is why this investigation is required. The present study would therefore complement existing literature on the access of farmers to BOA credits in Nigeria. The goals, methodology, area of study and the scale of the examination also varied from previous studies. The findings of this exploration will have a strong interest in the development of agricultural finance policies and the financial welfare of farmers for the banking sector and other credits organizations, researchers and policymakers.

2. Material and Methods

This research was investigated in Delta State, Nigeria. It is endowed with fertile agricultural soil and favorable climate that is suitable for production of animals, food and cash crops like palm tree, cassava, poultry, assorted vegetables, fish, and other crops for local consumption and export. A Multistage selection procedures was used. Firstly, all the three existing BOA banks branches in Asaba, Agbor and Ughelli towns were chosen. This gives three BOA branches in three local government areas. The proportional procedure was used based on beneficiaries' number. About 180 respondents were

selected from Asaba BOA, 70 from Ughelli and 30 respondents from Agbor. This gave a total sample size of 280 beneficiaries. Primary data were collected using questionnaire. Analytical tools were descriptive statistics (percentage, frequencies and means), Eta squared formular, t-test, and regression model.

2.1. *Model Specification*

Eta squared formular which was useful to determine objective (ii) is specified as follows:

Eta squared= $\frac{t^2}{t^2+N-1}$

Where **t** = t-value and *N*–1= degrees of freedom (df).

2.1.1 Regression model

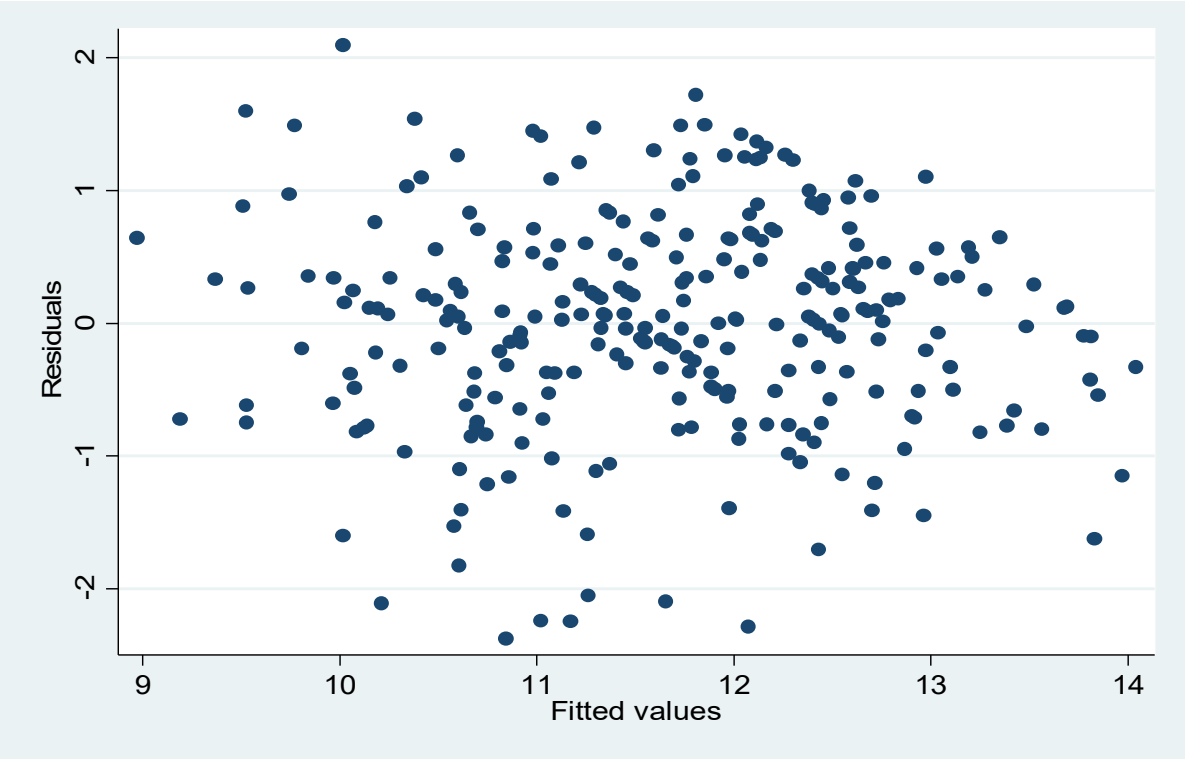
The regression model was best used for deciding factors influencing access to credit by farmers (Okpokiri et al., 2018) when the dependent variable is continuous.

