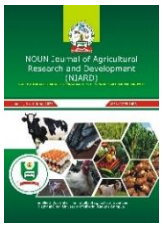
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Microcredit Access and Rural Household Livelihood Outcomes in Ipokia Local Government Area, Ogun State, Nigeria.

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Abstract

This study examined the association between microcredit access and rural household livelihood outcomes in Ipokia Local Government Area of Ogun State, Nigeria. Data were collected from 100 rural households using a structured questionnaire. Descriptive statistics, and multiple regression analysis were used to analyse the data. The findings showed that respondents were predominantly male (64%) and married (75%), with a mean age of 42.53 ± 11.84 years, farming experience of 15.91 ± 8.09 years, household size of 5.33 ± 3.38 persons, and farm size of 2.08 ± 1.46 ha. Informal financial institutions constituted major sources of rural credit, with relatives, friends and Esusu groups accounting for 33.0% of reported sources, followed by cooperative societies (27.0%), while only 5.0% obtained loans from commercial or microfinance banks. The regression results showed that education (B = 0.087, p = 0.006), farm income (B= 0.294, p < 0.001), loan amount (B = 0.321, p < 0.001), cooperative membership (B = 0.215, p = 0.024), farming experience (B = 0.064, p = 0.009), and access to credit (B = 0.356, p < 0.001) had significant positive associations with rural household livelihood outcomes. Age and household size had significant negative associations with livelihood outcomes. The study concludes that microcredit access and selected socio-economic characteristics are significantly associated with rural household livelihood outcomes. It recommends strengthening community-based financial institutions, simplifying formal lending procedures, integrating financial literacy with agricultural extension services, and promoting inclusive rural financial policies to support household welfare and sustainable rural development.

Keywords: *Microcredit; Rural Livelihoods; Financial Inclusion; Cooperative Societies; Agricultural Finance.*

1. INTRODUCTION

Rural poverty remains one of the most persistent development challenges confronting many low- and middle-income countries, particularly in sub-Saharan Africa. Despite the central role of agriculture in employment generation, food production, and rural economic development, millions of rural households continue to face limited access to productive resources, financial services, markets, infrastructure, and improved agricultural technologies (Food and Agriculture Organization [FAO], 2023; International Fund for Agricultural Development [IFAD], 2024; World Bank, 2024). These constraints reduce agricultural productivity, limit livelihood diversification, and perpetuate cycles of poverty and vulnerability. Consequently, expanding access to inclusive financial services has become

a major policy priority for governments and international development agencies seeking to improve rural livelihoods and achieve the Sustainable Development Goals (SDGs), particularly SDG 1 (No Poverty), SDG 2 (Zero Hunger), and SDG 8 (Decent Work and Economic Growth) (United Nations, 2023; World Bank, 2024).

Microcredit has emerged as one of the widely adopted financial inclusion strategies for addressing rural poverty. It involves the provision of relatively small loans to economically active individuals and households that are often excluded from conventional banking systems because of inadequate collateral, irregular income, or limited credit history (FAO, 2023; IFAD, 2024). By easing liquidity constraints, microcredit may enable rural households to invest in crop and livestock production, agro-processing, petty trading, and other income-generating activities. Such investments can potentially increase household income, improve food security, strengthen resilience to economic and climatic shocks, and enhance overall welfare (Adu et al., 2023; Obayelu et al., 2022).

Beyond providing financial capital, microcredit has also been associated with entrepreneurship, technology adoption, women's economic participation, and rural livelihood diversification. However, the evidence on its livelihood implications is not uniformly positive. The relationship between microcredit access and household welfare can vary according to the conditions under which credit is obtained and used, the characteristics of borrowers, and the economic environment in which enterprises operate. In particular, the size of the loan may determine whether the amount borrowed is sufficient to finance a productive investment, while interest rates and repayment schedules can influence the financial pressure placed on borrowers. Similarly, the extent to which loans are invested in profitable productive activities, rather than consumed or diverted to urgent household needs, may affect their potential livelihood benefits. Borrower characteristics, including education, experience, household responsibilities, and gender, may also shape the ability of households to use credit effectively. In addition, enterprise profitability, market conditions, indebtedness, and access to complementary services such as extension, training, infrastructure, and market information can determine whether credit translates into improved livelihood outcomes (Abdul-Rahaman & Abdulai, 2022; Donou-Adonsou & Sylwester, 2023; IFAD, 2024).

