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Effect of Cooperatives on the Savings Behaviour of Members in Oyi Local Government Area, Anambra State, Nigeria

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Abstract

This paper assessed the effect of cooperative on the savings behavior of members. The study was carried out in Oyi LGA with data from 195 randomly selected members of credit cooperatives. Analysis of data was with descriptive statistical tools such as mean, tables, and frequency counts. Also a multiple regression model was utilized to assess determinants of savings behaviour. Results from the study show that cooperative membership impacted positively on the savings behavior of members. Findings show that older members had more savings than newer members. Although the

marginal propensity to save (MPS) was a 9.3%, it was significant since it showed that rural dwellers were capable of saving in cash. Moreover most of these savings were made through the savings mechanism of cooperatives. Length of membership in cooperative was also found to be an important determinant of savings thus confirming that the older one is in the cooperative, the more he is likely to save. In line with the findings of the study, it is recommended among others for membership drive to attract more rural dwellers into the membership of cooperatives; and the need for credit cooperatives to convert to multipurpose cooperatives to enable them to be more involved in the economic activities of the members, like supply of farm inputs and agricultural marketing.

Key words: Savings, savings behavior, rural areas, credit cooperatives, lifecycle hypothesis

Introduction

Background of the study

Economic prosperity in the rural areas cannot be achieved without putting in place well focused programmes to address infrastructural inadequacies that will increase their access to production resources, especially financial services. The productive capacity of many rural farmers and businesses would be significantly enhanced through the provision of savings and credit services to enable them engage in economic activities and to be more self-reliant. According to Harrod and Domar (as were quoted in Otto and Ukpere, 2011), savings mobilization and subsequent investment is the key to economic growth and development

In Nigeria, the formal system provides services to about 35% of the economically active population, which implies that the remaining 65% are excluded from access to such financial services (CBN, 2005). The disadvantaged 65% often rely on the informal financial sector, comprising non-government organizations (NGO)-micro finance institutions, moneylenders, friends, and relatives. The non-regulation of the activities of such institutions has serious implications for the effectiveness of monetary policy and the development of a sound financial system.

Cooperative societies have been closely identified with provision of financial services in the rural sector. Since its inception, cooperative in Nigeria has been viewed as a veritable tool for national development particularly in the

area of socio-economic development of rural areas. Cooperative societies are organized or formed to accomplish one or more functions, including production, purchasing, supplying, marketing and provision of financial services to the members among others. It is therefore not surprising that so much emphasis is being placed on the efficacy of cooperatives as a welfare intervention tool.

Problem statement

Lack of capital is already known as one of primary constraint of rural producers in Nigeria. Efforts at ameliorating this through improvement in credit access have achieved limited success (Nwankwo 1994). In this situation, household savings are very important for sustaining and developing rural businesses. The source of own capital clearly is household savings. Savings provide several benefits for households, if it better institutionalized. This benefits such as to earn interest incomes, for investment purposes, and to build credit rating and as collaterals (Robinson 1994). Directly, saving could be used for investment. Indirectly, saving indicates *repayment ability,* also increase *credit rating and* as a collateral in a credit market. However, this financial source is limited. Not surprisingly that in many cases, rural producers meet their financial need through informal financial market although its interest rate sufficiently high (Brata, 1999; Ghate, 1988).

Certainly, the relevance of saving as an important source of the supply of capital for investment has been made an extensively explored them of discussion among the economists throughout the world particularly due to shortage of capital and the chronic state of economic stagnation in the developing countries. Economists have established the functional relationship between income and savings. However, many formal financial institutions in the rural areas including commercial banks, microfinance banks and cooperatives appear to have failed to provide savings facilities that are acceptable and attractive to rural dwellers. This is because many rural inhabitants still save values in kind or patronize traditional savings and credit associations to save for unexpected future events.

