



AGRICULTURAL COOPERATIVE AND RURAL POVERTY REDUCTION AMONG MEMBERS IN EKITI STATE, NIGERIA

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ABSTRACT: *This study investigated the link between agricultural cooperative and rural poverty reduction among members in Ekiti State. Primary data from the 330 copies of the questionnaire were distributed to rural farmers in the study area. Data obtained were analyzed using descriptive statistics, spearman correlation and paired sample T-Test to test the formulated hypotheses of the study at the 5% level. Results from the data analyzed shows that the correlation matrix between the variables (cooperative marketing, cooperative credit extension and cooperative farm input supply) revealed positive coefficient values of 0.111, 0.151 and 0.372 respectively. The implication of this is that there exists a significant positive relationship between the dependent and independent variables in the study area. This also explains that cooperative marketing, cooperative credit extension and cooperative farm input supply will help in reducing poverty in the study area. The study recommended that government should improve on the road infrastructure in the rural areas to create easy transportation of agricultural produce to city centers to further enhance rural income, government and relevant agencies are advised to make prompt and low interest rate credit facility available for farm business and should provide farmers with the needed input to boost farm business which can aid employment creation and also provide the farmers with the technical know-how through trainings and seminars on the use of implements/inputs that can be helpful to their farming.*

KEYWORDS: Agricultural Cooperative. Rural Poverty, Cooperative Credit, Farm Input, Cooperative marketing



INTRODUCTION

Most of the world's poor people live in the rural areas and earn their living from agriculture, and agriculture remains the major source of income and employment in rural areas and the majority of cooperatives are found in the agricultural sector. The cooperative form of enterprise which aggregates people's resources and capital into economic units, provides the rural population an option to organize and improve their livelihood by providing income and creating jobs. Cooperatives are globally known to be of great importance in the society, which have resulted in the upliftment of their members' economic conditions. The cooperative form of enterprise is flexible and so it can respond to the needs of its members. There is no doubt that there are global campaigns for poverty reduction sounding across the world, especially in the least developed economies. Agriculture is the mainstay of the least developed economies, underpinning their food security, export earnings and rural development (FAO 2002). One of the greatest challenges of such economies as Nigeria is poverty, and it is largely pronounced in rural areas. Poverty exists everywhere in the world, no country in the globe can boast of the absence of at least a single measure of poverty within her system.

Rural poverty refers to poverty found in rural areas, including factors of rural society, rural economy and rural political systems (absence of competitive market and public investment in physical and social

infrastructure) that give rise to the poverty found there. The rural areas, where the rural poor reside compared to the urban poor are grossly worse-off in terms of personal consumption and access to education, health care, potable water and sanitation. Agricultural cooperatives which is an association of farmers who collectively combine resources for various reasons especially aimed at improving farm income, can act as active agents to rural poverty reduction in Nigeria, they provide strong economic benefits to farmers (members) through sharing and pooling of resources, improve access to markets, higher returns for their products and strengthened bargaining position. Cooperatives or collective efforts in this direction can be seen as a type of organisation that meets fully all dimensions of poverty by creating opportunities for employment creation and income generating activities; opportunities to manage and reduce the disastrous consequences of some risks through collective effort. (International Cooperative Alliance/International Labour Organisation, 2005). This study is undertaken to ascertain the relevance of agricultural cooperation on rural poverty reduction in Ekiti State, Nigeria.

Statement of the Problem

The rural area is where most of the world's poor and hungry people live, they are predominantly farmers who rely heavily on agriculture as their main source of employment and income with no form of empowerment (IFAD, 2019). In the study area places like; Igbemo Ekiti, Igogo Ekiti, Abule Olode in Ogotun-Ekiti, Ikpao Ekiti and Itakpa Ekiti are rural areas that can be classified as poverty stricken environments. Poverty is written all over them in terms of physics, haggard looking, impoverished in nature, lack of employment opportunities which would have improved their living standard, children cannot go school, they cannot access the basic necessities due to low income and poor economic empowerment. Hence they needed an intervention, which Agricultural Cooperatives would solve. Though there is also poverty in the urban areas, but that of the rural areas is quite alarming even though there is labour in this area, there is nothing to show for it due to low or unimproved technology, no increase in yield from their subsistence farming which cannot guarantee them food security or generate income that



will enable them get capital assets that will help boost their economic status and improve their livelihood, also their inability to access anything from the government, and financial institutions not being able to release credit/loan for farming and agricultural activities have resulted to poor investment in the rural economy, which makes the poverty circle to always be there among the rural dwellers year in year out, thereby widening the poverty circle in these areas.

