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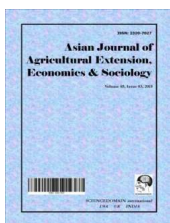
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Performance Review of the Bank of Agriculture in Katsina State, Nigeria

**Ahmad Muhammad¹, Zhang Guang Sheng^{2*}
and Shaikh Abdullah Al Mamun Hossain³**

¹College of Economics and Management, Shenyang Agricultural University, Shenyang, 110866, China.

²Business School, Liaoning University, Shenyang, 110036, China.

³Department of Agricultural Engineering, Patuakhali Science and Technology University, Dumki, Patuakhali, 8602, Bangladesh.

Authors' contributions

This research was carried out in collaboration between all authors. Author AM designed the study, performed the statistical analysis and wrote the first draft of the manuscript. Authors ZGS and SAAMH managed the analyses and reviewed the manuscript. All authors read and approved the final manuscript.

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ABSTRACT

Aims: The study aims to review the performance of the Nigerian bank of agriculture, Katsina state, in terms of micro credit disbursement and loan recovery.

Study Design: Reviewing the bank performance in terms of micro-credit delivery and loan recovery from the year 2013 to 2015.

Place and Duration of Study: Katsina state, Nigeria and College of Economics and Management, Shenyang Agricultural University, Shenyang, 110866, China from Sep, 2015 to Sep, 2016.

Methodology: Data was collected using structured questionnaire administered to a hundred and

*Corresponding author: E-mail: gshzhang@163.com;
E-mail: ahmadmshatima@yahoo.com;

seventy six randomly sampled money borrowers from the bank of agriculture. Similarly secondary data on the bank's loan disbursement for the period under study was collected. The collected data were analyzed using descriptive statistics and the data was analyzed using loan repayment and loan default rate equations.

Results: The study result revealed that, about 81% of the borrowers from the bank are males, 55% of them are in their productive ages and 49% among them had no formal education and 32% of the borrowers complained of the inadequate number of bank branches in the region. The study also revealed that a total of \$164889.68 was disbursed by the bank to 398 borrowers in the years under study. Furthermore the bank has recorded 79% loan repayment rate from 2013 to 2015.

Conclusion: Based on the findings, it is recommended that the bank should be restructured administratively and repositioned by employing more competent and better experienced banking personnel. Also, government should inject more funds into the bank.

Keywords: Analysis; performance; credit; bank; Nigeria.

1. INTRODUCTION

The role of finance in Nigerian agriculture, just like in industrial and service sector cannot be over emphasized, given that it is the oil that lubricates production [1]. As opined by Famog biele [2] money is said to "ans wereth all things". Perhaps this is why much has been said, and continuously being said, on the indispensability of finance in the revival and growth of agriculture in Nigeria. Consequently successive Nigerian government over the years had embarked on different policies and strategies to achieve improved credit availability and accessibility to the poverty ravaged teaming population of the Nigerian farmers. This noble objective has been seen achievable over the years through the instrumentality and mechanisms of many schemes and projects, notably Agricultural guarantee scheme (ACGS) 1977 and the Agricultural credit support scheme (ACSS) among others [3]. These schemes' fund was set up solely for the purpose of providing support and guarantee in respect of loans granted by any bank for agricultural purposes [4]. That is to say, these with other relevant schemes were formed primarily to motivate the Nigerian financial institution to lend funds to those engaged in agricultural production as well as local consumption [5]. Also from 1962 to date, many institutions have been created to provide financial services for agricultural purposes, however, Bank of Agriculture (BOA) is currently the main institution the Nigerian government use for this wholesome objective.

