

EFFECT OF COOPERATIVE SOCIETIES ON AGRICULTURAL PRODUCTION IN KWARA STATE, NIGERIA

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ABSTRACT

This study assessed the effects of cooperative societies on agricultural Production of farmers in Kwara State, Nigeria. The study randomly selected 140 farmer cooperators for the study. Data was collected with an interview schedule and analysed with frequency count, percentage, mean and standard deviation and regression tools. The study found that majority (68.0%) were married. Top activities carried out by cooperative societies were crop production information (mean=4.53) ranked first, group farming (mean=4.53) ranked second, credit facilities (mean=4.47) ranked third. The contribution of cooperatives to agricultural production were rated as procure farm input for members (mean=4.58) first position, increase in quantity and quality of farm output and access to storage facilities (mean=4.48) second position respectively. Constraints limiting the contribution of cooperatives to agricultural production to include lack of skilled personal (mean=4.57), corruption and fraudulent officers (mean=4.54) and inadequate infrastructural facilities (mean=4.53). Regression analysis show that socio-economic factors significantly influenced the contribution derived from cooperative societies ($R^2 = 0.650$, $F = 28.932$, $p < 0.01$). This study concluded that membership of agricultural cooperatives has significantly affected agricultural development through improved procurement of farm input for members, increase in quantity and quality of farm output for members and access to storage facilities for members of farmers in the study area. It is recommended that government extension agencies and concern private sectors should ensure adequate and sufficient provision of resources especially credit facilities farmer cooperatives in the study area.

Keywords: extension information, farm input, skilled personal, years of membership

INTRODUCTION

Agriculture is the mainstay of Nigeria economy, the major source of livelihood of the rural people. The role of agriculture in providing employment and livelihood development of farmers in Nigeria cannot be over-emphasized (Komolafe *et al.*, 2022). The roles of cooperatives in agricultural production are important topic of study and much has been done by scholars and co-operators to justify its prime role of securing economic

and political development in the country. The improvement of agricultural production through co-operative has economic effect in that; co-operative enterprise brings better yield which in turn yield better standard of living for the members and their families.

Cooperative has been practiced globally over the years either as formal or informal institutions. The concept of farmers' cooperatives is a function of the roles they are expected to perform in such economy that helps to determine the level of economic development and poverty in such a nation (Adekola *et al.* 2022). Some writers described cooperatives as a strong organization where different entrepreneurs like farmers contribute their resources together with the view of making profit (Nicky, 2018). Other authors, sees it as voluntary economic institution in which members share the earned dividends – the financial benefit that results from doing business with or without profit. Some writers see cooperative organization as an industrial organization where a number of people may combine as consumers to produce a commodity, the proceeds of which are distributed among the participants.

Cooperatives are usually organized by members like traders, artisan and peasant farmers who contribute money into a joint fund in order to raise investment, finance and distribute same as soft loans to members. So, the main purpose of this type of cooperative society is to encourage savings among members and also offer credit facilities to members to enable them engage in economic activities (Tilahun *et al.*, 2016). Cooperatives also play significant role in the provision of service, credit, innovative that helps enhance development in farming. Farmers are able to achieve what they might not be able to achieve while working as independently, but through joint effort of contributing to the cooperative society, farm development can be achieved. Historically, cooperatives have developed in the response to some different situations and its solution should be the aim of the formation of any cooperative societies. The birth of cooperatives is associated with the people who experience some hardship and were under privileged as compared with other people, the present developing countries are under privileged as compared to advanced countries. Their people are in poorer condition and they experience low standard of living, secondly, even within any one of these countries, there are two major groups, urban farmers enjoy modern

amenities like tarred road, pipe borne water, electricity etc. According to the International Cooperative Alliance (2018), cooperative is an autonomous association of persons united voluntarily to meet their common social and cultural needs and aspiration through a jointly owned and democratically controlled enterprise.

Previous studies have shown that cooperative mainly carry out the function of credit delivery to farmers but there is ample evidence that farmers face difficulties in obtaining credit and the problem of sourcing for capital still lingers on the fall in agricultural production, this could be attributed to the inadequate infrastructure, under mechanization and inadequate capital (Adegoke and Agbasi, 2022; Komolafe et al., 2020). Toluwase and Apata (2013) suggested agricultural cooperative as a means to shorten the gap as well as rural transformation of agricultural sector as a part of dynamic social order since extension services have not been able to reach out to all the rural farmers. There is need therefore, to access the contribution of cooperative societies to rural farming on their productivity, source of agricultural information and means of loan security.