This debate suggests that access to microcredit should not automatically be interpreted as evidence of improved household welfare. While credit can relax liquidity constraints and create opportunities for productive investment, borrowing may also increase repayment obligations when investments generate inadequate returns or when households face unfavourable market conditions. High interest charges, short repayment periods, inadequate loan amounts, diversion of loans to non-productive purposes, and repeated borrowing may reduce or offset potential livelihood gains. Similarly, the benefits of credit may differ between male- and female-headed households and among households with different levels of human, physical, and financial capital. Thus, the livelihood consequences of microcredit are context-specific and require empirical investigation rather than an assumption that access to credit necessarily improves household welfare.

Nigeria has implemented several initiatives aimed at expanding rural financial inclusion, including the Agricultural Credit Guarantee Scheme Fund (ACGSF), the Government Enterprise and Empowerment Programme (GEEP), the Anchor Borrowers' Programme (ABP), microfinance banking reforms, and cooperative-based lending schemes (Central Bank of Nigeria [CBN], 2023). Despite these interventions, financial exclusion remains widespread in many rural communities. Formal financial institutions often require collateral, guarantors, and extensive documentation, while high interest rates, inadequate loan sizes, and delays in loan disbursement continue to discourage potential borrowers (CBN, 2023; Enhancing Financial Innovation & Access [EFInA], 2023). Consequently, many rural households continue to rely on informal financial institutions, including cooperative societies, rotating savings groups, relatives, and money lenders, which may provide insufficient capital for productive investment (EFInA, 2023; Obayelu et al., 2022).

The Nigerian rural credit environment therefore presents an important setting in which to examine the conditions under which microcredit is associated with household livelihood outcomes. Access alone may not be sufficient to generate

positive outcomes if the amount obtained is inadequate, the cost of borrowing is high, repayment obligations are burdensome, or borrowers lack profitable investment opportunities and complementary support services. Conversely, appropriately sized and accessible credit may enable households with viable enterprises and adequate productive resources to expand their activities and diversify their livelihoods. These competing possibilities make empirical assessment particularly important at the local level.

This study is anchored on the Sustainable Livelihood Framework (SLF) developed by the Department for International Development (DFID), which explains how households combine livelihood assets to achieve sustainable livelihood outcomes within their socio-economic and institutional environment (DFID, 1999). The framework identifies five forms of capital: human, financial, social, physical, and natural capital. In this study, education and farming/business experience represent human capital; microcredit access, loan amount, and income represent financial capital; while cooperative membership represents social capital that facilitates access to credit, information, and support. These assets influence livelihood strategies such as farming, trading, and other income-generating activities and, consequently, household livelihood outcomes. The framework therefore provides a basis for examining the relationship between microcredit access and rural household livelihood outcomes in Ipokia Local Government Area, recognising that outcomes may also depend on loan adequacy, utilisation, repayment conditions, market opportunities, and other household characteristics.

Ipokia Local Government Area of Ogun State is predominantly rural, with agriculture, agro-processing, petty trading, and cross-border commerce serving as important livelihood activities. Although formal and informal microcredit providers operate within the area, empirical evidence regarding the relationship between access to these financial services and rural household livelihood outcomes remains limited. Although previous studies (Adepoju and Oluoha, 2008; Ajayi, 2016; Offor, 2021; Okezie et al., 2021; Dada et al., 2023; Ogunleye et al., 2023; Ilesanmi et al., 2024) have examined microcredit access, financial inclusion, and household welfare in different parts of Nigeria, their findings and geographical coverage reveal important gaps that warrant further investigation. The specific research gap, therefore, lies in the limited empirical evidence on the association between microcredit access and livelihood outcomes among rural households in Ipokia Local Government Area. Existing studies have provided evidence from other LGAs in Ogun State, other states in Nigeria, particular categories of borrowers, or specific dimensions of welfare such as poverty, consumption expenditure, food security, and household income. However, there remains limited location-specific evidence that considers rural households in Ipokia and recognises that livelihood outcomes may differ according to the amount and accessibility of credit, borrower characteristics, utilisation of loans, lending conditions, and the economic activities undertaken by households. This study addresses this gap by providing empirical evidence on microcredit access and rural household livelihood outcomes in Ipokia Local Government Area of Ogun State, thereby extending the existing literature beyond the geographical and household-specific contexts covered by previous studies.