Volume of credit implies actual amount of credit obtained from a particular source. The dependent variable (income) is continuous, hence the application of the multiple regression model. The dependent and independent variables were transformed to their natural log using the double log model.

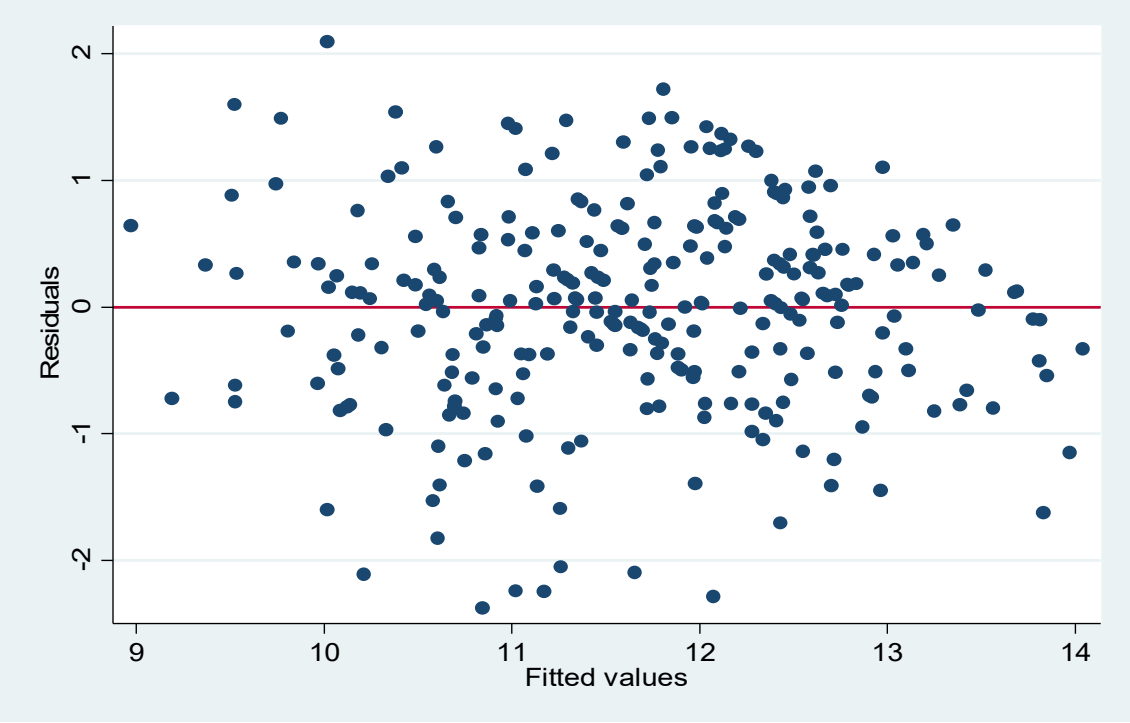
The Variance Inflation Factor (VIF) is used to test continuous variables for multicollinearity. As R-square increases towards 1, the independent variables show a high multicollinearity. The larger the VIF value, the more alarming or collinear the Xi variable is. If the VIF is greater than 10 the variable is said to be strongly collinear as a rule of thumb (Gujarati, 2003).

The variables were tested for multicollinearity using the variance inflation factor (VIF). The variance inflation factors for all variables were below 10, suggesting lack of multicollinearity. The cross-sectional data problem of heteroscedasticity was checked for the model by generating the log variable of these variables. The results of the heteroscedasticity is presented graphically and by estat hettest using Stata 14 as shown.

