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## COOPERATIVE SOCIETIES AND POVERTY ALLEVIATION AMONG COCOA FARMERS IN IDANRE, ONDO STATE

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### ABSTRACT

*Cooperative societies are widely recognised as key institutions for rural development; however, cocoa farmers in Idanre, Ondo State continue to experience low income levels, weak asset ownership, and persistent food insecurity despite their participation in cooperative systems. This study therefore examines the effect of cooperative societies on poverty alleviation among cocoa farmers in Idanre, Ondo State. The specific objectives are to: (i) determine the effect of agricultural marketing cooperatives on income level; (ii) assess the impact of credit and thrift cooperatives on asset ownership; and (iii) examine the influence of multipurpose cooperative societies on food security among cocoa farmers. A survey research design was adopted, and data were collected from a sample of 250 registered cocoa farmers selected through stratified and simple random sampling techniques. Structured questionnaires were used for data collection. Descriptive and inferential statistics were employed, while multiple regression analysis was used to test the hypotheses with the aid of SPSS version 25. The findings revealed that agricultural marketing cooperatives significantly enhance income levels, agricultural credit and thrift cooperatives improve asset ownership and economic stability, while multipurpose cooperative societies significantly enhance food security among rural households. The study concludes that cooperative societies contribute to poverty alleviation among cocoa farmers and recommends strengthened cooperative structures, improved credit access, capacity building, and supportive government policies for sustainable rural development.*

**Keywords:** Cooperative societies; Cocoa farmers; Poverty alleviation; Income level; Food security

## **Introduction**

Poverty remains one of the major socio-economic challenges confronting rural communities across the world, particularly in developing countries where agriculture serves as the primary source of livelihood. Smallholder farmers often experience challenges such as inadequate access to finance, poor infrastructure, low agricultural productivity, and weak market systems, all of which contribute to low living standards and persistent poverty. In response to these challenges, cooperative societies have emerged as important institutions for promoting collective action, resource sharing, and economic empowerment among rural populations. Through cooperative participation, farmers are able to pool resources, improve bargaining power, and gain access to services that may not be available individually (Uzonwanne, 2025).

Globally, cooperative societies have contributed significantly to agricultural transformation and poverty reduction. In many parts of Asia and Latin America, cooperatives provide farmers with access to credit facilities, modern agricultural inputs, organised marketing systems, and extension services. These benefits improve productivity, reduce transaction costs, and enhance income generation among farmers. Consequently, cooperative societies are widely recognised as inclusive institutions that promote sustainable rural development and socio-economic wellbeing (Nwachukwu et al., 2025).

In Africa, cooperative societies continue to play critical roles in supporting rural livelihoods and agricultural development. They facilitate access to farm inputs, credit schemes, training programmes, and market opportunities for smallholder farmers. Despite these contributions, the effectiveness of cooperatives in some African countries has been constrained by weak management structures, poor governance, inadequate funding, and low member participation. Nevertheless, evidence indicates that well-managed cooperative societies can improve farmers' welfare, strengthen productivity, and reduce rural poverty (Adekola & Dokubo, 2021).

In Nigeria, poverty is more prevalent in rural farming communities where agriculture is largely subsistence-based and characterised by low income and limited access to productive resources. Cooperative societies have therefore been promoted as strategic mechanisms for improving farmers' access to finance, agricultural inputs, and market opportunities (Abbas, 2020). Through

cooperative activities, farmers are expected to improve income levels, acquire productive assets, and strengthen household welfare. However, the effectiveness of these cooperatives is often affected by operational inefficiencies and institutional weaknesses.

Cocoa farming provides an important context for cooperative intervention because cocoa farmers frequently experience challenges such as price instability, inadequate finance, and limited access to modern farming practices. Cooperative societies therefore assist farmers through collective marketing, financial support, and resource mobilisation, thereby contributing to poverty reduction and improved livelihood outcomes (Ajayi et al., 2021). In Idanre, Ondo State, where cocoa farming is a major economic activity, many farmers still face poverty despite the existence of cooperative societies. This situation highlights the need to examine how agricultural marketing cooperatives, agricultural credit and thrift cooperatives, and multipurpose cooperative societies contribute to poverty alleviation among cocoa farmers in the area.

