DETERMINANTS OF SAVINGS CULTURE AMONG FARMERS' COOPERATIVE SOCIETIES MEMBERS IN KABBA/BUNU LOCAL GOVERNMENT AREA, KOGI STATE, NIGERIA

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ABSTRACT

The importance of agricultural cooperative in enhancing productivity through adequate access to resources by farmers cannot be overemphasized. However, farmers are constraint in terms of financial participation towards boosting the level of productivity. Therefore, this study examined the determinants of saving culture among farmers' cooperative societies members in Kabba/Bunu Local Government Area of Kogi State, Nigeria. Structured questionnaire was used to elicit primary data from 100 respondents proportionately selected from four cooperative societies using simple random sampling technique. Descriptive statistics and multiple regression analysis were used to analyze the data. The study revealed that 53.1% of the cooperative farmers were male while 46.9% were females, and the average age of the farmers is 34 years. About (43.9%) of the farmers belong to thrift and credit type of cooperative societies. Major determinants of saving culture were age, sex of farmer, level of income, household expenses, interest rate charged on loan, duration of loan repayment. The farmers faced the problem of low-income level, high cost of labour, inadequate infrastructure and natural disaster. It is therefore recommended that farmers in the study area should improve on their farming practices which can boost their farm income level, maintain moderate number of children and promptly repay loan borrowed. Education and training of cooperative leaders and members is paramount to the success and growth of the cooperatives. Therefore, stakeholders should assist in this direction.

Key words: Determinants; Savings; Cooperatives; Multiple regression; Farmers

INTRODUCTION

Rural farmers' cooperative society is a group of farmers who pool their resources together in certain areas of activity to facilitate optimal production through efficient use of their resources. This includes joint purchase of farm inputs like seeds, farm machinery, aiding members morally and financially during cultivation and seeking marketing channels for farm products to ensure better and fair prices. Cooperatives are important institutions in agricultural and rural development having great potentials in enhancing both agricultural production and productivity of resource-poor farmers, thereby improving their overall livelihoods (Apata and Yusuf, 2020).

The purpose of farmers' cooperatives is to create a secure environment in terms of food security and improvement of the standard of living among members of the community. Agricultural cooperatives play an important role in the development of agriculture in industrialized countries as suppliers of farming equipment's, marketers of agricultural commodities and providing services such as storage and transport. According to Nwankwo, Ewuim and Asoya (2013), Cooperative societies are formed to accomplish one or more functions, including

production, purchasing, supplying, marketing and provision of financial services to the members among others. Therefore, Agricultural cooperatives are formed to serve the interest of members which include generating greater profit by obtaining inputs and services at lower cost and marketing their product at better prices

In Nigeria, government endorses the use of agricultural cooperative as an organization that could help in enhancing the development of small scale farmers in rural communities (Natsa, 2013). Therefore, farmers in rural areas form or participate in agricultural cooperatives to overcome barriers such as poverty, market failure, missing services, decreased income, reduced transaction costs with traders and contribution to the development of the community.

Agricultural cooperatives help in enhancing productivity through access to resources and management skills as members pool their resources together, and through access to resources cooperatives can improve their profit and standard of living (Ortman and King, 2007; Vink, 2012).

Despite the numerous advantages associated with membership of cooperative, many farmers do not participate adequately in the financial contributions

enforced by the group toward boosting the level of their agricultural productivity. This becomes a barrier for the success of the cooperative. Poor financial participation is part of a larger problem for the development of small–scale agricultural cooperatives (Fortune Magazine, 2000). Furthermore, cooperatives have the potential to enhance agricultural production of farmers, who remain the bedrock of agricultural production and account for over 90% of all the agricultural output in Nigeria. But the potential of these farmers is however often burdened by high and rising prices of farm inputs, low efficiency of farming techniques employed, inadequate production infrastructure, inefficient agricultural extensions services; it is also faced with problems of poor pricing, frequent conflict between pastoralists and crop farmers, and poor access to credit, and insurance, which are all further compounded by the general economic downturn (Ofano, Efefiom and Onlini, 2016).