Rvfplot.



rvfplot,yline(0)



estat hettest

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. estat hettest

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
         Ho: Constant variance
         Variables: fitted values of lnvoco

         chi2(1)      =     4.39
         Prob > chi2  =   0.0363
```

The regression model is explicitly stated as:

$VOCO = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \beta_6X_6 + \beta_7X_7 + \beta_8X_8 + \beta_9X_9 + \beta_{10}X_{10} + \beta_{11}X_{11} + ei$----------(1)

where,

VOCO = volume of credit obtained (₦)

X_1 = age

X_2 = family size

X_3 = education

X_4 = farming experience

X_5 = farm size

X_6= loan repayment (₦)

X_7= gender (1 = male, 0 = female)

X_8 = cooperative society (yes= 1, otherwise=0)

X_9= marital status

X_{10}= farming status (full time = 1 and part time = 0)

X_{11} = income level (₦)

b_0 = constant intercept

b_1….b_{11} = the coefficient corresponding to x_1….x_{11}

e = stochastic disturbance term

3. Results and Discussion

3.1. Socioeconomic characteristics of Smallholders Farmers

Table 1 reveals that 50.70% of BOA microcredit beneficiaries and 49.30 % were males and females respectively. This result is in line with Gbigbi et al. (2019), who acknowledged that the gender of the head of farm households plays a significant role in obtaining credit support. In this case being a male has had a far-reaching impact in promoting access to microcredit facilities rather than being a female. It revealed that majority of those who participated in BOA funding were men. But this result may be because the men own high proportion of the land used for farming activities in sub-Saharan Africa. The results of Olayede (2000) also confirm that primarily males do small-scale farming.

The result according to respondent age were 28-32years (10.00%), 33-37years (7.90%), 38-42 years (20.00%), 43-47years (16.40%), 48-52years (11.40%), 53-57years (12.90%), and above 57years (21.40%). The average age of beneficiary was 47 years. This disclosed that most beneficiaries who had access to credit facilities were within their prolific age and could contribute meaningfully to agricultural productivity. The suggesting that age had positive influence on access to credit. The outcome shows further that credit

agencies might be avid to provide lending facilities to young and successful farmers beneficiaries that are more likely to accept new technologies than older farmers (Gbigbi, 2019). Similarly, this finding is in line with that of Adeyemi (2008), who reported that, younger farmers are more likely to benefit from credit because of their energy and innovation potential. Such younger respondents are able to be active and more successful mentally and physically than the old farmers. Ogundele & Okoruea (2004) found that age is a main factor which influence productivity and all the same, contribution of human capital is reduced when age of the farmer increases.

Table 1. Socioeconomic characteristics of boa beneficiaries (N= 280).

Variables	Frequency	Percentage	Mean
Gender			
Male	142	50.70	
Female	138	49.30	Male
Age distribution			
28-32	28	10.0	
33-37	22	7.90	
38-42	56	20.00	
43-47	46	16.40	47 years
48-52	32	11.40	
53-57	36	12.40	
Above 57	60	21.40	
Household size			
1-4	84	30.00	
5-8	138	49.30	
9-12	52	18.60	6 persons
13-16	2	0.71	
17-20	4	1.43	
Educational level			
No education	26	9.30	
Primary education	82	29.30	
Secondary education	112	40.00	Secondary education
Tertiary education	60	21.40	
Farming status			
Part time	76	27.10	
Full time	204	72.90	Full time
Cooperative member			
No	178	63.60	
Yes	102	36.40	No
Farming experience			
1-5	74	26.40	
6-10	78	27.90	
11-15	36	12.90	12 years
16-20	52	18.60	
21-25	26	9.30	
26-30	14	5.00	
Farm size (ha)			
1.00-1,99	116	41.40	
2.00-2.99	92	32.90	1.96ha
3.00-3.99	44	15.70	
4.00 above	28	10.00	

3.2. Impact of BOA Credit on Income, Output, Farm Size and Labour Supply

The household sizes were 1-4 persons (30.0%), 5-8 persons (49.30%), 9-12 persons (18.60%), 13-16 persons (0.70%), and 17-20 persons (1.40%). This infers that majority (49.30%) of the beneficiaries had home size of 5-8 persons. The average household size was 6 people. Therefore household magnitude of 5 – 8 individuals can be considered moderate because of its capacity to prevent micro-credit from being redirected to consumption (Obike 2007). However, large families of 9 or higher are more likely to spend the micro-loans on funding consumption and other basic needs. As such, access to micro-credit is less likely (Akiram et al., 2008). However, it is obvious that large number of household members contribute to greater efficiency in accessing credit.