BOA is the premier agricultural and rural development finance institution, 100% wholly owned by the federal government of Nigeria. The ownership structure is Central Bank of Nigeria (CBN, 40%) and Federal ministry of finance

incorporated (60%). The bank's mission is to provide efficient, customer friendly financial and advisory services for agricultural development and this is does by deploying appropriate technology and highly motivated staff contributing to the economic transformation of Nigeria [6]. Bank of agriculture provide affordable credits facilities to segments of Nigerian society who have little access to the services of the conventional banks. The cost of borrowing across Nigeria varied from 12% to 22% among the commercial banks including the Bank of Agriculture (BOA). Micro agricultural projects attracted an interest rate of 12%; macro agricultural projects were granted loan at a rate of 14%, while non-agricultural projects paid an interest of 20%. Apart from the interest rate, borrowers were charged between 1% to 2.5% on processing of loan application form, and loan administration respectively, collateral security is required, however if its lacking, farmers can acquire loan by group lending through a cooperative society [7]. The private investment in agriculture in terms of bank credit is the least among all economic sectors. From 2006 to 2008, the average total annual flow of bank credits to agriculture was only 2.27% of their total credits [8]. This is making private sector credit for agricultural purposes almost out of reach to the poor Nigerian farmers and thereby making the Nigerian Bank of agriculture (BOA) a last resort for the acquisition of credits by many farmers in Nigeria.

However, in spite of the good operational structure of the Nigerian bank of agriculture and indeed the possible egalitarian outcome that could yield, the bank has been considered ineffective in discharging its said responsibilities and mandates. This notion is in tandem with the assertion of Sackey [3] that, the banking system

and the public policy towards agriculture in Nigeria prior to 1974 has been tasking agriculture to finance other sectors. This could be the reason for the bank's failure. The author also posited that the problem of financing agriculture should not be confined to the provision of institutional loanable funds to farmers, but should more importantly extend to efficient administration of the loanable funds which is lacking in the bank of agriculture. Furthermore, a recent study on agricultural growth in Nigeria cites the improvement of financial systems as a key growth pillar for the sector this is because lack of rural access to effective financial services in Nigeria not only retards rural economic growth, but also increase poverty and inequality [9].

The above mentioned constraints together with the ownership structure (public ownership) of the bank made the bank ineffective in savings mobilizations and loan administration, this transcend to a negative impact on the side of the farmers as they find it difficult to have access to the financial resources they need to take advantage of investment opportunities. Investment in rural finance and indeed its transformation is therefore necessary as a matter of urgency as the nation currently suffers the absence of efficiently operating rural finance market, which is a serious constraint on sustainable rural development in Nigeria. This is particularly important as the rural space is home to 58% of the nation's population and more than 70% of its poor, rural finance is therefore indispensable in both poverty alleviation and non-oil growth agenda, this is a fact recently recognized by the Nigerian Government and its partners [10]. Further investments in rural finance was also considered necessary as a recent study in Nigeria shows that agricultural finance impacted positively on farm income. Total average farm income generated by ACGSF beneficiaries for example is larger than that generated by non-beneficiaries [11], this higher income may be because of the leveraging associated with borrowing which is a major form of agricultural financing and a constituent of most agricultural policies. Increased income should translate into higher demand for goods produced by other sectors of the economy, this is a boost to consumption expenditure and ultimately the national income [6], improved access to financial services would therefore be positively impulsive and would undoubtedly play a pivotal role in reducing poverty among the rural dwellers in Nigeria [12]. However, the above narrative call for the review of the performance of the bank of

agriculture in terms of micro-credit disbursement and loan recovery, the exposition of which is valuable for the government in its battle against poverty among the Nigerian rural peasants. The study would also serve to give an insight (on the trends in rural financing) to the policy makers in the area of rural finance and banking, in the end, the study aims to make recommendation on the possible ways to make credit more available and accessible to the farmers in the study area.

2. MATERIALS AND METHODS

2.1 Study Area

The study was conducted in Katsina state in Nigeria. Katsina state lies on 12°15' North latitude and 7°30' East longitudes and covers a land area of about 24192 km² [12]. The State shares boundary with Kaduna, Kano, Jigawa and Zamfara State with an international border in the north with the republic of Niger. The state has a population of about 6.50 million people [13] and it is made of 34 local government areas with three senatorial districts. Katsina south senatorial district was purposively chosen for this study primarily because of the fact that it is of great importance to the state economically and farming is more practiced in the district than the other two districts within the state. The bank of agriculture in Funtua being the biggest branch in the district was chosen for data collection.