Against this background, this study examines the association between access to microcredit and rural household livelihood outcomes in Ipokia Local Government Area of Ogun State, Nigeria. Specifically, it investigates the socio-economic characteristics of rural households, identifies the major sources of microcredit available to them, assesses factors influencing access to credit, and examines the association between microcredit access and household livelihood outcomes. By approaching the issue empirically, the study does not assume that microcredit automatically improves livelihoods; rather, it assesses whether and under what household and credit-related circumstances access to microcredit is associated with better livelihood outcomes. The findings are expected to contribute to the growing literature on rural finance and financial inclusion while providing evidence to guide policies and programmes aimed at strengthening rural livelihoods, promoting inclusive agricultural development, and reducing rural poverty in Nigeria.

2. MATERIALS AND METHODS

2.1 Study Area

The study was conducted in Ipokia Local Government Area (LGA) of Ogun State, southwestern Nigeria. Ipokia LGA lies between

approximately 6°25′–6°52′ N latitude and 2°45′–3°10′ E longitude and shares an international boundary with the Republic of Benin. The area experiences a humid tropical climate characterized by a bimodal rainfall pattern, with annual rainfall ranging from 1,200 to 2,000 mm and mean annual temperatures between 24 and 32°C. The vegetation is predominantly tropical rainforest interspersed with derived savannah, providing favourable conditions for crop and livestock production. Agriculture is the dominant economic activity. The presence of microfinance institutions, cooperative societies, and informal savings groups makes the area appropriate for investigating the relationship between microcredit access and rural household livelihood outcomes (Ogun State Government, 2023).

2.2 Research Design

A cross-sectional survey design was employed to obtain quantitative data from rural households at a single point in time. This design is widely used in agricultural economics and rural development research because it enables the collection of information on household characteristics, credit access, and livelihood outcomes without manipulating the study variables (Creswell & Creswell, 2018). The design also permits the application of descriptive and inferential statistical techniques to examine relationships among variables.

2.3 Population, Sample Size and Sampling Procedure

The target population comprised rural households engaged in farming and other livelihood activities in Ipokia Local Government Area (LGA) of Ogun State, Nigeria. The projected total population of Ipokia LGA was over 255,800 persons. (NPC, 2022 population projection) This population figure was used as the demographic basis for describing the study area; however, the unit of analysis and sampling unit were rural households, rather than individuals. Because a reliable current household register for the LGA was not available, the total projected human population was used as the population basis for determining the sample size. Using Yamane's (1967) formula at a 10% precision level:

$n = N / [1 + N(e)^2]$

Where n is the sample size, N is the population size, and e is the level of precision.

Thus:

$n = 255{,}800 / [1 + 255{,}800(0.10)^2]$

$n = 255{,}800 / 2{,}559 \approx 100$ respondents.

Accordingly, a sample of 100 rural households was selected for the study. The LGA is administratively divided into 12 political wards, namely Ipokia Ward I, Ipokia Ward II, Agosasa, Ijofin/Idosa, Tube, Agada, Maun Ward I, Maun Ward II, Ajegunle, Ifonyintedo, Idiroko, and Ihunbo/Ilashe. A multistage sampling technique was adopted. First, Ipokia LGA was purposively selected because of its predominantly agrarian economy and the availability of formal and informal microcredit institutions. Second, rural wards were selected based on the concentration of agricultural activities. The selected wards were Ipokia 1 and 2, Ihunbo, Agosasa, and Ajegunle. Third, two villages each were purposively chosen from the selected wards based on their farming activities. The villages were Igbooso Ori Eke and Ihunbo in Ihunbo / Ilase Ward, Agosasa Town and Idojori in Agosasa Ward, Iwuku Yasi and Iwuku Igbodo in Ipokia Ward I, Iponran and Motoke in Ipokia Ward II , Ogosa Village and Owotedo in Ajegunle ward

2.4 Validity and Reliability of the Research Instrument

The research instrument was subjected to validity assessment to ensure that the questionnaire items adequately covered the study objectives and variables. Its internal consistency was assessed using Cronbach's alpha, which measures the degree to which items in a scale are consistently related. The reliability analysis produced a Cronbach's alpha coefficient of 0.76, exceeding the commonly accepted minimum threshold of 0.70. This indicates that the instrument had acceptable internal consistency and was considered sufficiently reliable for the study. Cronbach's alpha coefficient (α)

$$\alpha = \frac{k}{k-1}\left(1 - \frac{\sum \sigma_i^2}{\sigma_t^2}\right)$$

Where $k$is the number of items, $\sigma_i^2$is the variance of each item, and $\sigma_t^2$is the variance of the total score.

