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Sustainable Development of Agricultural Cooperative among the beneficiaries of Bank of Agriculture (BOA) loan scheme in Ogun State, Nigeria

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Abstract:

This study focused on sustainable development of Agricultural Cooperative among beneficiaries of Bank of Agriculture (BOA) loan scheme in Ogun state, Nigeria. The three zones of the operation were sampled using multistage sampling techniques. Primary and secondary data were utilized for the study and obtained with the use of a well-structured questionnaire from 120 respondents out of which One hundred and nine (109) were returned, and acceptable for data analysis. The results obtained on the socio-economic characteristics of the (BOA) agricultural cooperators revealed that majority of them were male (58.7%), aged less than 50 years (75.2) with an average age of 42.51 years per cooperators, married (75.2%), had moderate household size of 5 (mean) per household, literate with vast majority (98.2%) possessing one form of formal education or other, (71.6%), engaged in farming as main occupation had an average of 5 years of farming experience and (64.2%) practiced Christianity as religion. Analysis of the factors influencing the amount of loan obtained revealed that age, education, farm size, amount repaid, loan experience among others. While household size had negative relationship with loan repayment, education and loan size have positive relationship with it. In terms of constraints to the BOA loan acquisition, high interest rate, bureaucracy and inability to provide a guarantor were adjudged as the major constraints.

Keywords: Agricultural Cooperatives, Loan Acquisition, Sustainability, Access to Loan

INTRODUCTION

Background of the Study

The Central Bank of Nigeria (CBN 2014) defined the Bank of Agriculture (BOA) as a type of bank that lends money to farmers for longer periods of time and charges them less interest. Therefore, the Bank of Agriculture (BOA) is described as credit bank expressly established in accordance with the provision of law to assist agricultural development across the globe, particularly by granting loans for longer periods than is usual with commercial banks. In his words, Adesina (2012), an Economist and Social commentator succinctly conceptualized Bank of Agriculture (BOA) as bank that lends money to individuals, basically farmers.

Bank of Agriculture (BOA) is the nation's foremost agricultural and rural development finance institution. It was incorporated in 1972 as Nigerian Agricultural Cooperative Bank Limited (NACB) to reflect the inclusion of cooperative financing into its broader mandate. In October, 2001, following the Federal Government effort to streamline the operations of its agencies, that were believed to be performing overlapping functions, three institutions, Nigerian Agricultural Cooperative Bank (NACB) Peoples Banks of Nigeria(PBN) and the risk assets of the Family Economic Advancement Programme (FEAP) were merged to form Nigerian Agricultural, Cooperative and Rural development Bank (NACRDB) in October 2010, following the rebranding of the bank to reflect its institutional transformation Programme, the Bank adopted the new name Bank of Agriculture (BOA) in the year 2013.

Statement of the Problem

Agricultural credit is an important tool for getting the inputs in time increasing thereby the productivity of the farms particularly those of small ones. It is an obvious fact that small farmers face a lot of problems in getting and returning the loan which must be removed to get better results and hence improve the quality and quantity of the agricultural products. Certainly, the use of credit facilities in the farm could translate to higher resource employment and capacity utilization, increased output and income, and reduce poverty in the rural economy, especially among the farmers, and be helpful to increase food production which would lead to an improvement in the welfare of the

farmers and consequently a reduction in their poverty and food insecurity level.

Objectives of the study: The broad objective of the study is to determine the sustainable factors influencing access to agricultural loan offering of Bank of Agriculture among agricultural cooperatives in Ogun State, Nigeria. Specifically, the study seeks to:

i. examine the socio-economic characteristics of the farmers which influence sustainable access to loan obtained by the farmers from BOA
ii. identify the constraints to farmers access to agricultural loan acquisition from BOA

Significance of the Study: Cooperatives are already present in all the areas that the proposed Sustainable Development Goals envisage the direction the world will take to make sustainable development a reality. Although cooperatives are central to the realization of easing access to agricultural loan especially from development agencies such as Bank of Agriculture. There is always the perception that cooperatives are not doing enough to sensitized and prepare members on the needful for concessional loan schemes and programmes of development banks. When this study is completed, it will have a strong ramification in the primacy of farmers' background as major determinant of access to agricultural loan production as well as in the growth of knowledge of the constraints which hinder access to agricultural loans.