Therefore, this study attempts to examine the determinants of savings culture among rural farmers in cooperative societies in Kabba/Bunu LGA of Kogi State, Nigeria. It is hoped that this study will help in enhancing farmers' adequate participation in financial contribution to the cooperative. Factors responsible for adequate participation in saving to cooperatives are important because they will help in developing rural areas by reducing poverty. The most important obligation of members of a farmer cooperative society is saving. Farmers are expected to save a specific amount of money on daily, weekly, monthly or quarterly basis as may be convenient for the group and the individuals. The saving is important for agricultural production of the cooperative farmer because it is used as collateral for credits, for lending to needy members and the interest are calculated on loan to be repaid back either installments or otherwise. These arrangements allow members to have access to credits at the onset of the production or serves as income for the farmers. The amount of loan that a farmer could obtain however depends on the amount of savings he has deposited in the cooperative society. The amount that an individual farmer could save also depends on a number of factors such as his income, expenditure, etc (Adeyemo and Bamire, 2005).

The broad objective of the study is to assess the determinants of savings culture among farmers' cooperative members in Kabba, Nigeria. The objectives of the study specifically were to describe the socio-economic characteristics of farmers in cooperative societies, to identify the types of cooperative the farmers belong to in the study area, to examine the determinants of savings culture among the cooperative farmers in the study area and to find out the problems militating against saving with cooperatives in the study area.

MATERIALS AND METHODS

The study was conducted in Kabba/Bunu Local Government Area of Kogi State, Nigeria. It is located in the western part of the state and lie between latitude 7ºN and 31ºN of the equator and longitude 5º41'E and 6º15' N Greenwich meridian.

The local government has an estimated population of 145,446 in 2006 extrapolated to 194,900 in 2022 at annual population growth rate of 1.9% (NPC, 2006). The local government share boundaries with Ijumu, Okehi, Lokoja and Mopa/Amuro Local Government Areas. There are fifteen (15) wards in the local government area. Kabba has nine (9) wards which are; Asuta, Odo-Akete, Okekoko, Odolu, Aiyewa, Aiyeteju/Kajola, Otu, Egbeda and Okedayo, while Bunu has six (6) wards which are; Akutupa-Kiri, Aiyetoro-Kiri, Iluke, Olle/Oke-Ofin, Odo-Ape, Okebukun. The area has a large arable and fertile land which support the cultivation of cash and food crops such as maize, rice, yam, cassava and sorghum. Agriculture is the major source of livelihood in the area, even though they are small scale farmers and the livestock kept in the area are local chicken and poultry birds, goats, sheep, duck e.t.c.

Sampling Technique and Size

Simple random sampling technique was adopted for the study. Five wards were randomly selected from the list of wards in the area. Then a proportionate sampling was used to choose randomly one hundred (100) cooperative farmers from the list of cooperators giving a sample size of 100 respondents. However, 98 questionnaires were used for analysis.

Analytical Tools

Descriptive statistics such as frequency distribution and percentages were used to describe the socio-economic characteristics of farmers in cooperative societies as well as to identify the types of cooperative the farmers belong to in the study area while Multiple regression analysis was employed to examine the determinants of savings among the cooperative farmers.

Model specification

Mean = $\sum \frac{FX}{N}$

Where $\sum$ = Summation

F= Frequency

X= Number of observation

N= Total number of observation

Percentage = $\frac{X}{n}$ X 100

x= the given number (observed frequency)

n= Total number (total frequency)

The Multiple regression model

Y= $\beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \text{------------------} + \beta_9X_9$

Where:

Y= Total monthly saving (N)

β_0 = Intercept

$\beta_1 - \beta_9$ = Coefficient of each variables

X_1 = Age of the farmer (years)

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

X_3 = Educational level

X_4 = Household Size (numbers)

X_5 = Monthly farm income (N)

X_6 = Household expenses (N)

X_7 = Amount of loan borrowed (N)

X_8 = Interest rate charged on loan (N)

X_9 = Duration of loan repayment in years

e= error term

RESULTS AND DISCUSSION

Table 1: Socio-economic characteristics of the respondents in the study area

Variables	Frequency (N=98)	Percentage (%)	Mean	Min.	Max.
Sex					
Male	52	53.1			
Female	46	46.9			
Age					
20 or less	3	3.1		19	62
21-30	26	26.5			
31-40	34	34.7	34		
41-50	26	26.5			
51 and above	9	9.2			
Marital Status					
Single	9	9.2			
Married	66	67.3			
Divorced	1	1.0			
Widowed/widower	7	7.1			
Separated	15	15.3			
Household Size					
1	3	3.1		1	13
2	5	5.1	5		
3	13	13.3			
4	27	27.6			
5 and above	50	51.0			
Level of Education					
Non formal education	9	9.2			
Primary	23	23.5			
Secondary	56	57.1			
Tertiary	10	10.2			
Major Farm activities					
Crop Production	52	53.1			
Fish Production	7	7.1			
Poultry Production	26	26.5			
Others	13	13.3			

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Table 1 reveals that 53.1% of the respondents were male while 46.9% were females. This is an indication that male farmers were more involved in cooperatives than female farmers in the study area. Lawal and Abimaje (2003) found gender of the co-operative farmer to be an important factor in saving culture. This shows that gender could determine the production capabilities and income level of the farmer.

