

Assessment of Rice Producers Cooperative in Ukum Local Government Area, Benue State Nigeria

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Abstract

The study assessed rice producers' cooperative in Ukum Local Government Area of Benue State. A total of 120 respondents were selected for the study using purposive sampling technique. Data for the study were collected by the use of structured questionnaire and analyzed using descriptive statistics such as frequency distribution, percentages mean statistics and Likert scale. The result of the findings revealed that majority (82%) of the respondent were males and 74.2% married. The Major roles performed by rice producers' cooperatives are facilitating members' access to land ($M = 4.49$), Communal manual weeding ($M=4.43$) and Assists members with farm implements ($M=4.30$). Poor market infrastructure ($M=2.93$) and Poor access to extension services ($M=2.88$) were the major problems affecting respondents. Furthermore, improved market infrastructure ($M=3.53$) and improved extension contact ($M=3.49$) were factors revealed that enhance the performance of rice producers. The study therefore recommend that government should provide storage facilities to rice producers in order to store their grains. Good processing facilities should be made available to rice producers cooperative in order to encourage value chain transformation and value addition, government should provide quality extension service delivery that is capable of diffusing technological innovations, as this will improve output of rice producers in the study area.

Introduction

Rice is a staple food, it is consume in almost every homes in Nigeria. It has always been on the high side of demand across the country. The three rice production environments and their coverage are; rain-fed lowland (having a percentage of 69.0%), irrigated lowland (2.7%) and rain fed upland (28.3%) [1]. More than 90% of rice production in Nigeria is done by resource poor, small scale farmers while the remaining 10% is produced by commercial farmers. In 2016, the quantity of local rice production in Nigeria was estimated at 4.8 million tonnes (Food and Agriculture Organization-FAO, 2016), about 95% of rice processed in Nigeria is by small level farmers and they operate in low capacity with obsolete mills [2]. The major rice milling is done in lafia, nasarawa state that has about seven hundred mills. Most of the milling is done by cooperatives -small groups that are formed for various purposes, ranging from agriculture to other ventures. The Government of Nigeria through the Federal Ministry of Agriculture and Rural development has expressed strong commitment to ensuring that rice production is accelerated to the level where the country becomes self-sufficient [3]. Improved rice production technology has been

widely recognized as a critical input for increasing rice production in the country [4]. In view of this, efforts have been made by the Government of Nigeria to ensure that farmers across the country access improved production technology through extension services [5]. Moreover, rice farmers are being encouraged to form commodity associations to enhance adoption of improved rice production technology and increased income through better access to extension services and critical farm inputs [6]. This is based on the premise that rice farmers who are members of Rice Farmers' Association perform better than non-members. Several studies have revealed that farmers' group membership played significant roles in the adoption process.

According to (Independent Computing Architecture, 2013) agricultural cooperative is "an autonomous association of farmers who are united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise [7]. Agricultural cooperatives may include producers cooperative societies, consumers cooperative societies, marketing cooperative societies, insurance cooperative

societies, housing cooperative societies, cooperative farming societies, credit societies and among others. Research published by the (World watch 2012) found out that approximately one billion people in 96 countries had become members of at least one cooperative [8]. The turnover of the largest three hundred cooperatives in the world reached \$2.2 trillion according to (The World Co-operative Monitor). Cooperatives frequently have social goals which they aim to accomplish by investing a proportion of trading profits back into their communities. An agricultural cooperative, is a cooperative where farmers pool their resources in certain areas of activity, he further identified agricultural loans as a factor which enables rice growers to increase productivity and improve their well-being. Similarly, Suleimana and Adjei (2015) found that microfinance services have significantly played a vital role in increasing agricultural production [9]. In addition, Mavimbela et al (2010) indicated that financial services from agricultural, Savings and Credit Co-Operative Society (SACCOs) have a positive contribution towards food production since they enhance the farmers' ability to purchase farm implements [10]. According to Aliou and Zeller (2001), access to credit can significantly increase the ability of poor households to acquire agricultural inputs, also, it reduces the opportunity costs of capital-intensive assets relative to family labour, thus encouraging labour-saving technologies and raising labour productivity Through cooperative association rural farmers can access agricultural services and enhance productivity for attaining food security and improving their income [11, 12]. Based on the selected studies, it is evident that agricultural cooperative plays a big role in increasing the level of productivity at the farm level. Agricultural credit accessed from cooperate institutions appears to be an essential input along with modern technology for higher output. Rice farmers are being encouraged to form participatory development approach to enhance adoption of improved rice production technology and increased income through better access to extension services and critical farm inputs.

