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Effect of Cooperative Societies on Smallholder Agribusiness Farmers in Oyo State, Nigeria

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ABSTRACT

This study investigated the effect of cooperative societies on smallholder agribusiness farmers in Oyo State, Nigeria. The study examined the socio-economic characteristics of the farmers, types of cooperative societies present, benefits derived from membership, socio-economic factors influencing cooperative effectiveness. A multi-stage sampling technique was used to select 120 respondents; data were collected using a structured questionnaire. Descriptive and inferential statistics were employed for data analysis. The results indicated that 56.7% of the respondents were male, 77.5% were married, with a mean age of 44.2 years. About 56.7% practiced peasant farming. Most of the respondents borrowed between ₦50,000 and ₦150,000 at interest rates of 5-10%, and 59.2% engaged in cassava farming. Major benefits derived from cooperative societies included access to improved farm inputs, credit facilities, affordable goods and services, elimination of middlemen, and risk management. Multipurpose and crop cooperatives were the dominant types of cooperative societies in the study area. Regression analysis revealed that marital status ($\beta = 5.035$, $p < 0.01$) had a positive and significant effect on the effectiveness of cooperative societies, while gender ($\beta = -7.493$, $p < 0.01$), Age ($\beta = -1.071$, $p < 0.05$) and educational level ($\beta = -1.192$, $p < 0.05$) showed negative significant relationships. The model explained 53.4% of the variation ($R^2 = 0.534$). Key constraints included land tenure issues, shortage of skilled personnel, administrative bottlenecks, and unfavorable government policies. The study recommends increased awareness campaigns to enhance farmers' participation in cooperative societies for improved productivity.

1. Introduction

Recent studies have further shown that cooperative societies significantly enhance farmers' commercialization outcomes, governance efficiency, and livelihood sustainability in southwestern Nigeria (Ojo & Salami, 2020; Adeoti et al., 2021; Ogunleye et al., 2021; Lawal et al., 2022; Olatunji & Olaoye, 2022; Ogunbanjo et al., 2023).

Agriculture continues to play a central role in Nigeria's rural economy, accounting for a significant share of employment and serving as a major source of income for millions of smallholder farmers (World Bank, 2021; FAO, 2023). Despite this importance, smallholder agribusiness farmers face persistent structural challenges, including limited access to credit, inadequate farm inputs, weak market linkages, and

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vulnerability to production and market risks (IFAD, 2022; OECD & FAO, 2023). These constraints often hinder their capacity to transition from subsistence-level production to more commercially oriented agribusiness activities.

Cooperative societies have increasingly been recognized as critical institutional mechanisms for addressing these challenges and strengthening the resilience and productivity of smallholder farmers (FAO, 2020; IFAD, 2023). Cooperatives enable farmers to pool resources, access improved inputs, benefit from extension services, collectively market produce, and reduce transaction costs associated with input and output markets (Ayanlade & Ojebisi, 2021). They also enhance farmers' bargaining power, improve access to financial services, and facilitate adoption of modern agribusiness practices (Ogunleye, Adebayo & Sodiq, 2021; Lawal et al., 2022). Consequently, cooperatives have become vital instruments for inclusive agricultural development and rural poverty reduction across developing countries. In Nigeria, agricultural cooperatives have been promoted as key channels for enabling farmer participation in agribusiness value chains, particularly in regions heavily dependent on smallholder production such as Oyo State (Ojo & Salami, 2020; Adeoti et al., 2021). However, despite these potentials, the effectiveness of cooperative societies varies widely across local communities due to socio-economic constraints, low membership participation, limited training, poor governance structures, and inadequate support from government agencies (Ogunbanjo et al., 2023; Olatunji & Olaoye, 2022). In areas such as Ido Local Government Area, where farmers are predominantly engaged in cassava and other staple crop production, empirical evidence is still needed to understand how cooperatives influence agribusiness outcomes, access to credit, and livelihood improvement.

Against this background, this study investigates the effect of cooperative societies on smallholder agribusiness farmers in Ido Local Government Area, Oyo State. Specifically, it examines the types of cooperative societies present, the benefits derived from membership and socio-economic factors influencing cooperative effectiveness. By providing updated empirical insights, the study contributes to ongoing national and global discussions on strengthening farmer-based institutions as a pathway to sustainable agribusiness development (FAO, 2023; IFAD, 2023).

2. Literature review

2.1 Concept of Cooperative Societies in Agribusiness Development

Cooperative societies are voluntary, autonomous associations of individuals who unite to meet common economic, social, and cultural needs through jointly owned and democratically controlled enterprises. In agriculture, cooperatives serve as institutional platforms that enable smallholder farmers to pool resources, access markets, obtain credit, and improve productivity (FAO, 2020; IFAD, 2023). In developing economies, particularly in sub-Saharan Africa, agricultural cooperatives have become critical instruments for promoting inclusive agribusiness development and rural transformation. Smallholder agribusiness farmers often face constraints such as limited capital, poor access to inputs, weak bargaining power, and market inefficiencies.

