Effects of socio-economic characteristics on savings among farmers in cooperative societies: Observations from Numan and Demsa Local Government Area of Adamawa State, Nigeria

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Abstract. The study examined the socio-economic effects of savings patterns among cooperative farmers in Numan and Demsa local Government Areas of Adamawa State, Nigeria. The study assessed the socio-economic characteristics of the respondents and examines the influence of socio-economic characteristics on the saving pattern of the respondents in the study area. Multi stage random and proportionate sampling procedure was used to select the study area and respondents for the study. Data were collected using questionnaires administered to sixty eight (68) registered cooperative farmer and were analyzed using descriptive statistics. The results revealed that, majority of respondents (95.58%) were young and in their active ages with a mean age of 39. About 55.88% of farmers were male. Most respondents (44%) were married while singles were the least (14%), 36.76% of the respondents have a family size range of between 9 and 10 members. The majority of the respondents indicated they engaged in part-time farming as primary occupation, 51.47% of the respondents engaged in livestock production while 44.12% of the respondents sourced their initial funds personally. It was therefore recommended, that government should have provide soft loans/credit farmers with little or no collateral.

Keywords: Socio-economic, effects, savings, patterns, farmers, cooperative.

INTRODUCTION

The rapid growth of the informal sector in recent years in most developing countries like Nigeria has a number of implications for activities in the agricultural sector. For instance, the strident conditions attached to loans by the formal financial institutions (e.g. commercial banks) which made funds not available or inadequate to reach the cooperative farmers, has increased the relevance of the informal financial institutions. However, money lenders, pawn brokers and rotating saving credit associations provide credit services to meet the needs of borrowers (usually members) in short notice and with little or no control and restriction in the use to which the loans can

be put (Norah et al., 2009) does not always meet the need of the farmers effectively.

Savings is defined as the income not spent on current consumption; it is an act of not consuming all of one's current income. Savings are very imperative for supporting and developing cooperative societies. It provides several direct and indirect benefits for cooperative farmers like investment, indicating repayment ability, increase credit rating and as collateral in credit market (Oluwakemi, 2012). Savings are of great importance in a developing country like Nigeria, hence is one of the major indicators of the level of economic

growth or development of the nation. Likewise in the agricultural sector, the degree of progress attained will largely depend upon what the farmers do with the additional incomes generated t from their farm activities. This stems from the fact that the growth rate in the farming economy largely depends on the stock of capital built in a farm organization and the ploughing back of such stock in form of the farm organization. If these increments are spent on household expenditure, without building up the necessary infrastructure, the future economic development of the nation will be hampered. Adequate integration of saving and investment programmes in development strategies is capable of improving resource allocation, promoting equitable distribution of income, and reducing credit delivery and recovery cost.

Cooperative society is a voluntary business organization in which groups of individual with common interests pool their resources together to promote the economic welfare of their members in production, distribution and consumption of goods and services (Ande 2008). Cooperative societies where people work together for mutual benefits have been practiced since the era of industrial revolution (Adetunji, 2002). Cooperative societies were believed to have originated from Europe before they spread to other parts of the World. Cooperatives serve as useful instruments for marketing farmers' produce and as avenues for savings and credit facilities. These informal financial institutions are mostly preferred by farmers due to easy of accessibility, smallness of scale, and informal nature of transactions (Adeyemo and Bamire, 2005; Onyenwaku and Ozoh, 1992).

In spite of government effort in the provision of subsidy on improved seeds and fertilizer as well as granting loans to cooperative societies, there is still low success achieved in food production. About 60% of Nigerian population (mainly low income earning farmers) do not have access to three square meals per-day, have high rate of poverty, and no savings potential even in cooperatives (Conference of Senior Civil Servant of Nigeria, 2012). Consequently, the agro-allied industries in the country were down as a result of inadequate raw-materials. This has been attributed to agricultural production which is characterized by traditional methods of cultivation. These agricultural systems in appropriate local tools or crude implements since modern inputs such as inorganic fertilizers and improved seeds are not available to the users at the right time. This scenario discourages many farmers to embark in commercial agriculture.

