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ACCESS TO COOPERATIVE CREDIT AND AGRICULTURAL PRODUCTIVITY OF MEMBERS IN SOUTH-SOUTH NIGERIA

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Abstract

Agricultural credit is a critical resource for improving the productivity of smallholder farmers, and agricultural cooperatives serve as important channels for providing credit to their members. Despite the increasing role of cooperatives in agricultural financing, the extent to which access to cooperative credit influences members' agricultural productivity in Bayelsa, Edo, and Cross River States of South-South Nigeria has not been adequately established. This study therefore examined the effect of access to cooperative credit on members' agricultural productivity in the study area. The study was anchored on the Collective Action Theory propounded by Olson (1965), which posits that individuals who act collectively through organizations such as cooperatives are better able to overcome resource constraints and achieve higher levels of productivity than those acting individually. A descriptive survey research design was adopted for the study. The population comprised 35,700 registered agricultural cooperative members in Bayelsa, Edo, and Cross River States. A sample of 396 respondents was selected using a multi-stage sampling technique. Data were collected using a structured questionnaire validated by experts, with a Cronbach's alpha reliability coefficient of 0.83. The data were analyzed using descriptive statistics, Pearson Product Moment Correlation, independent samples t-test, and Multiple Regression Analysis at the 0.05 level of significance. The specific objectives of the study were to determine the level of access to cooperative credit among members, assess the effect of cooperative credit access on members' agricultural productivity, and compare the agricultural productivity of members with access to cooperative credit and those without access. The findings revealed that access to cooperative credit among members was moderate, with inadequate loan size and delays in loan disbursement identified as major challenges. The results further showed that access to cooperative credit had a significant positive relationship with members' agricultural productivity ($r = .512$, $p < .05$). Multiple regression analysis indicated that cooperative credit significantly predicted agricultural productivity ($\beta = .428$, $p < .05$), accounting for 46.1% of the variation in members' productivity ($R^2 = .461$). The independent samples t-test also showed that members who had access to cooperative credit recorded significantly higher agricultural productivity than those without access ($t = 6.14$, $p < .05$). The study concluded that access to cooperative credit significantly enhances the agricultural productivity of cooperative members in Bayelsa, Edo, and Cross River States. It recommended that cooperative societies should strengthen partnerships with financial institutions and government agencies to improve credit availability, reduce lending costs, and ensure timely disbursement of loans to members. These measures would enhance agricultural productivity, improve farmers' incomes, and contribute to sustainable agricultural development in South-South Nigeria.

Keywords: Agricultural Productivity, Collective Action Theory, Cooperative Credit, Accessing Credit.

INTRODUCTION

Agriculture remains a key sector of the Nigerian economy, providing employment, food, raw materials, and income for millions of households. It plays a vital role in food security, poverty reduction, and rural development, particularly in developing countries where smallholder farmers dominate agricultural production (Food and Agriculture Organization [FAO], 2023). However, agricultural productivity in Nigeria is constrained by inadequate financing, poor infrastructure, climate change, and limited access to modern farming technologies (National Bureau of Statistics [NBS], 2024).

Access to agricultural credit is essential for improving productivity, as it enables farmers to purchase improved seeds, fertilizers, agrochemicals, machinery, and other production inputs. Farmers with adequate credit are more likely to adopt modern technologies, expand production, and achieve higher productivity and income than those relying on personal savings or informal financing (World Bank, 2023; FAO, 2023). Despite its importance, many smallholder farmers have limited access to formal credit due to high lending risks, inadequate collateral, and restrictive banking conditions (Central Bank of Nigeria [CBN], 2024).

Agricultural cooperatives help bridge this financing gap by mobilizing members' savings and providing affordable credit, farm inputs, training, and marketing services. According to the International Cooperative Alliance (ICA, 2023), cooperatives promote members' economic welfare through collective ownership and democratic management. This role is supported by the Collective Action Theory, which argues that individuals working together can overcome common constraints more effectively than acting alone (Olson, 1965).

In South-South Nigeria, particularly Bayelsa, Edo, and Cross River States, agricultural cooperatives support farmers through various credit programmes. However, many members still face challenges such as inadequate loan amounts, delayed disbursement, and limited cooperative financial capacity, which restrict agricultural productivity (Federal Ministry of Agriculture and Food Security [FMAFS], 2024).

