



Contributions of Cooperative Societies to Agricultural Livelihood Activities of Female Farmers in Ogbia Local Government Area, Bayelsa State, Nigeria

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Abstract

The study assessed contributions of women cooperative societies to agricultural livelihood activities of female farmers' in Ogbia Local Government Area of Bayelsa State. Multi-stage sampling procedure was employed to select one hundred (100) respondents' for the study. Primary data were collected using a structured questionnaire, and analyzed using frequency counts, percentages and mean scores, while ANOVA was used to test the null hypothesis at 5% level of significance. The result revealed that borrowing from informal money lending institutions (3.20), retained earnings (3.13), membership fee (2.92) and borrowing from microfinance banks (2.65) were the major avenues through which funds are raised by the women cooperative societies. The result also revealed that subsidizing the price of agricultural raw materials to cooperative women members (3.19), bulk buying of essential inputs such as seed, fertilizer and pesticides and sale to members at a price below the price they would pay alone (3.13) and renting out machinery and implements to members at affordable prices (3.00) were the major forms of contributions of women cooperative societies to agricultural livelihood activities of female farmers in the study area. The ANOVA result showed that there were significant differences in the mean ratings of respondents on the contributions of women cooperative societies to agricultural livelihood activities at 1% level. The study concluded that women cooperative societies contributed significantly to the agricultural livelihood activities of women farmers. The study therefore, recommended the need for government to provide credit facilities to the women cooperatives at a reduced/no interest rate in order to boost agricultural livelihood activities and increase agricultural productivity.

Keywords: Agriculture, Contribution, Cooperative, Livelihood, Societies Women

Introduction

The mainstay of Nigerian economy is known to be Agriculture for several decades, making employment available and source of livelihood for their ever growing population as well as engaging about 70% of the total labour force (Ogunbayo *et al.*, 2014; Adebayo and Olagunju, 2015). Oyegbami and Lawal (2017) also noted that women have added towards agricultural growth, through assets in crop production, harvesting, processing, storage and selling. This has been attributed to the fact that they constitute the bulk of low-price labour and are mainly accountable for subsistent agricultural production in the pastoral regions. The importance of cooperatives as a successful means of agricultural revolution is broadly acknowledged in a superior and less industrialized nations (Oyegbami, 2019). Kumar *et al.* (2015) asserted that a cooperative is an independent union of persons cooperates willing to meet their common financial, social and cultural needs and ambitions through jointly-owned and democratically controlled ventures. Beshel and Okeme

(2018) further noted that some cooperative societies liaise with the government to obtain loans at low interest rates for their members to boost agricultural production and for the purchase of agro inputs for higher yields.

Women in Nigeria, especially in the rural areas are known for their high level of engagement in agricultural livelihood activities in order to increase food production and income generation. Despite these efforts, they encounter challenges such as access to loans, access to micro-credit, farming implements, right information on planting, harvesting and marketing which often affect their agricultural livelihood activities (Beshel and Okeme, 2018). Cooperatives are engaged in economic activities such as disbursement of credit and distribution of agricultural inputs to participants (Obi, 2015; Beshel, 2016). Women cooperative societies are thus expected to contribute to the agricultural livelihood activities of women farmers through these economic activities, however, whether this is the true situation or not in Ogbia Local Government Area is subject to empirical

investigation. It is in this regard that the study was conceived. Specifically, the study ascertained how funds are been raised by the women cooperative societies; and examined the contributions of women cooperative societies to agricultural livelihood activities of women farmers in the study area. The study hypothesized that there is no significant difference in the mean ratings of respondents on the contributions of women cooperative societies to agricultural livelihood activities in the study area.

Methodology

The study was carried out in Ogbia Local Government Area of Bayelsa State. The headquarters of the local government is in the town of Ogbia known as Ogbia main town. Its coordinates are latitude 4°39'N and longitude 6°16'E, and it covers a land area of 695km². Multi-stage sampling procedure was employed in selecting respondents for the study. In the first stage, ten (10) women cooperative societies were randomly selected from the list of registered cooperative societies in the study area. The second stage involved the random selection of ten (10) women farmers in each of the selected women cooperative societies which gave a total of 100 cooperative women farmers. Data collected through structured questionnaire were analyzed with descriptive statistics, while Analysis of variance (ANOVA) was used to test the hypothesis. Ways through which funds are raised by the women cooperative societies and contributions of women cooperative societies to agricultural livelihood activities in the study area were realized using frequency and mean scores. Data were generated by presenting the respondents with items rated on a four-point rating scale, which was based on the question options of: 'strongly agree' = 4; 'agree' = 3; 'disagree' = 2 and 'strongly disagree' = 1. In using the four point rating scale, a mid-point was obtained by adding 4, 3, 2 and 1 which gave 10 and when divided by 4, gave a mean score of 2.50. For the purpose of decision making, any mean score response above or equals to 2.50 was accepted as a positive response, while any mean score response less than 2.50 was considered a negative response.

