



ABUJA JOURNAL OF AGRICULTURE AND ENVIRONMENT (AJAE)

Published by:

Faculty of Agriculture, University of Abuja.

Website: <https://www.ajae.ng>

Email: ajae.foa@uniabuja.edu.ng

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Volume 1 (No. 1) July, 2021.

SOCIO-ECONOMIC FACTORS AFFECTING WOMEN PARTICIPATION IN AGRICULTURAL COOPERATIVE IN SOME SELECTED LOCAL GOVERNMENT COUNCIL OF ABUJA (FCT), NIGERIA

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ABSTRACT

The study examines the socio-economic factors affecting women participation in agricultural cooperative. The study was conducted in the Federal Capital Territory of Nigeria (Abuja). A multistage sampling technique was used to select 120 respondents. The data were analyzed using descriptive statistic tool and probit regression model. The result revealed that 27.3% of the respondents were within the age of 31-40 years, 76.7% were married; the household size was 5 while about 77.5% had formal education. The probit regression result revealed the age was negatively significant at 10%, farm size was positively significant ($P < 0.01$), number of years in cooperative was significant ($P < 0.01$), extension service ($P < 0.01$), access to credit at 5% respectively. Access to marketing information was one of the major benefit women derived in participation while lack of awareness of cooperative activities was the major constraint with 73.3%. It can be concluded from the study that the decision of a cooperative member to belong to any cooperative organization was dependent on assurance of access to credit or loan, information, extension services; inputs supply, awareness and knowledge of the existence of the cooperative organization. Based on the findings of the study, it was therefore recommended that cooperative organization should strengthen moral relationship among member groups and other external social groups who may serve as agents of information dissemination to Cooperative organization.

KEYWORD: Agricultural cooperative, Women, Participation, Probit model.

INTRODUCTION

Cooperatives are organizations that are owned and controlled by its member who are the user or workers, and are forms to meet their common interest (International Cooperative Alliance (ICA), 2012). The objective of a cooperative society is to promote economic interest of its member. Women play important role in agricultural production, household food security and poverty alleviation. However, in some parts of the developing world, higher poverty levels among women mirror the fact that women face unequal access to economic

opportunities compared to men Within Africa (Mucavele, 2015), hence there is growing interest in supporting agricultural cooperative as a platform for enabling women farmers to secure sustainable livelihoods. Agriculture Cooperatives hold much potential to empower these economically weak women by enhancing their collective bargaining power in the market, thereby reducing the risks that they face in the market and enabling them to enhanced market opportunities, building individual capacities, improving members' incomes and leadership skills (World Bank 2009). Women face, more

often than not, major obstacles to joining and being active members of typically male-dominated activities in cooperatives, which limit their opportunities to access and participate in formal groups. Moreover, women's freedom is controlled by men control over their mobility, by socio-cultural expectations that they are primarily responsible for all domestic work and in relation to this, by their uneven reproductive, productive and community work burdens (Suwatno, 2010).

Despite the availability of Agricultural cooperative societies and effort of government at all levels, it appears that a significant proportion of women are unaware of the existence of such cooperative or are lacking in the basic socio-economic characteristics that form the prerequisites of the activities. Many of the available studies have shown the importance of farmers' cooperatives- accessing market information, credit facilities, joint procurement of production input and gaining social status (Ajayi, et al., 2014; Jibrin, et al (2019a) and Emmanuel, et al, 2015). However, those studies failed to address the socio economic factors that can hinder women from participating in cooperative activities. The specific objective of the study are to: describe the socio-economic characteristics of women in the study area; identify the type of co-operative societies that exists in the study area; identify the benefits derived from the cooperative by the women in the study area; determine the socio-economic factors influencing women participation in Agricultural cooperative in the study area and identify constraints women face in participating in cooperative activities in the study area.

METHODOLOGY

Study Area

The study was carried out in three (3) Local Government Council (Kuje, Gwagwalada and Kwali) of Abuja, Nigeria. Abuja is the capital city of Nigeria located in the Centre of the country within the Capital (FCT). The FCT experiences three weather conditions annually. This includes a warm, humid rainy season and a blistering dry season. In between the two, there is a brief interlude of harmattan occasioned by the northeast trade wind, with the main feature of dust haze and dryness. The rainy season begins from April and ends in October, when daytime temperatures reach 28 °C (82.4 °F) to 30 °C (86.0 °F) and nighttime lows hover around 22 °C (71.6 °F) to 23 °C (73.4 °F). In the dry season, daytime temperatures can soar as high as 40 °C (104.0 °F) and nighttime temperatures can dip to 12 °C (53.6 °F). Crops grown in the area include maize, cassava, cocoa yam, groundnuts and millet and others while livestock include goat, sheep and poultry (National Bureau of Statistics (NBS), 2015).