Although previous studies have examined agricultural finance and cooperative development, limited empirical evidence exists on the effect of cooperative credit on members' agricultural productivity in Bayelsa, Edo, and Cross River States, particularly when comparing members with and without access to cooperative credit. This gap provided the justification for this study.

Agricultural productivity among smallholder farmers in Nigeria remains below its potential despite numerous government interventions aimed at improving agricultural financing and food production. One of the major constraints responsible for this situation is inadequate access to affordable agricultural credit. Many cooperative members are unable to obtain sufficient financial resources to purchase improved seeds, fertilizers, agrochemicals, farm equipment, and other production inputs required for increased agricultural productivity (CBN, 2024).

Agricultural cooperatives were established to address these financial constraints by mobilizing savings and providing affordable loans to members. However, evidence suggests that many cooperative members still experience challenges such as inadequate loan amounts,

delayed loan disbursement, high demand for limited cooperative funds, and inability to meet loan requirements. These challenges reduce members' ability to invest adequately in agricultural production and consequently limit farm output.

The problem appears to be more pronounced in Bayelsa, Edo, and Cross River States, where agricultural cooperatives operate under varying financial capacities and institutional conditions. While some members benefit from cooperative credit facilities, many others receive insufficient financial support or are unable to access loans altogether. Consequently, disparities in agricultural productivity continue to exist among cooperative members.

Previous studies have examined cooperative development, agricultural financing, and rural credit in different parts of Nigeria. However, most focused on general cooperative performance, farmers' income, or rural finance without specifically assessing the level of access to cooperative credit, its effect on agricultural productivity, and the productivity differences between members who have access to cooperative credit and those who do not within the study area. This represents an important knowledge gap requiring empirical investigation.

It is therefore necessary to examine the extent to which access to cooperative credit influences agricultural productivity among cooperative members in Bayelsa, Edo, and Cross River States of South-South Nigeria.

Research Objectives

The main purpose of this study is to examine the relationship between access to cooperative credit and agricultural productivity of members in Bayelsa, Edo, and Cross River States, South-South Nigeria.

Specifically, the study seeks to:

1. determine the level of access to cooperative credit among members in Bayelsa, Edo, and Cross River States;
2. assess the effect of cooperative credit access on members' agricultural productivity in the study area; and
3. compare the agricultural productivity of members with access to cooperative credit and those without access.

Research Questions

The following research questions guided the study:

1. What is the level of access to cooperative credit among members in Bayelsa, Edo, and Cross River States?
2. To what extent does access to cooperative credit affect members' agricultural productivity in the study area?
3. Is there any difference in agricultural productivity between cooperative members who have access to cooperative credit and those who do not?

Research Hypotheses

The following null hypotheses were formulated and tested at the 0.05 level of significance:

H_{01}: Access to cooperative credit has no significant effect on members' agricultural productivity in Bayelsa, Edo, and Cross River States.

H_{02}: There is no significant difference in agricultural productivity between cooperative members with access to cooperative credit and those without access.

Significance of the Study

The findings of this study will be beneficial to cooperative members, cooperative leaders, policymakers, financial institutions, agricultural extension agencies, researchers, and development organizations.

The study will help cooperative members understand the importance of cooperative credit in improving agricultural productivity and encourage active participation in cooperative financial programmes.

Cooperative leaders will benefit from the findings by identifying weaknesses in existing credit delivery systems and adopting measures that improve loan accessibility, loan size, and timely disbursement to members.

Government agencies such as the Federal Ministry of Agriculture and Food Security and the Central Bank of Nigeria will find the study useful in formulating policies that strengthen agricultural cooperative financing and improve rural agricultural development.

Financial institutions will benefit by gaining better insight into the credit needs of cooperative members, thereby designing more flexible and farmer-friendly agricultural loan products.

Researchers and scholars will benefit because the study will contribute to existing literature on agricultural finance, cooperative development, and rural productivity while serving as reference material for future studies.

Scope of the Study

The study is limited to registered agricultural cooperative members in Bayelsa, Edo, and Cross River States of South-South Nigeria. It focuses specifically on access to cooperative credit and agricultural productivity.