But in cooperatives, members are encouraged to save voluntarily and as a matter of obligation. Thus, cooperative inculcates the habit of thrift among the membership. Agricultural cooperatives are particularly able to influence the savings habits of members by linkage of its other functions such as credit, input supply, agricultural marketing, etc to the savings obligation of the

member. Cooperatives use relatively unsophisticated administrative practices, so that the costs are very small and most interest income from loans may either be distributed to the members or reinvested in the cooperative within a capitalization programme. Consequently, they can be set up in poor communities, where access to means of secure savings and to credit at non-exploitative terms is of greatest importance (UNDESA, 1999). In spite of these however, cooperatives have not received the needed assistance they deserve to enable them exploit their unique position in the rural areas to encourage thrifts among their members and to mobilize savings for investment purposes. Much of the lacuna in this regard was lack of adequate empirical evidence on the capability of cooperative to influence savings decisions of members. Indeed, no known work on cooperative effect on savings behavior exists either in Anambra State or in Oyi LGA; hence, the decision to undertake this study.

Objectives of the study

The main purpose objective of this study was to assess the determinants of savings behavior of members of credit cooperatives in Oyi Local Government Area. However, the sub-purpose of the study include, to:

1. examine the socio-economic characteristics of members

2. determine the effect of cooperative membership on the savings of respondents;

3. determine socio economic factors influencing the savings behavior of members of credit cooperatives;

4. make recommendations based on the findings

Hypotheses

1. H_0: There is no significant relationship between savings of a member and his length of membership in credit cooperative.

   H_1: There is a significant relationship between savings of a member and his length of membership in credit cooperative.

2. Ho: Savings of members of credit cooperative are not significantly influenced by their socio-economic characteristics.

Ho: Savings of members of credit cooperative are significantly influenced by their socio-economic characteristics.

Literature review

The concept of savings

According to FAO (1995) savings are resources which one decides to put aside for investment purposes and not for luxury. What people save, avoiding to consume all their income, is called "personal savings". These savings can remain on the bank accounts for future use or be actively invested in houses, real estate, bonds, shares and other financial instruments. A study by EFINA (2011) found both savers and non-savers agreeing that personal savings plays an important role in people's lives. Savings ensures the continuity of a business as it provides fresh funds to grow the business. It helps in the attainment of set goals, and at the same time encourages financial discipline. Savings also act as a means of insurance, so that emergencies can be dealt with as they arise.

National savings are personal savings plus the business savings and public savings. Business savings can be measured by the value of undistributed corporate profits. Public savings are basically tax revenues less public expenditure. The present study however is concerned with only personal savings.

Determinants of personal savings

Piana (2003) has stated that a tri-lateral relationship among savings, consumption, and income is the key determinant of the amount of personal savings. On the first side, given a certain income, the decision to buy goods and services (=consumption) negatively affects savings. Savings passively adjust to consumption and income. They represent a resource slack, buffering shocks in income and consumption desires.

On a second side, savings can be actively planned in binding agreements, like many pension schemes, with consumption passively adjusting to changes in income. In other terms, savings can arise from a compulsory tendency of renouncing and postponing even banal consumption (greediness) or, instead, they can be the result of sharply rising income, with higher consumption taking place meanwhile.

By contrast, savings can be also the outcome of negative expectations about future income (as when one is afraid of being dismissed) ("Hey, family, hardships are coming - we need to reduce our absolute level of consumption").

Still another different case is the situation when a family, after having spent a lot in a consumption boom, try to brake its tendencies before (or after!) they become unsustainable (Piana 2003).

FAO (1995) notes the following as factors influencing personal savings in groups such:

i.   Savings depend on income. Theoretically, more income means more capacity to save. But without a decision this may not be so.

ii.   Saving consciousness/willingness is decided not by income, but by decision and forming a habit. A person can have a little income, but if she has decided to save and form the habit, she will have more savings than the person with a higher income who has not decided to save.

iii. · Savings depend on the determination/persistence of a person to get out of poverty.

iv.   · Savings depend on factors such as family size, slack period in the agricultural season.

v.   · By saving as a group, it is easier to make savings a habit. We seem to be helped by the fact that there are others who are doing the same thing we do and that together we are able to do things better.

vi.   · Savings deposited in the group fund is not as easily spent as when I save and keep myself; I am able to participate in the benefits from the group since I can borrow from the group fund and benefit from ideas and get encouragement from the group;

vii. · By saving in the group, each member is equal to every one and because membership is voluntary, each one therefore has equal right in decision making on how the savings will be utilized.

viii. · The savings fund belongs to the group and therefore members are the only ones who can decide on how this will he used.