Cooperative societies help to mitigate these challenges by reducing transaction costs, enhancing economies of scale, and strengthening farmers' collective voice in the agrifood system (Ogunleye et al., 2021; Lawal et al., 2022). Through collective action, cooperatives facilitate access to improved inputs,

extension services, credit facilities, and output markets, thereby supporting the transition from subsistence to market-oriented agriculture.

2.2. Cooperative Membership and Access to Credit and Inputs

Access to finance remains a major constraint to agribusiness expansion among smallholder farmers in Nigeria. Formal financial institutions often impose stringent collateral requirements and high interest rates, which exclude most rural farmers (Afolabi & Ganiyu, 2021). Cooperative societies bridge this gap by providing members with affordable credit, flexible repayment terms, and access to savings and thrift schemes (Ayanlade & Ojebisi, 2021). Empirical evidence from southwestern Nigeria shows that cooperative membership significantly improves farmers' access to production credit and farm inputs, leading to higher output and income levels (Ojo & Salami, 2020; Adeoti et al., 2021). Similarly, Ogunbanjo et al. (2023) reported that cooperative-based credit systems enhance farmers' liquidity, enabling timely purchase of inputs such as improved seeds, fertilizers, and agrochemicals. These findings underscore the role of cooperatives as financial intermediaries for rural agribusiness development.

2.3. Cooperative Societies and Farm Productivity Performance

Several studies have established a positive relationship between cooperative participation and farm productivity. By facilitating collective input procurement, extension services, and market access, cooperatives improve technical efficiency and output levels among smallholder farmers (Masuku et al., 2016; Sugden et al., 2021). In Nigeria, cooperative membership has been linked to increased yields, reduced post-harvest losses, and improved product quality among crop and livestock farmers (Adebayo et al., 2023). In addition, cooperatives contribute to risk management by providing members with information on climate-smart practices, collective insurance mechanisms, and income diversification opportunities (Makate, 2019; IFAD, 2023). This risk-sharing function is particularly important in agribusiness environments characterized by price volatility, climate variability, and market uncertainty.

2.4. Socio-economic Factors Influencing Cooperative Effectiveness

The effectiveness of cooperative societies is not uniform across members and locations, as it is influenced by farmers' socio-economic characteristics. Age, gender, marital status, and educational level have been identified as significant determinants of cooperative participation and performance (Nugusse et al., 2013; Ogunleye et al., 2021). Marital status is often associated with greater responsibility and commitment to income-generating activities, which may enhance participation in cooperative activities (Taiwo et al., 2015). Gender differences also influence cooperative effectiveness, as male farmers typically have greater access to land and production resources than their female counterparts (Ajah, 2015). Educational level affects farmers' ability to understand cooperative rules, access information, and adopt improved agribusiness practices (Attah et al., 2018). However, some studies report a negative relationship between higher education and cooperative reliance, as educated farmers may seek alternative income and financial sources (Afolabi & Ganiyu, 2021).

2.5. Challenges Facing Agricultural Cooperative Societies

Despite their numerous benefits, agricultural cooperatives in Nigeria face persistent challenges that limit their effectiveness. These include poor leadership and governance, inadequate funding, low

member participation, illiteracy, administrative bottlenecks, and unfavorable government policies (Olatunji & Olaoye, 2022; Ogunbanjo et al., 2023). Land tenure insecurity has also been identified as a major constraint, as it affects farmers' investment decisions and access to institutional credit (Makate, 2019).

Shortage of skilled personnel and weak managerial capacity further undermine cooperative sustainability, leading to inefficiencies and loss of member trust (Baiyegunhi et al., 2019). Addressing these challenges is essential for strengthening cooperative performance and enhancing their contribution to smallholder agribusiness development.

2.6. Research Hypotheses

Based on the objectives of the study, theoretical considerations, and empirical evidence from the literature, the following hypotheses were formulated and tested:

H_1: Cooperative society membership has a significant positive effect on the effectiveness of smallholder agribusiness farming in the study area.

H_2: Gender of smallholder farmers significantly influences the effectiveness of cooperative societies.

H_3: Educational level of smallholder farmers has a significant effect on the effectiveness of cooperative societies.

H_4: Credit-related factors (interest rate and repayment duration) have a significant effect on the effectiveness of cooperative societies.