But with Agricultural cooperatives which is an association of farmers who have combined their resources together for the production and marketing of their produce. If these poor people (farmers) can come together to join Agricultural Cooperatives in the study areas, there will be pooling of resources, there could be credit access for future production, improved value chain added to their produce by the agricultural cooperative, access to timely quality farm inputs and employment opportunities because in agricultural cooperatives we have Marketing Cooperative which may bargain for better prices, handle, process or manufacture and sell farm products on behalf of members; Farm Supply Cooperative which may purchase in volume, manufacture, process or formulate and distribute farm supplies, provides energy, capital equipment, creates employment opportunities (seasonal and casual work, which could be skilled and unskilled) through the provision of farm inputs like fertilizers, seedling, education etc. and Service Cooperative which may provide services such as trucking, grinding, storage, drying, artificial insemination, irrigation, credit, utilities and insurance, thereby reducing the stress and hassles that their members would have gone through in getting quality farm inputs for better yield, getting viable market for their produce and having higher prices for their farm produce. There is no nation that has successfully wiped out poverty, but it can be reduced with agricultural cooperatives and its antecedents.

However, there has been no conclusive evidence as to the extent Agricultural Cooperatives have impacted on rural poverty reduction in Ekiti state. Empirical studies by Adebayo et al (2015), Oluwatayo (2010), Mokuolu (2017), Ogunsakin & Fawehinmi (2017) and Opafunso & Okhankhuele (2014): investigated palm oil production as a poverty alleviation strategy among small-scale farmers in Ekiti state; micro credit and household poverty status in rural Nigeria, experience from Ekiti state; microfinance banks as antidote to poverty alleviation in Nigeria, case study of Ekiti state; financial inclusion as an effective tool of poverty alleviation, a case of Ekiti State and assessment of the impact of government intervention projects on poverty alleviation/reduction in Ekiti state respectively, have shown that there has been significant improvement in the various poverty reduction programmes in the study area. But to the best of the researcher's knowledge none of this has been from the angle of using agricultural cooperatives in reducing rural poverty in the study area.

Objectives of the Study

The broad objective of this study is on Agricultural Cooperative and Rural Poverty Reduction among Members in Ekiti State, Nigeria.

The specific objectives includes to:

- i. Assess the influence of Agricultural Marketing Cooperative on income of rural members in Ekiti State.
- ii. Determine the extent to which Agricultural Cooperative credit extension influences the social welfare of rural members in Ekiti State.



- iii. Ascertain the influence of Farm Supply Cooperative on employment creation for rural members in Ekiti State.

Hypotheses of the Study

Based on the objectives of the study, the following null hypotheses were formulated:

H₀₁: Agricultural Marketing Cooperatives have no significant influence on income of rural members in Ekiti State.

H₀₂: Agricultural Cooperative credit extensions have no significant influence on the social welfare of rural members in Ekiti State.

H₀₃: Farm Supply Cooperatives have not significantly influenced employment creation for rural members in Ekiti State.

LITERATURE REVIEW

Conceptual Review

Agricultural Cooperatives

Agricultural cooperative is a formal form of farmers' collective action for marketing and processing of farm products and or for the purchase and production of farm inputs. They aim to increase members' production and income by helping them have better access and link to agricultural inputs and output markets, specialisation maybe in production, service provision, production or marketing or all of them (ILO 2008). Also, Boland (2019) explained that an agricultural cooperative is the coming together of farmers to pool their resources together in order to help one another in terms of production, marketing and sales. Agricultural cooperative enables farmers to improve products and services quality and reduce risk. They also empower their members economically and socially by improving them in decision making processes that create additional rural employment opportunities which supports the rural economy and enables them to become more resilient to economic and environmental shockers (Oyebode 2018). Agricultural cooperatives provide farmer members; assure markets and supplies, achieve economies of scale, and gain market power through jointly marketing, bargaining, processing, and purchasing supplies and services.

