

EFFECT OF AGRICULTURAL COOPERATIVE MEMBERSHIP ON WOMEN INCOME GENERATION IN NIGER STATE, NIGERIA

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ABSTRACT

The purpose of the study was to determine the effects of agricultural cooperative membership on income generation by women in Niger State of Nigeria. A total of 110 respondents were randomly selected for the study. Data for the study were obtained through a structured interview schedule and analyzed using both descriptive and inferential statistics. The results showed that majority (70.9%) of the respondents were still in their active age; 72.7% of the women had one form of education or the other. A large proportion (90.0%) of the women were married and majority (74.5%) had moderate household size of between 6 – 10 people. Also 57.3% of the respondents belonged to thrift and credit types of cooperative societies, and only 38.2% belonged to multi-purpose cooperative societies. The major benefit derived by the respondents for participating in cooperatives was for receiving assistance from governments, NGOs, donor agencies, and having access to loans or credits (44.5%). The results also showed a significant difference between the income of women (N69187.27) after participation in cooperative societies and before participation (N31025.45), which implied that women participants had a greater income. Also, women faced several constraints in participating in cooperative societies. The major constraints were: religious beliefs, inadequate knowledge about cooperatives and complicated administrative procedure which ranked 1st, 2nd and 3rd respectively. Regression estimates results showed that household size and year of cooperative membership were significant at 1% and farm size at 10% level of probability. It was recommended that women should be persuaded to be more active in agricultural cooperative activities, and the bureaucratic bottlenecks in the formation and registration of women cooperatives should be removed.

KEYWORDS- Effect, cooperative membership, women, income

INTRODUCTION

Cooperative societies are legal, institutionalized and voluntary associations characterized by the values of self-help, self-responsibility and democracy equality. A cooperative 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 (IFAD, 2012). Enyeribe (2001) also emphasized that a cooperative association consists of a group of people who are joined together to perform

functions which they cannot undertake as individuals, help to provide some services to members, operate on a group basis to provide solutions 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 the basis of equality for the protection of their economic interest (Ugochukwu, 2002).

Cooperative societies play important roles in agricultural activities both at the “on” farm and the “off” farm levels (USAID, 2005) with the involvement of both men and women. Women are strong contributors to the economy and major contributors to agricultural work force globally. In recent years, there has been an increasing recognition of the need to integrate women into the mainstream of development efforts. Women form one of the segments of the society that is proportionally represented below the poverty line. A slight majority (52%) of Nigerian population are women, and 70% of the women live in rural areas (Olawale, 2012; Matthew, 2006). Participation in income-generating activities is of vital interest to women throughout the developing world. Women participate in those activities which they feel will bring increased income, which they could use to supplement whatever is available or brought in by their spouses. In some cases, however, the women are the breadwinners of the family (Pavin, 2005 and Pales, 2010).

The level of women participation in co-operative societies seems inadequate, considering its existence in Nigeria for over half a century. Historically, scientific knowledge and technical skills of any given population or society spread significantly through formal and non-formal agricultural extension educational and cooperative systems. However, this does not consistently happen amongst women. There is therefore a need to analyse and understand the complex socio-economic, socio-cultural and religious factors that determine women membership of a cooperative society, and how these affect their income generation capability (Idrisa *et al.*, 2007). Nigerian government has over the years, contributed very much in encouraging the formation of programmes which are directed towards improving the economic status of women in the rural populace. However, this has yielded little results (Matthew, 2011).

It is important to note that in most countries, there are formal and informal prejudices about what women can and cannot do. This situation sometimes prevents women from full participation in cooperatives activities. Laws, and even cooperative rules and by-laws can sometimes hinder women's membership in cooperative societies; religious rules and tradition also affect women's participation in cooperatives (Mukhar, 2009; Ogunlela and Mukhar, 2009; Lee *et al.*, 2010; Idrisa *et al.*, 2007 and IFPRI, 2010). There is usually a wide information gap between the government's intervention programmes and rural women's access to such information. This gap can only be reduced through women coming together for accessing information and for empowerment through active participation in cooperative societies.

There are lots of benefits that can be derived from women participation in cooperative societies. First and foremost, women are empowered. Women empowerment is ideally a

continuous process where the poorer people become conscious of their situation and organize themselves into groups and access opportunities, an outcome of which women take control of their lives, gain skills, solve problems, and develop resilience (ILO, 2007 and FAO, 2010). Women empowerment is a process of gaining more access to a steady income and empowered members by joining force with one another as cooperatives and group based ventures. Apart from being able to access economic of scale as providers of services or products, or as consumers, participating in cooperatives as a member, elected leader or manager, brings with it enhanced social capital and voice (FAO, 2010).

This paper examined the effects of agricultural cooperative membership on women income generation in Niger State, Nigeria. The specific objectives were to describe the socio-economic characteristics of women in the study area, determine the benefits women derived from participating in cooperative societies, identify the determinants of their income, and identify the constraints associated with women participation in cooperative societies.