The finding shows that respondents who had no education were (9.30%), primary education (29.30%), secondary education (40.00%) and tertiary education (21.40%). This finding implies that high proportion of the beneficiaries had learnt. Education have positive influence on farmers' access and credit utilization and other resources. The education they have gained helps them to recognize credit sources and recognize opportunities for farm business to boom the farm's monetary base. Furthermore, the result indicates that literate farmers dominated the entire selection. A farmer's level of education not only increases his productivity on his farm, but also strengthens his ability to consider and assess emerging growth technologies (Etim & Benson 2016). Adereti (2005) confirms that education is a critical tool for accessing and efficiently utilizing agricultural capital. Afolabi (2010) published similar empirical findings on Microfinance Banks loan beneficiaries with similar outcome.

The result disclosed that 27.10% of the beneficiaries were part-time and full-time (72.90%). This entails that majority are full time farmers. This could qualify them to obtain credit and promptly pay of borrowed funds.

The result denotes that a good number of the beneficiaries (63.6%) are not part of a cooperative society while (36.40%) are members of a cooperative. This suggest that the high proportion of non-cooperative membership could impede them in accessing credit effortlessly for farming activities. This result is in consonance with Hananu et al. (2015) research.

In relations to farming experience, Table 1 shows that a good number (27.90%) and (26.40%) had 6-10years and 1-5years farming experience respectively, the mean farming experience of respondents was 12 years. The more years spent in farming could expand capital accumulation for the farm that guaranteed easy credit accessibility. This is in accordance with Rahman et al (2014), who noted that the years of cultivation have direct effect on production owing to judicious allocation of resources over time due to practical knowledge acquired.

It was observed that 41.40% of respondents had between 1.00ha and 1.99 ha of farmland, 32.90% had between 2.00 ha and 2.99 ha of farmland, 15.70% had between 3.00ha and 3.99ha of farmland and 10.0% of the beneficiaries had above 4.0 ha of farmland. The result indicates relatively small farm holdings and hence were subsistence farmers. . This probably was caused by the common tenure arrangement in the region which promotes the disintegration of holdings. This result lends further credence to an assertion by (Olawepo, 2010) that more than 90.00% food crop farmers were smallholder farmers with 60.00% having farmland of 0.10-5.99 ha.

Table 2 shows differences in mean scores and standard deviations of income, output, farm size and labour employed before and after the patronage of BOA credit. The mean score of income before access to BOA credit was 4754.28 ± SD 3363.07 which intensified to 15957.28 ± SD 8550.22 after accessing BOA credit. This means an improvement in income level after accessing BOA credit.

The mean output of beneficiaries before BOA credit was 1571.14 ± SD 995.96 which step up to 2909.28 ± SD 1694.93. The finding indicates substantial upsurge in output on account of BOA credit intervention. The average farm size before BOA credit was 1.05 ± SD 0.53 which improved to 2.84 ± SD 1.26.The result implies that labour is one more issue that elucidates the worth of farming, the mean score of labour employed before BOA credit was 2.15 ± SD 0.92 which augmented to 10.82 ± SD 7.53. This implies that farmers had significant improvement after profiting from BOA intervention.

Table 2. Farmers income, output, farm size and labour

	Variables	Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Income before BOA credit (₦)	4754.29	280	3363.08	284.23
	Income after BOA credit (₦)	15957.29	280	8550.23	722.63
Pair 2	Output before BOA credit (kg)	1571.14	280	995.97	84.17
	Output after BOA credit (kg)	2909.29	280	1694.93	143.25
Pair 3	Farm size before BOA credit (ha)	1.05	280	.53	.04