Role of cooperative in thrift and savings promotion

According to Galor (1095) a credit cooperative (also known as thrift and credit cooperative or thrift and loan cooperative) is a cooperative financial institution established to promote thrift and provide credit to members. It is member-owned and controlled through a management committee or board of directors elected by the membership. The primary purpose in furthering their goal of service is to encourage members to save money. Another purpose is to offer loans to members. In fact, credit cooperatives have traditionally made loans to people of ordinary means. Credit cooperatives can charge lower rates for loans (as well as pay higher interests on savings) because they do not aim to maximize profits. Rather than sharing profits to members, credit cooperatives return earnings to members in the form of patronage dividends or improved services (See Nwobi 2006, Umebali 2001, Onuoha 1978).

Galor (1989) writes that credit cooperative encourages its members to save money and enables them the obtain loans they may require for various purposes from their accumulated savings. Thus the first of the cooperative is to enable members to save their money on a regular basis, or according to their needs. The member saves his/her money within the framework of the cooperative, knowing that he/she will receive a suitable return for his effort, in the form of interest on his savings in addition to other benefits.

Credit cooperatives thus fill a unique role of mobilizing savings from the lower to middle wealth segments of the population and channeling them to a similar class of borrowers in the form of loans for investment and consumption. Therefore credit cooperative by its nature especially through the practices of obligatory savings contributions, teaches the member to be thrifty thereby influencing their savings habits.

Theoretical framework

This study is based on a number of classical savings theories, including those of Keynes, Friedman, Modigliani, and Duesembery.

Most economists agree that income and/or wealth is the main driving force behind consumption and thus saving. However, they disagree on which income should be applied. The Keynesians used current/absolute income, Freidman permanent income, Modigliani developed his own consumption theory based on the permanent income over the life-cycle of a household, and

Duesembery focused on relative income (Schmidt-Hebbel and Severn, 1996, Wright 1999).

The Keynesians' *absolute income theory* is simple. As a household's income increases at any given time, it consumes and saves more.

Friedman's *permanent income theory* is based on two concepts: the transitory income and the permanent income. The transitory income, or windfall income, is a temporary income change, which leads to an increase in saving rather than consumption. The permanent income is the income the household feels sure of getting. This permanent income increases a household's consumption without changing its saving level, and can even decrease the saving level.

Moddigliani and Brumber's *lifecycle income theory* holds that the consumption patterns of a household depend on the stage of its lifecycle. Over the lifecycle, income follows consumption with a similar hump or bell-shaped pattern, with the difference as (dis)saving. Consumption exceeds saving, (thus creating (dis)saving or probably borrowing) when a household is younger; saving reaches its peak, exceeding consumption, for a household in middle age, and then the household lives off of its accumulated wealth/saving during retirement. Thus the propensity to save depends on age and differs systematically across age-specific cohorts.

Dusembery's *relative income theory* is based on the inelasticity of consumption patterns relative to a change in income, and concludes that consumption is always relative to the household's income, and that of their friends. Credit makes it possible for people to keep their consumption level up while their income goes down.

Clearly, an understanding of these theories will enable an enhanced appreciation of income as the main driving force behind savings decisions. Acknowledging this does not preclude the fact that there are other endogenous variables and even exogenous factors can also wield significant influence as already mentioned. It is our contention, against the background of these theories, that if and when credit societies' activities promote income level, there are bound to be positive outlook in personal savings of members.

Research methodology

Research design

This study research is to a large extent descriptive research and the design adopted is survey design. Thus, the relevant data for the study were collected through the use of questionnaire, which was the main instrument for data collection.

Study area

The study area is Oyi local government area. The LGA is made of such communities like Umunya, Awkuzu, Nkwelle-Ezunaka, Ogbunike, and Nteje. Oyi LGA lies in Anambra North Senatorial zone, the zone that is popularly regarded as the food basket of Anambra State. Majority of the residents are farmers with a few engaging in petty trading and in the local government service/teaching. The farmers produce such crops like yam, rice, cassava, pepper, sweet potato, vegetables, etc.: all in large quantities. The LGA has a rural status and banking activities do not go beyond the rural banking operations of a few commercial and microfinance banks.

