



Evaluating the Effect of Microcredit on Rural Livelihoods: A Case Study of Farming Households in Southwest Nigeria

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ABSTRACT

Access to credit is an important thing in improving the livelihoods of rural families in developing international locations, enabling them to triumph over monetary barriers and spend money on productive activities. This observation evaluates the impact of microcredit on the livelihoods of rural farming households in Southwest Nigeria, specializing in assets of credit and elements influencing credit access. Using a multistage sampling method, facts have been accumulated from 360 respondents throughout 3 states (Ondo, Oyo, and Ogun). Descriptive facts and multinomial logistic regression were used to analyse the information. Results show that informal credit sources, such as family and friends, are predominantly utilized by 97.5% of respondents, while only 8.3% accessed microfinance banks. The average credit amount received was ₦167,000, with limited utilization primarily due to constraints like market access and lack of technical knowledge. Agricultural activities such as crop production and livestock farming dominate rural livelihoods, suggesting that microcredit plays a crucial role in improving productivity. However, findings indicate that higher education levels, income, and household size significantly influence the likelihood of accessing formal and informal credit. The study concludes that microcredit has the potential to improve rural livelihoods, but formal credit systems must be expanded to reduce reliance on costly informal sources and enhance the overall welfare of rural households.

INTRODUCTION

In many developing countries, access to credit is often seen as a critical means of alleviating financial constraints faced by rural households (Karlan & Morduch, 2010; Manzoor et al., 2021). These constraints prevent households from being able to develop sustainable livelihoods and improve their well-being (Olutumise, 2023). The provision of rural credit, particularly through microcredit programs, has been essential in enabling income-generating activities (IGAs) for poor households. As pointed out by Lin et al., (2019), access to credit is a potential solution to liquidity constraints that often limit rural households from investing in productive enterprises. In Nigeria, rural households rely on both formal and informal sources of credit to meet their financial needs. Formal sources include commercial banks and microfinance institutions (MFIs), while informal sources include friends, relatives, and local moneylenders. The role of MFIs in providing microcredit as a formal source of financial support has been recognized for its impact on rural households, although the informal credit system remains popular due to its availability (Mallick, 2012; Kayembe et al., 2021).

Microcredit is heralded as one of the most significant financial innovations of the 20th century, aiming to facilitate access to small loans for poor households, help them enter into intergovernmental agreements, and subsequently improve their well-being (Milana & Ashta, 2020; Benami & Carter, 2021). Its importance has grown with the establishment of institutions such as the Grameen Bank, whose efforts to provide microcredit to the rural poor were awarded the 2006 Nobel Peace Prize. Despite this, the impact of microcredit on various social welfare outcomes is a subject of ongoing effort debate (Banerjee et al., 2015). Studies have shown mixed results regarding the effectiveness of microcredit in raising household income levels and improving other indicators of well-being. Some researchers argue that microcredit has significantly improved borrowers' financial solvency and helped reduce poverty (Uddin & Islam, 2016), while others argue that its impact has been overestimated and has not demonstrated sustained long-term benefits (Banerjee et al., 2015). In the case of southwestern Nigeria, rural households have long depended on various sources of credit to overcome financial barriers to productivity, especially in the agricultural sector.

Agriculture remains the number one career of the majority of the agricultural populace inside the location, so getting credit entry is important to increase household productivity, earnings, and standard well-being (National Bureau of Statistics, 2020). Farm households in this location frequently face challenges such as restrained access to formal banking offerings, high-interest charges from informal lenders, and lack of economic literacy (Balana & Oyeyemi, 2022; Raza et al., 2023; Falola et al., 2023). The advent of microfinance institutions has been instrumental in addressing a number of those troubles, however, the volume to which microcredit has contributed to improving the livelihoods of rural farming families remains questionable. Many researchers have examined the impact of microcredit on the welfare of rural families, but have regularly centred on formal credit scores furnished using MFIs, with less

attention paid to informal assets of credit. Despite this, informal resources of credit, together with neighbourhood moneylenders, continue to play a vital role in rural credit systems. Their availability and flexibility, albeit with higher interest rates, make them the preferred choice for many rural households, especially those who lack the collateral to secure formal loans (Mallick, 2012). Additionally, formal banking services have not been fully integrated into rural areas due to high operating costs and perceived low profitability (Tenaw & Islam, 2009).

This gap in formal banking services has left a significant portion of the rural population dependent on informal sources of credit. Several studies have examined the effects of microcredit on rural livelihoods, with many pointing to its success in improving access to credit and enabling income-generating activities. However, the long-term impact of microcredit on household prosperity remains uncertain. For example, randomized controlled trials (RCTs) failed to find conclusive evidence of the positive impact of microcredit on household income (Augsburg et al., 2015; Banerjee et al., 2015).

