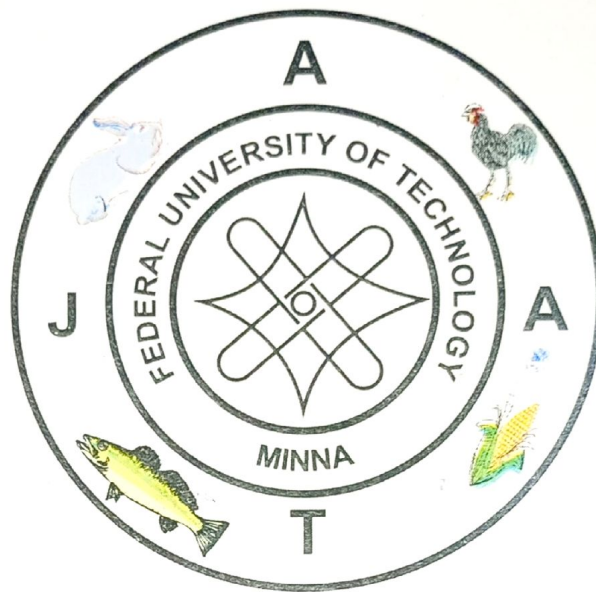


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ASSESSMENT OF FARMER'S PARTICIPATION IN AGRICULTURAL COOPERATIVES IN MOKWA LOCAL GOVERNMENT AREA, NIGER STATE.

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ABSTRACT

This study assessed farmer's participation in agricultural cooperatives in Mokwa Local Government Area of Niger State. A multi-stage random sampling technique was used to select 120 respondents who were small scale farmers. Primary data were collected using structured questionnaire complemented with interview scheduled. Both descriptive and inferential statistics were used to analyze the data collected. The result of this study revealed that majority (82.5%) of the respondents fall within the age range of 21 – 55 years with a mean age of 39 years, while 82.6% of the respondents had secondary education and above. More so, about 64.2% of the respondents attested to the effectiveness of cooperative societies in the study area. Logit regression analysis result showed that the value of coefficient of determination R^2 was 0.5758 implying that about 58% of the variation in the dependent variable is explained by the independent variables in the logit regression model. The age, gender, household size, educational status and farming experience were all significant at 1%, 5% and 10% respectively, and directly related to participation in agricultural cooperatives in the study area. This implies that one unit increase in any of the variable will lead to an increase in the level of participation in an agricultural cooperative. It was therefore recommended that extension agents should enhance participation of farmers in agricultural cooperatives in order for them to benefit from activities that will improve on their agricultural production.

Key words: Agricultural cooperatives, effectiveness, factors, Constraints, Farmers participation.

INTRODUCTION

Cooperative societies are legal, institutionalized and voluntary organizations characterized by the values of self-help, self-responsibility and democracy equality. According to Enyeribe (2001), cooperative association consist of group of people who join together to perform functions which they cannot undertake as an individual, help to provide some services that is people concerned, operating on a group for the solution to their problems and does business for the motive of service and not for profit making. Cooperative is a voluntary organization in which people come together on basis of equality for the protection of economics interest (Ugochukwu, 2000). It is an autonomous association of women and men, who unite voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically controlled enterprise (International Fund for Agricultural Development, 2012). According to International Labour Organization (2007), cooperative enterprise model exists in many sectors, including agriculture, consumer issues, marketing and financial services, and housing. More so, cooperatives provide 100 million jobs worldwide and count more than 1 billion members. Agricultural cooperatives play an important role in supporting small agricultural producers and marginalized groups such as young people and women. As highlighted by Ikepefan (2004), the report of International Labour Organization (ILO) on the contribution of cooperative societies to economic growth showed that the livelihood of nearly 3 billion people or half of the world population was made secure by cooperative enterprises based on the United Nation estimates of 1994 and that agricultural

cooperatives are the largest producers of fruits and vegetables for the national market in Burkina-faso, responsible for 77% of cotton production and 90% of national milk production in Cote'd'ivoire and 70% of the wheat production surplus export in Uruguay. All over the world cooperative movement has remained the vehicle of developmental services to farmers. Generally, cooperative efforts tend to be directed towards namely agricultural cooperative society, Thrift and credit, multi-purpose, fishery and marketing cooperative societies. Farmers all over the world faces the challenges of accessing basic agricultural inputs individually, it becomes more severe with respect to developing countries especially African countries if they do not participate in agricultural cooperatives. As posited by USAID (2005), the purpose of the Agriculture Cooperatives in Ethiopia is to improve the efficiency of agricultural markets through development and promotion of modern, business-oriented agricultural cooperatives active in input supply, output marketing, and extension of credit. An evaluation carried out by the International Food Policy Research Institute (IFPRI) in 2010 in Eastern Africa revealed that increased participation in agricultural cooperatives had resulted in improved crop productivity, production and income. It proved to be particularly beneficial for women, female-headed households, people with low literacy levels, and farmers with medium-sized landholdings. In Nigeria, Idrisa *et al.* (2007) posited that the level of participation of individual member in the activities of cooperative societies to which such a member belongs determines the level of awareness of such member

about co-operative society, thereby concluding that members who attain higher levels of education tend to participate more in cooperative activities. It was against this backdrop that this study was conceived to assess farmers' participation in agricultural cooperatives in Mokwa Local Government Area of Niger State, hence the following objectives which are to:

- i. describe the socio-economic characteristic of the farmers in the study area.
- ii. identify the types of agricultural cooperative in the study area
- iii. determine the effectiveness of agricultural cooperatives in the study area.
- iv. determine the factors influencing the participation of farmer's in agricultural co-operatives in the study area.

METHODOLOGY

The study area: This study was conducted in Mokwa Local Government Area of Niger State with latitude $5^{\circ}20'$ East and longitude $11^{\circ}3'$ North of the equator. It is one of the twenty-five (25) LGAs of Niger State and carved out of the present Lavun Local Government Area in September, 1991. There are four (4) districts in Mokwa LGA which are: Mokwa, Muwo, Kudu and Tako, and it covers a total land area of two hundred and twenty (220) square kilometers with a total population of about 126,045 (National Population Commission, 2006). The projected population as at 2014 using 3.2% growth rate was 162,167. About 85 percent of the land is Arable. The Local Government is characterized by dry and wet seasons with annual rainfall ranging from 1100 - 1600mm and temperature ranging from 23°C - 29°C . Agriculture is the major occupation of the people with about 85% of the population engaged in farming. The major food crops include: yam, beans, rice, millet, groundnut, maize and sugarcane, and raised animals like; cattle, goat, sheep and others. The people living in the study area are predominantly Nupes with some Gwaris and Hausas also present (Niger State Government, 2007).

Sampling procedures: Sample populations were basically small-scale farmers that are members of agricultural cooperative society in Mokwa. A multistage random sampling technique was employed in selecting the respondent for this study. The first stage involved random selection of two (2) villages from each of the four (4) districts in Mokwa Local Government Area to give a total of eight (8) villages. Second stage was the random selection of six (6) villages out of the selected eight (8) villages using the list of registered cooperative societies in the study area and finally, the third stage was the random selection of

twenty (20) farmers from each of the six (6) villages to give a total of one hundred and twenty (120) respondents for this study. Data were collected with the aid of well structured questionnaires complimented by personal interview schedules. Both descriptive (frequency distribution, percentage and mean) and inferential statistic (logit regression model) were used as the tools for the analysis.

Logit Regression Analysis

Logit regression was used to determine factors influencing participation of respondents in agricultural cooperative societies. The general logit regression model is mathematically expressed as shown below:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \dots + \beta_n X_n + e$$

Where:

Y = Participation of Respondents in agricultural cooperates (Yes = 1, No = 0)

X_1 = Age in years

X_2 = Gender (Male = 1, Female = 0)

X_3 = Marital status (Married = 1, Single = 0)

X_4 = Household size in number

X_5 = Educational level in years of schooling

X_6 = Farming experience in years

X_n = Income in naira

RESULTS AND DISCUSSION

Socio-economic characteristics of the respondents

The socio-economic variables examined were age, marital status, gender, educational level, farming experience and household size of the respondents. As revealed in Table 1, majority (74.1%) of the respondents fall within the age range of 21 - 50 years implying that they are in their most productive age while 95.8% of the respondents were male. More so, majority (70%) of the respondents were married with only 4.2% of them divorced while 95.9% of the respondents had household size from 1 - 10 with a mean household size of 7 persons. In terms of educational level of the respondents, 36.7%, 45.9% and 15.8% had tertiary, secondary and primary education respectively implying that the respondents were highly educated. This finding is in agreement with Idrisa *et al.* (2007) who stated that the higher the level of education, the more people participate in cooperative societies. Majority (76.8%) of the respondents had farming experience between 6 - 15 years in the study area.

Table 1. Socio-economic characteristics of the respondents

Descriptions	Frequency	Percentages
AGE (yrs)		
< 20	10	8.3
21 – 30	6	5.0
31 – 40	43	35.8
41 – 50	40	33.3
> 50	21	17.6
GENDER	115	95.8
Male	5	4.2
Female		
MARITAL STATUS		
Married	84	70.0
Single	18	15.0
Widowed	13	10.8
Divorced	5	4.2
HOUSEHOLD		
1 – 5	44	36.7
6 – 10	71	59.2
11 – 15	4	3.3
> 15	1	0.8
EDUCATION		
Non formal	2	1.6
Primary	19	15.8
Secondary	55	45.9
Tertiary	44	36.7
FARMING EXPERIENCE		
1 – 5	3	2.5
6 – 10	46	38.4
11 – 15	46	38.4
16 – 20	25	20.7
Total	120	100

Source: Field Survey, 2013.