Sampling Technique and Sample Size

A Multistage sampling technique were used for this study in selecting women respondent from the study areas. In the first stage is a random selections of 3 LG (Gwagwalada, Kuje, and Kwali area council in Abuja), in the second stage there was random selection of two village from each of the LG, while the third stage involve random selections of 20 women from each of the villages to get a sample size of one hundred and twenty (120) women participating in Agricultural cooperatives.

Method of Data Analysis

Both descriptive and inferential statistical tools were used to achieve the objectives of this study. Objectives i, ii, iii and v were achieved using descriptive statistical tools such as

frequency distribution tables, percentage and mean. While objective iv was achieved using Probit model.

RESULTS AND DISCUSSION

The socio - economic characteristics of sampled respondents such as age, marital status, level of education, farming status, occupation, household size and farm size are discussed and presented below. Results in Table 1, reveals that majority of the respondents 27.3 % were within the age range of 31-40 years and 21.3 % have ages between 41-50 years, while 10% were within 51-60 respectively. The mean age of the respondents was 39 years which shows that majority of the women in cooperatives are still in their active and productive years. This implies that young and middle aged women are involved in agricultural cooperative activities for sustained food production and to better their standard of living. The result is in line with the findings of Jibrin, et al (2019) who reported that the mean age of female fish processors in cooperative society was 40 years. Ogunbamero, et al. (2010) observed that 70.66% of cooperative members had age between 26-46 years.

More also, Table 1 shows that majority (76.7 %) of the women cooperatives across the three local governments in Abuja FCT were married while 10 % accounted for both single and widowed respondents, also about 3.3% of the respondent are divorce. The high level of married respondents is an indication that rural people engage in several agricultural activities to shoulder responsibilities, hence the need and desire to get married. Jibrin, et al (2019) and Ume, et al (2018) observed that majority of women farmers in the study area were married which could be as a result of the active age range of between 31-40 years of the majority of the respondents and.

Furthermore, the level of education of women cooperatives in the study area shows that 34.2 % had general formal education, 22.5 % claim not be educated, while 43.3 % had tertiary education. The result indicated that most of the respondents were educated, this implies that the more educated a group of people are the better informed they are to utilize the knowledge and skills to improve their welfare and decision making process. Farmers' educational level has been found to positively influence the adoption of improved technologies/ easily comprehend whatever they are taught on any improved agricultural technology (Oluwatusin and Adesakin, 2017).

On Farming status/ Occupation table1 shows that 30 % of respondents were full time farmers while 70 % of the women in cooperatives claimed to be part time farmers. The results in Table 1 indicate that 34.2 % of the respondents were civil servants, 21.7 % were full time farmers, 9.2 % were part time farmers while 35 % were traders. This implies that with access to credit facilities women in various cooperatives were able to engage in other several income generating activities. The result is in line with the findings Basel and Isaac (2018) of distribution of respondents according to their types of cooperatives societies (83.3%) of the sampled respondents engaged in off farm income and only 16.7% do not.

The number of people in a household plays a very important role in term of labour supply in the farm. Especially large family size in traditional agriculture where the family labour is required to accomplish all sort of operations. The higher the number of children assisting women in the farm the larger the farm size. Table 1 shows that greater proportion (54.17%) of the respondents have up to 1-5 members in their household, 37.5% of the sampled respondent had household size ranging from 6-

7 person per household. 6.67% of the respondent have 11-15 persons per household while the average household size of the respondent was 5 person. The result is in consonance with the findings of Oluwatusin and Adesakin, (2017) who reported that the mean value for household size was about 5 persons.

The average farm size of the women farmers was less than 4 ha which consist of 94.7%. This implied that majority of the women farmers are predominantly small scale producers with average farm size of 1.3 ha and the result is in line with the findings of Kehinde, et al.,(2016) who reported that there was a significant difference ($p < 0.1$) between the farm size of male (9.30 ± 8.3) ha and the female farmers (6.8 ± 4.2) ha. Also, Emmanuel, et al. (2015) reported that the average farm size of the respondents was 1.5 ha.