Age distribution shows that average age of farmers in cooperatives in the area was 34 years. This could imply that most participants in co-operative societies do that at their active years as majority (87.7%) were between 21 to 50 years.

Distribution of respondents based on marital status reveals that 67.3% of the cooperative farmers were

married and 51.0% of them have 5 and above people in their households. According to Table 1 further shows that 48.0% of the farmers had above 5 dependents. The large household size and number of dependants could have a negative impact on the farmers' savings in cooperatives.

Distribution of respondents based on educational attainment shows that 90.8% of the farmer had one form of education or the other. Education which is considered as an important capital asset, could affect the production, consumption, saving and investment of behavior of peasant farmers.

The highest percentages (53.1%) of the respondents engaged in crop production, implying that majority of the farmers were crop farmers in the area.

Table 2: Type of cooperatives respondent belong to in the study area

Variable	Frequency (N=98)	Percentage (%)
Multipurpose cooperatives	20	20.4
Thrift and credit cooperative	53	54.1
Cashew nut producer's coop.	10	10.2
Cassava producer's coop.	15	15.3

Table 2 shows the type of cooperatives respondents belong to in study area. Findings reveal that 54.1% of the farmers were members of thrift and credit cooperatives, this indicates that most of the farmers joined the cooperative majorly for the purpose of saving and obtaining loan. Apata and Yusuf (2020)

also found thrift and credit cooperatives, serve as a source of financing for both working capital and investments, leveraging on cooperative strength of members. They thus conclude that thrift and credit is perhaps, the most dominant form of cooperative among the farming communities in Nigeria.

Table 3: Income and expenditure distribution of respondents in the study area

Variables	Frequency (N=98)	Percentage (%)	Mean	Min	Max.
Household Monthly Income (₦)					
10,000	15	15.3			
11,000-20,000	45	45.9	13,000	**10000**	**50000**
21,000-30,000	25	25.5			
31,000-40,000	5	5.1			
>41,000	11	11.2			
Household Monthly Expenses (₦)					
0 - 10,000	5	5.1			
11,000-20,000	50	50.0	18,928.57	**8000**	**30000**
21,000-30,000	18	18.4			
31,000-40,000	15	15.3			
>41,000	10	10.2			

The average monthly household income was ₦ 13,000 and only a minority (5.1%) of the respondents earned above ₦ 31,000 monthly. This shows that they are relatively low income earners and as such could affect their savings negatively.

About 51.0% have monthly expenses of ₦ 11,000 to ₦ 20,000 and 5.1% have expenses of less or equal to ₦ 10,000. The average monthly expense was ₦ 18,928.57k. Largest part of the expenses was spent on food, households which spend a larger amount of their income on food are expected to save little amount of money.

Table 4: Monthly saving distribution of respondents

Amount saved(₦)	Frequency	Percentage	Mean	Min.	Max
0-5000	20	20.41		0	25000
5001 – 10000	55	56.12			
10001 – 20000	16	16.33	6,600		
Above 20000	7	7.14			

Table 4 shows monthly savings of the farmers in the cooperatives. About 76.5% saved the lowest amount between ₦ 0 to ₦ 10,000.00. This could be attributed to the low level of income of the farmers in the area.

Table 5: Distribution of Respondents based on Loan accessed and interest charged

Variables	Frequency	Percentage (%)	Mean
Amount of Loan Borrow(₦)			
<50,000	50	50.1	
51,000-100,000	9	9.2	
101,000-200,000	5	5.1	
201,000-300,000	2	2.0	48,811.54
301,000-400,000	1	1.0	
Has not obtain loan	31	31.6	
Interest Rate Charged on Loan (%)			
5			
10	38	38.8	7.1
	60	61.2	
Duration of the Loan Repayment			
0.25 year	5	5.1	
0.50 year	20	20.4	
1 year	65	66.3	
2 years	8	8.2	

The average amount of loan collected was ₦ 48,811.54k and half (50%) of the respondents obtained loan less than ₦ 50,000.00. Amount of loan collected is dependent among other factors, on the amount of saving that the farmer has in the society. Farmers who have borrowed a larger sum of money and have to pay back the principal and the interest might not be able to save as much as farmers who have no outstanding loan.