METHODOLOGY

A multi-stage sampling technique was adopted. Three local Government Areas (Lapai, Pakom, and Washishi) were purposively selected from each of the three agricultural Zones of Niger State, based on the predominance of cooperative societies and the level of involvement of women in cooperative activities. Four communities were randomly selected in each of the Local Government Areas and ten (10) women were randomly sampled from each community with the exception of Washishi Local Government Area where ten (10) respondents were selected from three (3) communities due to less number of women cooperative societies, to make a total of 110 respondents for the study.

Primary data were collected through a structured interview schedule questionnaire. Data collected were subjected to both descriptive and inferential statistics. One of the first steps in the application of regression analysis was the specification of the dependent and explanatory variables, as well as the functional form of the behavioural model. The specification of the general form of the model requires that the variable to be explained (dependent variable), Y (Income level of the respondents) be hypothesized as a function of the independent variables.

The implicit form of the model:

$$Y_i = f(X_1, X_2, X_3, X_4, X_5, X_6, X_7, e) \quad \text{----- (1)}$$

The explicit form of the model is as specified in equation 2

$$Y_i = b_0 + b_1X_1 + b_2 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + b_7X_7 + e_i \quad \text{----- (2)}$$

Where

- Y_i = level of income
- X_1 = age of respondents (years)
- X_2 = Household size (Number)
- X_3 = Household income (N)

- X_4 = Farm size (Ha)
 X_5 = years of cooperative membership experience (years)
 X_6 = Education (No. of years spent in formal edu.)
 b_0 = intercept
 b_1 b_6 = parameters to be estimated
 X_1 - X_7 =explanatory variable
 e_i = error term

Hypothesis testing

H_0 : There is no significant difference in income of the women before and after participation in cooperative societies. This was achieved using t- test.

RESULTS AND DISCUSSION

The socio-economic characteristics of respondents in the study are shown in Table 1.

Table 1: Socio- economic characteristics of respondents

Variables	Frequency	Percentage
Age		
Below 21years	4	3.64
21-30	17	15.45
31-40	52	47.27
41-50	32	29.09
51 and above	5	4.55
Marital status		
Married	99	90.0
Single	2	1.82
Divorced	3	2.73
Separated	2	1.82
Widowed	4	3.64
Household Size		
1-5	30	27.27
6-10	52	47.27
11-15	22	20.0
16-20	6	5.45
Education Level		
Primary	40	36.36
Secondary	26	23.64
Tertiary	13	11.82
Adult Education	1	0.91
Non- formal education	30	27.27
Primary occupation		
Farming	57	51.8
Trading	39	35.5
Civil servant	14	12.7

Source: Field survey, 2015

Majority (91.8%) of the respondents were still in their active age of between 20-50 years. The tendency to associate with others especially for economic empowerment is usually high at this age. This result is in agreement with those of Lee *et al.* (2010), who pointed out that young women readily come together for economic empowerment and self-reliance. A large proportion (90%) of the women were married and majority (74.5%) had moderate household size of between 1 – 10 people. This implies that women can venture into other economic and social activities to improve their standard of living and that of their household members.

Majority (72.7%) of the women had one form of education or the other, this will directly and indirectly affect their level of involvement in cooperative activities. This result is consistent with that of Olawale (2012), who pointed out that the level of participation of women in cooperative societies is positively related to their level of education. About 52% of the women had farming as their major occupation. This suggests that women were still the major actors in the agricultural sector of the State.

Types of cooperatives in which respondents were members

Types of cooperatives in which respondents were members are shown in Table 2.

Table 2: Distribution of respondents by type of cooperative membership

Types of cooperative	Frequency*	Percentage
Thrift and credit	62	56.36
Processors cooperatives	99	90.00
Multi- purpose	59	53.64

Source: Field Survey, 2015; *Multiple responses

Majority (90.00 %) of the respondents belonged to processors cooperatives, 56.36 % belonged to thrift and credit types of cooperative societies, and 53.64% belonged to multi-purpose cooperative societies. This implies that women belonged to cooperative societies for the purposes of income generation and alleviation of poverty. This result is in line with that of Pales (2010), that the major reason for women participation in cooperative associations was for income generation/economic empowerments.

Benefits derived from women's membership of cooperative associations

Table 3 shows the different forms of benefits derivable from women's membership of cooperative societies.

Table 3: Benefits derived from women participation in cooperative associations

Benefits	Frequency*	Percentage
Receiving assistance	65	59.0
Access to credit	49	44.5
Access to new technology	40	39.4
Acquisition of agricultural input	13	11.8
Interaction with others	8	7.3

Source: Field Survey, 2015. *Multiple responses

The major benefit derived by the respondents participating in cooperatives was for receiving assistance from governments, NGOs, donor agencies, (59%), and having access to loans or credits (44.5%). This is not surprising because the current trend by which people benefit from either government or non-governmental organizations is through cooperatives. Also about 39.4% of the respondents claimed that their major benefits for participating in cooperative societies was for learning new agricultural technologies which directly or indirectly affected their output, income and consequently their standard of living. This is consistent with the findings of Egbenayabuwa and Ighoro (2012) who found that women participated in agricultural cooperatives for increased income generation and consequently for poverty alleviation

Constraints to women's participation in cooperative associations

Table 4 shows the various constraints encountered by women during participation in cooperative societies

Table 4: Constraints to women participation in cooperative societies.