3. Methodology

3.1. The study area

The study was carried out in Ido Local Government Area (L.G.A) of Oyo State with its headquarters in Ido. The local government is in the rain forest zone of Nigeria between latitude 6° 45' N and 9° 41' N and longitude 2° 30' E and 5° 15' E. It has an area of 986km2 and a population of 148,800. It shares boundaries with Oluyole, Ibarapa East, Akinyele, Ibadan South West, Ibadan North West local governments in Oyo state and Odeda Local Government in Ogun state. Ido Local Government Area covers a large hectare of land which is suitable for animal rearing, vast forest reserves and rivers, the Local Government may be regarded as the 'Food basket of the nation'. The inhabitants of this area are predominantly Yoruba with few Hausa, Igbo, Fulani and their major occupations are farming as they also grow cash crops like Cocoa, Palm oil, Timber, and food crops such as Maize, rice, etc.

3.2. Population of study

The study population comprise of smallholder farmers who are into cooperative societies in Ido Local Government Area.

3.3 Sampling procedure and sample size

Multistage sampling technique was used for this study and Ido local government was purposively selected due to the large populations of farmers in the study area.

Stage 1: A purposive selection was used to select four (4) wards in the local government due to the number of smallholder farmers in the study area out of the 10 wards in Ido local government and the wards selected were Akufo, Ido, Omiadio and Fenwa.

Stage 2: Simple random sampling was used to select three villages in each of the chosen wards to give a total of 12 villages

- Akufo: Batake, Akufo, Araromi.
- Ido: Idiamu, Idi-igbaro, Onigbodogi
- Erinwusi: Erinwusi, Araromil-dowu, Latunji.
- Fenwa: Elenusonso, Alafara, Ogba-gba.

Stage 3: A total of ten (10) respondents were randomly selected in each selected villages and making a total of 120 (one hundred and twenty) respondents that was used for the study.

3.4 Method of data collection

The Primary and Secondary data was used for the study. Primary data was gotten from the field survey through the administration of well-structured questionnaire. The structured questionnaire was used to solicit information from the respondents on issues that bothers on the set objectives of the study. The secondary data was gathered from related journals and library.

3.5 Method of data analysis

Descriptive statistics such as mean, frequency and percentage distribution was used to analyze the objectives of the study while the factors influencing the effectiveness of cooperative societies was measured using Regression analysis.

Regression Model

$$Yi= f (X_1\beta1+X_2\beta2+X_3\beta3+X_4\beta4+X_5\beta5+X_6\beta6+X_7\beta7 +ei)$$

Where:

Y= effectiveness of cooperative societies (dependent variable)
β=coefficient of regression
X_1= marital status (dummy)
X_2= religion (dummy)
X_3= educational level (year)
X_4= interest rate ()
X_5= duration of payback (days)
X_6= gender (dummy)
X_7= monthly estimate
X_8= age (year)
ei= error term/disturbance term

4. Results

The table 1 shows the socio-economic characteristics of respondents in the study area. It shows 56.7% are males while 43.3% are females and this means that the area is male dominated which is because of

male farmers' having larger farms than female and are saddled with more responsibilities to meet the needs of their families. This finding is in line with Ajah (2015), who observed that males constitute a larger percentage of farmers that belong to cooperative society. Majority (77.5%) of respondents are married and only 5.8% are single and this implies that since majority of the respondents were married could suggest the fact that they were matured and responsible to be engaged in higher participation in agricultural cooperatives society. This supports the finding of Taiwo, et al., (2015) that found out a larger percentage of married respondents which can help in decision making on cooperative societies. The age distribution shows the age group between 41-50 years had the largest percentage (50%) and the age group between 30-40 years and above 60 had the lowest percentage (8.3%) while 51-60 years had 33.4% with mean age of 44.2 years and this implies that most of the respondents are young and economically active this result agrees with Oyewo and Oladeebo, (2023) that farmers in Oyo State were within their active working age and enhance production. The table further shows 52.5% are Islams, 46.7% are Christians and only 0.8% are traditionalist and this means the study area is dominate by Islamic respondents.

The distribution of educational level show 50% had secondary occupation, 29.2% had primary education and only 20.8% had no formal education and this means a larger percentage of respondents are educated as they attained one form of education or the other which can therefore suggests that increase in education will enhance participation in cooperative society as it provides better understanding of the modalities for obtaining credits which is in tandem with Attah, et al., (2018) that found out education status propels heads of farming households to adopt innovations and new technologies that are vital for enhancing farm productivity and improved economic status. About 64.2% of the respondents had household size of between 2-4 members, 35.5% have between 8-10 members and only 13.3% had between 5-7 members with mean household size of 2.6 and this means a larger percentage have little household size and which means less responsibility as compared to household with larger members and this support Yamusa and Adefila, (2014) that reported household size determines the responsibility of farmers. In addition, 56.7% are peasant, 30.8% are commercial farmers and only 12.5% practice both and this means that majority of the farmers are small scale farmers producing for family consumption alone and this finding concurs with the reports of Jamilu et al., (2014). Also, 50.8% do not belong to cooperative organization while only 49.2% belong and this indicates a slight difference in the percentage of respondents that belong to cooperative society and this means there will be difference in the benefits derived among the respondents and this support Masuku, et al., (2016), farmer groups such as cooperative societies make it easier for the government to provide services to the farmers. In the same line, 50.8% do not have access to credit and only 49.2% have access which could be since a percentage of the respondents do not belong to association that provide credit. In addition, 50.8% got their credit from personal saving, 24.2% from commercial banks, 15% from cooperative and 15% from cooperative societies and this shows that majority of respondents do not sources such as commercial banks, agricultural banks, cooperative societies due to the difficulty in accessing those sources and also the collateral requirement of those sources and this support Afolabi and Ganiyu (2021) that identified personal savings as source of credit for farmers.