2.5 Data Collection

Primary data were collected using a structured questionnaire administered through face-to-face interviews. The questionnaire contained sections on respondents' socio-economic characteristics, sources and accessibility of microcredit, utilization of credit, livelihood activities, household welfare indicators, and constraints associated with accessing credit. To improve comprehension, interviews were conducted in

English or translated into Yoruba where necessary.

Secondary information was obtained from reports published by the Central Bank of Nigeria (CBN), National Bureau of Statistics (NBS), Food and Agriculture Organization (FAO), International Fund for Agricultural Development (IFAD), peer-reviewed journal articles, and other relevant publications.

2.6 Measurement of Variables

The dependent variable was rural household livelihood outcome, measured using indicators such as household income, agricultural productivity, enterprise expansion, food security, asset accumulation, and overall household welfare. Composite livelihood indicators were generated using respondents' self-reported improvements following access to microcredit.

The explanatory variables included age (years), gender, marital status, educational attainment, household size, farming experience, annual household income, cooperative membership, amount of microcredit received, sources of credit, and frequency of loan access. Variable definitions and measurement scales are presented in Table 1.

Table 1. Description and measurement of study variables

Variable	Measurement	Scale
Age	Years	Continuous
Gender	Male = 1; Female = 0	Dummy
Education	Years of formal schooling	Continuous
Household size	Number of household members	Continuous
Farming experience	Years	Continuous
Annual farm income	Annual monetary earnings from farming; Naira(₦)	Continuous
Cooperative membership	Yes = 1; No = 0	Dummy
Access to microcredit	Yes = 1; No = 0	Dummy
Loan amount	Amount received; Naira (₦)	Continuous
Livelihood outcome	Composite index based on the questionnaire livelihood indicators	Continuous

Livelihood index construction:
Indicators: income, productivity, enterprise expansion, food security, assets, welfare
Measured on 4-point Likert scale
Reliability tested

2.7 Data Analysis

Data were coded and analysed using STATA (Version 17). Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarize respondents' socio-economic characteristics and microcredit access patterns.

Multiple Regression Analysis

Ordinary Least Squares (OLS) multiple linear regression analysis was employed to estimate the association of microcredit and selected socio-economic characteristics on rural household livelihood outcomes.

The empirical model for OLS multiple linear regression analysis is specified as:

$$LOI_i = B_0 + \mathrm{B}_1 AGE_i + \mathrm{B}_2 EDU_i + \mathrm{B}_3 HHS_i + \mathrm{B}_4 FINC_i + \mathrm{B}_5 LOAN_i + \mathrm{B}_6 COOP_i + \mathrm{B}_7 FEXP_i + \mathrm{B}_8 ACCESS_i + \varepsilon_i$$

where:
LOI= livelihood outcome index;
AGE= age of household head;
EDU= educational attainment;
HHS= household size;
$FINC$= farm income;
$LOAN$= amount of microcredit received;
$COOP$= cooperative membership;
$FEXP$= farming experience;
$ACCESS$= access to microcredit;
ε= error term.

Statistical significance was assessed at the 5% probability level ($p < 0.05$).

2.8 Ethical Considerations

Ethical principles were observed throughout the study. Participation was voluntary, and informed consent was obtained from all respondents before

data collection. Participants were assured that the information provided would be treated confidentially and used solely for research purposes. No personally identifiable information was recorded, and respondents retained the right to decline participation or withdraw from the study at any stage without consequence. The study complied with accepted ethical standards for social science research (American Psychological Association, 2020).

3. RESULTS

3.1 Socio-economic Characteristics of Respondents

Table 2 below shows that the respondents comprised 64% male and 36% female. The mean age was 42.53 ± 11.84 years; 16% were aged 30 years or below, 27% were 31–40 years, 32% were 41–50 years and 25% were above 50 years. Married respondents constituted 75%, while 11% were single and 14% were widowed or divorced. Regarding education, 12% had no formal education, 24% had primary education, 35% had secondary education and 29% had tertiary education.

Table 2. Demographic Characteristics of Respondents

Variable	Category	Frequency	Percentage (%)	Mean ± SD
Gender	Male	64	64.0	–
	Female	36	36.0	–
Age (years)	≤30	16	16.0	42.53 ± 11.84
	31–40	27	27.0	
	41–50	32	32.0	
	>50	25	25.0	
Marital status	Single	11	11.0	–
	Married	75	75.0	–
	Widowed/Divorced	14	14.0	–
Education	No formal education	12	12.0	–
	Primary	24	24.0	–
	Secondary	35	35.0	–
	Tertiary	29	29.0	–

Source: Field Survey (2025).