Empirical Review

Elem (2019) investigated the role of cooperative societies in ending poverty and hunger in Nigeria, with focus on women rice farmers' cooperative societies. Specifically, the study was carried out in 5 principal communities in Ikwo Local Government Area of Ebonyi State, South East Nigeria where 2 registered Women Rice farm cooperative societies were purposively selected from each of the five communities to give a total of 10 cooperative societies from the population of the study coupled with a well-structured questionnaire used to obtain data from the population under study. After analyzing the generated data with a descriptive method, the findings reveal that farmers' cooperative societies have the potential to end poverty and hunger in Nigeria but have been neglected by various agencies concerned. Most importantly, the study recommended that cooperative societies could be assisted by the government and non-



governmental institutions in making their own contribution towards ending poverty and hunger in the rural parts of Nigeria.

Idowu and Oladeji (2019) evaluated the effect of participation in agricultural cooperative associations on livelihood income and welfare of rural farmers in Osun State, Nigeria. Data were collected through multi-stage random sampling; descriptive statistics and Probit Regression Model analysis were used. It was observed that there were more male farmers (62.16%) than females (37.84%), the mean age of the farmers was 37 years and (67.57%) of the farmers were married. Households size was (54.59%) for (1-5) families with 45.95% having farming experience of 11-15 years. Majority of the farmers derived their income from agricultural activities (39.46%), though the primary occupation was not farming (57.84%). Income level was (42.6%) between 60,000-80,000 Naira monthly and a larger percentage (76.33%) are active members of co-operative associations. Credit accessibility was poor with 35.14%, a contributing factor to low welfare status and poverty.

The result of the Probit regression model showed that the coefficients of age, sex, years of education, level of monthly income, access to credit and size of the farm significantly affect participation in cooperative association in the study area. The coefficients of age, sex, size of the farm and access to credit were positive and significant at 1%, 5% and 10% respectively, while the coefficients of income level and level of education was negatively significant at 10%. Farmers in the study area also keep different types of livestock and domestic animals like Goat, Sheep, Fowls (poultry), Pig and Catfish as either major, alternative or additional sources of income. The study therefore recommended that cooperative societies should integrate adult education as part of their empowerment programmes so as to boost the literacy level of rural members. Also, short term loans, credit and inputs access inform empowerment should be made available to agricultural co-operative members so as to strengthen the bond in the association and to help increase the income level of cooperative members.

Fasakin and Popoola (2019) undertook the effect of participation in agriculture cooperative associations on livelihood income and welfare of farmers in Osun State, Nigeria. Primary data was used for the study; a multi stage random sampling technique was used for the survey. Structured questionnaires were administered to 185 respondents, in which the selection was randomly done based on Probability Proportionate to sizes (PPs). The study adopted the analytical method of descriptive analysis and Probit Regression Model. Evidence from the study shows that there were more male farmers than the female, with percentages of 62.16% and 37.84% respectively. Results of the probit regression model showed that the coefficient of age, sex, years of education, level of monthly income, access to credit and size of farm significantly affect participation in cooperative association in the study area. The coefficient of age, sex, size of farm and access to credit were positive and significant at 1%, 5% and 10% respectively, while the coefficient of income level and level of education was negatively significant at 10%.