The average of interest rate charged on loan is 7.1 while 38.8% had lower rate (5%). More than half (61.2%) were charged 10%. The interest rate charged on loan could encourage or discourage members from borrowing from the society and this could in turn

influence their willingness to save money with the society.

Result on duration of loan repayment reveals that the highest percentage of the co-operative member repays their loan in one year (66.3%) while only few people repay it within 0.25 year. This could ease increase capital formation within the period and also encourage savings.

Table 6: Regression estimates for Determinants of Savings among Rural Cooperative farmers.

Variables	Coefficient	Standard error	T – value
Constants	-9.476	1.49	-6.36***
Age X_1	-0.57	0.23	-2.416**
Sex X_2	0.87	0.39	2.229**
Educational level X_3	-1.04	1.01	-1.026
Household size X_4	-0.15	0.13	0.12
Household monthly income X_5	1.64	0.21	7.80***
Household monthly expenses X_6	-0.69	0.28	-2.46**
Amount of loan borrow X_7 (year)	0.86	0.60	1.431
Interest rate on loan X_8	-0.53	0.19	-2.802***
Duration of loan repayment (yr) X_9	0.23	0.05	4.681*
R^2	72.5		
Adjusted R^2	70.0		

***, ** and * are significant levels at 1% level, 5% and 10% respectively.

Table 6 reveals that 70.0% of the variations in co-operative farmers saving were explained by the independent variables included in the model. The regression result shows that the major variables influencing savings among the co-operative members include age (X_1), sex (X_2), household monthly income (X_5), Household monthly expenses (X_6), interest rate on loan (X_8), Duration of loan repayment (X_9).

The relationship between saving and other independent variables was established and it was revealed that saving is negatively related with age and is significant at 5% level. This agrees with the findings of Anigbogu, Uzondu and Okeke (2018) and the popular belief that old age is associated with less savings and increased consumption. Sex is also significant at 5% and positive, implying that the male folks save more in the cooperative so as to obtain loan in order to increase their production. Also household income was positively significant with savings at 1%

level. This is in agreement with the theoretical expectation, that household income is a strong determinant of savings. The higher the income, the more the farmers are able to save. Household expenses have a negative relationship with savings and significant at 1% level. This agrees with prior expectation as well. The larger the household expenditure, other things being equal, the lower the savings. Anigbogu, Uzondu and Okeke (2018) also found expenditure a significant determinant of savings among cooperatives in Anambra State. Interest rate on loan was negatively significant with savings at 1% level. The interest rate encourages members to borrow from the society and this could in turn influence their willingness to save. Duration of loan repayment is significant with savings at 1% level. The longer the period of loan repayment, the greater the capital formation within that period and also the greater the savings. The finding of this study is in line with the findings of Ayanwale and Bamire, (2000), that the

saving culture of the farmers in developing countries is less dependent on the absolute level of the aggregate income, but more dependent among other factors on the relationship between current and expected income, the nature of business, household size, wealth and demographic factor such as age, sex and education.

Table 7: Distribution of Respondents According to the Problems Militating Against Saving

Constraints	Frequency (N=98)	Percentage (%)	Rank
Socio-economic	7	7.1	4th
Natural disaster	6	6.1	5th
Low level of income	61	62.2	1st
High Cost of labor	16	16.3	2nd
Inadequate infrastructure	8	8	3rd

As shown in table 7, low level of income ranked first among the constraints encountered by the farmers militating against savings. Others include high cost of labour, inadequate infrastructure, socio-economic factors such as illiteracy, ill health condition, insecurity among others and natural disaster in that order. These constraints directly or indirectly affect the farmers saving.

CONCLUSION AND RECOMMENDATIONS

It can be concluded that the farmers are low income earners saving less due to high level of expenses. However, the rural cooperative society can be of great benefit to the members if adequately managed. By virtue of services cooperatives provides, members' standard of living could be improved greatly.

Based on the findings the following recommendations are made:-

1. Farmers should adopt innovative farm practices and diversify farm businesses to increase income level
2. The member's poor saving attitude should be improved upon so as to increase the financial base of the cooperative. This would enable the farmers to access more loan for farm business expansion.
3. Farmers should be educated on and encouraged to adopt family planning procedures in order to maintain moderate number of children. This will reduce household expenses.
4. Policies that would increase market access and maintain a stable market price should be pursued by government and cooperative societies, as this would allow the farmers to earn more, save more and invest more in their production activities.
5. Education and training of cooperative leaders is necessary for effective management, growth and development of the cooperatives.

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