Cooperative farmers who are capable of producing food in large quantities, as well as producing raw-materials for industries do not have access to loans. They are also faced with numerous challenges including low income, insufficient access to health care, limited access to quality education and inadequate power supply.

Cooperative societies have been the focal attention of most national and international development pro-grammes. Agencies have developed programmes aimed at improving the welfare of cooperative farmers such as subsidizing input rates, granting of loans to cooperative farmers. These programmes present enormous potentials for the development of cooperative societies yet have failed in actually meeting the needs of cooperative farmers, because they lack sustainability (World Bank, 2006).

However, despite the fact that a lot has been done by the government for cooperative movement in the country, it is clear that there is more to be done in the country to attain the full benefits of the cooperative movement. For example, in the case of Rotating Saving Credit Associations (ROSCAs), members pool money by making periodic payments into a fund which then rotates as a once off lump-sum payment. This method of mobilizing funds has not only provided a means by which individuals have access to funds but also provide avenues by which they can have access to inputs and improve technology from which productivity growth is accelerated. This institution also helps in smoothening temporary shocks in consumption by the poor who are members, and improve income distribution and the standard of living of most members (World Bank, 1989; Chipeta and Mkandawire, 1991; Aryeetey, 1997; Yaron et al., 1997; Aryeetey, 1998).

The Nigerian economy has a lot of potentials for growth and development. The abundant human and natural resources of the country remain largely unexplored. These have to be harnessed to the fullest for the general economic wellbeing of the Nigerians in the more globalised world economy. Perhaps one important way to the realization of these goals, that cannot be ignored is for the government to further encourage cooperative movement. It is against this background that, this study is carried out to seek answers to the following research questions:

i) What are the socio–economic characteristics of farmers in cooperative set ups?
ii) What are the strategies of improving farmers saving patterns in the study area?

METHODOLOGY

The study area

The study was conducted in Demsa and Numan Local Government Areas of Adamawa State, Nigeria. The two Local Government Areas are between latitude 9° 30′ North of the Equator and longitude 12° East of the Greenwich Meridian (Adebayo and Tukur, (1999). Demsa and Numan are marked by distinct rainy and dry seasons. The rainy season last for about 4 to 5 months.

Table 1. Distribution of questionnaires administered to cooperative farmers.

S/No.	Cells name	Total registered cooperative farmers	No. of registered cooperative farmers selected in each cell (LGA)
1.	Numan	5145	43
2.	Demsa	3228	27
	Total	8373	70

Source: Field survey (2013).

According to Adebayo (1999), the mean onset dates of rains are 20th May, and the mean cessation date of rains is between 6th October and 16th October with a mean length of rainy season is about 140 to 150 days.

Sources of data and sampling procedure

Data for this study were derived mainly from primary source. In selecting the respondents, multi stage random and proportionate sampling procedure was used to select the study area and respondents for the study. A list of registered cooperative farmers in each of the area cooperative office was collected, and formed the sampling frame. Simple random sampling was used in selecting seventy (70) registered cooperative farmers within the two local government areas in proportion to the number of registered cooperatives farmers in each local government area, using:

S = n/N × 70   (1)

where:
S = The number of cooperative farmers sampled
n = Total number of registered cooperative farmers in each cooperative office
N = Sum total of the cooperative farmers within the study areas
70 = The target number of cooperative farmers to be selected

Structured questionnaires were administered by trained enumerators, one from each local government area cooperative office, under the supervision of the researcher. The questionnaire captured variables including family size, total income, cooperative experience, distance to the nearest bank, age, level of education, source of initial capital, duration of loan repayment, total household savings, and household living expenses among others (Table 1).

Analytical techniques

The analytical tools that were used in this study include both descriptive and inferential statistics. Descriptive statistics involve the use of mean, mode, median and percentage. T-test was also used to ascertain whether socio-economic characteristics' of the respondents do affect their savings patterns of the respondents in the study area. The tools used were specified below:

Descriptive statistics

For grouped data $x = \frac{\sum fX1}{N}$

Where: x = mean; $\sum fX1$ = sum of variance; N = sample size

The mean was used to compute the central tendency. Percentages were also employed to describe variables and their occurrences among the respondents.