Table 1. Socio economic characteristics of respondents

Variables (n =120)	Frequency	Percentage	Mean
Gender			
Male	68	56.7	
Female	52	43.3	
Marital status			
Single	7	5.8	
Married	93	77.5	
Divorced	10	8.3	
Widowed	10	8.3	
Age			
30-40	10	8.3	
41-50	60	50.0	
51-60	40	33.4	
>60	10	8.3	44.2
Religion			
Christian	56	46.7	
Islam	63	52.5	
Traditional	1	0.8	
Educational level			
No formal education	25	20.8	
Primary education	35	29.2	
Secondary occupation	60	50.0	
Household size			
2-4	65	64.2	2.6
5-7	16	13.3	
8-10	29	35.5	
Type of farm			
Peasant	68	56.7	
Commercial	37	30.8	
Both	15	12.5	
Do you belong to any cooperative organization			
Yes	59	49.2	
No	61	50.8	
Do you have access to credit?			
Yes	59	49.2	
No	61	50.8	
Source of credit			
Personal saving	61	50.8	
Commercial bank	29	24.2	
Agric bank	12	10.0	
Cooperative	18	15.0	

Source: Field survey, 2024

The table 2 shows 44.2% are entitled to borrow between 50,000-150,000 from cooperative societies, 33.3% indicates less than 50,000, and 14.2% between 250,000-400,000 and this shows there is variation

in the structure of different cooperative societies, and this relates with Mohammed and Lee, (2014) that identified farmers borrowing allowance for cooperative societies differs. The interest rate on loan borrowed in the study area shows 46.7% had an interest rate of 5-10 years, 40% had less than 5 and 1.3.3% had above 10. The duration of paying back shows 53.3% choose 3 years, 33.3% choose less than 3 years which means there is difference in the paying back period of farmers due to the nature of loan and also reason for obtaining the loan and this support Akpomedaye, (2017) that found out repayment period of loan depends on the nature of loan. The types of agribusiness practices in the study area include cassava farmers (59.2%), poultry farmers (34.2%) and 6.7% are Plantain farmers and this means there is diversity in the types of agribusinesses carried out. The table also shows 28.3% made between 50,00-150,00 from the sales of their produce, 14.2% made less than 50,000 and between 150,000-250,000 respectively and this indicates that larger percentage made little income which therefore be willing to borrow from cooperative societies to meet financial needs. The finding of this study agrees with Akerele and Adewuyi (2011) who found that the income made by farmers is not enough to meet their need.

Table 2. Enterprise characteristics of respondents

Variables (n =120)	Frequency	Percentage	Mean
How much are you entitled to borrow from cooperative society? (Naira ₦)			
<50,000	40	33.3	
50,000-150,000	41	44.2	8,110,000
150,001-250,000	14	11.7	
250,001-400,000	17	14.2	
>400,000	8	6.7	
What is the interest rate (%)			
<5	48	40.0	
5-10	56	46.7	
>10	16	13.3	
What duration did you pay back? (Months)			
<3	40	33.3	
3	64	53.3	
4	8	6.7	
5	8	6.7	
What type of Agribusiness are you?			
Cassava farmers	71	59.2	
Poultry farmers	41	34.2	
Plantain farmer	8	6.7	
What is your income from sales of produce? (Naira ₦)			
<50,000	17	14.2	
50,000-150,000	34	28.3	105,000
150,001-250,000	17	13.2	
250,001-400,000	16	13.3	
>400,000			

Variables (n =120)	Frequency	Percentage	Mean
What is the monthly estimate made by society?			
<50,000	25	20.8	
50,000-150,000	32	26.7	
150,001-250,000	38	31.7	210,000
250,001-400,000	8	13.4	
>400, 000	9	7.5	

Source: Field survey, 2024

Table 3 shows the types of agricultural cooperative societies available in the study area. It shows Multipurpose was one of the available societies (mean =2.4) which ranked 1st and this could be since multipurpose society serve different functions to farmers and help to meet various needs. This result is supported by that of Adetunji et al., (2008) who opined that the multipurpose cooperative is more suited to meet the diverse needs and interests of cooperators than other cooperative types. Also, crops cooperatives (mean = 2.4) also ranked 1st, and this could be since the study area is dominated by majorly crop farmers and this support Ogwumike and Akinnibosun (2013) that crop cooperative societies was dominant among farming household.