Adekunle (2018) examined the effect of membership of group-farming cooperatives on farmers' food production and poverty status in Nigeria. This study used both secondary and primary data which were obtained through data survey, group discussion and administration of structured questionnaires to the selected non-group farmers in five (5) local government areas in Osun state. Descriptive statistics, probit regression and ordinary least square were employed during the analyses of the data. The findings revealed that, group-farming cooperatives have positive and statistically significant effects on food production at 5% level of significance;



prevalence of poverty is higher among non-members of group-farming cooperatives. Being a member of other forms of cooperative also helps to reduce poverty among the farming households. It was recommended that both the government and non-governmental organizations should develop strategies that will encourage participation in group-farming cooperatives and also create more awareness among farming households, which can motivate more farmers to partake in this form of farmers organizations.

Ndubueze-Ogaraku and Ike (2018) analysed the roles of farmers' cooperative society in Ogba/Egbema/Ndoni Local Government Area (ONELGA) of Rivers State, Nigeria. Random sampling and multistage sampling techniques were used to select 6 communities from 183 communities in ONELGA. Six cooperatives were randomly chosen from the six communities. Ten farmers were randomly selected from each of the six registered cooperatives in each community to give a total of sixty farmers. Primary data were collected using a structured questionnaire and interviews. Descriptive statistics such as frequency, ordinary least squares and regression model were used for data analysis. The population sample reveals that 55% of the farmers-cooperators were females with a mean age of 50years and 43.3% of them were illiterates. Mean household size of the farmers was approximately 8 persons, 58.3% of them were full time farmers. The mean farming experience of the cooperators was 20% with an average farm size of 13 hectares. Evidence from the study indicates that the volume of loan received by the cooperators and farm size positively influenced income revenue earned by the farmers while gender and major occupation of the cooperators negatively influenced the volume of revenue capital.

Theoretical Framework

Collective Action Theory

Collective action theory was propounded by Mancur Olson, an American economist and social scientist in 1965. The theory states that individuals under certain institutional arrangements and shared norms are capable of organizing and sustaining cooperation that advances the common interest of the group in which they belong. This line of thought recognizes that human beings can organize and govern themselves based on appropriate institutional arrangements and mutual agreements in a community of understanding. Hence collective action can be seen as a set of horizontal association between people, which consists of social networks and associated norms that produces an effect on the productivity of the community.

It is an action taken together by a group of people who have resolved to cooperate for mutual benefits with the aim of enhancing their socio economic status. From the economic perspective, the theory of collective action focuses on the provision of public goods and other collective consumption through the group action of people and the impact of externalities on group behaviour.



METHODOLOGY

Research Design

Descriptive survey research design was adopted for this study. Descriptive survey research is the design that focuses on people, the vital facts of people and their beliefs, opinions, attitudes, motivation and behaviour (Osuala, 2001).

Population of the Study

The population of the study is made up of all members of registered active agricultural cooperatives in selected rural areas in Ekiti State. There are sixteen (16) Local Government Areas in Ekiti State, with a total number of two thousand, nine hundred and thirty five (2,935) agricultural cooperative societies, with a membership strength of forty seven thousand, five hundred and ninety four (47,594) members in Ekiti

State, which will serve as the population of the study (Ekiti State Ministry of Commerce, Industry and Cooperatives, 2020).

Sample Size Determination

The sample size for this study was determined by the statistical formula developed by Yamane (1967) for finite population. The formula is given as:

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

Where, n = anticipated total sample size; N = the finite population size;

e = acceptable error term (at 0.05 or 5% level of significance)

To determine the sample size for agricultural cooperatives in Ekiti State, the total sample size will be calculated as follows:

$$n = \frac{47,594}{1 + 47,594(0.05)^2} = \frac{47,594}{119.985}$$

$$n = 396.6624 = 397 \text{ (Approx.)}. \text{ Hence the sample size is } 397$$

Sampling Technique

Multi stage sampling technique was adopted to determine the actual sample of the study, which was done in four (4) stages. In the first stage, a random selection of two geo political zones (South zone and North zone) from the three (3) geo political zones (South, Central and North) in Ekiti State. In the second stage, judgmental sampling was adopted to select 3 Local Government Areas from the selected two geo political zones of South and North zones. In the third stage, simple random sampling was used to select 2 towns each from the three (3) Local Government Areas in the selected two geo political zones, bringing the total number of selected



towns to 12. These towns were selected based on their recognition for being predominantly farmers. In the final stage, simple random sampling technique was employed to select two (2) agricultural cooperative societies, from each of the 12 towns to make a total of twenty four (24) Agricultural Cooperative Societies.