About 81% of the women farmers reported not to have had extension contact at different times. However, extension agents are the major sources of agricultural information for processors and the frequency of visits or availability of extension service is expected to increase processors' ability of adoption of improved processing technologies (Akinbode, 2012). The result is in disagreement with the findings of Emmanuel, et al. (2015) reported that 73% of the respondents in the study area had extension contact.

The result further revealed that 70% of the women farmers access to credit. This implies that most of the women farmers have access to credit which might be due to cooperative advantages. The result is in disagreement with the findings of Ume, et al (2018) who reported that about 90% of the sampled farmers had no access to credit, while only 12% had access.

Table 1: Socio – Economic Characteristics of Sampled Women Cooperatives in Agricultural Activities

Variables	Frequency N=120	Frequency (%)	Mean
Age			
<21	11	9.1	
21 – 30	29	24.0	
31 – 40	33	27.3	39
41 – 50	26	21.3	
51 – 60	12	10	
>60	10	8.3	
Marital status			
Divorced	4	3.3	
Married	92	76.7	
Single	12	10	
Widow	12	10	
Level of education			
Formal education	93	77.5	
Non formal education	27	43.3	
Farming status			
Full time	36	30	
Part time	84	70	
Primary Occupation			

Civil servant	41	34.2	
Full time farmer	26	21.7	
Part time farmer	11	9.2	
Trader	42	35	
Household size			5.5
1 – 5	65	54.17	
6 – 10	45	37.5	
11 – 15	8	6.67	
16 – 20	2	1.67	
Farm size			1.3
1 – 3	113	94.17	
4 – 6	4	3.33	
7 – 10	3	2.5	
Extension contact			
Yes	46	38.33	
No	74	81.66	
Access to Credit			
Yes	85	70.83	
No	35	29.16	

Computed by author from field survey, 2018
Distribution of respondents according to their types of cooperatives societies

Table 2 shows the distribution of respondents according to their types of cooperatives societies. All the sampled respondents belong to one cooperative organization or the other. Respondents belonging to thrift and credit cooperative had the highest percentage of 50.8% across the three local government's council. This was followed by processing cooperative having 39.2%, farmer producer cooperative had 35.8% while marketing cooperative had the lowest percentage of 20.8%. Generally, for farmers to benefit from programmes initiated by the government and other donor agencies, they must belong to one

form of organization or the other. Those that subscribe to cooperatives societies especially thrift and credit did so probably to have access to credit and other inputs. Furthermore, the result revealed that credit which is a limiting factor to accessing other inputs of production had the highest percentage of 50.8 %, implying that half of the respondents had been empowered to access resources and inputs that will give them opportunities for improving their livelihoods. The result of this study is similar to the findings of Ajayi, et al. (2014) who found out that Agricultural credit and marketing cooperative, thrift and credit cooperative, farmer's processors cooperative and farmer's producers cooperatives are the major types of cooperative.

Table 2 Distribution of women according to their various type of cooperative

Cooperative	Frequency	Percent (%)
Farmer produce cooperative	43	35.8
Marketing cooperative	25	20.8
Processing cooperative	47	39.2
Thrift and credit	61	50.82

Computed by author from field survey, 2018 * Multiple response recorded

Distribution of Women According to their Participation in Cooperative Activities.

Result on table 2 revealed that activities always engaged in by the cooperative members were attending meetings (67.5%), payment of dues (56.67%), savings (53.33%) while trainings (12.5%) was least activities participated by the cooperative members. The activities occasionally participated by the cooperative member were loan transaction (60.83%). The result is in line with the findings of Thomas, et

al (2018) who reported that women were involved in various cooperatives activities ranging from been leaders of the cooperative, secretary of the cooperative and had also receive training on cooperative characteristics that possibly affect the participation of women in cooperatives, intermediate role in providing credit services, resource mobilization, how to effectively work with other agricultural cooperatives, accounting and management issues.

Table 2 Distribution of women participation in agricultural cooperative activities.