Some studies report significant improvements in poverty reduction and household solvency, while others have little or no impact (Uddin & Islam, 2016). This discrepancy in findings may be due to methodological problems in evaluating microcredit programs, such as failure to account for credit substitutability and lack of long-term panel data (Banerjee et al., 2015). In the context of southwestern Nigeria, the impact of microcredit on farm households requires further investigation.

The agrarian economy of the region, characterized by the cultivation of cash crops such as cocoa, kola nuts, and palm oil, makes access to credit essential for increasing agricultural productivity. However, the absence of long-term large-scale studies on the effects of microcredit in this region limits the possibility of making definitive conclusions about its effectiveness. Some evidence suggests that access to microcredit has enabled farm households to invest in modern farming techniques, purchase inputs such as fertilizers and improved seeds, and diversify their sources of income (Khandker & Koolwal, 2014; Langyintuo, 2020). However, other studies highlight the continued financial exclusion of a significant portion of the rural population, particularly women and younger farmers, who face additional barriers to accessing credit (Cherotich, 2018; Balana & Oyeyemi, 2022).

Given the mixed evidence on the impact of microcredit, further research is needed to assess its effectiveness in improving the livelihoods of rural households in Southwestern Nigeria. This research should take a holistic approach that takes into account formal and informal sources of credit as well as the socioeconomic characteristics of households that influence access to credit. In addition, longitudinal panel data are needed to assess the sustainability of the impact of microcredit on household welfare over time. Such studies would help policymakers design more effective financial inclusion strategies that would address the specific needs of rural farming households in the region.

In addition to credit admission, several elements have an impact on the capability of rural families to improve their livelihoods. These factors encompass schooling, getting admission to markets, infrastructure, and social networks (Kabeer, 2018). For instance, households with better degrees of training and better entry to markets are more likely to utilize credit efficaciously and invest in productive ventures. In comparison, people with limited schooling and negative marketplace access may additionally conflict to generate sufficient returns from credit, leading to debt traps and improved vulnerability (Hossain et al., 2020).

LITERATURE REVIEW

This highlights the importance of complementary interventions, including economic literacy programs and infrastructure development, in making sure that microcredit contributes to sustainable poverty reduction. Therefore, the availability of microcredit to rural households in Southwest Nigeria holds promise as a tool for poverty comfort and livelihood improvement. However, the combined evidence on its effect underscores the need for additional research and coverage refinement to make certain that microcredit can efficiently make a contribution to sustainable improvement within the region. By addressing the present gaps in credit rights of entry and designing extra-inclusive economic systems, policymakers can decorate the ability of rural households to enhance their welfare and obtain a lengthy-term monetary balance. Therefore, it's far towards this history that the take a look at evaluates the effect of microcredit on rural livelihoods amongst farming households in Southwest, Nigeria. The following are the specific objectives of the study.

- i. Assess sources of micro-credit available and accessible to rural households in the study area;
- ii. Examine the volume of microcredits received and utilized for the improvement of rural households' livelihood outcomes;
- iii. Describe the livelihood activities of the respondents; and
- iv. Determine the factors influencing the choice of microcredit type assessed by the respondents.

METHODOLOGY

1. The Study Area

Southwest Nigeria is one of the six geopolitical zones in Nigeria, comprising six states: Lagos, Ogun, Oyo, Osun, Ondo, and Ekiti. The place is predominantly Yoruba-speak and is characterised using a combination of urban and rural settlements, with agriculture being a primary career, specifically inside rural regions.

Southwest Nigeria is geographically bounded through the Atlantic Ocean to the south and shares borders with the North-Central vicinity and elements of the Republic of Benin to the west. The region enjoys a tropical climate, with essential seasons: the moist season (April to October) and the dry season (November to March). Its numerous topographies include coastal areas, rainforests, and savannas, making it appropriate for several agricultural activities. Major plants cultivated inside the place encompass cocoa, kola nut,

oil palm, cassava, maize, and yams. Cocoa production, especially, is an essential monetary interest, particularly in states like Ondo, Osun, and Ekiti, contributing extensively to Nigeria's agricultural exports.

2. Method of Data Collection

Primary statistics were accumulated using a semi-based interview schedule designed to seize the important records from sampled respondents. The statistics encompass descriptive statistics, socio-monetary elements, and the institutional characteristics of households. In practice for the principal survey, an exploratory survey is carried out to formulate the study problem, refine the hypothesis, and benefit deeper insights into the problems at hand.