Furthermore, studies have shown that cooperative societies significantly influence household welfare, income generation, and access to productive resources among rural dwellers (Ijaiya et al., 2020). Cooperative participation has also been linked with improved housing provision, economic stability, and enhanced living conditions among members (Oloyede et al., 2021). Therefore, understanding the effectiveness of cooperative societies in improving the livelihoods of cocoa farmers in Idanre remains essential for designing sustainable poverty alleviation strategies and strengthening rural development initiatives.

### **Statement of the Problem**

Poverty among cocoa farmers in Idanre, Ondo State remains a persistent challenge despite the existence of cooperative societies aimed at improving rural livelihoods. Many farmers still experience low income, poor asset accumulation, and food insecurity due to limited access to credit, weak marketing systems, price instability, and inadequate institutional support. Although cooperatives are expected to address these constraints through credit provision, collective marketing, and multipurpose services, their impact appears insufficient in improving farmers' welfare. Operational inefficiencies such as poor governance, weak financial management, and low member participation further limit their effectiveness.

Existing empirical studies generally confirm that cooperatives contribute to poverty reduction; however, they often present broad findings without examining specific dimensions such as income, asset ownership, and food security. In addition, there is limited context-specific evidence on cocoa farmers in Idanre. This creates a gap in understanding how different cooperative types influence distinct livelihood outcomes, necessitating a focused empirical investigation.

### **Objectives of the Study**

The main objective of this study is to examine the effect of cooperative societies on poverty alleviation among cocoa farmers in Idanre, Ondo State. However, the specific objectives are to:

- i. identify the extent to which agricultural marketing cooperatives enhance income levels among cocoa farmers in Idanre, Ondo State.
- ii. determine the degree to which credit and thrift cooperatives enhance asset ownership among cocoa farmers in Idanre, Ondo State.
- iii. examine the level to which multipurpose cooperative societies enhance food security among cocoa farmers in Idanre, Ondo State.

### **Research Questions**

The following research questions are formulated to guide the study:

- i. To what extent do agricultural marketing cooperatives enhance income levels among cocoa farmers in Idanre, Ondo State?
- ii. To what degree do credit and thrift cooperatives enhance asset ownership among cocoa farmers in Idanre, Ondo State?
- iii. To what level do multipurpose cooperative societies enhance food security among cocoa farmers in Idanre, Ondo State?

### **Hypotheses**

**H0<sub>1</sub>:** Agricultural marketing cooperatives do not significantly enhance income levels among cocoa farmers in Idanre, Ondo State.

**H0<sub>2</sub>:** Credit and thrift cooperatives do not significantly enhance asset ownership among cocoa farmers in Idanre, Ondo State.

**H0<sub>3</sub>:** Multipurpose cooperative societies do not significantly enhance food security among cocoa farmers in Idanre, Ondo State.

### **Conceptual Reviews**

## **Cooperative Societies**

Cooperative societies are voluntary associations of individuals who come together to achieve common economic and social goals through jointly owned and democratically controlled enterprises. They are guided by the principle of “one member, one vote,” which ensures equality in decision-making regardless of capital contribution. This makes cooperatives distinct from profit-oriented business organisations, as they prioritise member welfare and collective benefit over individual profit maximisation.

Cooperatives are widely recognised as important instruments for poverty reduction and rural development. They support entrepreneurial growth and improve livelihoods by pooling resources and enhancing access to credit, markets, and productive inputs (Nwachukwu et al., 2025). They also serve as mechanisms for rural transformation and inclusive development through collective action and mutual support systems (Uzonwanne, 2025). Empirical evidence shows that cooperative participation significantly reduces poverty by improving household access to financial resources and assets (Ijaiya et al., 2020), while also enhancing income generation and welfare outcomes (Ajayi et al., 2021).

Furthermore, cooperatives contribute to sustainable development by strengthening members’ economic capacity and improving access to essential services (Nwachukwu et al., 2025). They have also been identified as effective tools for wealth creation, poverty alleviation, and rural empowerment through financial inclusion and cooperative loans (Akarara & Azebi, 2024; Adesina et al., 2025). Therefore, cooperative societies function as vital grassroots institutions that promote economic empowerment, social inclusion, and improved living standards, particularly in rural agricultural communities.