2.2 Analytical Framework

This study focuses on the actual amount borrowers had obtained from the bank, therefore secondary data was obtained from the bank to review and analyze the disbursement performance of the bank across the years under study i.e the amount extended by the bank as loan to the borrowers, data for three years loan disbursement was collected from the bank (2013 to 2015). It include the information about the banks frequency of loan disbursement in each year for the period of the review, the kind and the number of enterprises funded, the loan beneficiaries and the loan granted to each beneficiary, this would allow for a review of the bank disbursement capacity and performance, similarly data for loan repayment was collected for the period under study to allow for the review of the bank's performance in loan administration and recovery. Since loan acquisition is dependent upon some factors related to the borrowers, data for the socio economic characteristics of the borrowers and their loan acquisition problems were collected, a multi

stage sampling technique was used to collect these data from three local government areas within the district, namely Funtua, Bakori and Dandume local government areas. Data from 60 respondents was collected using a structured questionnaire from each local government making a total of 180 respondents though only 176 questionnaires were obtained after the field survey.

2.3 Analytical Technique

Descriptive statistics; mean, frequency, percentages were used to determine and review the problems borrowers encounter in loan acquisition which include stressful loan acquisition procedure, lack of mortgage or collateral e. t. c and the demographic characteristics of the borrowers, these include borrower's age, their gender, educational qualification, availability of collateral and marital status, this was carried out using statistical software Stata. For the review of the bank's performance in terms of loan recovery, i.e loan repayment and default rate, equations (1) and (2) were used Obasi [7] as follows:

$$\text{Repayment rate} = \frac{\text{Volume of loan repaid} + \text{Interest charged} \times 100}{\text{Volume of loan granted} + \text{Interest charged}} \quad (1)$$

$$\text{Default rate} = \frac{\text{Outstanding loan balance}}{\text{Volume of loan granted}} \times 100 \quad (2)$$

3. RESULTS AND DISCUSSION

3.1 Socio Demographic Characteristics of the Borrowers

The result of the analysis of the socio demographic characteristics of the borrowers shows that 28% of the borrowers are within the age bracket of 31-40 years, 27% of them are within the age group of 21-30 years, 21% are within the age interval of 41- 50 years and 24% of the borrowers are above 50 years of age, this shows that majority of the people having access to financial services in the bank are in their productive ages. Further analysis of the data base on gender distribution across the borrowers reveal that majority (81%) of the borrowers are males and only 19% of them are females, this agrees with the finding of Obasi [7]. Furthermore, finding reveal that majority (83%) of the borrowers are married while only 17% of them are unmarried. Base on household size, the study shows that majority (80%) of the borrowers have a household size ranging from 1-10 persons per household, 13% of them have a

household size within the range of 11-20 person per household and only 7% of the borrowers have a household size ranging from 21-31 person per household, the findings on household size shows that the farmers in the study area will need financial services to expand their businesses because most of them have a relatively large household size. Base on educational qualifications, the study reveal that 49% of the borrowers had no formal education, 29% of them have attended primary school, 15% had secondary school certificate of completion and only 7% of the borrowers had attended tertiary institution. This showed that the borrowers will be hypothetically reluctant to adopt a new agricultural practice or technology which may involve risk, this may include collecting loan from the bank because the more educated a person is, the less risk averse he is in terms of the adoption of a new ideas and practices and a significant percentage among the borrowers had little or no formal education, base on collateral availability, finding reveal that 42% of the respondents had collateral security for the obtainment of loan while 58% had no collateral, these group of borrowers obtain loan by group lending. This shows that farmers group or cooperative societies can be used to acquire loan in the absence of collateral. The demographic characteristics of the farmers (borrowers) are given in Table 1.