3. Sample Size and Sampling Techniques

A multi-level sampling method was used to pick 360 respondents for the study. In the first stage, 3 states—Ondo, Oyo, and Ogun—have been purposively selected from the six states in Southwest Nigeria. These states have been selected primarily based on their agrarian nature, the presence of microfinance establishments, and the relevance of agriculture to the livelihoods of rural households in those regions. In degree two, from each of the selected states, Local Government Areas (LGAs) were randomly selected, making a total of six LGAs the have a look at. In each decision on LGA, 3 rural groups were randomly selected, making a complete of 18 groups for the look at. In every community, 20 families have been randomly selected, making a complete of 60 families in keeping with LGA. This gave a total of 360 respondents across the three states.

4. Analytical Tools

Descriptive and multinomial logit regression statistics have been used to gain the goals of this observation.

5. Multinomial Logit Regression Model Specification

The multinomial logit regression model turned into hired to reap the second objective, which makes a speciality of know-how the factors that have an impact on the choice of microcredit accessed by the respondents. The version can be expressed in equation (1) as:

$$\Pr(Y)=f(X_1, X_2, \dots, X_7) + e \quad (1)$$

Where:

Pr (Y) represents the probability of accessing microcredit.

X₁, X₂, ..., X₇ are the explanatory variables, which include factors such as age, gender, marital status, education level, household size, and income.

The model was applied to distinguish between households that receive no credit, informal credit, formal credit, or both types of credit. The equations (2 – 5) for the four probabilities are expressed as follows:

$$\Pr(Y = 1) = \frac{1}{1+\theta X\beta_2 + \theta X\beta_3 + \theta X\beta_4} \quad (2)$$

$$\Pr(Y = 2) = \frac{\theta X\beta_2}{1+\theta X\beta_2 + \theta X\beta_3 + \theta X\beta_4} \quad (3)$$

$$\Pr(Y = 3) = \frac{\theta X\beta_3}{1+\theta X\beta_2 + \theta X\beta_3 + \theta X\beta_4} \quad (4)$$

$$\Pr(Y = 4) = \frac{\theta X\beta_4}{1+\theta X\beta_2 + \theta X\beta_3 + \theta X\beta_4} \quad (5)$$

Where:

Pr (Y=1) denotes a household with no access to credit.

Pr (Y=2) denotes a household with access to informal credit.

Pr (Y=3) denotes a household with access to formal credit.

Pr (Y=4) denotes a household with access to both formal and informal credit.

The explanatory variables of the model include:

X1: Age of the household head (years)

X2: Gender of the household head (male = 1 and 0, otherwise)

X3: Marital status (married = 1, and 0, otherwise)

X4: Level of formal education (years of schooling)

X5: Household size (numbers)

X6: Farming experience (years)

X7: Annual income level (Naira)

RESULT AND DISCUSSION

1. Micro-credit Sources Availability and Rural Households' Accessibility

Table 1 presents the various sources of microcredit accessed by the respondents. Among the formal sources, the Bank of Industry (BOI) was accessed by only 2.5% of the respondents, while the Bank of Agriculture (BOA) was accessed by 7.5% of the respondents. Interestingly, none of the respondents reported obtaining loans from commercial banks. Additionally, 8.3% of them reported accessing microcredit from microfinance banks. However, no respondents indicated utilizing community banks as a source of credit. The majority of the respondents, 97.5%, reported relying on informal sources of microcredit.

These informal sources included loans from family and friends (97.5%), private money lenders (71.7%), and owners' equity funding (10%). This significant reliance on informal sources suggests that many rural households may face challenges in accessing formal financial institutions, possibly due to factors such as stringent requirements, lack of collateral, or limited geographic reach of formal banks in rural areas. Informal credit sources, while often more accessible, may come with higher interest rates or less favourable terms, underscoring the importance of improving access to formal microcredit channels for rural populations.

Table 1. Distribution of Respondents Sources of Microcredit

Sources	Yes		No	
	Frequency	%	Frequency	%
Formal institution				
Bank of Industry (BOI)	9	2.5	351	97.5
Bank of Agriculture (BOA)	27	7.5	333	92.5
Commercial bank	-	-	360	100.0
Microfinance bank	30	8.3	330	91.7
Community banks	-	-	360	100.0
Informal				
Family and friends	351	97.5	9	2.5
Cooperatives				
Private money lender	258	71.7	102	28.3
Owners' equity funding	36	10.0	324	90.0