Types of Cooperative and their Functions in the Study Area

The respondents for this study were all members of agricultural cooperative society in one form or the others. Table 2 revealed the various types of agricultural cooperative they belong to in the study area. Majority (56.7%) of the respondents belong to agricultural credit and marketing cooperative, 17.5% belongs to thrift and credit cooperative, 14.2% belongs to farmer's processors cooperative and 11.7% belongs to farmer's producers cooperative. More so, in terms of

functions perform by the cooperatives, 34.4% of the respondents attested that the cooperatives function in providing relevant market information, assistance in rural development (21.7%), provision of extension services (19.5%), provision of agricultural inputs (17.5%) and provision of credit facilities (7.5%) implying that cooperatives as attested to by the respondents discharge its primary responsibilities in the study area.

Table 2. Types of agricultural cooperatives and their functions in the study area

Descriptions	Frequency	Percentages
COOPERATIVE TYPES		
Farmer Producers Cooperatives	14	11.7
Farmer Processors Cooperatives	17	14.2
Agricultural Credit and Marketing Cooperative	68	56.7
Thrift and Credit Cooperatives	21	17.5
FUNCTIONS		
Provision of Credit to Farmers	9	7.5
Provision of Agricultural Inputs	21	17.5
Provision of Extension Services	23	19.5
Assistance on Marketing Information	41	34.4
Assistance in Rural Development	26	21.7
Total	120	100

Source: Field Survey, 2013.

Effectiveness of agricultural cooperative

The effectiveness of agricultural cooperative societies is the quality of being able to carry out cooperative development programmes that will be beneficial to members of the cooperative in a given community. As

shown in Table 3, majority (64.2%) of the respondents confirmed the effectiveness of the agricultural cooperative societies while 35.8% of the respondents stated that the agricultural cooperative were not effective in the study area.

Table 3. Effectiveness of agricultural cooperatives by the respondents

Effectiveness	Frequency	Percentages
Very Effective	11	9.2
Effective	66	55.0
Not Effective	43	35.8
Total	120	100

Source: Field Survey, 2013.

Factors influencing Participation of Respondents in Agricultural Cooperatives

Logit Regression model was used to determine the factors influencing participation of respondents in agricultural cooperatives in the study area. The result of the logit regression is presented in Table 4. The value of coefficient of determination, R^2 was 0.5758 with an adjusted R^2 of 0.4941 implying that about 58% of the variation in the dependent variable is explained by the independent variables in the logit regression model. Gender X_2 and education X_5 were

significant at 1% level of probability; age X_1 and household size X_4 were significant at 5%, while farming experience X_6 was significant at 10%. They were all directly related to the dependent variable implying that one unit increase in any of the independent variable will result in an increase in the level of participation in the agricultural cooperative. Marital status X_3 and income X_7 were not significant; therefore have no influence on respondents' participation in cooperative

Table 4. Logit Regression of factor influencing participation in agricultural cooperative

Variables	Coefficients	Standard error'	-
Age (X_1)	0.0533	0.0313	1.70*
Gender (X_2)	0.1762	0.0672	2.62***
Marital status (X_3)	0.1508	0.6032	0.25 ^{NS}
Household size (X_4)	0.1732	0.0888	1.95*
Education (X_5)	0.1397	0.0558	2.50***
Farming experience (X_6)	0.0566	0.0245	2.31**
Income (X_7)	0.29806	1.02779	0.29 ^{NS}

$R^2 = 0.5758$, Adjusted $R^2 = 0.4941$ and F value = 2.56.

Source: Field Survey, 2013

*** implies significant at 1%, ** implies significant at 5% and * implies significant at 10%.

CONCLUSION

Based on the evidence from the findings of this study, it can be concluded that there is high participation of respondents in agricultural cooperative with majority attesting to the effectiveness of cooperatives in the study area. It effectively functions in providing the basic needs of rural farmers particularly in the study area. More so, socio-economic characteristics such as age, education, farming experience and others were found to influence the respondents' participation in agricultural cooperatives in the area.

RECOMMENDATIONS

From the findings of this study, the following recommendations were made:

- i. Though, agricultural cooperative were found to be effective, there is need for government to set up administrative supervisory committee that will

supervise the activities of agricultural cooperatives for better service delivery.

- ii. Income and marital status were found not to be significant in respect to participation in cooperative. Hence, there is need for financial institution responsible for provision of funds to assist rural farmers by providing flexible credit facilities through cooperatives that will enhance more participation.

- iii. Provision of extension education by the extension agents to farmers on the need to participate in agricultural cooperative will go a long way in enhancing their benefits from agricultural cooperative.

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