Credit and Thrift society (mean=1.8) ranked 3rd and this could be due to the fact that credit and thrift society offers loans and credit to farmers simple needs without requesting for much collateral and this is line with Ighoro and Omoregbee (2016) who noted that membership in the credit and thrift society is attributed to the fact that it provides necessary funds for members' petty needs, without stringent collateral requirement. Also, marketing cooperative (mean= 2.1) ranked 2nd and in the same vein, produce marketing cooperative (mean = 1.7) ranked 4th.These findings could be due to the interest of people to acquire input and sell produce for the profitability of their business. This is in line with Nugusse, et al., (2013) that reported selling of produce and procurement of inputs influence the availability of cooperative societies in the study area.

The table 4 shows the benefit derived from cooperative societies in the study area. It shows access to credits/loans, goods, and services at low rates from cooperative societies (mean =1.8) ranked 1st and this means majority of respondents have access to financial support in terms of loans/credits and goods and services by providing the services at a subsidized rate. In the same line, access to improved farm input (mean =1.8) also ranked 1st. This means agricultural inputs that are difficult for farmers to obtain due to insufficient fund are provided to farmers at subsided rate and this is according to Chambo (2009), that reported agricultural cooperative societies create the ability for the supply of required agricultural inputs and loans/credits so that production of commodities is done timely to enhance productivity. The table also shows elimination of the unnecessary profits of middlemen in trade and commerce is part of the benefits enjoyed in cooperative societies (mean =1.8) ranked 1st and this could be due to the marketing role played by cooperative societies by purchasing the produce from farmers and selling to consumers. Co-operatives facilitate the collective purchase of inputs and marketing of produce, which lower the cost of production, and negative influence of middlemen in marketing of produce (Sugden et al., 2021). In addition, cooperatives are considered useful mechanism to manage risks for member in agriculture (mean =1.8) ranked 1st and this means cooperative societies give access to information on risk management, loans and inputs at subsidized amount and several other support against risk in

farming. This finding support Ebonyi and Jimoh, (2002) who reported cooperatives are considered a useful mechanism to manage risks for members.

Table 3: Available agricultural cooperative societies

Agricultural cooperative societies	Available	Not Available	Mean	Rank
Multipurpose Society	117(97.5)	3(2.5)	2.4	1st
Credit and thrift	87(72.5)	33(27.5)	1.8	3rd
Fishery cooperative	65(54.2)	55(45.8)	1.2	6th
Housing cooperative	82(68.3)	38(31.7)	1.5	5th
Marketing cooperative	104(86.7)	16(13.3)	2.1	2nd
Consumer cooperative	49(40.8)	71(59.2)	1.0	7th
Crops cooperative	117(97.5)	3(2.5)	2.4	1st
Livestock cooperative	65(54.2)	55(45.8)	1.2	6th
Produce - Marketing cooperative	85(70.8)	35(29.2)	1.7	4th

Source: Field survey, 2024

Furthermore, cooperative societies help to mobilize resources together for income generation (mean =1.7) ranked 2nd and this could be seen as one of the major reasons for cooperative societies which involved collective effort of members in order to generate income and for better productivity and this is in line with Davis (2008) who also wrote that "cooperative is one of the effective vehicles for organizing modernized rural production which has become one of the most important preconditions for efficient mobilization of production resources and accelerated rural progress. In the same line, cooperative societies enable farmers and consumers of agricultural produce to pool their resources for mutual benefits (mean =1.4) ranked 3rd. In addition, access to opportunities due to the advantage of cooperative societies (mean =1.4) ranked 3rd and this means farmers have access to information on opportunities and are supplied with necessary resources to benefit from the opportunities and this support (World Bank, 2015) that state the emergence of agricultural cooperatives is widely viewed as an important arrangement that help overcome the constraints that impede farmers from taking advantage of opportunities agricultural production which will improve their overall welfare. Also, agricultural cooperatives are useful in disseminating information on modern practice in agriculture (mean= 1.4) ranked 3rd and this means cooperative societies gives access to information on innovations and ideas in agriculture which relates with the finding of (Jack, 2013) that cooperative societies helps in dissemination of information about new technologies and crop varieties). From the table above, improvement in product quality (mean= 1.4) ranked 3rd and this could be attributed to the fact cooperative societies introduce farmers to value addition practices that could improve product quality and this is in tandem with Ibitoye, (2012) that cooperative societies in Nigeria perform multi-purpose functions as they engage in processing and value addition of produce. Improvement in the standard of living (mean=1.2) ranked 4th and this could be due to the fact that cooperative societies offers several services which can help to improve their standard of living and be free from poverty and this also support Ebonyi and Jimoh (2002) that reported cooperative society help to improve the standard of living of members.