	Farm size after BOA credit (ha)	2.84	280	1.26	.12
Pair 4	Labour employed before BOA credit (number of persons)	2.15	280	.92	.08
	Labour employed after BOA credit (number of persons)	10.82	280	7.53	.64

3.3. T-test on BOA Credit on Productivity of Farmers

Table 3 shows that there is a substantial difference in income (t=14.70<P0.05) before and after receiving BOA credit at the 5% alpha. Furthermore, the findings show that involvement in the BOA intervention resulted in a substantial difference in output between before and after (t= 10.37< P0.05). Before and after engaging in the BOA credit scheme, there is a large difference in farm size (t= 16.09<P0.05). Before and after earning BOA credit, there was a substantial difference in the amount of labour employed (t= 13.74<P0.05). This suggests participation in bank of agriculture financial scheme for farmers was favourable for agricultural production.

Table 3. T-test on BOA credit on productivity of farmers

Variables	Mean	Std. dev	Std. error mean	Lower	Upper	t	Df	Sig.(2tailed)
Income before BOA credit-Income after BOA credit(₦)	-11203.00	9020.36	762.36	-12710.32	-9695.68	-14.70	279	.00
Output before BOA credit-Output after BOA credit (kg)	-1338.14	1527.15	129.07	-1593.33	-1082.95	-10.37	279	.00
Farm size before BOA credit-Farm size after BOA credit (ha)	-1.80	1.32	.11	-2.02	-1.58	-16.09	279	.00
Labour employed before BOA credit-Labour employed after BOA credit (number of persons)	-8.67	7.47	.63	-9.92	-7.42	-13.74	279	.00

3.4. Effect of BOA Credit on farmers beneficiaries

The assertions of positive impacts were confirmed by the eta-squared formular on those farmers who participated in BOA financial support programme is as shown.

Eta squared= $\frac{t^2}{t^{2+N-1}}$

The effect of credit accessibility on farmers income is computed as:

Income impact = $\frac{14.695^2}{14.695^{2+140-1}} = 0.61$

The score of 0.61 obtained infers that access to credit facilities enhance farmers income level.

The effect of credit accessibility on farmers output is computed as:

Output impact = $\frac{10.368^2}{10.368^{2+140}} = 0.44$

The score of 0.44 obtained implies that access to credit facilities positively influence farmers output.

The effect of credit accessibility on farmers farm size is computed as:

Farm size impact = $\frac{16.086^2}{16.086^{2+140}} = 0.65$

The score of 0.65 obtained denotes that access to credit facilities positively contributed to improvement in farm size of beneficiaries.

The effect of credit accessibility on labour employed by beneficiaries is computed as:

Labour impact = $\frac{13.744^2}{13.744^{2+140}} = 0.58$

The score of 0.58 entails that access to credit facilities positively influence labour employed in the farms.

3.5.Volume of Credit Disbursed to Beneficiaries by BOA

The result indicates that 60.70% of the beneficiaries obtained credit between ₦251,000-₦350,000 and 27.10% obtained credit between ₦351,000-₦450,000 also 6.40%, 4.30%, and 1.40% borrowers had obtained credit to the tune of more than ₦450,000, ₦150,000-₦250,000 and less than ₦150,000 respectively(Table 4). The mean amount borrowed was ₦332,964.29K. This suggest that larger part of the farmers are smallholder farmers with small land holdings which limit amount borrowed for production activities. This discloses that the demand for credit from the farmer is far higher than the supply. However, inquiries from the management of micro finance bank disclosed that the available funds were rationed among the many successful beneficiaries on account of the gross shortage of loanable funds (Oriaku, 2010).

Table 4. Amount of Credit Obtained by Respondents

Amount of credit obtained (₦)	Frequency	Percentage (%)	Mean
<150,000	4	1.40	
150,000-250,000	12	4.30	
251,000-350,000	170	60.70	₦332,964.29K
351,000-450,000	76	27.10	
>450,000	18	6.40	
Total	280	100.0	

3.6 Hypothesis

The t-test result indicated that the amount of credit applied and received by respondents from BOA was ₦2811008.57 and ₦ 1112464.64 respectively. This reveals that substantial difference occurs. The paired sample t-test result confirmed that the t-test estimate of 6.369 is significant at 5% level (Table 5). Thus, the null hypothesis is rejected and the alternative is accepted, hence there is difference between amount of credit applied and disbursed to the farmers.

Table 5. Amount applied and amount received by farmers from boa