RESULTS AND DISCUSSION

Socio-economic characteristic of the respondents

Age distribution of respondents

The age distribution of respondents as presented in Table 2 revealed that majority (38.24%) of the respondent were within the age bracket of 41 to 50 years indicating that the cooperative farmers were in their economically active and productive age, 20.59% fall within the age bracket of 21 to 30 years, with 36.76% within the age bracket of 31 to 40 years. Also 2.94% are within the age of 51 to 60. While only 1.47% are those above 60 years with a mean age of 39 years. The result is in line with the study of Onyenwaku and Ozoh (1992) which found out that cooperative farmers in this age range (41 to 50) are active and resourceful in their production venture and can enhance their savings pattern (Table 2).

Sex distribution of the respondents

Sex distribution of respondents as presented in Table 3 shows that majority (55.88%) were male, while 44.12% were female. This indicates that more males' cooperatives dominated activities in the study area with

Table 2. Age distribution of respondents.

Age range	Frequency	Percentage
21 – 30	14	20.59
31 – 40	25	36.76
41 – 51	26	38.24
50 – 60	2	2.94
≥	1	1.48
Total	68	100

Standard Deviation	0.90
Mean	39.02
Median	38.58
Mode	40.90
Maximum	61
Minimum	21

Source: Field survey data (2013).

Table 3. Distribution of respondents according sex.

Variable	Frequency	Percentage
Male	38	55.88
Female	30	44.12
Total	68	100

Source: Field Survey (2013).

Table 4. Respondents' marital status.

Variable	Frequency	Percentage
Married	30	44.12
Single	10	14.17
Divorce	17	25.00
Widow/er	11	16.18
Total	68	100

Source: Field Survey (2013).

Table 5. Distribution of respondents based on household size.

Family size	Frequency	Percentage
≤4	10	14.71
5 – 6	12	17.65
7 – 8	10	14.71
9 – 10	25	36.76
≥11	11	16.10
Total	68	100

Source: Field Survey (2013).

low participation by women. Their low involvement may be explained by socio-cultural barriers affecting women, as most women spend most of their times in housekeeping and taking care of their children. Studies by Olayide et al. (1980) and Onyenwaku and Ozoh (1992) have shown that male cooperative farmers have easy access to productive assets and are more energetic in carrying out productive ventures, thereby improving their farm output, productivity, income and enhance saving level when the required assets are provided to them.

Marital status of the respondents

The distribution of respondents' base on marital status is shown in Table 4. The result reveals that, 44.12% of the respondents were married, 14.71% were single, 25% were divorce, and 16.18% were widows/widowers. This reveals that majority of the respondents are married, this may be due to value attached to being married among the respondents in the study areas.

Respondents' household size

Household size distribution of respondents as seen in Table 5 revealed that 36.76% of the respondents have family size of 9 to 10, 17.65% fall within 5 to 6 people per household, 14.71% 7 to 8, ≥ 4 14.71% and 16.10% above 11. This implies that household size is assumed to influence the saving patterns of the respondents in the study area because the more the family size, the lesser their savings, the lesser the family size, the more the will be able to save. This was due to the facts that, family with larger size spend more than their counterparts. This number also increase the consumption pressure on the farmers, and it is therefore, capable of reducing their levels of savings, income and propensity to save.

Literacy level of the respondents

The distribution of respondents base on literacy level is shown in Table 6 revealed that majority (33.82%) of the respondents in the study areas had secondary school education, 33.82% of the respondents had attended primary school education, 22.06% of the respondents had attended tertiary institutions and 14.71% of the respondents fall within the category of others. The result of the study revealed that most of the respondents in the study areas were literate, thus this can help to improve their savings rate. The result is in line with the studies of Adeyemo and Bamire (2005). Education improves the quality of labour and the ability to derive, decode and evaluate information. It also exposes the farmer to more investment opportunities. Thus it is expected to positively influence farmers' savings and investment decisions for the improvement of farm production and increase levels of income.

Table 6. Literacy level of the respondents.

Literacy level	Frequency	Percentage
Primary	10	29.14
Secondary	23	33.82
Tertiary institution	15	22.06
Others	10	14.71
Total	68	100

Source: Field Survey (2013).