RESEARCH METHODOLOGY

Study design: This study is a descriptive survey which was intended to determine the factors influencing access to agricultural loan offerings of Bank of Agriculture among agricultural cooperatives in Ogun State, Nigeria

Area of Study: The study was carried out in Ogun State, Nigeria. The State has a landmass of about 1.7 million hectares. It is currently made up 20 Local Government Areas (LGAs) spread across four main divisions – Egba, Ijebu, Remo and Yewa/Awori (NPC, 2006).

Sources of data: Primary data were mainly used for this study. They were obtained through well-structured questionnaire which was administered by trained enumerators and the researcher.

Population and sample of the study: The population of the study was made up of all the beneficiaries of Bank of Agriculture in Ogun State. However, due to unavailability of reliable register of farmers in the LGA, and population of the study is defined as an infinite one.

Sample Size and Sampling Procedure

Since the population of the study has been defined as an infinite one, the researcher therefore used an infinite population formula (with proportional allocation between groups) to determine the sample size (Godden, 2004).

$[Z2p\ (1 - p)]/\ C^2$

Where

- *SS* = Sample size
- *Z* = Given *Z* value
- *p* = Percentage of population
- *C* = Confidence level
- *Pop* = Population

Using 95% confidence level, the sample size is as follows:

SS = [3.92 x (0.9) x (1-0.9)]/0.0025

= 141

Multistage sampling technique was used in selecting the beneficiaries. The first stage was a purposive selection which indicates the three zones. This ensures that all the operative bases of the Bank were all covered. The second stage was a random selection of four Local Government Areas from each of the three zones where BOA branches are located. The last stage was random selection of 12 beneficiaries from each of the 12 Local Government Areas LGAs, forty farmers from each zone which are Abeokuta zone, Ijebu zone, and ImekoAfon zone from the list of farmers that were made available. In all, a total of one hundred and fort four (144) respondents were randomly sampled. However, after thorough field editing only one hundred and nine (109) were found useful for the study.

Methods of Data Analysis

Descriptive statistics such as frequency distribution tables, percentages and measures of central tendency were used to describe socioeconomic characteristics of the respondents and identified reasons for loan default. While, multiple regression was used to examine factors that determined the amount of loan obtained farmers; and student t-statistic was used to examine commonality of views on constraint to access to agricultural loan requests.

Regression model

The model is explicitly specified as follows:

$Q = bo + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + b_7X_7 + U$……(i)

Q = Relative amount obtained (₦)

X_1 = Borrowers age (Years)

X_2 =Loan beneficiaries' educational level (years)

X_3 =Farm size (hectares)

X_4 =Loan Experience (years)

X_5 =Household size (in number of person)

X_6 = Amount repaid (₦)

X_7 =Annual Net income (monthly income x 12) (₦)

bo is the constant b_1 b_2.....b_7 are the slopes to be estimated.

Table 1: A priori expectation of Variables

Variable	A priori expectation
Relative amount obtained (₦)	Positive
Borrowers age (Years)	Positive
Loan beneficiaries' educational level (years)	Positive
Loan Experience (years)	Positive
Household size (in number of person)	Positive
Amount repaid (₦)	Positive
Annual Net income (₦)	Positive

DATA PRESENTATION AND ANALYSIS

Socio-economic characteristics of the respondents

The socio-economic characteristics of the respondents are presented under this sub-heading. An assessment of the socio-economic characteristics of the respondents becomes important because of its tendency

to influence their borrowing and repayment behaviors. As stated below, Sex of borrowers could have implications on loan repayment and by implication, default. It is important to understand how the respondents' sex would likely influence loan repayment. This could facilitate credible loan administration. The results revealed that majority (58.7%) of the respondents were male. It is evident that majority (75.2%) of the respondents were younger than 50 years with mean age and standard deviation of 42.51 and ±11.03 years respectively. Result on marital status reveals that majority (75.2%) of the respondents were married. This is an indication that married people were the predominant BOA agricultural cooperators loan Scheme. The table also revealed that the vast majority (83.5%) of the respondents had at most 6 individuals in their households with an average of 5 individuals per household. This household size is considerably moderate and may not have substantial effect on the use of borrowed fund for unintended household consumption expenditure. In other words, the level of the household size may not have significant effect of repayment. The results on education of respondents analyze that only minority (1.8%) of the respondents had no any form of formal education. This implies that the vast majority (98.2%) had one form of formal education or the other. Besides, substantial number (39.4%) of the respondents had HND/BSC certificates. Obtained results revealed that vast majority (71.6%) of the respondents were farmers. With the high level of education among the beneficiaries, there is the tendency that if they invest the loan in farming, reasonable profit could be generated that will enable repayment of the loan. Also, an evaluation of the farming experience of the beneficiaries revealed that the majority had between 1-5 years of experience with an average of 5 years per beneficiary.