## **Benefits of Cooperative Societies in the Agricultural Sector**

### ***Access to Agricultural Inputs***

Cooperative societies enhance farmers’ access to essential inputs such as fertilizers, improved seedlings, agrochemicals, and farm equipment at reduced costs through collective purchasing. This reduces production expenses and improves productivity (Ojobo & Damian, 2021).

### ***Access to Credit Facilities***

They also provide financial support through savings and loan schemes, enabling farmers to finance farm operations and expand production. This is particularly important for rural farmers with limited access to formal banking services (Mohammed & Mugerwa, 2021).

### ***Improved Market Access and Pricing***

Cooperatives facilitate collective marketing, which strengthens farmers' bargaining power, reduces exploitation by middlemen, and ensures better prices for agricultural produce, thereby increasing income levels.

### ***Capacity Building and Livelihood Promotion***

Through training and knowledge-sharing activities, cooperatives improve members' skills, financial literacy, and farming techniques, promoting more efficient and sustainable agricultural practices (Muhammad & Daura, 2021).

### ***Income Improvement and Rural Welfare***

Cooperative societies enhance household income and welfare by boosting productivity and supporting access to basic needs such as education, healthcare, and asset acquisition. Women-focused cooperatives further strengthen household economic stability and empowerment (Adelakun et al., 2025).

### ***Agricultural Marketing Cooperative***

Agricultural marketing cooperatives are associations formed by farmers to collectively market and sell their produce in order to secure better prices, reduce exploitation by middlemen, and improve market access. They operate on the principle of collective action, enabling farmers to pool resources and strengthen bargaining power in competitive markets. These cooperatives also provide members with market information such as price trends and demand conditions, which supports informed production and sales decisions. Studies show that marketing cooperatives improve operational efficiency, enhance farmer participation, and reduce transaction costs (Soboh et al., 2019). They also contribute to income growth and rural development by increasing farmers' competitiveness and economic welfare (Dejene & Regasa, 2025). In cocoa-producing areas like Idanre, they play a key role in improving access to profitable markets and boosting farmers' earnings.

### ***Credit and Thrift Cooperative Societies***

Credit and thrift cooperatives are financial institutions that mobilise savings and provide affordable credit to members, especially rural farmers. They operate on mutual assistance, enabling members to access loans for farming, business, and household needs where formal banking services are limited. These cooperatives enhance financial inclusion by offering low-interest loans that support

farm input acquisition and agricultural expansion (Iheanacho & Ahaotu, 2021). They also encourage savings culture, improving financial discipline and poverty reduction (Ogbonna & Kaine, 2023). Furthermore, they strengthen business output and rural livelihoods through improved access to capital and financial stability (Akerele & Adekunmbi, 2024).

### **Multipurpose Cooperative Society**

Multipurpose cooperative societies are flexible organisations that provide a combination of services such as credit facilities, marketing support, input supply, consumer goods distribution, and social welfare to members. Unlike single-purpose cooperatives, they integrate economic and social functions, making them suitable for rural communities with limited access to institutional support. These cooperatives enhance socio-economic empowerment by improving income generation, skills, and living standards through integrated services (Tesfay & Tadele, 2023). They also promote economic development by increasing access to finance and productive investments. In agriculture, they improve supply chain efficiency and market access, strengthening farmers' productivity and income (Minzar & Mishra, 2025). However, they support poverty reduction, job creation, and rural development by combining financial and non-financial services into one system.

### **Dimensions of Poverty Alleviation**

Income level is a key dimension of poverty alleviation because it determines the ability of households to meet basic needs such as food, housing, healthcare, and education. Higher income reduces poverty by increasing purchasing power and enabling investment in productive activities. In rural settings, income is largely influenced by agricultural productivity, access to markets, credit facilities, and participation in cooperative societies. Cooperatives enhance income through collective marketing, financial support, and entrepreneurial opportunities, which strengthen rural livelihoods (Nwachukwu et al., 2025).

Asset ownership and economic stability represent another important dimension of poverty alleviation. Assets such as farmland, livestock, equipment, housing, and savings provide long-term financial security and reduce vulnerability to economic shocks. Unlike income, which may fluctuate, assets ensure sustained economic resilience and improved welfare. Cooperative societies facilitate asset acquisition by providing credit facilities, savings schemes, and investment opportunities that enable members to expand productive capacity and improve living standards (Kareem et al., 2024).