LITERATURE REVIEW

This chapter reviews relevant literature on access to cooperative credit and agricultural productivity of members in South-South Nigeria. The review is organized under the following sub-headings: conceptual review, theoretical framework, empirical review, conceptual framework, gaps in the literature, and summary of the reviewed literature. The chapter examines existing concepts, theories, and empirical evidence relating to agricultural cooperatives, cooperative credit, agricultural productivity, and the relationship between access to cooperative credit and members' productivity.

Conceptual Review

Concept of Agricultural Cooperatives

Agricultural cooperatives are voluntary, democratically managed organizations through which farmers collectively promote their economic and social welfare. According to the International Cooperative Alliance (ICA, 2023), cooperatives enable members to pool resources, reduce production risks, strengthen bargaining power, and access services that are

difficult to obtain individually. In Nigeria, they facilitate access to credit, farm inputs, extension services, mechanization, and marketing opportunities, thereby enhancing agricultural productivity and food security (Federal Ministry of Agriculture and Food Security [FMAFS], 2024). Through training, collective marketing, and affordable credit, cooperatives improve members' productivity and income (Food and Agriculture Organization [FAO], 2023). Despite challenges such as inadequate funding and weak management, agricultural cooperatives remain important institutions for promoting sustainable rural development (Central Bank of Nigeria [CBN], 2024).

Concept of Cooperative Credit

Cooperative credit refers to financial assistance provided by cooperative societies to members for productive activities, especially agricultural production. It enables farmers to purchase farm inputs, adopt improved technologies, and expand their farming operations, thereby increasing productivity (International Fund for Agricultural Development [IFAD], 2023). Compared with commercial bank loans, cooperative credit offers lower interest rates, flexible repayment terms, and fewer collateral requirements. It also promotes financial inclusion by providing working capital for production, processing, storage, and marketing (Central Bank of Nigeria [CBN], 2024). Although limited by inadequate capital and poor loan recovery, cooperative credit remains an important tool for improving agricultural productivity and rural livelihoods (CBN, 2024).

Access to Cooperative Credit

Access to cooperative credit refers to members' ability to obtain adequate, affordable, and timely loans from their cooperative societies for agricultural production. It depends on factors such as savings, share capital, loan repayment history, cooperative financial capacity, and loan procedures. Timely and adequate credit enables farmers to acquire improved inputs and technologies needed to increase productivity (Food and Agriculture Organization [FAO], 2023). However, inadequate loan amounts, delayed disbursement, and weak financial management continue to limit farmers' access to cooperative credit. Improving access therefore requires stronger cooperative capitalization, better financial management, and supportive government policies.

Concept of Agricultural Productivity

Agricultural productivity is the efficiency with which inputs such as land, labour, capital, and technology are converted into agricultural outputs. It is commonly measured by crop yield per hectare and serves as an important indicator of agricultural performance (Organisation for Economic Co-operation and Development [OECD], 2023). Productivity is influenced by factors such as access to quality inputs, modern technologies, extension services, and agricultural finance. In Nigeria, low productivity is linked to inadequate financing, poor infrastructure, limited mechanization, and insufficient extension services, highlighting the need for improved access to finance, technology, and training (World Bank, 2023).

Cooperative Credit and Agricultural Productivity

Cooperative credit enhances agricultural productivity by providing farmers with financial resources to purchase inputs, adopt improved technologies, and expand production (Food and Agriculture Organization [FAO], 2023). Affordable credit with flexible repayment terms enables smallholder farmers to finance production at the appropriate time, while access to

extension services and training further improves production efficiency (Central Bank of Nigeria [CBN], 2024; International Fund for Agricultural Development [IFAD], 2023). Evidence indicates that farmers with access to cooperative credit achieve higher productivity than those without such access (World Bank, 2023). However, inadequate cooperative capital, poor loan recovery, and limited government support continue to reduce the effectiveness of cooperative credit programmes (CBN, 2024).

Theoretical Framework

This study is anchored on the Collective Action Theory and the Financial Intermediation Theory, which explain how agricultural cooperatives facilitate access to credit and improve members' agricultural productivity.

Collective Action Theory

The Collective Action Theory, propounded by Olson (1965), posits that individuals achieve greater benefits by working collectively than independently. In agriculture, the theory explains that cooperative societies enable farmers to pool resources, share risks, mobilize savings, and access cooperative credit, thereby overcoming constraints such as inadequate capital and poor market access. It is relevant to this study because it explains how cooperative membership improves farmers' access to productive resources, although it assumes equal participation by all members, which may not always occur in practice (Olson, 1965).