Table 2: Socio-economic Characteristics Distribution of Respondents

Characteristics	Frequency	Percentage	Cumulative Frequency
Sex			
Male	64	58.7	
Female	45	41.3	
Total	109	100.0	
Age(years)			

20-29	9	8.3	8.3
30-39	30	27.5	35.8
40-49	43	39.4	75.2
50-59	22	20.2	95.4
> 60	5	4.6	100.0
Total	**109**	**100.0**	
$\bar{x}$ = 42.31, SD = ±11.03			
Marital Status			
Single	11	10.1	
Married	82	75.2	
Divorced	4	3.7	
Widowed	9	8.2	
Separated	3	2.8	
Total	**109**	**100.0**	
Household Size (Person)			
1-3	37	33.9	33.9
4 - 6	54	49.6	83.5
7 – 9	14	12.8	96.3
≥10	4	3.7	100.0
Total	**109**	**100.0**	
Mean ($\bar{x}$) = 4.5, Standard Deviation (SD) = ±2.49			
Education			
No formal education	2	1.8	
Adult literacy	5	4.6	
Primary education	3	2.8	
Secondary education	23	21.1	
OND/NCE	33	31.3	
HND/BSC	43	39.4	
Total	**109**	**100.0**	

Occupation			
Banking	2	1.8	
Business	1	0.9	
Civil service	1	0.9	
Farming	78	71.6	
Sailor	2	1.8	
Tailoring	1	0.9	
Teaching	15	13.8	
Trading	9	8.3	
Total	**109**	**100.0**	
Farming Experience (year)			
1-5	82	75.2	75.2
6-10	20	18.4	93.6
>10	7	6.4	100.0
Total	**109**	**100.0**	
Mean ($\bar{x}$) = 5, Standard Deviation (SD) = 4.9			
Income (₦)			
≤50,000	34	31.2	31.2
50,001-100,000	38	34.8	66.0
100,001-150,000	28	25.7	91.7
>200,000	9	8.3	100.0
Total	**109**	**100.0**	
$\bar{x}$ = N147,404, SD = ±N220,818			
Religion			
Christianity	70	64.2	
Islam	39	35.8	
Total	**109**	**100.0**	

Source: Field Survey, 2022

Factors determining the amount of loan obtained by the Agricultural Cooperators

Multiple regression model was employed to analyze the determinants of BOA loan obtained by the respondents. Age of respondents (X_1), level of education (X_2), farm size (X_3), loan experience (X_4), household size (X_5), amount repaid (X_6) and annual net income (X_7) served as independent variables. The adjusted R^2 of 0.682 indicates that about 68% of the variation in loan obtained is captured by the variables included in the model. The remaining 32% is due to unexplained variation in the amount of loan obtained by the respondents. The significant F-value (at 1% level) also shows that the model is a good fit to the data.

The data in the table, revealed that age (β = 13718.4, $p \leq 0.05$), education level(β = 39916.48, $p \leq 0.05$)farm size (β = 107728.5, $p \leq 0.1$) and amount of loan repaid (β = 0.737, $p \leq 0.1$) significantly influenced the amount of loan obtained by the respondents. The age of the respondents, negatively influenced the amount obtained while farm size and amount repaid positively influenced the loan amount obtained. The implication of these findings is that the youths have better access to higher amount of loan than the aged and those that had better repayment in the past, will receive relatively higher loan amount than those with relatively less repayment record. Besides, the more educated an aspiring beneficiary, the higher the likelihood of securing higher loan.

Table 3: Multiple regression analysis of determinants of loan obtained by the Agricultural Cooperators

Variable Code	Variables Name	Regression Coefficient	Standard Error	t-value
β_0	(Constant)	-410026	348672.3	-1.176
X_1	Age	-13718.4**	-0.136	-2.152
X_2	Education level	39916.48**	0.134	2.168

X_3	Farm size	107728.5***	0.328	4.700
X_4	Loan experience	-28102.5	-0.039	-0.660
X_5	Household size	21383.69	0.051	0.706
X_6	Amount repaid	0.737***	0.097	7.587
X_7	Net income	0.004	0.025	0.149
	F-value	34.016***		
	R-squared	0.702		
	Adjusted R-squared	0.682		

Source: Field Survey, 2022, ** significant at 10 % level,* **significant at 5% level, ***significant at 1% level

Constraints to Agricultural Loan Acquisition through BOA

Constraints refer to the problem faced towards achieving a particular goal. In this case, the usual goal of the beneficiaries is to continuously have access to the BOA loan. This also applies to prospective beneficiaries who may want to secure the loan for the first time. Understanding the constraints faced by the current beneficiaries will enable the prospective beneficiaries to be better prepared. This may ease the process of the loan procurement. Besides, the BOA could also improve on its loan disbursement processes with the knowledge of the constraints faced by the current beneficiaries. An attempt to provide this knowledge informs the analysis of the constraints being faced by the current beneficiaries of the BOA loan (Table 4).