3.2 The Bank's Performance Based on Frequency of Micro Credit Delivery

Finding revealed that in the year 2013 the bank of agriculture in the study area disbursed a total of \$54111.11 to the farmers affiliated to two enterprises namely fattening and cassava production, \$18571.43 of the loan was rationed out for cassava producers and \$35539.69 for those in fattening business, also a total of 127 persons benefitted from the loan disbursement among which only 21 persons were females. The bank has disbursed fund to borrowers only 3 times in the year 2013. In the year 2014, there was a tremendous increase in the amount disbursed compared to the previous year, a total of \$86905.56 was disbursed among 222 borrowers, this amount was disbursed to eight different enterprise that are both agricultural and non-agricultural related, corn production (corn producers) got the highest ration amounting to \$41667.46, this is because Katsina south (Funtua zone) is one of the biggest corn production zone in Nigeria, among the 222 borrowers, only 26 persons were females and the bank has disbursed fund to borrowers only

10 times in the year 2014. In the year 2015, the amount disbursed dropped significantly possibly because of the fact that the Nigerian general elections was conducted that year, so people were unwilling to borrow money because of their anticipation for a possible change in government agricultural financing policy. The bank has disbursed a total of \$23873.02 to some group of farmers belonging to two enterprise namely fattening and fishery enterprise. Fattening got the highest ration in that year because the region has no many rivers, hence fishing is not widely practiced, therefore 49 people benefitted from the loan disbursement from which 10 persons were females.

Summarily a total of \$164889.68 was disbursed to 398 persons in three years, within this period, the bank has disbursed fund to borrowers only 15 times. Looking at the socio demographic characteristics of the borrowers in the study area and the level of poverty, one can safely conclude that the bank's disbursement frequency was very low. This is in disagreement with the finding and assertion of Ugochukwu et al. [4] that the performance of the bank of agriculture in terms of loan delivery is effective. Furthermore, considering the population of the people in the state and indeed the population of the people

engaged in agriculture as a full time business in the state, one can also infer that the amount disbursed within this time period is very low. none among the borrowers get on average the sum of \$635 as loan from the bank because of the poor disbursement plan from the side of the bank, this is contrary to the BOA [14] that, because of quality plan of the bank of agriculture (BOA), loan disbursement has been made effective. This might be the reason for the increase in poverty in the state in particular and in the region at large.

Critical review and analysis of the agricultural finance failure in the Nigerian bank of agriculture particularly in the study area can be related to agricultural finance policy thrust of the Nigerian government as opined by Famogbiele [2]. The author posited that the finance policy and budgetary allocation toward agriculture has consistently been inadequate and short of expectation. Citing example with the failure of the bank of agriculture, he said that, "Bank of agriculture is another good example where the share capital is only 41% paid up by the government despite its 40 years of existence". The details of amount disbursement by the bank in three years described in Table 2 and also illustrated in Fig. 1.

Table 1. Socio-economic characteristics of farmers

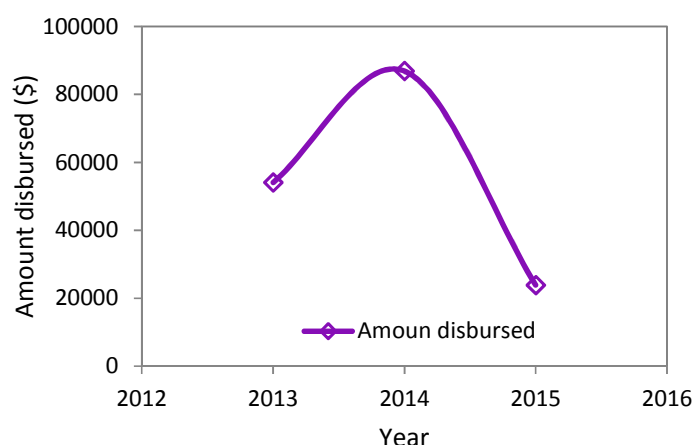
Variables	Category	Frequency	Percentage (%)
Age	15 -20	13	7
	21 -30	47	27
	31 -40	50	28
	41 -50	36	21
	>50	30	17
	Total	176	100
Gender	Male	143	81
	Female	33	19
	Total	176	100
Marital status	Married	146	83
	Single	30	17
	Total	176	100
Household size	0 -10	142	80
	11 -20	22	13
	21 -31	12	7
	Total	176	100
Education level	No formal education	86	49
	Primary education	51	29
	Secondary education	26	15
	Tertiary education	13	7
	Total	176	100
Collateral availability	Have	74	42
	Don't have	102	58
	Total	176	100