Cooperative Activities	Always Freq.(%)	Occasionally Freq.(%)	Not at all Freq.(%) Ranked	
Group farming activities	44(36.67)	42(35)	34(28.33)	4 th
Loan transaction	24(20)	73(60.83)	23(19.84)	6 th
Participation of member in cooperative meetings	81(67.5)	35(29.17)	4(3.33)	1 st
Purchase of Input	36(30)	39(32.5)	45(37.5)	5 th
Payment of due	68(56.67)	48(40)	8(6.67)	2 nd
Savings	64(53.33)	48(40)	8(6.67)	3 th
Training	15(12.5)	44(36.67)	61(50.83)	7 th

Computed by author from field survey, 2018

Benefits Derived From Cooperative by Women in the Study Areas

The result presented in Table 3 shows the various benefits derived by sampled women

farmers about participation in cooperatives in Abuja. The trend obtained shows that among the ten (10) listed benefits packaged for the cooperative women, market information was ranked 1st, followed by credit, access to loan

and farm inputs supply respectively. This multiple response variables questions are pivotal to the understanding and utilization of potential resources and inputs that will help women cooperative achieve maximum production in their different income generating activities, and to check-mate the factors that require attention for members to take advantage of their opportunities and avoid the

limitations. Increase in farm income, improvement in the general living conditions, improved farm output, easy access to agricultural credits from banks, education and training and easy access to farm output are some of the benefit derived for been a member of CBOs (Ibitoye, 2013) and Jibrin, et al (2017b).

Table 3 Distribution of Women Cooperative According to their Benefits

Benefits Derived from Cooperative by Women	mean	std. deviation	Rank
Credit	2.24	0.76	2 nd
Extension services	2.00	0.58	5 th
Farm inputs supply	1.83	0.74	4 th
Marketing information	2.31	0.70	1 st
Social status	1.87	0.66	6 th
Government assistance	1.49	0.62	10 th
Training/education	1.61	0.68	8 th
Access to loan	2.03	0.68	3 rd
Rural development	1.62	0.65	9 th
New innovation	1.87	0.60	7 th

Source: Field Survey, 2018.

Socio-Economic Factors Influencing Women Participation in Agricultural Cooperative Activities

Probit regression model was used to determine the socio economic factors influencing participation of women in agricultural cooperatives in activities. Age was negatively significant at 10% which means increase in age will likely lead to decrease in their level of participation in cooperative activities. In this context, younger farmers are more likely to participate in cooperative activities due to the fact that they might be more educated, younger and are willing explore new opportunities in their farming activities as shown in the result of the socio-economic characteristics of this study. The result is in disagreement with the findings of Emmanuel, et al. (2015) who reported that increase in age will lead to more

participation in group activities. However, Thomas, et al. (2018) reported that as farmer advances in age they turn to adopt less technology as compared to the young farmers.

Education was found to have a positive and significant relationship with participation in cooperative societies. This implies that the higher the level of formal education the higher the rate of adoption of improved agricultural technologies participation in cooperative societies. This is in line with the findings of Jibrin, et al. (2019a) who reported that there will be less participation in CBOs activities from fish processor as the level of their education increases.

Furthermore, Farm size was positively significant at 1% implying that an increase in farm size increases the probability of group

participation. This could be due to the fact that Nigeria farmers are characterized by small farm holdings that and owning large farms will require particularly important as stated before, farmers are in their majority resource-poor; requires more resources and investment; hence participation in farmer groups is in most cases the last way of overcoming such obstacles. The result is in consonance with the findings of Emmanuel, et al. (2015) who reported that an increase in farm size increases the probability of group participation by 4.96%.

Further more , number of years in cooperative, was significant and positive. This means that increase in years of being member of a cooperative society increases the likelihood that the women will participate more in cooperative activities. This might be to the fact that the women farmers might have understood the benefits that is attached to being a member of a group and how cooperative societies function. The result is in consonance with the findings Prakash (2000) in Adekunle, (2018) who reported that cooperatives have even greater potential for coordinating self-help actions and platform group farmer's formation. Access to extension service was positive and statistically significant on group membership

implying that it increases women farmers' participation in cooperatives activities. This might be due probably because as agricultural extension agents are better informed, they are likely to educated farmers about importance of membership in farmers groups and influence their decision about group membership. Agricultural extension agents are better informed, they are likely to discuss with farmers about membership in farmers groups and influence their decision about group membership. The more the extension contact with smallholder farmers, the better their involvement in farmer group and the better productivity increases (Emmanuel, et al 2015).