In Kwara state, a good number of inhabitants survive through substantial farming; which attracted the formation of many co-operatives, and their aim is to improve the agricultural production. In Ekiti and Ilorin South Local Government Areas, co-operatives provide locally needed services and inputs to farmers, they also serve as a medium in which government distribute essential commodities and inputs needed by farmers for the facilitation of their output. Nlebem and Raji (2019) noted that agricultural co-operative societies are involved in so many aspects of agricultural activities directed at giving farmer the support to rise their productivity and income level. In order to highlight the contributions of co-operatives towards the production of agriculture, this study was hence carried out. This study is geared toward finding out the effect and how cooperative societies are helping to alleviate these problems and to bring about agricultural development in Ekiti Local Government Area of Kwara State with reference to agriculture cooperatives societies.

The main objective of this study is to analyze the effect of farmer's co-operative societies on agricultural production of farmers in Kwara State. The specific objectives were to (i) describe the socio-economic characteristics of members of the co-operative societies, (ii) identify the activities carried out by the co-operatives societies, (iii) examine the effect of co-operatives on agricultural production, and (iv) identify the constraints that hindered the contribution of co-operatives to agricultural production. Hypothesis of the study (H₀): There is no significant relationship between socio-economic characteristic and the contribution derived from cooperative societies among farmers.

METHODOLOGY

This study was conducted in Kwara State. Kwara State has 16 Local Government Areas, and the study has decided to make Ekiti Local Government and Ilorin South Local Government its case study, Ekiti is a Local Government Area in Kwara State Nigeria, likewise Ilorin South. Ekiti Local Government headquarters are in the town of Araromi Opin. It has an area of 480 km² and a population of 54,850 at the 2006 census, the sixteen communities that made up the local government are: - Aare-Opin, Isolo-Opin, Osi, Isare-Opin, Ikerin-Opin, Oke-Opin, Epe-Opin, Owaatun-Opin, Etan, Obbo-Aiyegunle, Obbo-ile, Isapa, Koro, Ejju and Eruku, Ilorin South Local Government headquarters are in town of Suburb fufu. The eight communities that made up the local government are:-Gambari, Fufu, Adeta, Gaa akanbi, Sango, Fate, Tanke, Garage.

The population of the study comprises of all the registered and active farmers' in cooperative societies in Ekiti Local Government Area and Ilorin South Local Government Area. The researcher purposefully selected all the farmer's co-operative societies from Aare-Opin, Isolo-Opin, Oke-Opin and Ejju based on their accessibility and manageability, the result however gave a total of seventeen (17) co-operative societies with two hundred and sixteen (216) members.

Taro Yamani's formula was used to determine the sample size.

$$\text{Formular: } n = \frac{N}{1 + N(e)^2}$$

where: - N = 216

$$e = 0.05$$

$$n = \frac{216}{1 + 216(0.05)^2}$$

$$= \frac{216}{1.54}$$

$$= 140.25$$

From the above calculation, one hundred and forty (140) respondents were used for the study. An interview schedule was designed in line with the objectives of the study and used to collect data for the study. Descriptive statistics such as mean, percentage, frequency distribution and scale analysis will be used to present and discuss data while regression analysis was employed to test hypothesis stated.

RESULTS AND DISCUSSION

Socio-economic Characteristics of Respondents

Results presented in Table 1 show that 52.0% of the respondents were male and 48.0% were female. This implies that agricultural cooperative societies in Kwara state is dominantly mixed gender. On age of the respondents, results show that 42.0% were aged between 25 to 50 years and 51 and above respectively. Majority (68.0%) were married. Most (63.3%) of the respondents had family size between 5 – 10 persons. Appreciable number of the respondents had (47.3%) primary education. Also, 21.3% had secondary education and 26.7% had tertiary education. This finding confirms

report by Akangbe *et al.*, (2012) who reported most farmer cooperators attained adult/primary education. This shows that cooperators are literate. More than half of the respondents (52.0%) cultivate between 1 to 3 hectares of land, implying the cooperators are small scale farmers. A significant number (36.7%) earned between 101,000 – 500,000 Naira. This could be a

reflection of the size of farm cultivated. Regarding years of membership in agricultural cooperative, 26.7% had between 1 to 10 years of membership, 47.3% had been between 11 to 20 years of membership while 26.0% had between above 20 years of membership. The primary occupations of the respondents were farming (42.0%), trading (31.3%), and civil servant (10.7%).