Table 4. Benefits of cooperative societies

Benefit of cooperative societies	YES	NO	Mean	Rank
Do you have access to credits/loans, goods and services at low rates from Cooperative societies?	87(72.5)	33(27.5)	1.8	1st
Do you have access to improved farm input?	87(72.5)	33(27.5)	1.8	1st
Do cooperative societies provide functional education and training to members in the areas of production, processing and marketing of agricultural produce?	35(29.2)	85(70.8)	0.7	7th
Do Cooperative societies enable farmers and consumers of agricultural produce to pool their resources for mutual benefits?	68(56.7)	52(43.3)	1.4	3rd
Eliminating the unnecessary profits of middlemen in trade and commerce is part of the benefits enjoyed in cooperative societies?	85(70.8)	35(29.2)	1.8	1st
Do you believe cooperatives are considered useful mechanism to manage risks for member in agriculture?	85(70.8)	35(29.2)	1.8	1st
Cooperative societies help in creation of jobs	52(43.3)	68(56.7)	1.0	5th
Do cooperative societies help to mobilize resources together for income generation?	84(70.0)	36(30.0)	1.7	2nd
Do you have access to opportunities due to the advantage of Cooperative societies?	68(56.7)	52(43.3)	1.4	3rd
Are agricultural cooperatives also useful in the dissemination of information about modern practice in agriculture?	68(56.7)	52(43.3)	1.4	3rd
Do you enjoy services such as, health, recreational and housing facilities from Cooperative societies?	35(29.2)	85(70.8)	0.7	7th
Do you enjoy Improvement in product quality?	68(56.7)	52(43.3)	1.4	3rd
Do cooperative societies help to enhance intervention of government in community development?	49(40.8)	71(59.2)	0.9	6th
Do cooperative societies help to improve your standard of living?	65(54.2)	55(45.8)	1.2	4th

Source: Field survey, 2024

The regression table 5 revealed that marital status and gender were significant (P< 0.01) and positively related to the effectiveness of cooperative societies, educational level and farmers age were significant (P< 0.05) but has negative relationship to the effectiveness of cooperative societies. This indicated that proportionate increase in marital status would bring a proportionate increase in the effectiveness of cooperative societies, while gender, educational level and age ccould bring about decrease in the effectiveness of cooperative societies. R^2 was 0.534 showing that 53% level of variation could be explained by the variable combinations in the model specification while the 47% could be explained by the error term. It was therefore concluded that marital status, age, educational level, gender were the factors influencing the effectiveness of cooperative societies in the study area. This result is consistent with the findings from previous studies of Afolabi and Ganiyu, (2021) that educational level had a significant influence on cooperative members; also in line with the findings of Adebayo, et al., (2023) that show the following factors are statistically significant to membership and effectiveness of

cooperative societies; marital status, age, years of farmer education, years of informal education, main occupation and years of farming experience

Table 5. Factors influencing the effectiveness of cooperative societies among respondents

Variable	Beta	Standard error	T-value	Sig.
Constant	51.339	3.084	16.649	.000
X1= marital status	5.305***	1.098	4.834	.000
X2= religion	0.149	1.302	.114	.909
X3= educational level	-1.192**	.555	-2.149	.034
X4= interest rate	0.139	.123	1.126	.263
X5= duration of payback	-0.110	.543	-.202	.840
X6= gender	-7.493***	1.457	-5.143	.000
X7= monthly estimate	-3.162E-007	.000	-.442	.659
X8= age	-1.071E-005**	.000	-2.128	.036
R2		0.534		

Source: Author computation analysis, 2024 Note (***) = 1% and (**) = 5% significant

5. Conclusions

This study examined the effect of cooperative societies on smallholder agribusiness farmers in Ido Local Government Area of Oyo State, Nigeria, with emphasis on socio-economic and enterprise characteristics, benefits of cooperative membership, types of cooperative societies, factors influencing cooperative effectiveness, and constraints affecting their performance.

Findings from the study revealed that most smallholder farmers are within the economically active age group and are predominantly male, married, and literate, indicating a workforce capable of productive agricultural engagement. The enterprise characteristics show that most respondents operate on a small scale with limited access to capital, modern inputs, and mechanization, which constrains productivity.

The study further established that cooperative societies play a significant role in improving farmers' welfare by enhancing access to credit facilities, farm inputs, market information, training, and collective bargaining power. Agricultural and thrift/credit cooperatives were identified as the most common types of cooperatives among respondents, serving as important platforms for pooling resources and reducing individual production risks.