Methodology

Study Area: The study area is Ukum Local Government Area of Benue State in Nigeria. Ukum local government was carved out of Katsina-Ala local government area in 1991. It lies between latitude 07033'N and 09045'E (Abu 2010) [13]. It has a land area of 1810.99km² and a population of 216,930 per square meter based on 2006 census (CBN 2007). Ukum local government area is located at northern part of Benue state. It borders to the east by Wukari local government area of Taraba state and south east and west by Katsina-Ala and logo local government area respectively. The local government area has thirteen council wards and its headquarters is Sankera. The council wards include: Aterayange, Azendeshi, Boikyo, Kundav, Kendev, Lumbur, Mbatiam, Mbayenge, Mbazum, Tsaav, Tyuluv, Ugbaam, and Uyam.

There are two distinct climate seasons in this area; rainy season from March to October and dry season from November to February. Because of abundant rainfall experienced in this area coupled with the fertile soil available, farming is the predominant occupation of the people living in the area. Agricultural crops such as rice, cowpea, sorghum, tomatoes, and yam are produce in the study area.

Sampling Technique

Purposive sampling technique was used in collection of data. Questionnaire was administered in eight (8) wards in Ukum Local Government Area of Benue State because of rice producers' availability, existences of cooperative societies as well as the fertile land and water log soil in the area. Fifteen (15) farmers' were selected randomly from each ward. Which give a total of 120 respondents.

Data Collection

The primary source of data was generated using structured questionnaire which was administered in the sampled area.

Data Analysis Technique

Objectives 1 and 2 was analysed using descriptive statistics such as frequency and percentage, Objective 3 and 4 was analysed using Likert scale.

Results and Discussion

Socio-economic Characteristic of the Respondents Distribution of the Respondents by Sex

Results in [Table 1] shows that majority (82.5%) of the respondents were male, while 17.5% were female. This means that rice producers cooperative in Ukum Local Government Area of Benue State have more male membership than female. The sex distribution could be because of the intensive work involved in the production, and male explore more means of generating income and are stronger in performing farm activities to meet the needs of the household. A similar result of relatively small number of female indulging in rice farming have been reported in past studies by [14].

Distribution of the Respondents by Age

[Table 1] also shows that 35.8% of the respondents were within the age range of 30 to 40 years, while 46.7% of them were between 41 and 50 years, 10.8% fell within 51-60 years and those that fall within 61-70 years are 6.7%. This reveals that members of cooperative society are the youth and their involvement in cooperative will enhance rice production in the study area, this finding collaborates with (Adeleye 2016) who in his research on membership of rice farmers association and adoption of improved rice production technology in Kaduna found out that, the average of members of rice farmers association was 41 years and 55 years for non-members [15].

Distribution of the Respondents by Marital Status

Result in Table 1 indicate that (74.2%) of the respondents were married, while about 17.5% were single, 5.0 % were widowed and 4.3% were divorced. This distribution reveals that rice producers cooperative in the study area are dominated by married men and women. This is in line with Mabel (2014) who in her study on enhancing Performance of farmers' Cooperative in Rice Innovation System in Enugu State, Nigeria found that greater proportions (88.6%) of the respondents were married, 2 % divorced, 8.0 % single and 2.0 % widow [16].

Distribution of the Respondents by Level of Education

[Table 1] shows that a higher proportion 80% of the farmers were educated. Specifically, about 55% had primary education, 15% had

secondary education, 10 % had tertiary education. Only 20% had no formal education. This implies that members of rice cooperative society can assess support of various kinds from formal institutions which would improve the rice farmer's cooperative activities such as rice production. This is in agreement with (Attah 2012) who report that farmers' level of education is expected to influence them to adopt new innovations and to make decisions on various aspects of farming [17].

Distribution of the Respondents by Farmers Experiences

As shown in the [Table 1], 62.5 % of the respondents had 1-10 years' experience in farming, 37.5 % had 11-20 years of experience based on the findings, it is clear that majority of the farmers had considerable years of farming experience which is advantageous in their production processes.

Distribution of the Respondents by Farm Size

[Table 1] below reveal that 81.7 % of the respondents cultivated on 1 to 3 hectares of land, while 17.5 % cultivated on 4 to 6 hectares of land, while 0.8 % cultivated on 7 to 9 hectares of land. This result implies that members of cooperative society have relatively small size of land which makes them join cooperative societies to assess incentive available to members of cooperative thereby improving their productivity and living standard. This result is in line with Kangile (2015) who in his study on Efficiency in Production by Smallholder Rice Farmers under Cooperative Schemes in Pwani and Morogoro Regions, Morogoro, found that majority of rice farmers have relatively small land size [18].