Table 7. Distribution of respondents farming experience.

Years in farming experience	Frequency	Percentage
1 – 2	3	4.14
3 – 4	3	4.14
5 – 6	5	7.35
7 – 8	15	22.06
9 – 10	20	29.41
11 and above	22	32.35
Total	68	100
Mean		9.05
Maximum		20
Minimum		1

Source: Field Survey (2013).

Table 8. Occupational distribution of respondents.

Occupation	Frequency	Percentage
Primary farmers	28	41.17
Part time farmers	40	58.82
Total	68	100

Source: Field Survey (2013).

Table 9. Distribution of respondents according to enterprise engagement.

Type of enterprise engagement	Frequency	Percentage
Poultry rearing	10	14.71
Fishing	13	19.12
Livestock rearing	35	51.47
Others	10	14.71
Total	68	100

Source: Field Survey (2013).

Farming experience of the respondents

The farming experience of respondents is shown in Table 7. The result revealed that 4.14% of the cooperative farmers had 1 to 2 years farming experience, 4.14% 3 to 4 years farming experience, 7.35% 5 to 6 years of experience, 22.06% 7 to 8 years, 29.41% 9 to 10 years, with maximum year of 20 years of farming experience, 1 year minimum, mean of 9.05 years and 32.35% fall within 11 years and above of farming experience. The result implies that year of farming experience could enhance increased in productivity and higher income and consequently higher saving among the respondents.

Occupational distribution of respondents

The occupational distribution of respondents is shown in Table 8. The result revealed that majority (58.82%) of the respondents' in the study areas were not in full time business (farming) this will be due to risk associated with business or farming or they were diversified rather engaged unto other business to avoid total loss, 41.17% of the respondents' were unto full time business. It assumed that the respondents' whose engages in full time business save higher proportion of their income than their counterparts that normally save less of their income. This enhances the search for new techniques of improving their saving and income through farm work. This study is in line with Adeyemo and Bamire (2005).

Cooperative activities

Type of enterprise engagement of respondents

The distribution of respondents according to enterprise engagement is shown in Table 9. The study reveals that majority (51.47%) of the respondents were engaged in livestock rearing, 19.12% in fishing business, 14.71% of the respondents were engaged in poultry keeping, and 14.71% were engaged in other business. This assumed that the respondents that were engaged in livestock rearing might likely saved more than their counterparts because of the higher income that is associated with livestock rearing with cheap labour and cost.

Source of initial funds of the respondents

The source of initial funds of respondents as presented in Table 10 revealed that four major source of initial founds for the respondents' were identified namely: gift loan, personal and others (Esusu among others). This reveals that 44.41% of the respondents' source their initial funds personally, 29.41% received their initial funds inform of gift, 11.76% from loan and 14.71% from other source (Esusu, lease among others). This shows that respondents highly depend on both materials and cash reserve from previous farm production for current production arising from their savings. This implies that large number of respondents in the study areas source

Table 10. Source of initial funds of the respondents.

Sources	Frequency	Percentage
Gift	20	29.41
Loan	8	11.07
Personal	30	44.12
Others	10	14.71
Total	68	100

Source: Field survey data (2013).

their initial funds personally, which in turn increase the investment cost, which invariably reduced their income earning and low level of saving among the respondents.

CONCLUSION AND RECOMMENDATIONS

This study has shown that socio-economic characteristics influence the amount of savings by the respondents. The study therefore recommends that cooperatives societies should be financially supported by the government, so that they would have enough funds/credit to give as loans to interested farmers that are members of the societies, Government should have a renewed interest to encourage farmers in the formation of new cooperative groups or strengthened the existing ones were applicable, Government at all level should give more attention to cooperative farmers by designing policies that would have direct bearing to the common man. This will raise the standard of living for the common man as well as improving their income level and boasting the economic growth of the Nation. Policies that maintain a stable price should be pursued; this will allow farmers to earn more, save and invest more in production activities. Awareness programmes on birth control should be directed at cooperative farmers to control their household size which is one of the significant factors that influences household savings.

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