Table 4: Distribution of the Respondent by Constraints faced by the BOA Agricultural Cooperators

Constraints To Loan Use	Frequency	Percentage
High interest rate	29	26.6

Difficulties and protocols involved in obtaining loan	17	15.6
Cost of obtaining loan is too much	3	2.8
Inability to provide guarantor	12	11.0
Loan is inadequate	8	7.3
Untimely disbursement of loan	6	5.5
Harsh loan recovery procedure	8	7.3
No response	26	23.9
Total	**109**	**100.0**

Field Survey 2022

The table shows that substantial percentage (26.6%) of the respondents considered high interest rate as the most important constraint to the use of the BOA loan while others, considered bureaucracy, inability to provide the required guarantor, harsh loan recovery methods being used and untimely disbursement of loan as the most important constraints to procurement and/or use of the BOA loan.

A follow up interview with the management of BOA in charge of loan revealed that the interest rate was relatively lower than what obtained in the mainstream financial sector like commercial and microfinance banks (between 20-40%). According to the BOA official, the interest rate for small-holder and SME loan beneficiaries for agricultural purposes is 12% and 14% respectively for non-agricultural purposes, the interest rate was 18% across board (all non-agricultural loan). Intending beneficiaries of Bank of Agriculture (BOA) are required to have 20% of the desired loan amount as savings before they are requested. The smallholders are not required to provide collateral. For instance, a beneficiary that intends to borrow ₦100,000 must have at least ₦20,000 savings in the Bank. This is not a necessary condition for the SMEs who are required to provide collateral before securing the loan. The SMEs can, however, have both savings and collateral.

Discussion of findings

In looking into the sustainable factors, the age of the respondents, negatively influenced the amount of loan obtained while farm size and amount repaid positively influenced the loan amount obtained. The size of loan given had positive relationship with the repayment

rate, bureaucracy and inability to provide guarantor were adjudged as major constraints to securing. Successful management of agricultural loan programme for farmers depends to a large extent, on sound knowledge of socio-economic characteristics of the farmers and their production situation or background also the amount of loan obtained. Management therefore needs to put in place, practical measures to mitigate the risk in the BOA loan scheme so as to improve the quality of the overall loan portfolio of the bank. These factors, pose major tasks for the loan administrator namely, how to: Ensure continuous patronage from farmers, guide against mis-use of loan, and ensure prompt and full repayment.

CONCLUSION AND RECOMMENDATIONS

Conclusion

The BOA (Bank of Agriculture) is a development finance institution focused on providing loan credit facilities in agriculture. The Bank is wholly owned by the Federal Government of Nigeria. The bank is required to provide credit to support all activities in the Agricultural Value Chain in Nigeria. Individuals can access credit facility up to maximum of a N5,000,000 mainly for Agricultural Projects. This study set out to evaluate the determinants of BOA agricultural loans by farmers in Ogun State. The study found that age, education level, farm size, loanexperience, householdsize, amount repaid, and net income, collectively had significant influence on access to BOA loan. Furthermore, it was also found that high interest rate, difficulties and protocols involved in obtaining loan, cost of obtaining loan is too much, inability to provide guarantor, loan is inadequate, untimely disbursement of loan, harsh loan recovery procedure were indicated by the farmers to have on one way or the other hindered seamless access to BOA loans.

Recommendations 1.BOA should consider setting up a committee to address issues relating to constraints as identified by the cooperators, especially the high interest rate, requirement for guarantor, and difficulties and protocols involved in obtaining loan. When this is done and various issues resolved, it will be easier for the cooperators to have access to BOA loans. **2.** Cooperative awareness and sensitization campaign should be embarked on by relevant government agencies and the BOA bring in more educated farmers and farmers with largefarm

holdings. Indeed, the study has revealed that BOA loan administrators favour these categories of farmers in in agricultural loan disbursements.

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