2. Amount of Credit Received by Respondents

Table 2 shows that 56.6% of farmers received credit in the range of ₦100,000 to ₦200,000, while 18.8% received between ₦201,000 and ₦300,000, and 24.5% received credit between ₦301,000 and ₦400,000. The average credit amount received by rural dwellers was estimated to be ₦167,000. This suggests that the majority of rural farmers who accessed credit from non-financial institutions received relatively modest amounts, typically ranging from ₦100,000 to ₦200,000. Such amounts may be inadequate for larger-scale agricultural projects, limiting farmers' ability to make substantial investments in their farming operations. Only a small proportion of the respondents received credit amounts exceeding ₦300,000, indicating that access to larger sums of credit is challenging for many rural farmers who depend on non-financial sources. This may point to barriers such as limited collateral, insufficient financial records, or a lack of trust between informal lenders and borrowers as also noted by Akinboyo & Adejumo (2016) and Babatunde et al. (2016).

Table 2. Disaggregation by the Amount of Credit Received

Credit received	Frequency	Percent	Mean
₦100,000-200,000	204	56.6	
₦201,000-300,000	68	18.8	
₦301,000- 400,000	88	24.5	
Total	360	100.0	167,000

3. Respondents' Amount of Credit Utilized

The findings reveal that, on average, farmers did not fully utilize the credit they received from financial institutions (Table 3). The mean amount of credit utilized (₦126,450) was lower than the average amount of credit

received, suggesting that some farmers either did not use the credit they obtained or only partially utilized it. Several factors may account for this underutilization, including limited access to markets, inadequate technical knowledge, or other constraints that prevent farmers from effectively investing in their agricultural activities. The result is similar to the findings of Akinboyo & Adejumo (2016).

Table 3. Distribution of Respondents Amount of Credit Utilized

Credit Utilized	Frequency	Percent	Mean
₦100,000-150,000	204	56.6	
₦151,000-200,000	68	18.8	
₦201,000- 250,000	88	24.5	
Total	360	100.0	126,450

4. Respondents' Livelihood Activities

Table 4 indicates the share of rural families engaged in numerous livelihood activities, both farming and non-farming. A sizable proportion of rural families participate in crop production (90%) and livestock farming (87.5%). This high engagement in agricultural activities suggests that microcredit can play a critical function in improving agricultural productivity and ensuring food safety. By supplying access to credit, rural families can invest in buying seeds, fertilizers, pesticides, and livestock inputs. Additionally, microcredit can be applied for investing in critical infrastructure including irrigation structures, garage facilities, and transportation, which can be vital for improving the efficiency and profitability of agricultural companies. Research helps this locating, as agriculture remains a dominant livelihood pastime for rural households in Nigeria. For example, Adebayo & Adejobi (2013) pronounced that 80% of rural households in Oyo State mainly relied on agriculture for his or her profits. Similarly, Okunmadewa and Oke (2016) discovered that agriculture contributed to about 70% of household income in rural areas of Osun State. The percentage of rural families concerned with crop processing (78.3%) highlights the capacity for cost addition and the development of agro-processing businesses that may create employment possibilities and grow rural incomes. Microcredit can facilitate the established order or enlargement of small-scale processing equipment for grains, culmination, greens, and other agricultural merchandise, thereby permitting rural households to engage in worthwhile processing activities. A rather smaller proportion of households are involved in farm labour (21.7%), which may additionally suggest that microcredit can be channelled in the direction of acquiring labour-saving technologies and devices. Such investments can reduce hard labour, grow farming performance, and in the end enhance agricultural productivity. Moreover, microcredit also can be directed to trading, providing alternative sources of income to lessen the reliance on agricultural income. All respondents (100%) engaged in trading, indicating a vast capability for microcredit to help microenterprises that offer items and services inside rural groups. Credit may be used to finance the purchase of inventory, equipment, and operating capital for small retail outlets, kiosks, and market stalls. This

strong engagement in buying and selling highlights the significance of microcredit in enabling rural households to preserve and enlarge their buying and selling activities, thereby enhancing their income and livelihood stability. In addition, 42.5% of rural households are engaged in handcraft, underscoring the potential for microcredit to assist artisanal companies. These small-scale enterprises are frequently conscious of producing conventional crafts and souvenirs for local and traveller markets. To get admission to microcredit, artisans should buy uncooked materials, and tools, and cover marketing fees, allowing them to enhance manufacturing exceptional and scale up their organizations. Other livelihood activities located amongst rural households consist of paid employment (53.3%), civil servants (10.0%), and personal business ownership (23.3%). These noticeably excessive probabilities propose that microcredit can play a pivotal role in helping diverse income-producing activities, both on-farm and off-farm. By imparting credit for skill acquisition, know-how development, and the acquisition of effective assets, microcredit permits rural households to diversify their livelihoods, thereby decreasing their dependency on a single source of earnings. This diversification is important for improving family resilience and financial balance, as it provides more than one stream of sales that could cushion in opposition to agricultural risks and fluctuations.