Data source and type

The primary data used in this study were drawn from a survey of members of credit cooperatives in Oyi LGA, of Anambra State. Members of 5 most viable credit cooperatives were used for the study and thus constituted the population of the study. The selection of these ten societies was based largely on the advice of the Divisonal Cooperative Officer. The 5 societies had a combined membership of 380. The sample size was determined through the application of the Yamane (1964) formula, which yielded 195. Information obtained from the members included their socio-economic characteristics, savings and credit statistics.

Tools of analysis

Descriptive statistical tools such as means, tables, etc. were used to present and discuss the data. Also inferential statistics such Pearson correlation analysis and regression analysis were used to address hypotheses one and two respectively.

The regression model that was used, adopted the ordinary least square (OLS) approach. The model was employed to examine the relationship between

savings of members (dependent variable) and the independent variables – credit, income, age, education, gender, length of mem., and family size (independent variables).

Implicitly, the model is specified as: Savings = *f*(Credit, Income, Age, Education, Gender, Length of mem., Family size)

Where

Savings $\quad$ = Total savings of cooperative member in Naira (2011).

Credit $\quad$ = Total credits obtained by member in Naira (2011).

Income $\quad$ = Income of member in Naira (2011)

Age $\quad$ = Age of member in years

Education $\quad$ = Number of years of formal education

Gender $\quad$ = Sex of member (Dummy: 1 if male, 0 if female)

Length of mem. = Length of membership in cooperative (years).

Family size $\quad$ = Number of persons in the household

Equation 1 is further explicitly specified to get equation 2 below:

$$\text{Savings} = \alpha + \beta_1\text{Credit} + \beta_2\text{Income} + \beta_3\text{Age} + \beta_4\text{Education} + \beta_5\text{Gender} + \beta_6\text{Length of mem.} + \beta_7\text{Family size} + \varepsilon$$

The αs are the intercepts and the βs are the regression coefficients to be estimated while the εs are the error terms designed to capture other variables not included in the models.

F and t statistics are employed to test the significance of estimates of the multiple regression models.

Results and discussions

Some socio-economic characteristics of members

The responding cooperative members are aged between the ages of 31 and 69 with a mean age of 47.48. The respondents on the average have 9 years of formal education. The least educated has only 6 years of education which translates to primary education while the most educated has 16 years of formal education which may mean university degree. The respondents have

fairly large families, 7 on the average with a range of 2 to 11. A majority of the respondents are male. Most of them are fairly experienced in cooperative: the mean average length of membership is 8 years. However newest member has been member for only 2 years while the oldest member has been involved with the cooperative for 11 years. The implication of this is the expectation for older members to show more inclination towards positive savings behavior. More than half of the members (59%) are males, while the rest are females The mean total income of the respondents is N614, 353.71 with the least income being N140,000.00 and the maximum N980,000.00. The respondents reported an average personal savings of N61,032.06, with N33,000.00 minimum and N100,000.00 maximum. Eighty-eight percent of the average savings of the respondents were deposited in cooperative. Also the respondents reported receiving loans and credit amounting to an average of N20,890.20. The minimum and maximum loan/credit received were N5,600.00 and N48,000.00 respectively. On average 88% of the savings of the respondents were deposited in credit cooperatives implying that cooperatives represent a major channel for cash savings by members. Again loan/credit receipts from cooperative represented on the average only 40% of total loan/credit receipts. Thus suggesting that cooperative may not have been the primary source of loans/credit to the respondents.

Impact of cooperative on savings of members

Evidence of the impact of cooperative on the savings behaviour of members can be seen in gleaned from table 1, where it is shown that cooperative is a major channel for cash savings by the respondents. Indeed, about 88% of the average savings of respondents were deposited in cooperatives. The highest saver deposited 55% of his savings in cooperative while the lowest saver deposited 95%. This suggests that low savers who are evidently low income earners may not have any other channel for saving other than cooperative.