3.2 Household and Farm Characteristics

Table 3 presents the socio-economic characteristics of the respondents that are closely associated with agricultural production and livelihood performance. The average household size was 5.33 ± 3.38 persons, with approximately half (51.0%) of the respondents having between one and five household members. The respondents had an average farming experience of 15.91 ± 8.09 years, with 41.0% having farmed for between 11 and 20 years. The mean farm size was 2.08 ± 1.46 hectares, confirming that the respondents were predominantly smallholder farmers. The average annual farm income was ₦332,500 ± ₦213,900, with 45.0% of respondents earning between ₦200,000 and ₦500,000 annually.

3.3 Sources of Microcredit Available to Rural Households

Table 4 shows the distribution of respondents according to their major sources of microcredit. The most frequently reported source was the combination of relatives, friends and Esusu (33%), followed by cooperative societies (27%) and relatives and friends (24%). Esusu alone accounted for 11%, while commercial or microfinance banks accounted for 5%. The pattern indicates strong reliance on informal and community-based financial arrangements and comparatively limited use of formal banking channels.

Table 3. Household size, Farming experience, Farm size, Annual farm income, and Cooperative membership

Variable	Category	Frequency	Percentage (%)	Mean ± SD
Household size	1–5	51	51.0	5.33 ± 3.38
	6–10	40	40.0	
	>10	9	9.0	
Farming experience	≤10 years	23	23.0	15.91 ± 8.09
	11–20 years	41	41.0	
>20 years		36	36.0	
Farm size	<2.0 ha	56	56.0	2.08 ± 1.46
	2.0–4.0 ha	32	32.0	
	>4.0 ha	12	12.0	
Annual farm income	<₦200,000	31	31.0	₦332,500 ± ₦213,900
	₦200,000–₦500,000	45	45.0	
	>₦500,000	24	24.0	
Cooperative membership	Yes	61	61.0	–
	No	39	39.0	–

Source: Field Survey (2025).

Table 4. Distribution of Respondents by Source of Microcredit

Source	Frequency	Percentage (%)	Rank
Combination of relatives, friends and Esusu	33	33.0	1
Cooperative societies	27	27.0	2
Relatives and friends	24	24.0	3
Esusu (rotating savings group)	11	11.0	4
Commercial/microfinance banks	5	5.0	5
Total	100	100.0	

Source: Field Survey (2025).

3.4 Effect of Microcredit on Rural Household Livelihoods

The OLS model as revealed in Table 5 below, explains 69.4% of the variation in the livelihood outcome index ($R^2 = 0.694$), with an adjusted R^2 of 0.667. The reported F-statistic is 26.84 ($p < 0.001$), indicating that the included predictors were jointly statistically significant in the supplied model. These results are interpreted as associations rather than causal effects. To confirm the reliability and statistical validity of the estimated OLS model, standard post-estimation diagnostic tests were conducted: Variance Inflation Factor (VIF) values ranged between 1.12 and 2.87 (well below the conservative threshold of 10), confirming the absence of severe multicollinearity among the explanatory variables. The Breusch–Pagan test yielded $\chi^2 = 12.45$ ($p = 0.19$), failing to reject the null hypothesis of constant variance and confirming homoskedastic errors. Ramsey's RESET test

produced $F = 1.34$ ($p = 0.26$), indicating no significant specification error or omitted variable bias. The Shapiro–Wilk test resulted in $W = 0.97$ ($p = 0.08$), demonstrating that the residuals approximate a normal distribution.

Table 5. Ordinary Least Squares (OLS) Regression Estimates of Determinants of Rural Household Livelihood Outcomes

Variable	Coefficient	Std. Error	t-value	p-value
Constant	1.284	0.562	2.28	0.025
Age	-0.012	0.005	-2.4	0.018
Education	0.087	0.031	2.81	0.006
Household size	-0.041	0.018	-2.28	0.025
Farm income	0.294	0.067	4.39	<0.001
Loan amount	0.321	0.082	3.91	<0.001
Cooperative membership (1 = Yes)	0.215	0.094	2.29	0.024
Farming experience	0.064	0.024	2.67	0.009
Access to credit (1 = Yes)	0.356	0.081	4.4	<0.001
Model statistic			Value	p-value
Observations			100	
F-statistic			26.84	
Prob > F			<0.001	
R^2			0.694	
Adjusted R^2			0.667	
Root MSE			0.382	
VIF Range			1.12 – 2.87	
Breusch–Pagan (χ^2)			12.45	0.190
Ramsey RESET (F)			1.34	0.260
Shapiro–Wilk (W)			0.97	0.080