Financial Intermediation Theory

The Financial Intermediation Theory, developed by Gurley and Shaw (1960), explains how financial institutions mobilize savings and channel funds to productive investments. Agricultural cooperatives perform this role by mobilizing members' savings and providing affordable credit for farm production. Through cooperative credit, farmers can acquire farm inputs, adopt improved technologies, and expand production, thereby enhancing agricultural productivity. Although the theory gives limited attention to social factors such as trust and governance, it provides a useful explanation of the credit delivery function of cooperatives.

Applicability of the Theories to the Study

The study is primarily anchored on the Collective Action Theory, which explains how cooperative societies improve members' access to credit through collective resource mobilization. The Financial Intermediation Theory complements it by explaining how cooperatives mobilize savings and provide financial services to members. Together, the theories provide a sound framework for explaining the influence of cooperative credit on the agricultural productivity of members in Bayelsa, Edo, and Cross River States.

Empirical Review

This section reviews empirical studies on cooperative credit, agricultural productivity, and the relationship between cooperative credit and agricultural productivity.

Empirical Studies on Cooperative Credit

Empirical evidence indicates that cooperative credit improves farmers' access to finance and productive inputs, leading to better agricultural performance. Afolabi and Olagunju (2021) found that cooperative credit significantly enhanced farmers' ability to purchase inputs and expand cultivated land ($\beta = .41$, $p < .05$). Similarly, Abdullahi and Ibrahim (2022) reported that

regular access to cooperative loans increased production, although inadequate loan amounts and delayed disbursement limited effectiveness. Nwankwo and Okeke (2022) also found that cooperative credit promoted investment in improved inputs and mechanization despite challenges such as inadequate capitalization and poor loan recovery. Likewise, IFAD (2023) reported that cooperative financing enhances financial inclusion and agricultural investment. However, most studies focused on general access to credit rather than comparing members with and without cooperative credit.

Empirical Studies on Agricultural Productivity

Studies have shown that agricultural productivity is influenced by access to productive resources, especially finance, improved inputs, and extension services. Umeh and Odo (2022) found that agricultural credit, improved inputs, and extension services significantly increased farm productivity. Similarly, the World Bank (2023) reported that farmers with better financial access achieved higher crop yields through greater technology adoption. The FAO (2023) identified inadequate finance, quality inputs, and extension services as major constraints to productivity, while the National Bureau of Statistics (2024) attributed low agricultural productivity in Nigeria partly to limited access to credit and modern technologies.

Empirical Studies on Cooperative Credit and Agricultural Productivity

Previous studies consistently established a positive relationship between cooperative credit and agricultural productivity. Ojo and Adewale (2021) found a significant positive relationship between cooperative credit and cassava productivity ($r = .59$, $p < .05$), while Eze and Chukwu (2023) reported that cooperative credit significantly improved rice farmers' crop yields ($\beta = .46$, $p < .001$). Similarly, the African Development Bank (AfDB, 2023) and IFAD (2023) concluded that cooperative financing enhances productivity, technology adoption, and household income. However, most of these studies were conducted outside South-South Nigeria or focused on specific crops, creating the need for the present study in Bayelsa, Edo, and Cross River States.

Summary of Empirical Studies

Author	Year	Topic	Method	Major Findings	Gap Filled by Present Study
Afolabi & Olagunju	2021	Cooperative credit and smallholder production	Survey; Regression	Cooperative credit significantly increased farm output.	Did not compare beneficiaries and non-beneficiaries of cooperative credit in South-South Nigeria.
Ojo & Adewale	2021	Cooperative credit and cassava productivity	Survey; Correlation and Regression	Positive relationship between cooperative credit and productivity.	Focused only on cassava farmers in South-West Nigeria.

Abdullahi & Ibrahim	2022	Access to cooperative credit among rural farmers	Survey; Correlation and Regression	Access to cooperative credit improved production but was constrained by inadequate loan size.	Conducted outside the study area.
Nwankwo & Okeke	2022	Cooperative credit delivery and agricultural financing	Survey; Regression	Cooperative credit improved investment in farm inputs.	Did not examine productivity differences between members with and without credit access.
Umeh & Odo	2022	Determinants of agricultural productivity	Survey; Regression	Credit, extension services, and improved inputs significantly increased productivity.	Examined agricultural productivity generally rather than cooperative credit specifically.
Eze & Chukwu	2023	Cooperative financing and rice productivity	Survey; Regression	Cooperative credit significantly influenced rice yield.	Limited to rice farmers in South-East Nigeria.
IFAD	2023	Rural finance and agricultural development	Survey and Programme Evaluation	Cooperative finance improved technology adoption and productivity.	General international evidence with limited focus on South-South Nigeria.
AfDB	2023	Agricultural finance in West Africa	Regional Survey	Cooperative credit improved rural productivity and income.	Did not focus on cooperative members in Bayelsa, Edo, and Cross River States.