Source of Data

Primary data was used for this study and this was obtained through the administration of structured copies of questionnaires to all the members of each of the selected Agricultural Cooperative Societies.

Instrument of Data Collection

Structured questionnaire was used for collection of data. The questionnaire consisted of two parts (A and B), part A covered the background of the respondents, that is the socio economic profile of farmers who

are members of agricultural cooperatives, while part B covered research questions that relate to the specific objectives, bordering on agricultural cooperatives and rural poverty reduction.

Validity of Research Instrument

A measure has content validity if there is general consensus among researchers that the instrument includes items that cover all aspects of the variables measured (Rahman, 2001). As noted by Cooper and Schindler (2001) the content validity of an instrument is deemed to be good, if it contains a representative sample of the universe of the subject matter of interest. The research instrument was validated to ensure face and content quality, after undergoing series of scrutiny by the supervisor and some experts from the Department of Cooperative Economics and Management, Nnamdi Azikiwe University, Awka, Anambra State, to ascertain if the instrument contains questions that are relevant and in syntax with the objectives of the study. Their correction and suggestions were affected before copies of the questionnaires were administered to the respondents.

Reliability of Research Instrument

To ensure the reliability of the study, the researcher adopted the use of Cronbach’s alpha coefficient to test the reliability of the instrument. Cronbach’s alpha is the most common measure of reliability, a Cronbach alpha coefficient value greater than 0.70 is considered satisfactory.

Table 1: Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.781	.682	21

Source: *Researcher’s computation using SPSS version 20, 2021*



Method of Data Analysis

The analysis of data for this study was done based on the data gathered from the administration of a well-structured questionnaire. The data were analyzed in line with the drawn up hypotheses of the study. With the aid of SPSS version 20, descriptive statistics was used to describe the socioeconomic characteristics of the members through the use of frequencies counts, percentages and weighted mean. Inferential statistics using Spearman's Correlation were used to analyze the relationship between variables in the objectives that were formulated for the study and the hypotheses for the study were tested using paired sample T- test.

DATA PRESENTATION AND ANALYSES

Table 2: Distribution of Respondents According to Socio-Economic Characteristics

Item	Frequency	Percentage (%)
Age:		
18-30 years	29	8.8
31-40 years	82	24.8
41-50 years	82	24.8
51-60 years	90	27.3
61 and above	47	14.2
Total	330	100.0
Gender:		
Male	229	69.4
Female	101	30.6
Total	330	100.0
Marital Status:		
Married	254	8.8
Single	236	71.5
Widow	19	5.8
Widower	20	6.1
Divorced	26	7.9
Total	330	100.0
Farming Experience:		
6-10 years	204	61.8
> 10 Years	126	38.2
Total	330	100.0
Educational Qualification:		
No formal education	13	3.9
Primary education	59	17.9
Secondary education	170	51.5
HND/BA/B.Sc.	43	13.0
M.Sc. and above	45	13.6
Total	330	100.0
Farming practices:		
Arable crop farming	137	41.5
Livestock farming	124	37.6



Mixed farming (crops & livestock)	69	20.9
Total	330	100.0
Land Acquisition:		
Rented	194	58.8
Freehold	94	28.5
Leased	42	12.7
Total	330	100.0
Family size:		
1-3	133	40.3
4-6	161	48.8
7-9	30	9.1
Above 9	6	1.8
Total	330	100.0

Source: *Field survey, 2021*

Presentation of Core Issues

Table 3: Perceptions of Members on Poverty Reduction by Agricultural Cooperative (n=330)