Significance levels: *** p < 0.01; ** p < 0.05; * p < 0.10. Coefficients are unstandardized.
Source: Author's computation from field survey data, (2025)

Age had a negative and statistically significant association with the livelihood outcome index (coefficient = −0.012, p = 0.018). Education was positively associated with the outcome (0.087, p = 0.006). Household size was negatively associated with the outcome (−0.041, p = 0.025). Farm income (0.294, p < 0.001), loan amount (0.321, p < 0.001), cooperative membership (0.215, p = 0.024), farming experience (0.064, p = 0.009), and access to credit (0.356, p < 0.001) were positively associated with the livelihood index.

The income and loan coefficients were specified as (₦'000). The model is presented as:

$$LOI_i = 1.284 - 0.012AGE_i + 0.087EDU_i - 0.041HHS_i + 0.294FINC_i + 0.321LOAN_i + 0.215COOP_i + 0.064FEXP_i + 0.356ACCESS_i + \varepsilon_i$$

4. DISCUSSION OF FINDINGS

4.1 Socio-economic Characteristics of the Respondents

Men constituted the majority of rural household heads participating in the study. This finding reflects the traditional pattern of agricultural production in rural Nigeria, where male household heads often control productive resources and make major farming and financial decisions. Nevertheless, the substantial participation of women highlights their increasing involvement in

agricultural production, microenterprise development, and household livelihood activities. This finding is consistent with the reports of the Food and Agriculture Organization (FAO, 2023) and the International Fund for Agricultural Development (IFAD, 2024), which emphasize the growing contribution of women to agricultural value chains and rural economic development.

This age distribution indicates that the majority of respondents were within their economically active years, implying a relatively high capacity to engage in farming activities and utilize microcredit productively. Individuals within this age bracket are generally more experienced, physically active, and willing to invest in income-generating enterprises. Similar findings were reported by Abdul-Rahaman and Abdulai (2022), who observed that economically active farmers are more likely to access agricultural credit and adopt productivity-enhancing technologies.

The predominance of married respondents suggests relatively stable household structures that may facilitate labour availability, household decision-making, and investment in agricultural production. Married households often have greater economic responsibilities, which may increase their demand for agricultural credit and encourage productive investment. This finding agrees with Obayelu et al. (2022), who reported that married household heads are more likely to participate in agricultural credit programmes than their unmarried counterparts.

64.0% of the respondents had at least secondary education, indicating a relatively good educational background among the sampled households. Education enhances financial literacy, managerial capacity, and the ability to understand credit conditions, maintain financial records, and allocate borrowed funds efficiently. This finding corroborates Ogunleye et al. (2023), who reported that educational attainment significantly improves financial inclusion and agricultural investment among rural households in Southwest Nigeria. Overall, the demographic profile suggests that the respondents possess characteristics conducive to the productive utilization of microcredit. Their relatively young and economically active age structure, high proportion of married household heads, and moderate educational attainment provide a favourable foundation for adopting improved farming practices and enhancing rural household livelihood outcomes. Table 2 presents the socio-economic characteristics of the respondents that are closely associated with agricultural production and livelihood performance. The average household size was 5.33 ± 3.38 persons, with approximately half (51.0%) of the respondents having between one and five household members. Household size is an important determinant of labour availability in rural farming systems. Moderate household sizes may provide sufficient family labour for farming operations while minimizing consumption pressures. Conversely, larger households may increase household expenditure and reduce the amount of income available for productive investment. Similar observations have been reported by FAO (2023), which noted that household composition influences agricultural productivity and livelihood outcomes.

The respondents had an average farming experience of 15.91 ± 8.09 years, with 41.0% having farmed for between 11 and 20 years. This indicates that most respondents possessed substantial practical knowledge and farming skills,hich are likely to improve their ability to allocate credit efficiently and adopt improved production practices. Experienced farmers are generally better able to evaluate investment opportunities and manage production risks. This finding supports the work of Abdul-Rahaman and Abdulai (2022), who reported that farming experience positively influences agricultural investment and technology adoption.