Food security among rural farmers refers to consistent access to sufficient, safe, and nutritious food for healthy living. It is closely linked to agricultural productivity, income, and access to farm inputs. Cooperative societies improve food security by providing credit, improved inputs, and collective support systems that enhance farm output and household nutrition. Studies show that cooperative participation significantly strengthens food availability and rural welfare outcomes (Erinosho & Fawole, 2022).

### **Theoretical Framework**

The adopted theoretical framework for this study is the Cooperative Theory, originally propounded by Ivan Emelianoff in the early 20th century (1930s–1940s). The theory explains how individuals with similar socio-economic challenges organise themselves into cooperative societies to improve their welfare through collective ownership, mutual assistance, and democratic decision-making. It assumes that when individuals pool their resources and work collectively, they are able to reduce costs, improve efficiency, and enhance their overall socio-economic wellbeing. This makes the theory particularly relevant in explaining the functioning of cooperative institutions in rural and agricultural settings.

The Cooperative Theory is preferred for this study because it aligns directly with the objectives of examining the role of agricultural marketing cooperatives, credit and thrift cooperatives, and multipurpose cooperative societies in influencing income level, asset ownership, and food security among cocoa farmers in Idanre. The theory provides a useful explanation of how collective action, such as joint marketing, pooled savings, and access to cooperative loans, contributes to poverty alleviation and improved livelihoods. Although the theory does not fully account for external economic pressures or unequal participation among members, it remains highly relevant because it effectively explains how cooperative structures function as instruments of economic empowerment and rural development among farming households.

### **Empirical Reviews**

Soboh, Lansink and Van Dijk (2019) examined the efficiency of agricultural cooperatives compared with investor-owned firms using a quantitative comparative design based on secondary panel data from European agribusiness sectors. The study employed stochastic frontier analysis to assess performance efficiency. Findings showed that cooperatives are more effective in member welfare distribution but less efficient in profit maximisation due to governance structures. The

study concluded that cooperatives remain important for rural development. However, reliance on secondary econometric data limits contextual understanding of farmer behaviour and weakens applicability to developing economies like Nigeria.

Yusuf, Yahaya and Muhammed (2026) studied the impact of Trust Multipurpose Cooperative Society on members' economic development in Kaduna State using a survey design with 300 respondents. Data were analysed using regression techniques. Findings revealed that trust significantly improves income, savings, and economic opportunities. The study concluded that trust-based cooperatives enhance economic development. However, reliance on perceptual data may introduce bias, and external economic factors influencing cooperative outcomes were not fully considered.

Dejene and Regasa (2025) investigated factors influencing agricultural marketing cooperative success using a mixed-method design with 250 respondents. Findings showed that management competence, finance access, participation, and market linkages significantly determine success. The study concluded that strong governance enhances sustainability. However, limited geographical coverage and reliance on self-reported data reduce generalisability and may introduce response bias.

Lerman and Parliament (2025) analysed size and industry effects on cooperative performance using a large quantitative dataset. Results indicated that larger cooperatives perform better due to economies of scale, while industry type also affects outcomes. The study concluded that structure influences efficiency. However, behavioural and socio-cultural factors were overlooked, limiting contextual relevance.

Gomina et al. (2025) examined savings and credit cooperatives and poverty levels among 250 farmers in Niger State using survey data and regression analysis. Findings revealed improved income, investment, and consumption patterns. The study concluded that cooperatives reduce poverty. However, cross-sectional data limits long-term analysis, and non-financial welfare indicators were not fully explored.

Minzar and Mishra (2025) explored multipurpose cooperatives in India's agricultural supply chain using qualitative secondary data. Findings showed improved market access, reduced intermediaries, and stronger bargaining power. The study concluded cooperatives enhance supply chain efficiency. However, lack of field data reduces contextual reliability for developing countries.

Nwachukwu et al. (2025) examined cooperative societies and entrepreneurship in South West Nigeria using survey data from 350 respondents. Findings revealed positive effects on income, entrepreneurship, and poverty reduction. The study concluded cooperatives promote economic empowerment. However, reliance on self-reported data and regional focus limits broader applicability.