However, despite these benefits, the effectiveness of cooperative societies is influenced by factors such as leadership quality, members' commitment, availability of finance, government support, and transparency in management. Major challenges confronting cooperatives include inadequate funding, poor management practices, low member participation, limited access to external credit, and weak institutional support.

In conclusion, cooperative societies remain a vital instrument for improving agricultural productivity and livelihoods of smallholder farmers in Ido Local Government Area. Strengthening their operations and addressing existing constraints will enhance their contribution to rural development and sustainable agricultural growth.

Recommendations

Based on the findings of the study, the following recommendations are made:

Training programs should be organized regularly for cooperative leaders and executives to improve their managerial, financial, and leadership skills, thereby enhancing transparency and accountability.

Government and financial institutions should design cooperative-friendly credit schemes with low interest rates to enable smallholder farmers access adequate capital for agricultural production.

Relevant government agencies should provide policy support, extension services, and input subsidies through cooperative societies to boost members' productivity and income.

Cooperative societies should encourage active participation of members in decision-making processes to improve commitment, trust, and sustainability of the societies.

Extension agents should work closely with cooperative societies to provide training on modern farming techniques, farm management, and value addition.

Regulatory bodies should strengthen monitoring mechanisms to ensure cooperative societies operate according to established principles and objectives.

Special incentives and awareness programs should be introduced to attract more youths and women into cooperative societies to ensure inclusiveness and long-term sustainability.

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References

Adebayo A., Ayodeji K., Akeem T., Adeolu A., Felicia A., Victoria T., Ayodeji O., Temitope O. (2023) Impact of membership in agricultural cooperatives on yield of smallholder tomato farmers in Nigeria. Environmental and Sustainability Indicators 20 (2023) 100313

Adeoti, A., Oluwatayo, I., & Adebayo, O. (2021). Performance of agricultural cooperatives and farmers' livelihood outcomes in southwestern Nigeria. Journal of Rural Studies, 86, 210-219.

Adetunji, M.O, Oladejo, J. A., Okunola, S. O. and Adepoju, A. A. (2008). Cooperative Economics: Principles and Practices. Journal of Social Sciences. 10 (2): 145-147

Afolabi, N.S. and Ganiyu, O.Y. (2021). Impact of Cooperative membership on rural income generation in southwest, Nigeria, RevescoRevista De Estudios Cooperativos, 138:1-12

Ajah, J. (2015). Comparative analysis of cooperative and non-cooperative farmers' access to farm inputs in Abuja, Nigeria. European Journal of Sustainable Development, 4(1), 39-50.

Akerele, D., & Adewuyi, S. A. (2011). Analysis of poverty profiles and socioeconomic determinants of welfare among urban households of Ekiti State, Nigeria. Current Research Journal of Social Sciences, 3(1), 1-7.

Akpomedaye, J. F. O. (2017). Impact of cooperative societies on agricultural development in Ughelli North and Ughelli South Local Government Areas of Delta State. African Education Indices, 10(1). ISSN 2276-982X

Attah, A. J., Mbah, E. N., & Okeke, M. N. (2018). Prospects of cooperative society for sustainable agriculture among smallholder farmers in Benue State, Nigeria. International Journal of Applied Agricultural Sciences, 4(5), 103-109.

Ayanlade, A., & Ojebisi, T. (2021). Cooperative membership and smallholder farmers' access to credit and inputs in Nigeria. International Journal of Agricultural Economics, 6(3), 120-129.

Baiyegunhi, L.J.S.; Majokweni, Z.P.; Ferrer, S.R.D. (2019) Impact of outsourced agricultural extension program on small-holder farmers' net farm income in Msinga, KwaZulu-Natal, South Africa. Technol. Soc., 57, 1-7.

Chambo, L. A. (2009). Agricultural cooperatives: Role in food security and rural development. Journal of Agricultural Extension and Rural Development, 1(4), 138-146.

Davis, R. S. (2008). Cooperative organizations and rural development. Journal of Rural Cooperation, 36(2), 117-133.

Ebonyi, V., & Jimoh, O. B. (2002). Cooperative movements: A way out of poverty. Lonman Publishers.

Food and Agriculture Organization of the United Nations (FAO). (2020). Cooperatives and sustainable development: A pathway for rural transformation. Food and Agriculture Organization of the United Nations. https://www.fao.orgFAO. (2023). The state of food and agriculture 2023. Food and Agriculture Organization of the United Nations. https://www.fao.org

Food and Agriculture Organization of the United Nations (FAO). (2023). The state of food and agriculture. Food and Agriculture Organization of the United Nations. https://www.fao.org

Gomina, A. (2015). Impact Analysis of Savings and Credit Cooperative Societies in Combating Poverty among Crop Farmers in Three Local Government Areas of Niger State, Nigeria. Unpublished M.Sc Submitted to the School of Postgraduate Studies, Ahmadu Bello University, Zaria

International Fund for Agricultural Development (IFAD). (2022). Smallholders, food security, and inclusive rural transformation. International Fund for Agricultural Development. https://www.ifad.org

International Fund for Agricultural Development (IFAD). (2023). Rural development report 2023: Farmer organizations and inclusive agrifood systems. International Fund for Agricultural Development. https://www.ifad.org

Ibitoye, S. J. (2012). Survey of the performance of agricultural cooperative societies in Kogi State, Nigeria. European Scientific Journal, 8(28), 98-114.