Furthermore, table 2 presents the savings of the respondents according to their length of membership in credit cooperatives, where it is noticed that there are increments as one moves from one category to the other, thus suggesting that older members were saving more than newer members. For example respondents who had been members for more than 5 years saved N79,143.97 as against N58,793.77 by respondents who had been members for between 2 and 5 years and N43,785.92 by respondents who had been members for less than 2 years. Thus, it does appear that older members in cooperative understand the importance of savings better than newer

members. It is also an indication that thrift promotion and compulsory savings in cooperatives are having the desired positive effect. The conclusion from this would be that as members age in cooperative, their savings will also continue to increase.

Test of hypothesis one

H_0: There is no significant relationship between savings of a member and his length of membership in credit cooperatives

H_1: There is significant relationship in between savings of a member and his length of membership in credit cooperatives

Hypothesis one, states that there is no significant relationship between savings of a member and his length of membership in credit cooperatives. To test the hypothesis the Pearson correlation analysis was utilized. Information in table 3 shows that the correlation coefficient of 0.083 was significant at the conventional 5% level and thus attesting to a positive and significant relationship between the two variables. We therefore reject the null hypothesis and accept the alternative that there is significant relationship between savings of a member and his length of membership in credit cooperatives.

3. Determinants of savings

In order to determine the factors influencing savings of members of credit cooperatives in the area, result of the regression analysis that was earlier specified above are presented in table 4 below.

Regression result as presented in the table shows the precision of the model. In general, the variables in the equation explain more than 88% of the variations in savings of respondents. There are four significance coefficients (Income, Age, Education, Length of mem, Family size). Coefficient of income indicates that household's marginal propensity to save (MPS) is 9.3% which though low, is still encouraging considering the economic challenges of low income in rural areas and the fact many rural dwellers save in kind (Nwankwo 1994). Interestingly, the life cycle hypothesis holds true here with age having a positive and significant coefficient. This is understandable considering that the respondents on the average were aged 47.8 years. The coefficient for age (112.6) means that a year change in age of the respondents brings about N112.6 change in savings. Human capital variable (Education)

also gives positive and significant influence on households saving suggesting that the more one acquires formal education, the more he is likely to save. Indeed, the variable reveals that each additional one year of formal education leads to a change of N66.6 in savings. Family size was also positive and significant: a one unit change in family size brings about N320 change in savings. The study also reveals that the cooperative effect variable (length of membership) has positive and significant influence, suggesting that older members were saving more than newer members: one year change in length of membership leads to N32 change in savings. This appears to be in line with the contention of this study that membership of credit cooperative should exert positive influence on the members to save. Contrary to expectations the credit variable is not significant and also bore a negative sign. This may suggest that the respondents were mainly interested in saving towards future investment or use and only borrow money in emergencies. This also appears to corroborate our finding that respondents on the average borrowed only 40% of their credit needs from cooperative.

Test of hypothesis two

Ho: Savings of members of credit cooperative are not significantly influenced by their socio-economic characteristics.

Ho: Savings of members of credit cooperative are significantly influenced by their socio-economic characteristics.

Hypothesis two, states that Savings of members of credit cooperative are not significantly influenced by their socio-economic characteristics. To test the hypothesis regression model summary and analysis of variance (ANOVA) were utilized. Results in table 5 show that all socio-economic variables in our regression model explained over 88 of the variations in variations. Also the ANOVA result in table 6 shows that the associated F ratio of 195.86 was significant at 1% level. We therefore reject the null hypothesis and accept the alternative that Savings of members of credit cooperative are significantly influenced by their socio-economic characteristics.

Conclusions and recommendations

Indeed, the relevance of saving as an important source for the supply of capital for investment has been stressed and extensively discussed by economists throughout the world, particularly due to shortage of capital and the chronic state of economic stagnation in developing countries.

Cooperatives are known to promote thrift and saving among the members. In cooperatives, members are encouraged to save voluntarily and as a matter of obligation. Thus, cooperative inculcates the habit of thrift among in their membership. Credit cooperatives are able to influence the savings habits of members by linkage of its other function, credit to the savings obligations of the member as well as making savings deposit compulsory and obligatory.

In the present study, older members were found to have higher savings than newer members. This is likely to be as a result of their having better understanding of the importance of thrift and savings as promoted by cooperatives. It is also an indication that thrift promotion and compulsory savings in cooperatives are having the desired positive effect.