S/ N	Items	Sum	Mean	Decision
	Rural Income Enhancement			
1	Farm income has increased as a result of the activities of Agricultural cooperatives.	1158	3.5114	Agree
2	Income of members has been enhanced as a result of Cooperative processing of members produce at a cost effective rate,	1395	4.2315	Agree
	Employment Generation			
3	Agricultural cooperatives through their various activities generate jobs directly and indirectly through self-employment of farmers and seasonal employment of skilled & unskilled personnel.	1395	4.2327	Agree
4	Prompt availability of Cooperative loans in the form of quality seedlings and credits have increased agricultural production and generated more jobs for rural farmers.	1406	4.2628	Agree
	Social Welfare Facilitation			
5	Agricultural cooperative facilitates members' easy access to credit/loan at affordable interest rate, which makes farming activities easier and boosts farmers' welfare.	1348	4.0897	Agree
6	Provision of farm inputs like fertilizers and storage facilities, facilitated by Agricultural Cooperatives have helped to improve the living standard of members.	1260	3.8226	Agree
	Grand mean	7,962	4.0251	Agree

Source: *Field Study 2021*



Based on the 5-point scale used in the research tool, the decision on whether to agree or to disagree was based on the average coding value of 3.0. Mean response greater than 3.0 implies that the respondents agree to the statement and value less than 3.0 is an indication of disagreement of respondents with the statement. From the analysis in table 3 above the respondents agreed, in the area of rural poverty reduction; rural poverty reduction can be achieved by income enhancement, employment generation and social welfare facilitation with a grand mean of 4.0251 which indicated that the respondents agreed on the six items implying that there is agreement among respondents that Agricultural Cooperative have the capacity to reduce rural poverty in Ekiti State, Nigeria.

Table 4: Members Perception on the Relevance of Cooperative Functions of Agricultural Cooperative Marketing, Cooperative credit extension and Farm input supply on Rural Poverty Reduction (n=330)

S/ N	Items	Mean	Remark
	Cooperative Marketing		
1	You obtain better prices for your produce as a result of Cooperative marketing.	3.5057	Agree
2	You experienced an increase in your farm income due to Cooperative marketing.	3.7668	Agree
3	Cooperative marketing have helped you to eliminate speculations about produce marketability and have led to the reduction in wastage of farm produce.	3.6153	Agree
4	Cooperative marketing has helped you to enhance your income generating capacities by enabling you to acquire physical assets.	3.5952	Agree
5	You have reduced processing cost and generate more profit due to the activities of agricultural marketing cooperatives.	3.1163	Agree
	Grand Mean	3.5198	Agree
	Cooperative Credit Extension		
6	You received initial capital or commodities/inputs from Agricultural Cooperative to start-up your individual farming business and generate income.	2.5353	Disagree
7	You have easy access to loans at favourable interest rate payments without collaterals.	3.6263	Agree
8	Through the activities of Agricultural Cooperatives, you receive early inputs at the beginning of farming season, which have increased your productivity and generated higher farm income.	3.8526	Agree
9	Agricultural Cooperative provides you with financial support services that have helped in boosting your farm productivity and income.	4.8462	Agree
10	Agricultural Cooperative plays an important role in rural poverty reduction, by stimulating income generation and expansion of the non-farm sector via access cooperative credit.	4.5516	Agree
	Grand Mean	3.8824	Agree
	Cooperative Farm Input Supply		



11	Supply cooperative through the provision of farm inputs like farm machinery hardware such as harvesters, high yielding seedling, fertilizers etc increase agricultural production and creates both direct and indirect employment for farmers.	4.0527	Agree
12	Farm supply cooperatives have created skilled/seasonal employment through its extension services of training and educating member farmers on new techniques in farming, handling of agro-chemical, seedlings and farm machineries.	3.2615	Agree
13	Cooperative provides inputs for manufacturing and processing, generates employment and helps rural farmer members to increase output and diversify their earning base.	3.4617	Agree
14	Cooperative through its training service helps rural farmers to know their challenges and find appropriate solutions, take steps thereby increasing their productivity, income and create job directly through it downstream activities.	5.0000	Agree
15	The provision of physical assets like processing factories, market stalls, and farm infrastructures are accessible and available to member farmers, thereby boosting their living conditions.	3.9816	Agree
	Grand Mean	3.9515	Agree