Gaps in the Literature

The empirical review shows that cooperative credit positively influences agricultural productivity by improving farmers' access to production resources. However, several gaps remain. Most previous studies were conducted in South-West, South-East, or Northern Nigeria, with limited evidence from Bayelsa, Edo, and Cross River States, making their findings less applicable to the present study area.

In addition, many studies examined agricultural finance generally rather than focusing specifically on cooperative credit. Few studies also compared the productivity of cooperative members with access to credit and those without access. Furthermore, many investigations were limited to specific crops or categories of farmers. This study addresses these gaps by examining the effect of cooperative credit on agricultural productivity among registered cooperative members in Bayelsa, Edo, and Cross River States.

Summary of Reviewed Literature

This chapter reviewed the concepts of agricultural cooperatives, cooperative credit, and agricultural productivity. The review established that agricultural cooperatives improve members' access to financial resources, farm inputs, and other support services that enhance agricultural production.

The study was anchored on the Collective Action Theory and the Financial Intermediation Theory, which explain how cooperative organizations mobilize resources and provide credit to improve members' productivity. The empirical review further revealed that cooperative credit significantly enhances agricultural productivity. However, limited empirical evidence exists for Bayelsa, Edo, and Cross River States, thereby justifying the present study.

Methodology

The methodology adopted for investigating access to cooperative credit and agricultural productivity of members in South-South Nigeria. The study employed a descriptive survey and correlational research design**,** which enabled the collection of quantitative data and examination of the relationship between cooperative credit and agricultural productivity (Creswell & Creswell, 2018). The study was conducted in Bayelsa, Edo, and Cross River States**,** selected because of their high concentration of agricultural cooperative societies.

The population comprised 35,700 registered agricultural cooperative members, while a sample of 396 respondents was determined using the Taro Yamane (1967) formula**.** A multi-stage sampling technique involving purposive, random, proportionate, and simple random sampling methods was used to select the respondents.

Data were collected using a researcher-developed questionnaire titled Questionnaire on Cooperative Credit and Agricultural Productivity (QCCAP)**.** The instrument consisted of five sections covering respondents' demographic characteristics, access to cooperative credit, credit challenges, agricultural productivity, and improvement strategies, and was measured using a four-point Likert scale**.**

The instrument was subjected to face and content validation by three experts, while its reliability was established through a pilot study involving 40 cooperative members in Delta State using Cronbach's Alpha, which produced an overall reliability coefficient of 0.84, indicating high internal consistency (Field, 2018).

Data collection was carried out with the assistance of trained research assistants after obtaining permission from cooperative leaders and informed consent from respondents. Of the 396 questionnaires administered, 387 (97.7%) were correctly completed and returned for analysis.

Data were analyzed using SPSS Version 27. Descriptive statistics (frequency, percentage, mean, and standard deviation) were used to answer the research questions, while Pearson Product Moment Correlation**,** Multiple Regression Analysis, and the Independent Samples t-test were used to test the hypotheses at the 0.05 level of significance. The regression model specified agricultural productivity as the dependent variable and loan amount, timeliness of credit, interest rate, and repayment period as the independent variables. Finally, ethical principles of voluntary participation, informed consent, confidentiality, anonymity, and participants' right to withdraw were strictly observed throughout the study.

DATA PRESENTATION, ANALYSIS AND DISCUSSION OF FINDINGS

This chapter presented the analysis of data collected on access to cooperative credit and agricultural productivity of members in South-South Nigeria. Out of the 396 questionnaires administered, 387 were correctly completed and returned, representing a 97.7% response rate**,** which was considered adequate for the study. The respondents were predominantly male (60.0%)**,** mostly aged 40–59 years (50.9%)**,** had secondary education (44.2%)**,** and had belonged to cooperative societies for 2–5 years (45.0%)**.**

The findings revealed that cooperative members had a high level of access to cooperative credit (Grand Mean = 2.74), although concerns remained regarding loan timeliness and **i**nterest rates. The Pearson Product Moment Correlation analysis showed a moderate positive and statistically significant relationship between cooperative credit access and agricultural productivity **(**$r = .512$, $p < .05$), indicating that increased access to cooperative credit was associated with higher agricultural productivity.