Model specification for ANOVA

There is no significant difference in the mean ratings of respondents on the contributions of women cooperative societies to agricultural livelihood activities was tested using Analysis of Variance (ANOVA) thus:

$$F = \frac{MSSB}{MSSW} = \frac{SSB}{SSW} = \frac{n-k}{k-1}$$

$$SSB = 3nj(X - \bar{X})^2$$

$$SSW = 3n(Xi - \bar{X})^2$$

Where,

F = Value by which the statistical significance of the mean differences was judged

SSB = Sum of squared deviation between samples

n = number of observation

k = number of samples

nj = sample size from population j

Xj = mean of sample for population j

\bar{X} = grand mean

Xii = nth observation from population

RESULTS AND DISCUSSION

Avenues through which funds are raised by the women cooperative societies in the study area

The result in Table 1 reveals that borrowing from informal money lending institutions (\bar{x} = 3.20), retained earning (\bar{x} = 3.13), membership fee (\bar{x} = 2.92) and borrowing from Microfinance banks (\bar{x} = 2.65) were the major ways through which funds are raised by the women cooperative societies. This indicates that women cooperative societies in the study area employ a variety of fund-raising mechanisms with the aim of providing financial support for their agricultural livelihood activities. The finding is in tandem with Ukoha (2021) who noted that cooperative societies adopt several approaches in fund raising among participants.

Contributions of women cooperative societies to agricultural livelihood activities in the study area

The result in Table 2 reveals that subsidizing the price of agricultural raw materials to farming cooperative women (\bar{x} = 3.19), bulk buying of essential inputs such as seed, fertilizer and pesticides and sale to members at a price below the price they would pay alone (\bar{x} = 3.13) and renting out machinery and implements to members at affordable prices (\bar{x} = 3.00) were the major forms of contributions of women cooperative societies to agricultural livelihood activities of women farmers in the study area. This finding is in consonance with those of Aju and Adeosun (2021) and Onega (2017) who reported that cooperatives are involved in the provision of farm inputs and other forms of support for agricultural livelihood activities of participants in rural and urban areas in Nigeria.

Significant differences in the mean ratings of respondents on the contributions of women cooperative societies to the agricultural livelihood activities of women farmers

The ANOVA result in Table 3 shows that there is significant difference in the mean ratings of respondents on the contributions of women cooperative societies to the agricultural livelihood activities of women farmers at 1% level of significance. This implies that the women farmers significantly differ in their responses on the contributions of women cooperative societies to agricultural livelihood activities in the study area. This further suggests that the respondents vary in their assessment of the contributions of women cooperative societies to agricultural livelihood activities in the study area. This could be attributed to the perceived benefits and overall impact of the programme on the women farmers.

Conclusion

The study shows that women cooperative societies

contributed significantly to the agricultural livelihood activities of women farmers through subsidizing the price of agricultural raw materials to farming cooperative women and bulk buying of essential inputs such as seed, fertilizer and pesticides and sale to members at affordable prices. It further shows that borrowing from informal money lending institutions, retained earning, membership fee and borrowing from Microfinance banks were the major ways through which funds are raised by the women cooperative societies in the study area. The study therefore recommended that there is need for the government to provide credit facilities to the women cooperatives at a reduced/no interest rate in order to facilitate cooperative activities, boost agricultural livelihood activities and increase agricultural productivity.

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Table 1: Mean responses of respondents on how funds are being raised by women cooperative societies in the study area

How funds are being raised in cooperatives	Strongly agree	Agree	Disagree	Strongly disagree	Mean score	Remark
Membership fee	36	31	22	11	2.92	Accepted
Common or preferred stocks	21	42	34	3	2.81	Accepted
Bonds	23	40	25	12	2.74	Accepted
Borrowing from commercial banks	21	39	30	10	2.71	Accepted
Borrowing from microfinance banks	7	52	40	1	2.65	Accepted
Borrowing from informal money lending institutions	49	26	21	4	3.20	Accepted
Retained earning	45	27	24	4	3.13	Accepted
Loan default charges	23	37	38	2	2.81	Accepted
Equity capital	35	44	15	6	3.08	Accepted
Grand mean score					2.89	
Number of respondents					100	
Decision cut-point mean					2.50	

Source: Field survey data, 2021

Table 2: Mean responses of women farmers on the contributions of women cooperative societies to agricultural livelihood activities in the study area

Contributions of women cooperative societies to agricultural livelihood activities	Strongly agree	Agree	Disagree	Strongly disagree	Mean score	Remark
Bulk buying of essential inputs such as seed, fertilizer and pesticides and sale to members at a price below the price they would pay alone	40	38	17	5	3.13	Accepted
Renting out machinery and implements to members at affordable price	39	30	23	8	3.00	Accepted
Negotiating affordable prices for members before they buy raw materials from suppliers	27	33	36	4	2.83	Accepted
Always making sure the agricultural raw materials deal is fair for the cooperative members	29	40	25	6	2.92	Accepted
Using collective bargaining approach to provide agricultural raw materials to farming cooperative women	34	30	28	8	2.90	Accepted
Subsidizing the price of agricultural raw materials to farming cooperative women	41	40	16	3	3.19	Accepted
Grand mean score					3.00	
Number of respondents					100	
Decision mean cut-point					2.50	

Source: Field survey data, 2021

Table 3: ANOVA result for test of significance difference in the mean ratings of respondents on the contributions of women cooperative societies to the agricultural livelihood activities of women farmers in the study area

	Sum of Squares	Df	Mean Square	F _{cal}	F _{tab}	Sig.
Between Groups	6.621	3	2.207			
Within Groups	40.106	96	0.418	5.283	3.04***	0.001
Total	46.727	99				

Note: *** = Significant at 1% level; Df = Degree of freedom. H₀ is rejected at 0.05 level