Constraints	Frequency*(n=110)	Percentage	Rank
Inadequate knowledge	23		
Illiteracy	15	20.9	2 nd
Lack of interest	14	13.6	6 th
Complicated administrative Procedure	19	12.5	8 th
Inability to pay dues	8	17.3	3 rd
Time		7.3	10 th
Discriminating attitude amongst members	14	12.7	7 th
Lack of trust of the leaders	9	8.2	9 th
Religious beliefs	16	14.5	4 th
	57	47.5	1 st

Source: Field Survey, 2015; *Multiple responses.

Women faced several constraints in participating in cooperative societies: religious beliefs, inadequate knowledge about cooperatives and complicated administrative procedure ranked 1st, 2nd and 3rd respectively, as the major constraints faced by women. Discriminating attitude amongst members and inability to pay dues ranked 9th and 10th. respectively as the least constraints. This implies that women in the study area, in an attempt to participate in cooperative societies for income generation and economic empowerment, are usually hindered by some constraints which directly or indirectly affect their capability to generate substantial and significant income. This finding is in line with that of Tologbonse *et al*, (2013) who pointed out that women faced several constraints in participating in Women in Agriculture (WIA) programme for generating income and for poverty alleviation.

Estimate of socio-economic variables influencing women income generation

Data in Table 5 show the estimate of socio-economic factors which influence income generation by women.

Table 5: Regression estimates of the socio-economic variables influencing income generation

Variable	Coefficients	t- values
Age (years)	.0015482	0.48
Household size (No)	-0.0552	-0.56
Household income (₦)	3.87e-06	7.69***
Farm size (ha)	-0.464183	-7.69*
Years of coop. experience	-0.267746	-3.60***
Education (Yrs spent in formal edu.)	.0040319	05.57
R- square (R^2)	0.6427	
Adjusted R square R^2	0.06219	
F- value		30.88***

Source: Field Survey, 2015; *** and * significance at 1% and 10% levels, respectively

The regression model had R^2 value of 0.64, which implies that about 64% of the variation in level of income (Y) of the respondents was explained by the independent variables included in the regression model, while the remaining 36% is as result of error in estimation. The F - statistics (30.88) was also significant ($p < 0.01$), which implies that the independent variables adequately explained the variation in the dependent variables: Household income and years of cooperative membership experience were significant at 1%, while farm size was significant at 10%. This implies that while holding other factors constant, any increment in household farm income will lead to increase in total household income, but the reverse is the case for years of farming experience and farm size because they are negatively correlated with income generation. This finding is however inconsistent with Tologbonse (2013) who found that household size, farming experience and farm size were not significant factors influencing women participation in WIA programme and income generation.

Result for Test of Hypothesis

Table 6 shows data on the difference in income of respondents before and after participation.

Table 6: Pair mean difference in income before and after participation in cooperative societies

Variable	Mean	t-value	Decision
Income before	31025.45	5.51***	H ₀ rejected
Income after	69187.27		

Source: Field Survey, 2015

The result in Table 6 shows that the income after participation (N69,187.27) in cooperative society was significantly ($p < 0.01$) greater than the income before participation (N31,025.45).

This implies that the income of the respondents increased after participation in cooperative societies, as such the null hypothesis that there was no significant difference in income before and after participation in cooperative societies was rejected. This findings is consistent with those of Eghenyabuwa and Ighoro (2012) and Tologbonse (2013) who pointed out that participation in cooperatives and other organizations by women significantly increased their income generation ability.

CONCLUSION AND RECOMMENDATIONS

CONCLUSION

The women were largely middle-aged, married, farmers and traders, with some formal education. They belonged to processor's cooperatives, thrift and credit and multipurpose cooperatives. The main benefits derived by women in the cooperatives include receiving assistances from Government and NGOs on cooperative activities, access to credit and new technology. The main constraints encountered included complex administrative procedure, inadequate production knowledge, and lack of trust in the leaders. The main determinants of income were household income, years of cooperative experience and farm size. There was a significant difference in income of women before and after participation in cooperative societies, as the income after, was significantly higher than the income before, participation in cooperative activities. Participation in cooperative societies resulted in earning higher income by the women

RECOMMENDATIONS

The following recommendations were made for promoting women participation in cooperative societies.

1. Women should be persuaded to be more active in cooperative activities by government and non-governmental organizations working with women groups for economic empowerment.
2. Government, non-governmental and donor agencies should be encouraged to give more priority to women cooperative societies.
3. Government at all levels should set up administrative supervisory machinery that will ensure that the activities of agricultural cooperatives are properly supervised to ensure that unnecessary bureaucratic bottlenecks in the formation and registration of cooperatives are relaxed removed.

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