Multiple regression analysis further established that cooperative credit significantly influenced agricultural productivity, explaining 46.1% of the variation in productivity **(**$R^2 = .461$; $F(4,382) = 81.63$, $p < .001$**).** Among the credit variables, loan amount had the strongest positive effect **(**$\beta = .428$, $p < .05$**),** followed by timeliness of credit and repayment period, while high interest rates negatively affected productivity.

The Independent Samples t-test also showed a significant difference in productivity between members with access to cooperative credit and those without access ($t = 6.14$, $p < .05$), with members who accessed cooperative credit recording higher productivity levels.

Finally, all three null hypotheses were rejected. The study concluded that access to cooperative credit has a significant positive relationship with and effect on agricultural productivity**,** and that members with access to cooperative credit perform significantly better in agricultural production than those without such access.

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This section presents the summary of the study, conclusion, recommendations, limitations of the study, suggestions for further studies, and contribution to knowledge.

Summary of the Study

This study examined the access to cooperative credit and agricultural productivity of members in South-South Nigeria, with particular focus on Bayelsa, Edo, and Cross River States. The study was necessitated by the persistent challenge of inadequate access to

agricultural credit among smallholder farmers despite the increasing presence of agricultural cooperative societies in the region. Limited access to affordable and timely credit has continued to constrain farmers' ability to acquire improved farm inputs, adopt modern technologies, expand production, and improve agricultural productivity. These findings demonstrate that cooperative credit remains an important mechanism for improving agricultural productivity among cooperative members in South-South Nigeria.

Conclusion

Based on the findings of this study, it is concluded that access to cooperative credit plays a significant role in enhancing agricultural productivity among cooperative members in South-South Nigeria. Agricultural cooperative societies continue to serve as effective institutions for mobilizing financial resources and making credit available to members for productive agricultural activities.

The study established that cooperative credit enables members to purchase improved farm inputs, adopt modern farming technologies, expand cultivated land, and improve farm management practices, thereby increasing agricultural productivity. However, challenges such as inadequate loan amounts, delays in loan disbursement, and relatively high interest rates continue to limit the full benefits of cooperative credit.

The study therefore concludes that strengthening cooperative credit delivery systems will significantly contribute to increased agricultural productivity, improved household income, enhanced food security, and sustainable agricultural development in South-South Nigeria.

Recommendations

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

1. Agricultural cooperative societies should strengthen their credit delivery mechanisms by increasing the volume of loans available to members and ensuring timely disbursement before the commencement of farming activities.
2. Government and financial institutions, particularly the Central Bank of Nigeria, the Bank of Agriculture, and development finance agencies, should provide low-interest credit facilities to agricultural cooperatives to enable them to meet the financial needs of their members.
3. Agricultural cooperatives should simplify loan application procedures and reduce unnecessary administrative bottlenecks to enable more members to access credit promptly.
4. Capacity-building programmes should be organized regularly to educate cooperative members on proper credit utilization, financial management, record keeping, and loan repayment practices.
5. State Ministries of Agriculture and Cooperative Development should strengthen the monitoring and supervision of agricultural cooperatives to ensure transparency, accountability, and effective utilization of cooperative credit facilities.
6. Cooperative societies should establish partnerships with commercial banks, microfinance banks, agricultural development agencies, and donor organizations to expand members' access to affordable agricultural financing.

Contribution to Knowledge

This study has contributed to knowledge in several ways.

First, it provides empirical evidence on the relationship between cooperative credit and agricultural productivity among cooperative members in Bayelsa, Edo, and Cross River States, where limited empirical studies previously existed

.

Second, the study demonstrated that cooperative credit significantly predicts agricultural productivity, with loan amount identified as the strongest determinant of improved farm output.

Third, the study enriches existing literature on agricultural finance by validating the applicability of the Collective Action Theory in explaining the role of cooperative societies in improving members' access to productive resources and enhancing agricultural productivity.

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