The marginal propensity to save (MPS) of the members though only 9.3 was significant since it represents the efforts of the rural dweller to save in cash rather than in-kind as was practiced in many rural communities.

It was equally significant to observe length of membership in cooperative is having positive effect on savings decision. This therefore unequivocally confirms the positive effect of cooperative on the savings behaviour of members.

These findings clearly are a confirmation of the conventional belief that cooperative is a veritable tool for financial intermediation within and among the un-banked rural dwellers.

Based on the above, it is the contention of the researchers that credit cooperative should be sufficiently assisted to have greater impact on not just influencing savings decisions but to mobilize savings and channel same to productive uses in the rural sector. We therefore suggest the following:

1.   An intensive membership drive is desirable to attract more farmers and other rural residents into cooperative society in order to enable as many persons as possible have the opportunity of saving towards provision of business capital and unforeseen events.

2.   Credit cooperative should introduce incentives that are capable of influencing members to increase their savings deposit and also attract new members. Such incentives could be in the form of attractive interest rates and linkage of credits/loans to amount of savings deposit made in cooperative.

3.   The credit cooperative in the area should consider the possibility of going multipurpose so as to be able to satisfy members' needs for farm inputs, agricultural extension services, etc. since their location is rural.

4.   The credit cooperatives should as much as possible try to link credit demand to savings deposits. This way, members will intensify efforts at meeting up with savings obligations being fully aware that the amount of credit they will obtain from cooperative will depend on this.

5.   With due consideration of the income factor which is a prime determinant of savings, one way to improve the saving level for all rural dwellers would be by implementing policies that improve productivity and income of households. Institutions of government that are involved in development projects need to increase their support to improve the business environment of the rural populations.

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Table 1: Socio-economic characteristics of respondents

Variable	Minimum	Maximum	Mean	Std. Deviation
Age (years)	31	69	47.48	7.67
Education (years of formal education)	6	15	8	3.38
Family size	2	11	7	1.92
Gender	0	1	0.59	0.49
Length of membership	2	11	8	1.47
Total income (N)	140,000.00	980,000.00	614,353.71	42040.77
Savings (N)	33,000.00	100,000.00	61,032.06	4292.577
% of savings in cooperative	95%	55%	88%	
Credit obtained (N)	5,600.00	48,000.00	20,890.20	20902.200
% of credit from cooperative	61%	5%	40%	

(n=195)

Survey data 2012

Table 2: Savings in 2011 by new, old and very old responding members

ITEM	New members <2 years	Old members 3-5 years	Very old members >5%
Mean	43,785.92	58,793.77	79,143.97
N	71	61	63
Std. Deviation	38814.75	44261.83	43746.93

Source: Survey data 2012.

Table 3: Pearson correlation estimates to test hypothesis one

		Savings	Length of mem.
Savings	Pearson Correlation	1	0.083
	Sig. (2-tailed)		0.025
	N	195	195
Length of mem.	Pearson Correlation	0.083	1
	Sig. (2-tailed)	0.025	
	N	195	195

NB: Length of mem. = Length of membership in credit cooperative.

Table 4: Regression result

	Coefficients	t-statistics	level of significance
Constant	258.522	2.566	0.011
Income	0.093	33.284**	0.000
Age	112.583	4.533**	0.000
Education	66.616	1.868*	0.053
Family size	320.667	3.229*	0.001
Length of Mem.	32.032	1.847*	0.054
Gender	-205.656	-0.927	0.355
Credit	-0.001	-0.216	0.829
R^2	0.938		
Adj. R^2	0.880		
F	195.857		
N	195		

**Significant at 1% level, *Significant at 5% level.

Dependent variable: Savings.

Table 5: Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.938(a)	0.880	0.875	1514.73056

a . Predictors: (Constant), Credit, Gender, Age, Mem duration, Income, Educ, Family Size

Table 6: Analysis of variance (ANOVA)

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	3145632217.875	7	449376031.125	195.857*	.000(a)
	Residual	429054420.813	187	2294408.667		
	Total	3574686638.687	194			

a.   Predictors: (Constant), Credit, Gender, Age, Mem duration, Income, Educ, Family Size

b.   Dependent Variable: Savings

*Significant at 1% level