Source: *Researcher's computation using SPSS version 20, 2021*

Table 4 shows the mean response of each of the respondents on each of the statements in the research tool. All the mean responses were higher than 3.0 with exception of initial capital mean (2.5353) which led to the decision in the last column of the table. The analysis above indicated that Cooperative marketing, Cooperative credit extension and Cooperative input supply produce a grand mean of 3.5198, 3.8824 and 3.9515 respectively. This implies that Cooperative marketing, Cooperative credit extension and Cooperative input supply produce have positive contributions toward rural poverty reduction in Ekiti State, Nigeria.

Test of Hypotheses

Test of Hypothesis I

H₀: Agricultural Marketing Cooperatives have no significant influence on income of rural members in Ekiti State.

H₁: Agricultural Marketing Cooperatives have significant influence on income of rural members in Ekiti State.



Table 5: Paired Samples Test

		Paired Differences					t	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Agricultural Marketing Cooperatives have no significant influence on income of rural members in Ekiti State	.24826	2.1673	.11930	.01426	.48326	12.0837	329	0.000

Source: *Researcher’s computation using SPSS version 20, 2021*

Interpretation

Paired T-test which is appropriate for testing the mean difference between paired observations.

The paired sample test seals up the relationship that Agricultural Marketing Cooperatives have significant influence on income of rural members in Ekiti State as indicated by the t-value = 12.08337 and probability value = 0.000 as shown in table 5. This implies that Agricultural Marketing Cooperatives have significant influence on income of rural members in Ekiti State.

Decision Rule: Accept the null hypothesis if the p-value is greater than 0.05, otherwise, reject.

Decision: Since the p-value is 0.000 which is less than the critical value 0.05, this study upholds that there exists a significant positive relationship between Agricultural cooperative marketing and income of rural members in Ekiti State at 5% level of significance.

Test of Hypothesis II

H₀2: Agricultural Cooperative credit extension have no significant influence on the social welfare of rural members in Ekiti State.

H₂: Agricultural Cooperative credit extension have significant influence on the social welfare of rural members in Ekiti State.



Table 6: Paired Samples Test

		Paired Differences					T	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Agricultural Cooperative credit extension have no significant influence on the social welfare of rural members in Ekiti State.	.61229	1.7423	.09628	.20133	.42328	26.3833	329	0.000

Source: *Researcher’s computation using SPSS version 20, 2021*

Interpretation

The table above revealed that there is a significant relationship between Agricultural cooperative credit extension and social welfare of rural members in Ekiti State as revealed in the t-value =26.3833 and associated p-value of 0.000 in table 6, therefore, the null hypothesis is rejected.

Decision

Since the P-value of 0.000 is less than the critical value of 0.05, then, it would be upheld that there is a significant positive relationship between Agricultural cooperative credit extension and social welfare of rural members in Ekiti State at 5% level of significance, thus, H₁ is preferred over H₀.

Test of Hypothesis III

H₀₃: Farm Supply Cooperatives have not significantly influenced employment creation for rural members in Ekiti State.

H₃: Farm Supply Cooperatives have significantly influenced employment creation for rural members in Ekiti State.



Table 7: Paired Samples Test

		Paired Differences					t	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Farm Supply Cooperatives have not significantly influenced employment creation for rural members in Ekiti State.	.35828	1.7834	.09829	.55183	.165	13.6433	329	0.000

Source: Researcher’s computation using SPSS version 20, 2021

Interpretation

The result of the paired sample test showed that Farm Supply Cooperatives have significantly influenced employment creation for rural members in Ekiti State. Table 7 indicates that the t-value is 13.6433 and the p-value = 0.000 This implies that farm supply services obtained from cooperatives positively influenced employment creation among rural members in Ekiti State. Therefore the alternative is accepted and the null hypothesis rejected.

Decision

Since the p-value = 0.000 is less than the critical value 0.05, this shows and suggests that there is a significant positive relationship between cooperative farm supply and employment creation in Ekiti State at 5% level of significance, thus, the alternative hypothesis of the study is accepted.