	Variables	Mean (₦)	Std. deviation	Std. Error Mean	tt	Ddf	Sig.(2-tailed)
Pair1	Credit applied	2811008.57	3,155,352.00	266,675.92	66.369	279	.000
	credit received	1112464.64					

3.7. Factors affecting the volume of credit received by beneficiaries of BOA

Table 6 revealed the extent to which amount received from BOA accounted for change in financing smallholder farmers as specified by the R-square value of the double log regression model which showed that 61.9% of the change in financing smallholder farmers was brought about by amount received from BOA while the F-ratio tested whether the overall regression model is a good fit for the data. The finding disclosed that the explanatory variables significantly predict the dependent variable, since F (39.65) was $P < 0.05$, the regression model is good for the data. All the respective variable inflationary factors (VIF) of the Collinearity statistics are between 1.02 and 1.27; a signal that there

was no multicollinearity among variables. The outcome of the estat hettest shows constant variance which implies the absence of heteroscedasticity.

The finding revealed that the age factor was positive at a probability of 5 percent. This shows that an increase in unit age will result in an increase in the quantity of credit received from BOA. This result suggests a high probability of elderly people receiving credit. This finding goes against the work investigated by Obisesan (2012) which had a significant but inverse relationship with age at which credit was awarded.

The respondents' household size had a positive correlation with credit obtained. The result disclosed that an increase in the unit size of a household would result in a corresponding increase for credit. This infer that when the dependency ratio increases, farmers will require credit provision of food and other needs for their household members. Besides that, farmers with a small family could meet their financial needs on their farm income. The positive link is because families with more members that diversify their farm, would generate surplus profits from livestock, fruit, vegetables, and other farming activities that would otherwise require high levels of credit. Large families are also likely to have increased communication with traders and brokers that could help access loans. We found that access to credit was substantially determined by family size, in line with previous studies (Oboh & Ekpebu, 2011; Saleem & Jan, 2011).

The educational status was positive and significantly related to the amount of credit the BOA farmers received. This means that an increase in education of respondents will increase the credit from BOA. The result disclose that credit accessibility increased according to level of educational attainment owing to enhanced technical knowledge on bureaucratic processes. It is obvious that educated farmers with secondary education and tertiary education has more access to credit than their counterparts with a little educational level. This is from the fact that education is a factor in ensuring better quality service support for every farmer and will have a better understanding of the BOA service delivery and improved access to input distribution and usage (Adereti, 2005).

The volume of credit accessed had a direct relationship with farming experience. Increasing farming years will result in an increase in the quantity of loans obtained from BOA. The implications are that over time, farmers may have imbued a good farming practice culture that, in effect, have provided farmers advantage of accessing BOA credit. This is in accordance with Gbigbi (2019), that the years of farming experiences of beneficiaries and access to BOA credit are directly related. This is on account that farming experiences also have to do with good credit management, as experience goes hand in hand with age. Furthermore, previous transactions of the respondents in accessing credit with financial institutions gave them a clearer understanding of the terms, conditions and procedures for accessing the credit easily (Saqip et al., 2017).