Table 1: Socio-economic characteristics of respondents

Variables	Frequency (n=150)	Percentage
Gender		
Male	78	52.0
Female	72	48.0
Age (years)		
Less than 25	24	16.0
25 – 50	63	42.0
Above 51	63	42.0
Marital status		
Single	32	21.3
Married	102	68.0
Divorced	16	10.7
Family size		
Less than 5	47	31.3
5 – 10	95	63.3
Above 10	8	5.3
Educational status		
No formal education	7	4.7
Primary education	71	47.3
Secondary education	32	21.3
Tertiary education	40	26.7
Farm size (hectares)		
Less than 1.0	40	26.7
1.0 – 3.0	78	52.0
Above 3.0	32	21.3
Annual farm income (Naira)		
Less than 100,000	32	21.3
101,000 – 500,000	55	36.7
501,000 – 1,000,000	39	26.0
1,100,000 – 5,000,000	24	16.0
Years of membership		
1-10	40	26.7
11 – 20	71	47.3
Above 20	39	26.0
Primary occupation		
Civil servant	16	10.7
Farming	63	42.0
Trading	47	31.3
Artisan	8	5.3
Others	16	10.7

Source: Field survey, 2022

Activities carried out by cooperative societies

The ranking order of activities carried out by cooperative societies as indicated in Table 2 show that crop production information (mean=4.53) ranked first, group farming (mean=4.53) ranked second, credit facilities (mean=4.47) ranked third, marketing of

produce (mean=4.37) ranked fourth, and supply of farm inputs (mean=4.32). This finding implies that crop production information, group farming, credit facilities, marketing of produce, and supply of farm inputs were the leading activities carried out by agricultural cooperative societies in the study area.

Table 2: Activities carried out by cooperative societies

Activities	Mean(SD)	Rank
Group farming	4.53(.501)	2 nd
Supply of farm inputs	4.32(.468)	5 th
Group storage	3.01(1.454)	9 th
Group processing	4.20(.955)	6 th
Credit facilities	4.47(.501)	3 rd
Livestock enterprises	3.84(1.147)	7 th
Insurance service	2.36(1.045)	10 th
Health care service	2.16(.997)	11 th
Transport scheme	3.69(.926)	8 th
Marketing of produce	4.37(.484)	4 th
Crop extension information	4.53(.501)	1 st

Source: Field survey, 2022

Scale used: strongly agree=5, agree=4, undecided=3, disagree=2, strongly disagree=1

Contribution of cooperatives to agricultural production

For the contribution of cooperatives to agricultural production, Table 3 revealed that respondents rated procure farm input for member (mean=4.58) first position, increase in quantity and quality of farm output and access to storage facilities (mean=4.48) second position respectively, improved living condition (mean=4.42) fourth position, and training on modern agricultural techniques (mean=4.43). This implies that procure farm input for member, increase in quantity and

quality of farm output and access to storage facilities, improved living condition, and training on modern agricultural techniques were the leading contributions of cooperative societies to farmers in the study area. These findings is in line with several studies that had reported a high contributions of agricultural cooperatives to members in the areas of trainings, and the supply of inputs (Tumenta *et al.*, 2021), marketing of farm produces (Ingrid *et al.*, 2018), and agricultural productivity (Adekunle 2018).

Table 3: Contribution of cooperatives to agricultural production

Contributions	Mean(SD)	Ranking
Procure farm input for member	4.58(.496)	1 st
Access to credit facilities	4.37(.484)	6 th
Training on modern agricultural techniques	4.43(.496)	5 th
Increase in quantity and quality of farm output	4.48(.501)	2 nd
Mobilization of savings	4.07(.887)	8 th
Improved living condition	4.42(.495)	4 th
Increase income	2.99(1.179)	9 th
Employment	2.73(.633)	10 th
Access to farm implement	4.21(.609)	7 th
Access to storage facilities	4.48(.501)	2 nd

Source: Field survey, 2022

Scale used: very high=5, high=4, moderate=3, low=2, very low=1

Constraints limiting the contribution of cooperatives to agricultural production

Results presented in Table 4 indicated constraints limiting the contribution of cooperatives to agricultural production to include lack of skilled personal (mean=3.57), corruption and fraudulent officers

(mean=3.54), inadequate infrastructural facilities (mean=3.53), mismanagement cooperative resources (mean=3.52), high illiterate level of members (mean=3.42), and inadequate capital accumulation (mean=3.32). Similar report by Olatinwo *et al.* (2014) indicated that farmer cooperators in Kwara state were

faced with constraints related to inadequate farm implements and inadequate financial assistance.