### **Methodology**

This study adopted a descriptive research design to examine the relationship between cooperative societies and poverty alleviation among cocoa farmers in Idanre, Ondo State. The design was considered appropriate because it enabled the collection of factual data from respondents without manipulation of variables. It also helped to explain how agricultural marketing cooperatives, credit and thrift cooperatives, and multipurpose cooperative societies influence income level, asset ownership, and food security among cocoa farmers.

The population of the study comprised all registered cocoa farmers who are members of agricultural cooperative societies in Idanre Local Government Area of Ondo State. The target population included members of agricultural marketing cooperatives, agricultural credit and thrift cooperatives, and multipurpose cooperative societies operating within the area. Information obtained from the Cooperative Department of Idanre Local Government indicated that there were 1,220 registered cooperative cocoa farmers as at 2026. These registered cooperative members constituted the population for the study.

The sample size for the study was determined using Taro Yamane's (1967) formula for finite populations in order to ensure adequate representation and minimise sampling error. Using the formula, a sample size of 250 respondents was obtained from the population of 1,220 cooperative cocoa farmers. A simple random sampling technique was adopted to ensure that every member of the population had an equal opportunity of being selected, thereby reducing sampling bias and enhancing representativeness.

Data for the study were collected through the use of a structured questionnaire. The questionnaire was divided into sections to capture demographic information and responses relating to agricultural marketing cooperatives, credit and thrift cooperatives, multipurpose cooperative societies, and poverty alleviation indicators. A five-point Likert scale was used to measure respondents' opinions. The instrument was validated through face and content validity by experts

in cooperative management and research methodology. The reliability of the research instrument was tested using Cronbach's Alpha to determine the internal consistency of the questionnaire items. A pilot study was conducted among cooperative cocoa farmers outside the study area. The results showed that Agricultural Marketing Cooperatives and Income Level recorded 0.901, Credit and Thrift Cooperatives and Asset Ownership recorded 0.884, Multipurpose Cooperative Societies and Food Security recorded 0.876, while Poverty Alleviation recorded 0.868. The overall instrument reliability value was 0.882. Since all values exceeded the recommended threshold of 0.70, the instrument was considered reliable and suitable for data collection.

The questionnaire was administered directly to respondents by the researcher to ensure proper understanding and a high response rate. Data collected were analysed using descriptive statistics such as frequencies, percentages, and mean scores, while regression analysis was employed to test the hypotheses using SPSS version 25.

## Results and Conclusion

**Table 1: Socio-Demographic Characteristics of the Respondents**

Variables	Socio-Demographic	Frequency	Percentage (%)
<b>Gender</b>	Male	150	60.0
	Female	100	40.0
	<b>Total</b>	<b>250</b>	<b>100.0</b>
<b>Age</b>	Less than 30 years	20	8.0
	31–40 years	70	28.0
	41–50 years	95	38.0
	51–60 years	45	18.0
	61 years and above	20	8.0
	<b>Total</b>	<b>250</b>	<b>100.0</b>
<b>Highest Educational Qualification</b>	No Formal Education	30	12.0
	Primary Education	50	20.0
	Secondary Education	85	34.0
	ND/NCE	45	18.0
	HND/B.Sc and above	40	16.0
	<b>Total</b>	<b>250</b>	<b>100.0</b>
<b>Years in Cocoa Farming</b>	0–5 years	40	16.0
	6–10 years	65	26.0
	11–15 years	80	32.0
	16 years and above	65	26.0
	<b>Total</b>	<b>250</b>	<b>100.0</b>
<b>Type of Cooperative Society</b>	Agricultural Marketing Cooperative	90	36.0
	Credit and Thrift Cooperative	75	30.0
	Multipurpose Cooperative Society	85	34.0
	<b>Total</b>	<b>250</b>	<b>100.0</b>

**Source: Researcher's Computation 2026**

Table 1 presents the socio-demographic characteristics of the respondents who participated in the study. The gender distribution shows that 60% of the respondents were male, while 40% were female, indicating that cocoa farming and cooperative participation in Idanre are predominantly male-oriented, although female involvement remains significant. This suggests that both genders actively participate in cooperative activities aimed at improving livelihood outcomes.