Access to credit was positive and statistically significant at 5%. This implies that access to credit can influence the decision of producers to join farmer groups and that a women farmer that has access to credit is more likely to participate more in cooperative activities. The findings is in agreement with the study of Emmanuel, et al. (2015) who reported that access to credit increases probability of farmers participation in organizations. Also, Asante, et al. (2011) found out that access to credit positively influenced farmers' decisions to join farmer based organizations in Ghana.

Table 4: Distribution of Respondents According to the Socio- Economic Factors Influencing Women Participation in Agricultural Cooperative

Variables	Coefficients	Standard error	Z – value	P-value
Age	-0.0447936	0.0251779	-1.78	0.075*
Marital status	-0.02725279	0.3578184	-0.08	0.939
Education	0.0980476	0.0294408	3.33	0.001***
House hold size	-0.0261828	0.0648948	-0.40	0.687
Income	-0.767607	2.31606	-0.33	-5.30e-06
Farm size	0.7763347	0.2368853	3.28	0.001***
No.yrs in cope.	0.0869253	0.321352	2.70	0.007***
Extension service	0.1318591	0.4650193	2.84	0.005***
Access to credit	0.7101375	0.3443898	2.06	0.039**

Cons	-4.492924	1.372681	-3.29	0.001***
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Computed by author from field survey, 2018
 ** implies statistically significant at 5%
 Note: *** implies statistically significant at 1%
 * implies statistically significant at 10%

Constraints Faced by Women in Participating in Agricultural Cooperatives
 Information from the returned questionnaires indicated that, inadequate knowledge on how to run cooperative (73.33%) was first of the table of constraints women farmers face in participating in cooperative. Also, small farm size (68.3%) ranked 2nd while lack of good roads (66.7%) ranked 3rd were also on top of the list of challenges. Other constraints

identified include cultural norms, misappropriation of funds, lack of government assistance inadequate credit facilities, cost of membership card and inadequate awareness on cooperative activities. The results disagree with findings by Ugochukwu and Ugwuoke (2013) that cooperative members were constrained with poor management by officials, inadequate training and inadequate capital.

Table 5 Constraints Face by Women Participation in Agricultural Cooperatives

Constraint	Frequency	Percent (%)	Rank
Inadequate awareness on cooperative activities	51	42.5	9 th
Small farm size	82	68.3	2 nd
Cost of membership card	52	43.3	8 th
Inadequate knowledge on how to run cooperative effectively	88	73.3	1 st
Inadequate extension service	72	60	5 th
Discriminative attitude of some cooperative member	46	38.3	10 th
Inadequate credit facilities	61	50.8	7 th
Lack of government assistance	69	57.5	6 th
Cultural norm	74	61.7	4 th
Lack of good roads	80	66.7	3 rd

Computed by author from field survey, 2018

CONCLUSIONS

Based on the results of the research, it was observed that women farmers' organizations are indispensable in facilitating and enhancing farm production and incomes of smallholder farmers in FCT. Women in cooperative society had mean age of 39 years, mostly married, 43.3 % had tertiary education and with access to credit facilities women in various cooperatives were able to engage in other several income generating activities. About 81% of the women farmers reported not

to have had extension contact. Respondents belonging to thrift and credit cooperative had the highest percentage of 50.8% across the three local government's council, while the

activities always engaged in by the cooperative members were attending meetings (67.5%).

Furthermore, it could be concluded from this study that the decision of a cooperative member to belong to any cooperative organization is dependent on assurance of

access to credit or loan, information, extension services; inputs supply awareness and knowledge of the existence of the cooperative organization. Probit regression model analysis result shows that age, level of education, farm size, and number of years spent in cooperative society, extension contact and access to credit were the determinant factors that influence women participation in cooperative society.

Based on the findings of the study it was therefore recommended that members of cooperative organization should strengthen moral relationship among member groups and other external social groups who may serve as agents of information dissemination to spread knowledge and awareness of the existence of the cooperative. Efforts on the side of government and non-governmental organization to train women on how to run cooperative organizations. Most agricultural cooperatives are into production and processing, which require motorable roads for timely transportation of agricultural produce (agricultural produce are time bonds) hence, require appropriate time management for utilization and processing for final consumption.

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