Table 4: Constraints limiting the contribution of cooperatives to agricultural production

Constraints	Mean (SD)	Rank
Inadequate capital accumulation	3.32(.571)	6 th
Unavailability of loan	1.88(1.419)	9 th
Mis-management cooperative resources by leader	3.52(.501)	4 th
Lack of skilled personal	3.57(.496)	1 st
Government interference	0.95(.758)	10 th
High rate of loan default	3.10(.918)	8 th
High illiterate level of members	3.42(.495)	5 th
Corruption and fraudulent officers	3.54(.672)	2 nd
Lack of cooperative and technical education	3.31(.569)	7 th
Inadequate infrastructural facilities	3.53(.501)	3 rd

Source: Field survey, 2022

Scale used: very severe=4, severe=3, less severe=2, not a constraint=1

Test of Hypothesis

Null hypothesis: There is no significant relationship between socio-economic characteristics and the contributions derived from cooperative societies among farmers.

Result from regression analysis in Table 5 shows that, some socio-economic factors significantly influenced the benefits derived from cooperative societies ($R^2 = 0.650$, $F = 28.932$, $p < 0.01$). For overall, the socio-economic characteristics predict 65.0% of the benefits derived from cooperative societies. Specifically, the coefficient of age (-0.894, $p < 0.01$) and other occupation (-0.144, $p < 0.05$) of the cooperators indicated negative significant relationship with benefits derived from cooperative societies while the coefficient of marital status (0.193, $p < 0.05$), farm size (0.498, $p < 0.01$), years of membership (0.814, $p < 0.01$) of cooperators showed positive significant relationship benefits derived from cooperative societies. By implication, 1 year increase in age and engagement in 1 additional non-farm occupation of the cooperators will decrease the possibility to derive the expected benefits of cooperative societies by 0.894 units and 0.144 units respectively. This finding is expected as aged cooperators may not be able to participate effectively as younger cooperators who could afford to participate in all activities that will earn them the opportunity to benefit maximally. Similarly in the case of engagement in additional

occupation not within the scope of agricultural cooperative, such livelihood diversification will limit cooperators commitment and participation in cooperative activities where cooperative benefits could be derived.

Regarding factors that show positive significance, it implies that any change in marital status, 1 hectare increase in farm size and 1 year increase in duration of cooperative membership will increase the possibility of cooperators to derive the expected benefits of cooperative societies by 0.193 units, 0.498 units and 0.814 units respectively. Based on these findings, this study suggests that married cooperators may have opportunity of family members to use as farm labour, thereby taking full opportunities of any benefits that require more labour to implement. Cooperators cultivating large hectares of crop land are often into commercial production thus, they take entrepreneurial in nature as take every opportunity that could increase farm production and income. On the years of membership, the longer the years of cooperators' membership, the more they are conversant and knowledgeable about cooperative benefits including when and how to claim them. Similar report by Adefila and Madaki (2014) has found that years of membership had significant correlation with the contributions of agricultural cooperative to members.

Table 5: Socio-economic predictors of contributions benefitted from cooperative societies

Predictors	Coef.	Std. Error	t-stat.	p-value
Sex	-.021	.020	-.371	.711
Age	-.894**	.034	-6.704	.000
Marital status	.193*	.030	2.055	.042
Household size	.118	.024	1.635	.104
Educational attainment	.133	.018	1.471	.144
Farm Size	.498**	.028	4.711	.000
Income	.128	.015	1.556	.122

Years of membership	.814**	.028	7.225	.000
Other occupation	-.144*	.011	-2.117	.036
(Constant)	3.690	.103	35.801	.000

Dependent variable: Contributions of cooperative societies

R=.806^a

R Square=.650 = **65.0%**

Adjusted R Square=.628

Std. Error of the Estimate=.11016

F stat.=28.932

P=0.000

**Significant at 1%; *Significant at 5%

Source: Field survey, 2022

Conclusion and Recommendations

Based on the findings of this study, it can be inferred that cooperators had long years of membership in cooperative societies. The leading activities carried out by cooperative societies were crop production information, group farming, credit facilities, marketing of produce and supply of farm inputs. The main contributions/benefits of cooperatives to agricultural produce were procurement of farm input for members, increase in quantity and quality of farm output for members and access to storage facilities for members. The foremost constraints limiting the contribution of cooperatives to agricultural production include lack of skilled personal, corruption and fraudulent officers, inadequate infrastructural facilities and mismanagement cooperative resources.

Based on findings of this study are the following recommendations: Government extension agencies and concern private sectors should ensure adequate and sufficient provision of resources especially credit facilities farmer cooperatives in the study area. To address the problem of corruption and fraudulent officers and mismanagement cooperative resources, extension agencies should design program towards adult education for the non-literate members, enlighten the importance and use of record keeping to ensure accountability and also to encourage democratic leadership style where members can elect members with integrity in the position of leaders.

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