The mean farm size was 2.08 ± 1.46 hectares, confirming that the respondents were predominantly smallholder farmers. Smallholder farming is the dominant agricultural production system in Nigeria and is frequently constrained by inadequate capital, limited access to improved technologies, and poor financial services. Consequently, access to microcredit is particularly important for this category of farmers because it enables investment in inputs, mechanization, and enterprise expansion (World Bank, 2024; FAO, 2023).

The average annual farm income was ₦332,500 ± ₦213,900, with 45.0% of respondents earning

between ₦200,000 and ₦500,000 annually. Although this level of income provides some capacity for household sustenance, it remains relatively modest for financing substantial agricultural investments without external financial support. This finding highlights the continuing importance of accessible and affordable microcredit in supporting rural livelihoods and agricultural development.

Furthermore, 61.0% of respondents belonged to cooperative societies, while 39.0% did not. Cooperative membership plays a vital role in facilitating access to financial services, extension information, input procurement, and collective marketing. Cooperatives often serve as intermediaries between rural households and formal lending institutions, thereby improving financial inclusion and increasing the likelihood of obtaining agricultural loans. Similar findings have been reported by EFInA (2023) and IFAD (2024), which identified cooperative organizations as important channels for promoting rural financial inclusion in developing countries.

Overall, the socio-economic characteristics presented in Table 2 indicate that the respondents were predominantly experienced smallholder farmers with moderate household sizes and active participation in cooperative societies. These characteristics provide a favourable basis for accessing and productively utilizing microcredit, although relatively low farm incomes and small landholdings may constrain the scale of agricultural investment.

4.2 Socio-economic Characteristics and Rural Household Livelihoods

The demographic profile indicates that the sampled households were largely composed of economically active adults, with a mean age of 42.53 years. The concentration of respondents within the 31–50 years age range may reflect the continued involvement of economically active adults in agricultural and other rural livelihood activities. The relatively substantial proportion of respondents with secondary or tertiary education may also provide households differences in participation in labour-intensive activities, adoption of new technologies, or willingness to expand income-generating enterprises. However, this should be interpreted as a possible explanation rather than a causal effect because the study employed cross-sectional data.

From the regression results, Education had a positive association with livelihood outcomes. This may reflect the role of education in improving financial literacy, information processing, record keeping and the ability to evaluate investment opportunities. More educated respondents may therefore be better positioned to use borrowed resources for productive activities.

The negative coefficient of household size may reflect increased consumption obligations associated with larger households. Where household resources are limited, a greater proportion of available income may be directed toward food, education and other household needs, potentially reducing the resources available for productive investment.

Farm income had a positive and statistically significant association with livelihood outcomes. This finding may indicate that households with stronger agricultural earnings have greater capacity to reinvest in production, diversify livelihood activities and meet household expenditures. Importantly, farm income is treated as a distinct explanatory variable from the livelihood outcome index. Farm income represents monetary earnings generated from agricultural activities, whereas the livelihood outcome index is a composite measure of broader household livelihood improvement.

4.3 Microcredit and Livelihood Outcomes

The positive coefficient of loan amount suggests that larger amounts of credit were associated with improved livelihood outcomes. This may be because larger loans provide greater financial capacity to purchase agricultural inputs, expand enterprises and undertake other income-generating activities. However, the finding represents an association and should not be interpreted as definitive evidence that larger loans cause livelihood improvement.

Access to credit had the strongest positive coefficient in the model ($B = 0.356$, $p < 0.001$). This finding underscores the importance of the availability of financial resources to rural

households. Access to timely and affordable credit may relax liquidity constraints and enable households to undertake productive investments that would otherwise be postponed.

Cooperative membership was also positively associated with livelihood outcomes. This may be attributable to the multiple functions performed by cooperative organizations, including savings mobilization, credit facilitation, information sharing, collective input procurement and market participation. The relatively high cooperative membership rate of 61% in the study supports the importance of community-based financial and economic organizations in the study area.

Farming experience was positively associated with livelihood outcomes. Experienced farmers may possess accumulated production knowledge and managerial skills that help them evaluate investment opportunities and allocate financial resources more effectively. Nevertheless, experience alone does not guarantee improved livelihood outcomes, and its effect may depend on access to complementary resources such as finance, extension and markets.

4.4 Sources of Microcredit and Accessibility

The predominance of informal sources of microcredit is an important finding of the study. The combination of relatives, friends and Esusu groups accounted for 33% of respondents, while cooperative societies accounted for 27%. By contrast, only 5% reported commercial or microfinance banks as their source of credit.