Respondents' farm size had a favorable association with the volume of credit they used. This assumes that as the beneficiary's farm increases, so does the probability of a rise in the amount of credit available from the bank of agriculture. This ensures that farmers with larger plots of land have a better chance of getting credit than those with smaller plots. The findings are based on some preceding studies that investigate the association between the sizes of farm and agricultural lending (Gunes et al., 2016; Saqip et al., 2017).

The variable loan repayment had direct relationship with amount of credit obtained from BOA at 5% alpha. This suggests that one‘s ability to repay the loan is very essential in the procurement of credit. This correlates to Gbigbi (2017), which showed similar implications for the determining factors of the repayment of credit by beneficiaries in Nigeria.

The coefficient between gender and credit accessed by farmers was positively significant. This revealed that male farmers have a greater likelihood of obtaining credit than their females, possibly because the bulk of the land used for farming activities is owned by men. Hananu et al. (2015) disagreed with this.

Cooperative membership and quantity of credit obtained by beneficiaries was positively significant. This suggests that, in contrast to their counterparts who do not belong to a cooperative society, farmers who are members of a cooperative society have a better chance of receiving credit from BOA. The first reason for this was that producers' willingness to implement the technical knowledge and competences provided by the cooperative partnership increased capital requirements. Moreover, some cooperatives, which included farmers, were farm credit cooperatives that already met their credit needs. This result reflects the direct relationship between utilization of the credit by beneficiaries and their group membership by Hananu et al. (2015).

The result of marital status had positive correlation with volume of credit accessed. This implies that increase in marital standing of farmers will similarly increase the quantity of credit received from BOA. This may possibly be that married persons are regarded to be more stable, responsible, and trustworthy and could provide family labour.

The farmer's farming position direct relationship with credit that was obtained. Also in accordance with a priori anticipation, a full-time farmer would encourage the credit institutions to provide him /her with the quantity of credit needed to improve their farms. The justification is that the farm is serving as a guarantee for the credit sources.

Income had direct relationship with volume of credit accessed. This denotes that improvement in income of respondents will result to an equivalent upswing in the quantity of credit obtained from BOA. The finding is congruent with Abula et al. (2013) that any upsurge in the income level of a farmer would result to similar increase in the amount of credit he acquire from MFB.

Table 6. Factors influencing credit received by respondents

Variables	Coefficient	Std. error	t	Sig	VIF
Age	0.406	0.169	2.40	0.017**	1.02
Household size	0.420	0.096	4.38	0.000***	1.20
Educational level	0.290	0.107	2.70	0.007**	1.05
Farming experience	0.250	0.090	2.77	0.006**	1.14
Farm size	0.374	0.096	3.88	0.000***	1.17
Loan repayment	0.289	0.094	3.08	0.002**	1.04
Gender	0.069	0.012	5.57	0.000***	1.27
Cooperative membership	0.075	0.012	6.52	0.000***	1.14
Marital status	0.052	0.012	4.17	0.000***	1.22
Farming status	0.042	0.012	3.44	0.001**	1.19
Income	0.393	0.044	9.00	0.000***	1.23
Constant	6.573	1.274	5.16	0.000***	
R- squared	0.6194				
F- ratio	39.65				

***= Significant at 1%, **= Significant at 5%., Mean VIF= 1.15

4. Conclusions

Conclusively, the study found that BOA has performed creditably in the delivery of credit to the farmers in improving their income, output, farm size and labour. The challenges encountered by BOA beneficiaries were access to credit, interest rate, collateral, awareness level, credit rationing, repayment rate, loan default and illiteracy. The study showed that socioeconomic factors plays significant role in accessing BOAs credit. It is hoped that if all these challenges are curbed to its' barest minimum, the beneficiaries will perform better in accessing credit from BOA and this could help increase the productive level of the farmers. It is therefore, recommended that more branches of BOA should be established and procedures for acquiring credit be simplified for timely disbursement of credit for proper utilization.

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