DISCUSSION OF FINDINGS

This study ascertained the influence of agricultural cooperative and rural poverty reduction in Ekiti State. The independent variable (agricultural cooperative) was proxied by cooperative marketing, cooperative credit extension and cooperative farm input supply while rural poverty reduction which is the dependent variable is proxied by rural income enhancement, employment generation and social welfare facilitation.

The result for hypothesis I indicated by the t-value = 12.08337 and probability value = 0.000 as shown in table 5, implies that agricultural marketing cooperative has significant influence on income of rural members in Ekiti State at 5% level of significance.



The result for hypothesis II revealed that there is a significant influence of agricultural cooperative credit extension on social welfare of rural members in Ekiti State as revealed in the t-value = 26.3833 and associated p-value of 0.000 in table 6, therefore, the null hypothesis is rejected.

Farm supply cooperatives have significantly influenced employment creation for rural members in Ekiti State, with a t-value of 13.6433 and the p-value = 0.000 as indicated in table 7.

The result of the paired sample test for hypothesis III showed that farm supply cooperative positively and significantly influenced employment creation among rural members in Ekiti State. Table 7 indicates that the t-value is 13.6433 and the p-value = 0.000. This implies that farm supply cooperatives positively relate with employment creation in Ekiti State, therefore the alternative is accepted and the null hypothesis rejected.

The finding of this study supports the results of Wanyama, Develtere and Pollet (2008), Birchall and Simmons (2009), Adebayo, Chinedum, Dabo and Pascal (2010), Omoregbee and Ighoro (2012), Taiwo, Agbasi, Udunze and Okafor (2014), Ojiagu and Onugu (2015), Elem (2019), Idowu and Oladeji (2019) Fasakin and Popoola (2019) that Agriculture Cooperative Society has the capacity to reduce rural poverty in Nigeria and other developing countries.

CONCLUSION

This study assessed the influence of Agriculture Cooperative on rural poverty reduction among members in Ekiti State. The independent variable (agricultural cooperative) was proxied by cooperative marketing, cooperative credit extension and cooperative farm input supply while rural poverty reduction which is the dependent variable is proxied by rural income enhancement, employment generation and social welfare facilitation. This study utilized primary data basically, which were extracted from the questionnaire distributed to 330 cooperators in 6 Local Government Areas in Ekiti State. With the aid of Statistical Package for Social Sciences (SPSS) version 20, descriptive statistics was carried out, while inferential statistics using Spearman's correlation and Paired sample T-Test were employed. This study revealed that Agricultural cooperative marketing, Agricultural cooperative credit extension and farm inputs supply cooperative have significant and positive influence in enhancing rural poverty reduction in Ekiti State at 5% level of significance. This therefore means that efforts at formulating an effective rural poverty reduction policy in the state and elsewhere must take cognizance of the Agricultural cooperative platform in channeling of farm resources to rural farmers and cooperators.



RECOMMENDATIONS

On the premise of the study findings, the following recommendations were made;

- i. Agricultural cooperative marketing significantly influenced income of rural members in Ekiti State. Based on this, the researcher strongly suggests that there is a need for local road infrastructure improvement, with the aim of transporting agricultural produce to towns and cities easily for better and improved income for rural members in Ekiti State.
- ii. The study discovered a positive and significant relationship between Agricultural cooperative credit extension and social welfare, hence, for farmers and individuals to contribute to social welfare facilitation, there is need for prompt and affordable credit facility. Therefore, governments at all levels are enjoined to provide rural farmers with credit facilities in order to contribute to the community where they earn a living, it is also suggested that government should create an enabling and friendly environment that is conducive for agricultural businesses to the farmers.
- iii. Since farm inputs supply was found to positively and significantly affect employment creation in Ekiti State. There is a need for the government to do more for the farmers by providing them with farm inputs that can aid employment creation in the State. Also, they should provide the farmers with the technical know-how through seminars/workshops on the effective use of implements/tools that can be helpful to their farming.

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