Distribution of the Respondents by Rice Harvested (Bags) Annually

Entries in [Table 1] shows that a greater proportion of (53.3%) of the respondents harvested between 1 to 10 bags and 15.8% harvested between 11 to 20 bags, 15 % respondents harvested the total of 21 to 30 bags, 2.5 % respondents harvested about 31 to 40 bags while 4.2 % and 9.2 % respondents harvested 41 to 50 and 51 to 60 bags respectively. Low productivity in the study area could be as a result of poor extension services, poor government support. This result is in agreement with (Odoemenem et-al, 2010) who found that low productivity of rice farmers is occasioned by the use of low technologically empowered agricultural equipment which does not support large production [19].

Distribution of the Respondents by Extension Agent Visit

Result in table 1 shows that total respondents 120 (100%) had not been visited by extension agents. The significant proportion of rice producers' cooperative not visited could either be because they are not recognized or extension services are not available in the study area. This is similar to Joseph (2009) who in his research on Rice innovation system operation in Igbemo Ekiti, Nigeria. Found that higher proportion of farmers do not have access to extension service [20].

Distribution of the Respondents by Household Size

[Table 1] shows that the majority of the respondents have small household size. 75% of respondents have 2-4 household size, 24.2% have 5-7 household sizes. Similarly, 0.8% had household size of 8-10. This indicates that the respondents have fairly small household size which give rise to hired labour.

Table 1: Socio-Economics Characteristics of Respondent in Ukum

Variables	Frequency	Percentage (%)
Sex		
Male	99	82.5
Female	21	17.5
Total	120	100.0
Age		
30-40	43	35.8
41-50	56	46.7
51-60	13	10.8
61-70	8	6.7
Total	120	100.0
Marital Status		
Single	21	17.5
Married	89	74.2
Divorced	4	4.3
Widow	6	5.0
Total	120	100
Level of Education		
No formal education	24	20.0

Primary education	66	55.0
Secondary education	18	15.0
Tertiary education	12	10.0
Total	120	100
Years of Experience		
1-10	75	62.5
11-20	45	37.5
Total	120	100.0
No of Hectare		
1-3	98	81.7
4-6	21	17.5
7-9	1	0.8
Total	120	100.0
No of bags		
1-10	64	53.3
11-20		
21-30	19	
18		15.8
15.0		
31-40	3	2.5
41-50	5	4.2
51-60	11	9.2
Total	120	100.0
Visited by extension agents		
Yes	0	0
No	120	100.0
Total	120	100.0
Household size		
2-4	90	75.0
5-7	29	24.2
8-10	1	0.8
Total	120	100.0

Source: Field Survey

Roles Performed by Rice Production Farmers' Cooperative

Result in [Table 2] shows the major roles performed by rice producers' cooperatives which are: Facilitate members' access to land (M=4.49), Assists members with farm implements examples knap sack. (M=4.30), Communal manual wedding (M=4.43), Help in preparation of nursery/transplanting (M=4.26), Facilitate credit procurement (M=4.17), Facilitate interactions/sharing of innova-

tion (M=4.21), Assist members with access to inputs (seeds, fertilizer) (M=4.17) and Clearing of land in group for reduce price (M=4.15). While Facilitate training on efficient nutrient use at low price (M=1.00), Provision of insurance for crops failure (M=1.25), and ensuring cheap access to irrigation facilities (M=1.01) were not performed by rice farmers production cooperative in the study area.

Table 2: Mean Distribution of Roles Performed by Rice Producers Cooperative.

Variables	Mean	Standard deviation
Facilitate members access to land	4.49	.710
Assists members with farm implements examples knap sack.	4.30	.656
Facilitate training on efficient nutrient use at low price	1.00	.000
Communal manual wedding	4.43	.775
Help in preparation of nursery/transplanting	4.26	.704
Facilitate credit procurement	4.17	.853
Facilitate interactions/sharing of innovation	4.21	.829
Assist members with access to inputs (seeds, fertilizer)	4.17	.678
Clearing of land in group for reduce price	4.15	.763
Provision of insurance for crops failure	1.25	.677
Ensure easy access to irrigation facilities	1.01	.091

Source: Field Survey

Problems that Affect Rice Farmers Cooperative.