The age distribution reveals that the majority of respondents, representing 38%, were within the age bracket of 41–50 years, followed by 28% within 31–40 years. Respondents aged 51–60 years accounted for 18%, while those below 30 years and above 61 years each represented 8%. This

implies that cocoa farming is largely dominated by economically active and experienced adults who are likely to possess practical farming knowledge and cooperative experience.

In terms of educational qualification, 34% of the respondents possessed secondary education, 20% had primary education, 18% held ND/NCE qualifications, while 16% had HND/B.Sc and above. Only 12% had no formal education. This indicates that most respondents possess basic educational exposure, which may enhance their understanding of cooperative activities, financial management, and agricultural practices.

The table further shows that 32% of respondents had spent 11–15 years in cocoa farming, while 26% each had 6–10 years and above 16 years of farming experience. This suggests that the respondents are relatively experienced cocoa farmers. Lastly, 36% belonged to agricultural marketing cooperatives, 34% to multipurpose cooperatives, and 30% to agricultural credit and thrift cooperatives, indicating balanced participation across cooperative types in the study area.

## **Test of Hypotheses**

### **Hypothesis One**

**H0:** Agricultural marketing cooperatives do not significantly enhance income levels among cocoa farmers in Idanre, Ondo State.

**Table 2: Model Summary of hypothesis 1**

<b>Model</b>		<b>Sum of Squares</b>	<b>Df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
1	Regression	266.773	1	266.773	57.058	.000 <sup>b</sup>
	Residual	598.457	248	4.675		
	Total	865.231	249			
<b>Model</b>	<b>R</b>	<b>R-Square</b>	<b>Adjusted R square</b>	<b>Std Error of Estimate</b>	<b>Sig.</b>	
1	.755 <sup>a</sup>	.570	.565	2.16228	.000 <sup>b</sup>	

a. Dependent Variable: Income Level

b. Predictors: (Constant), Agricultural marketing cooperatives

Source: SPSS Output, 2026

Table 2 presents the regression analysis on the effect of agricultural marketing cooperatives on income levels among cocoa farmers in Idanre, Ondo State. The result shows a strong positive relationship between agricultural marketing cooperatives and income level, as indicated by the correlation coefficient ( $R = 0.755$ ). The coefficient of determination ( $R^2 = 0.570$ ) implies that

agricultural marketing cooperatives explain 57.0% of the variation in income levels among cocoa farmers, while the remaining 43.0% is influenced by other factors not captured in the model. The ANOVA result revealed an F-value of 57.058 with a significance level of 0.000, which is less than 0.05. This indicates that the model is statistically significant. Therefore, the null hypothesis is rejected, while the alternative hypothesis is accepted, concluding that agricultural marketing cooperatives significantly enhance income levels among cocoa farmers in Idanre, Ondo State.

**Hypothesis Two**

**H0<sub>2</sub>:** Credit and thrift cooperatives do not significantly enhance asset ownership among cocoa farmers in Idanre, Ondo State.

**Table 3: Model Summary of hypothesis 2**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	25.536	1	25.536	77.853	.000
	Residual	81.328	248	.328		
	Total	106.864	249			
Model	R	R-Square	Adjusted R square	Std Error of Estimate	Sig.	
1	.869 <sup>a</sup>	.755	.750	3.03182	.000 <sup>b</sup>	

- a. Dependent Variable: Asset Ownership
- b. Predictors: (Constant), Credit and thrift cooperatives

Source: SPSS Output, 2026

Table 3 presents the regression analysis on the effect of credit and thrift cooperatives on asset ownership among cocoa farmers in Idanre, Ondo State. The result indicates a very strong positive relationship between agricultural credit and thrift cooperatives and asset ownership, as shown by the correlation coefficient (R = 0.869). The coefficient of determination (R<sup>2</sup> = 0.755) reveals that 75.5% of the variation in asset ownership among cocoa farmers is explained by credit and thrift cooperative activities, while 24.5% is influenced by other factors outside the model. The ANOVA result shows an F-value of 77.853 with a significance level of 0.000, which is less than the 0.05 level of significance. This indicates that the regression model is statistically significant. Therefore, the null hypothesis is rejected, while the alternative hypothesis is accepted, concluding that credit

and thrift cooperatives significantly enhance asset ownership among cocoa farmers in Idanre, Ondo State.