Source: Field survey, 2016

Table 2. Yearly records for the amount disbursed by the bank

Year	Month	Enterprise	Amount (\$)	No. of beneficiaries	Gender of beneficiaries	
					Male	Female
2013	5 Sep	Fattening	28873.02	72	54	18
	5 Sep	Fattening	6666.67	16	14	2
	3 Dec	Cassava production	18571.43	39	38	1
	Total		54111.11	127	127	
2014	5 Jun	Produce marketing	793.65	1	1	-
	31 Jul	Agro processing	2857.14	6	6	-
	31 Jul	Poultry	13492.06	30	24	6
	31 Jul	Corn production	37381.75	97	90	7
	31 Dec	Agro processing	6190.48	16	16	-
	31 Dec	Dairy production	2222.22	7	7	-
	31 Dec	Carpentry	8761.90	21	21	-
	31 Dec	Tailoring	2984.13	10	-	10
	31 Dec	Cell phone repair	7936.51	25	22	3
	31 Dec	Corn production	4285.71	9	9	-
	Total		86905.56	222	222	
2015	18 th June	Fattening	20380.95	41	21	10
	18 th June	Fisheries	3492.06	8	8	-
	Total		23873.02	49	49	
Grand total			164889.68	398	398	

Source: Nigerian Bank of Agriculture, Funtua

**Fig. 1. Amount of loan disbursed by the bank of agriculture**

3.3 Repayment and Default Rate across the Disbursement Years

Analysis of the rate of loan repayment of the borrowers across the years under study shows that a total of \$54111.11 was disbursed to the farmers as micro credits in the year 2013, out of the amount disbursed, \$25250.74 was repaid by the borrowers in that year, that is to say that the bank has recorded 52% repayment rate, an outstanding balance of \$28860.37 and a default rate of 48% in the year 2013 as described in

Table 3, The findings revealed that a total of \$86905.56 was disbursed by the bank as micro credit in the year 2014, of the amount disbursed, \$71311.74 was repaid by the borrowers in that year, this implies that the bank has recorded 84% repayment rate, an outstanding balance of \$15593.66 and a default rate of 16% in the year 2014. Furthermore, the borrowers from the bank in the year 2015 have repaid a total amount of \$29533.02 of the \$23873.02 granted to them by the bank as micro credits, that is to say the amount repaid exceeds the amount disbursed,

this is because some borrowers with outstanding debt in the previous year's made their payments in the year 2015, the settlement of the 2015 debt and the outstanding debt swell the amount repaid that it exceeded the actual amount disbursed in the year 2015. However, for the period 2013 - 2015, 79% of the loan granted to the farmers was repaid, while 21% of the fund has not been repaid. From the above analysis of loan disbursement and loan recovery, it can be deduced that the bank of agriculture in the study area has recorded a good loan repayment rate in the period under study, this is in agreement with the finding of BOA [14]. Because of the quality plan of the bank of agriculture, loan recovery has been made effective.