Data in [Table 3] revealed the perceived problems affecting rice producers' cooperative in the study area. The major problem were; Poor market infrastructure (2.93), poor access to extension services (2.88), poor funding (2.79), poor knowledge of rice production (2.76), inadequate government support (2.76). However, Poor institution linkage, poor leadership of cooperative business, low literacy level of members were not found to be pressing problems

of the respondents. The Serious problem encountered by rice farmers cooperative were Poor market infrastructure (2.93) and Poor access to extension services (2.88), this result is in agreement with Samson et al. (2017) who in his study found that there are no extension workers and farmers are unaware of new varieties of rice seedlings. He then recommended that government should make extension agent available in farming communities [21].

Table 3: Problems that affect Performance of Rice Producers Cooperative

	Problem freq	%	Neutral Freq	%	Not problem Freq	%	Mean	Rank
Low literacy level of members.	17	14.2	34	28.3	69	57.5	1.57	9
Poor market infrastructure.	112	93.3	7	5.8	1	8	2.93	1
Poor access to extension services.	109	90.8	8	6.7	3	2.5	2.88	2
Poor maintenance of production implements.	37	30.8	51	42.5	32	26.7	2.04	6
Poor knowledge of rice production.	100	83.3	11	9.2	9	7.5	2.76	4
Poor leadership of cooperative business	16	13.3	59	49.2	45	37.5	1.76	8
Poor institution linkage.	32	26.7	50	41.7	38	31.7	1.95	7
Poor funding.	102	85.0	11	9.2	7	5.8	2.79	3
Inadequate government support.	96	80.0	19	15.8	5	4.2	2.76	5

Source: Field Survey

Factors for Enhancing the Performance of Rice Producers Cooperative

[Table 4] shows the perceived factors for enhancing the performance of rice producers' cooperative societies. The respondents' strong perceived factors for enhancing performance of rice producers cooperative were: Improved market infrastructure (3.53), Improved extension contact (3.49), Provision of training on rice production (3.38), improved access to credit (3.35), Improved government support (3.33), Provision of income diversification oppor-

tunities (3.32). Other perceived factors such as Enhance linkage/interaction with relevant institution, leasing out land to farmers' cooperative by government, Training of leader on management of cooperative business, improved coordination of cooperatives, Provision of training for members on cooperative education were not perceived as factors for enhancing rice production. Improved market infrastructure with the highest score of (3.53). This means that all perceived improved market infrastructure as a basic factor for enhancing rice production.

Table 4: Factors for Enhancing the Performance of Rice Producers' Cooperative

	S.A	A	S.DA	DA	TOTAL	SD	MEAN	RANK
Training of leader on management of cooperative business	14	9	37	60	120	.930	2.00	12
Improved extension contact.	44	67	2	7	120	.674	3.49	2
Improved coordination of cooperatives	31	25.8	16	46	120	1.015	2.61	8
Improved access to credit.	60	47	5	8	120	.785	3.35	5
Leasing out land to farmers' cooperative by government	18	18	42	42	120	1.048	2.10	11
Enhance linkage/interaction with relevant institution and among cooperatives.	23	18	43	36	120	1.120	2.18	10
Provision of training on rice production.	64	41	3	12	120	.769	3.38	4
Provision of income diversification opportunities	25	24	36	35	120	1.115	2.32	9
Improved market infrastructure	72	42	2	4	120	.647	3.53	1
Improved government support	50	62	2	6	120	.653	3.33	6
Improved access to inputs supplied	72	30	7	11	120	.882	3.39	3
Provision of training for members on cooperative education	58	50p	10	2	120	.990	3.00	7

Source: Field Survey

Recommendations

In order to improve rice production in Ukum Local Government and Nigeria at large; the following recommendations were made:

1. Extension service is key to effective economics empowerment. As such government should provide quality extension service delivery that is capable of diffusing technological and innovations. Similarly, government should hire the services of competent facilitators that can impact knowledge to rice producer farmers' cooperative in the study area.
2. Government should provide good storage facilities to rice producers in order to store their produces, good processing facilities should be made available in order to encourage value chain transformation and value addition.
3. Government should provide farming inputs such as improved seeds, fertilizers, herbicides, irrigation facilities etc. At a subsidized cost, which will in turn enhance rice production.

Conclusion

Rice producers cooperative are dominated by male farmers of productive age and considerable years of farming experience in rice production. Structurally, rice farmers' cooperative have adequate

leadership and are democratically organized. The activities of rice farmers' cooperative are negatively affected by poor extension services, market infrastructure, and lack of government support. Hence, access to sustainable Extension service, strong policy support, adequate training and leadership orientation are expedient for enhanced performance of rice producers cooperative.

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