### Hypothesis Three

**H0<sub>3</sub>:** Multipurpose cooperative societies do not significantly enhance food security among cocoa farmers in Idanre, Ondo State.

**Table 4: Model Summary of hypothesis 3**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	26.497	1	26.497	109.041	.023
	Residual	60.367	248	.243		
	Total	86.864	249			
Model	R	R-Square	Adjusted R square	Std Error of Estimate	Sig.	
1	.676 <sup>a</sup>	.457	.450	2.47544	.023	

a. Dependent Variable: Food Security

b. Predictors: (Constant), Multipurpose cooperative societies

Source: SPSS Output, 2026

Table 4 presents the regression analysis on the effect of multipurpose cooperative societies on food security among cocoa farmers in Idanre, Ondo State. The result indicates a positive relationship between multipurpose cooperative societies and food security, as shown by the correlation coefficient ( $R = 0.676$ ). The coefficient of determination ( $R^2 = 0.457$ ) implies that 45.7% of the variation in food security among cocoa farmers is explained by multipurpose cooperative society activities, while the remaining 54.3% is attributes to other factors not included in the model such as climate change, national inflation or soil quality. The ANOVA result revealed an F-value of 109.041 with a significance value of 0.023, which is less than the 0.05 level of significance. This indicates that the regression model is statistically significant. Therefore, the null hypothesis is rejected, while the alternative hypothesis is accepted, concluding that multipurpose cooperative societies significantly enhance food security among cocoa farmers in Idanre, Ondo State.

### Discussion of Findings

The findings of the study revealed that cooperative societies significantly contribute to poverty alleviation among cocoa farmers in Idanre, Ondo State. Agricultural marketing cooperatives were

found to enhance income levels through improved market access, collective bargaining, and reduced exploitation by middlemen, supporting the findings of Dejene and Regasa (2025). Credit and thrift cooperatives significantly improved asset ownership and financial stability by providing accessible credit facilities, which agrees with Okafor et al. (2023). Furthermore, multipurpose cooperative societies positively influenced food security through the provision of farm inputs, welfare support, and other socio-economic services, consistent with Yusuf et al. (2026). Therefore, cooperative societies contribute to poverty alleviation among cocoa farmers.

### **Conclusion**

The study concluded that cooperative societies significantly contribute to poverty alleviation among cocoa farmers in Idanre, Ondo State. Agricultural marketing cooperatives enhance income levels through improved market access and stronger bargaining power, while credit and thrift cooperatives improve asset ownership through loans, savings opportunities, and financial support for farm expansion and household development. In addition, multipurpose cooperative societies strengthen food security through the provision of farm inputs and welfare assistance. The findings further revealed that, despite concerns regarding operational inefficiencies such as poor governance, weak financial management, and low member participation, cooperative societies still play important roles in alleviating poverty among cocoa farmers, improving farmers' welfare and livelihood outcomes. This suggests that cooperative structures remain relevant instruments for addressing poverty-related challenges among cocoa farmers when effectively managed and properly supported. Therefore, the study affirmed that cooperative societies are effective mechanisms for improving the socioeconomic wellbeing, financial stability, and livelihood sustainability of cocoa farmers in the study area.

### **Recommendations**

Based on the findings of the study conducted among cocoa farmers in Idanre, the following recommendations are made:

- i. **Agricultural marketing cooperatives and income improvement:** Government and cooperative stakeholders should strengthen agricultural marketing cooperatives by providing access to better market information systems, storage facilities, and transportation support. This will further enhance farmers' bargaining power, reduce exploitation by middlemen, and improve income levels among cocoa farmers.

- ii. **Credit and thrift cooperatives and asset ownership:** Cooperative societies should expand their credit and savings schemes by increasing loan accessibility, reducing interest rates, and ensuring timely disbursement of funds. This will enable cocoa farmers to acquire more productive assets, expand their farms, and improve their overall financial stability.
- iii. **Multipurpose cooperatives and food security:** Multipurpose cooperative societies should intensify support services such as provision of farm inputs, extension services, and emergency food assistance programs. This will help improve food availability, enhance household nutrition, and strengthen food security among cocoa farming households.

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