3.4 Volume of Loan Granted to Borrowers by the Bank

The bank of agriculture in the study area has disbursed a total of \$54111.11 to a total number of 127 borrowers in the year 2013, the bank has not recorded in that year a loan given to an individual as displayed in Table 4. All the loan granted in that year was granted to group of farmers not individuals, the group or cooperative as the case may be then shares the fund base on a predetermined sharing formula, that is to say each farmer or borrower had gotten on average a sum of \$426.07 in that year. Furthermore, the bank has disbursed a total of \$86905.56 among 222 borrowers in the year 2014, like 2013, the fund in 2014 was also disbursed to group of farmers not individuals, on average a total of \$391.47 was received by the farmers that borrowed money in the bank of agriculture in the study area in the year 2014. In

the year 2015, a total of \$23873.02 was disbursed to 49 borrowers in group or cooperatives, that is to say each borrower borrowed on average a sum of \$487.20 from the bank in the year 2015. It is therefore revealed that none among the borrowers got reasonably a big amount of money from the bank as micro credit, virtually all the farmers in the study area are small scale borrowers, this could be the reason for the spread poverty among the rural population.

3.5 Borrowers Perceived Problems in Loan Acquisition

From Table 5, it is revealed that 32% of the borrowers perceived to have problem accessing loan from the Bank of Agriculture because of the limited number of the branches of the bank in the state, for example the bank of Agriculture Funtua in Katsina state is serving almost 6 local government areas (Towns) so most the farmers that are far from the bank complained of having limited knowledge about the bank and the credit the bank offer, 15% complained about the procedure of the bank for loan acquisition, they said the procedures are stressful- the bureaucracy involved is too much, 14% complained that the money they are granted is lower than what they actually apply for as such they find it difficult to take advantage of investment opportunities, 10 percent complained of inadequate information about loan and 8% complained of lack of collateral, 7% complained of high interest rates, 8% complained of the delay by the bank in disbursing loan and only 6% complained of politicization and corruption in the loan disbursement considerations.

Table 3. Yearly amount repaid by the farmers to the bank

Year	Amount disbursed (\$)	Amount repaid (\$)	Repayment Rate (%)	Default Rate (%)
2013	54111.11	25250.74	52	48
2014	86905.56	71311.90	84	16
2015	23873.02	29533.02	121	-

Source: Nigerian bank of Agriculture 2015

Table 4. Yearly loan granted by the bank of agriculture to the borrowers

Year	Amount borrowed (\$)	Number of borrowers	Average amount (\$)
2013	54111.11	127	426.07
2014	86905.56	222	391.47
2015	23873.02	49	487.20
Total	164889.68	398	414.30

Source: Nigerian Bank of Agriculture

Table 5. Distribution of the respondents according to their perceived problems

Perceived problems	Frequency	Percentage	Ranking
Inadequate Banks	57	32	1 st
Stressful loan acquisition procedure	27	15	2 nd
Insufficient fund granted	25	14	3 rd
Inadequate information about bank	19	10	4 th
Lack of collateral	14	8	5 th
High interest rates	13	8	6 th
Delay in disbursement	11	7	7 th
Political interference and corruption	10	6	8 th
Total	176	100	

Field survey 2016

4. CONCLUSION

The review of the population of the people in the study area, (particularly those engaged in farming) their socioeconomic characteristics, the bank's loan disbursement frequency and most importantly the total amount of money disbursed by the bank across the years under study would allow us safely conclude that the bank of agriculture in the study area has recorded a very low level of loan disbursement, that is to say micro-credit is relatively scarce in the study area. This consequently affects the standard of living of the farmers and by extension food production in the region and the state at large. Conversely, findings revealed that more than half of the borrowers have repaid their loan, that is to say the bank has recorded a very good loan recovery in the period under study. It is therefore recommended that since the Nigerian government hold a major stake in the bank's administration and financing, it should inject more fund into the bank to upscale the bank's disbursement frequency, also the bank should be improved administratively and be repositioned by employing more competent, better skilled and highly experienced banking personnel to meet up with the managerial and labor requirements of the bank and more branches of the BOA should be established, loan acquisition procedure should be made easier and there is need for the mobilization of extension workers to the study area to enlighten the farmers on the prospects and importance of financial services in agricultural production. At last, some important financial services like savings and insurance should be introduced and improved.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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