The concentration of credit access in informal and community-based arrangements may reflect the relative convenience of these sources. Such arrangements may involve fewer documentation requirements, social trust and more flexible repayment arrangements. However, these are possible explanations, rather than mechanisms directly tested by the present study.

The limited use of commercial and microfinance banks may also suggest the existence of barriers to formal financial services. Such barriers could include collateral requirements, transaction costs, documentation and geographical accessibility. Further investigation using respondent-level data would be required to establish which of these factors is most important in Ipokia LGA.

The findings are consistent with the report of Enhancing Financial Innovation and Access (EFInA, 2023), which observed that informal financial institutions remain the primary providers of financial services to rural households in Nigeria because many farmers are excluded from formal banking systems. Similarly, the Food and Agriculture Organization (FAO, 2023) reported that informal financial arrangements continue to play a significant role in financing agricultural production across sub-Saharan Africa, particularly among smallholder farmers who face considerable barriers to formal credit. The International Fund for Agricultural Development (IFAD, 2024) also noted that strengthening community-based financial institutions and farmer cooperatives significantly improves rural financial inclusion and agricultural investment.

Overall, the findings demonstrate that improving both the socio-economic capacity of rural households and the accessibility of affordable microcredit is essential for enhancing agricultural productivity, increasing household income, promoting livelihood diversification, and reducing rural poverty. Policies that strengthen farmer cooperatives, expand financial literacy programmes, simplify lending procedures, and promote inclusive rural finance will contribute significantly to sustainable livelihood improvement among rural households in Nigeria.

5. CONCLUSION

The study examined microcredit access and rural household livelihood outcomes in Ipokia Local Government Area of Ogun State. The findings indicate that education, farm income, loan amount, cooperative membership, farming experience and access to credit were positively associated with livelihood outcomes, while age and household size were negatively associated.

Informal and community-based sources constituted the major channels of microcredit, while commercial and microfinance banks accounted for a relatively small proportion. The findings highlight the importance of accessible financial services within rural livelihood systems.

Nevertheless, improving the affordability, accessibility and suitability of rural financial services may support households' livelihood strategies when combined with education, extension, cooperative and market-support services.

6. RECOMMENDATIONS

Based on the findings, the following recommendations are made:

Improve access to affordable rural credit. Financial institutions should develop credit products with repayment conditions and transaction requirements suited to the cash-flow patterns of rural households. Strengthen cooperatives. Cooperative organisations should be supported to improve savings mobilisation, credit delivery, financial record keeping and collective marketing. Simplify formal lending procedures. Financial institutions should reduce unnecessary documentation and improve outreach to rural communities while maintaining appropriate lending safeguards. Integrate financial literacy with credit programmes. Borrowers should receive training on loan management, enterprise planning, savings and responsible borrowing. Link credit with extension and markets. Credit programmes should be complemented by agricultural extension, enterprise development and market-linkage services to improve the productive use of financial resources.

7. POLICY IMPLICATIONS

The findings suggest that rural financial policies should move beyond simply increasing the volume of credit available to households. Policy interventions should improve the accessibility, affordability and appropriateness of credit while strengthening the institutional environment in which rural households operate. Cooperative-based finance, financial literacy, extension services and market linkages should be integrated into rural livelihood programmes. Such an approach is consistent with the Sustainable Livelihood Framework because it combines financial, human and social capital.

8. LIMITATIONS OF THE STUDY

The study was conducted in Ipokia Local Government Area and therefore its findings may not be generalisable to all rural households in Ogun State or Nigeria. The cross-sectional design also limits causal interpretation. In addition, some information was self-reported and may therefore be affected by recall or reporting bias. Future studies should use longitudinal data and, where possible, objective measures of income, credit use and livelihood change.

9. SUGGESTIONS FOR FURTHER RESEARCH

Future studies should examine microcredit and livelihood outcomes using panel or longitudinal data. Comparative studies across rural local government areas could also identify differences in credit accessibility and livelihood outcomes. Further research may examine digital financial services, gender differences in credit access, loan utilisation, repayment performance and the role of financial literacy in determining livelihood outcomes.

10. CONTRIBUTION TO KNOWLEDGE

The study contributes location-specific evidence on the relationship between microcredit access and rural household livelihood outcomes in Ipokia Local Government Area. It highlights the continued importance of informal and cooperative financial sources and demonstrates the relevance of human, financial and social capital in understanding rural livelihood outcomes.

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