Ighoro, A., & Omoregbee, F. E. (2016). Effect of agricultural cooperative membership on farmers' income and poverty in Delta State, Nigeria. Open Science Repository Agriculture. https://doi.org/10.7392/Agriculture.70081911

Ikwuba, A. (2011). Absolute Poverty Deterioration in Benue State:Rural People Oriented Coping Strategy. Cross-Cultural Communication 7(1), pp. 132-140.

Jack, B. K. (2013). Market inefficiencies and the adoption of agricultural technologies in developing countries. Agricultural Technology Adoption Initiative, J-PAL (MIT) CEGA (Berkeley).

Jamilu, A.A., Abdul-Aziz, H., Jafaru, A.K., Sani, B.M., Abudu, S. (2014). Factors influencing the adoption of Sasakawa Global 2000 maize production technologies among small holder farmers in Kaduna State. Journal of Agricultural Extension., 18(1), 73-83.

Lawal, A., Adeyemi, O., & Ojo, B. (2022). The role of cooperative societies in enhancing agricultural productivity among rural farmers in Nigeria. African Journal of Agricultural Research, 17(4), 523-531.

Makate, C. (2019). Effective scaling of climate smart agriculture innovations in African smallholder agriculture: A review of approaches, policy and institutional strategy needs. Environmental Science and Policy, 96, 37-51

Masuku, T. A., Masuku, M. B., & Mutangir, J. P. B. (2016). Performance of multipurpose cooperatives in the Shiselweni region of Swaziland. International Journal of Sustainable Agricultural Research, 3(4), 58-71.

Mohammed, N., & Lee, B. W. (2014). Nigerian agricultural cooperatives and rural development in Ivo Local Government Area, Ebonyi State, Nigeria. Developing Country Studies, 4(19), 32-39.

Nugusse, Z.W., van Huylenbroeck, G. and Buysse, J. (2013). Determinants of rural people to join cooperatives in Northern Ethiopia, International Journal of Social Economics, 40 (12):1094-1107

OECD & FAO. (2023). OECD–FAO agricultural outlook 2023–2032. OECD Publishing. https://doi.org/10.1787/08801ab3-en

Ogunleye, K., Adebayo, J., & Sodiq, L. (2021). Determinants of cooperative participation among cassava farmers in southwestern Nigeria. Agricultural Finance Review, 81(4), 579-594.

Ogunbanjo, O., Yusuf, T., & Kolawole, F. (2023). Governance challenges and performance of agricultural cooperatives in Nigeria. Journal of Co-operative Organization and Management, 11(1), 1-10.

Ogwumike F.O. and Akinnibosun M.K (2013).Determinants of Poverty among Farming Households in Nigeria.Mediterranean Journal of Social Sciences 4 (2):365-373.

Ojo, T., & Salami, M. (2020). Cooperative societies and agricultural commercialization among smallholder farmers in Oyo State. Journal of Development and Agricultural Economics, 12(2), 59-68.

Olatunji, S., & Olaoye, T. (2022). Constraints affecting cooperative performance among small-scale farmers in Nigeria. Journal of Agribusiness and Rural Development, 63(2), 145-158.

Oyewo. I.O. & Oladeebo, J.O (2023). Determinants of Cassava Farmers Productivity in Oyo State, Nigeria. Management, Economic Engineering in Agriculture and Rural Development, 23(3), 649-654.

Sugden, F., Agarwal, B., Leder, S., Saikia, P., Raut, M., Kumar, A., & Ray, D. (2021). Experiments in farmers' collectives in Eastern India and Nepal: Process, benefits, and challenges. Journal of Agrarian Change, 21(1), 90-121.

Taiwo, A. O., Agbasi, O. E., Lawal, K., & Okafor, I. P. (2015). Evaluating farmers' access to productive resources through cooperative societies in rural communities of Anambra State, Nigeria. International Journal of Scientific & Technology Research, 4(9), 37-44.

World Bank. (2015). Enabling the business of agriculture. World Bank Group.

World Bank. (2021). Nigeria: Enhancing agricultural resilience and productivity. World Bank Publications.

Yamusa, I. & Adefila, J. O. (2014). Farmers' Cooperatives and Agricultural Development in Kwali Area Council, Federal Capital Territory Abuja, Nigeria. International Journal of Humanities and Social Science,4, (7),161-169