Table 4. Distribution of Respondents Livelihood Activities

Activities	Yes		No	
	Frequency	%	Frequency	%
Farming activities				
Production of crops	324	90.0	36	10.0
Production of livestock	315	87.5	45	12.5
Crop processing	282	78.3	78	21.7
Farm labour	78	21.7	78	21.7
Non-farming activities				
Trading	360	100.0		
Handcraft	153	42.5	207	57.5
Other paid employment	192	53.3	168	46.7
Civil servants	36	10.0	1324	90.0
Private business	84	23.3	276	76.7

5. Determine the Factors Influencing the Choice of Microcredit Type Assessed by the Respondents

Table 5 presents the coefficients, popular mistakes, and p-values from a multinomial logistic regression version aimed at identifying the factors influencing the assets of microcredit for rural households. The structured variable inside the model is the supply of microcredit, classified into 4 organizations: no credit score, formal credit score, casual credit, and each formal and casual credit score (reference category). The unbiased variables, or predictors, in this version, encompass sex, age, marital popularity, years of

schooling, family length, years of experience, and earnings. Each of these variables is related to three sets of coefficients, similar to the three categories of the structured variable. The baseline or reference class is "no credit score," and the coefficients for the baseline represent the log odds of acquiring no credit score. In comparison, the coefficients for the alternative classes reflect the log odds ratios of obtaining both formal and casual credit relative to no credit. The p-values are used to assess the statistical significance of each coefficient, with a p-value of less than 0.05 indicating a statistically sizable relationship between the predictor and the source of credit score. Again, the effects indicate that age, marital fame, years of education, circle of relative size, years of enjoyment, and profits substantially impact whether rural families acquire formal or informal credit sources in comparison to acquiring no credit. Specifically, older individuals are much less probably to get the right of entry to formal or informal credit as compared to younger individuals. Similarly, married people are less probably to attain credit sources from formal or casual assets than their single opposite numbers. Higher schooling ranges, large family sizes, more years of experience, and better profit tiers are all associated with a higher probability of gaining access to either formal or casual credit relative to no credit. Interestingly, the consequences advise that sex is not a widespread predictor of credit score get right of entry to in this context. These findings imply that after inspecting the resources of microcredit for rural families, variables inclusive of age, marital reputе, schooling, family size, experience, and earnings are greater essential predictors than sex. This suggests that guidelines or interventions to enhance entry to microcredit in rural areas should prioritize these factors. For instance, improving get right of entry to schooling and vocational training, presenting help to larger families, or expanding economic offerings for people with much less revel in or decreasing profits could be extra powerful techniques for growing access to credit.

Table 5. Multinomial Logistic Regression on Access to Credit Types

Explanatory variable	No Credit			Informal			Formal		
	Coefficient	Std. Err	p-value	Coefficient	Std. Err	p-value	Coefficient	Std. Err	p-value
Intercept	32.455	9.347	0.001	2.419	4.797	.614	8.179	5.063	.106
Sex	-2.012	1.802	0.264	-2.075*	1.113	0.062	-2.320** *	1.250	0.0063
Age	-9.667** *	3.162	0.002	-1.467**	.693	0.034	-1.417*	.785	0.071
Marital status	-7.752** *	2.496	0.002	-5.355** *	1.755	0.002	-6.055** *	1.831	0.001
Years of education	7.101**	2.900	0.014	3.695** *	1.187	0.002	4.568** *	1.301	0.000
Family	.963	1.420	0.4	3.594**	1.031	0.0	2.166**	1.019	0.03

size			98	*		00			4
Years of experience	1.429**	.705	0.043	.172	.287	0.550	.245	.339	0.469
Income	3.725** *	.908	0.000	1.916** *	.520	0.000	1.837** *	.562	0.001
LR chi-square (91)	117.5** *								
Log-likelihood	262.995 ***								
Pseudo-R2	.702								

Note: ***' **' * significant at 1%, 5% and 10% respectively

CONCLUSIONS AND RECOMMENDATIONS

This study assessed the effect of microcredit on the livelihoods of rural farming households in Southwest Nigeria, revealing both the benefits and limitations of microcredit as a tool for improving rural welfare. The results show that informal credit sources, such as loans from family and friends, dominate the rural credit landscape, with 97.5% of respondents relying on these channels. This overwhelming dependence on informal credit highlights the inaccessibility of formal financial services, which only reached a small fraction (8.3%) of respondents via microfinance banks. This finding implies that despite the establishment of microfinance institutions (MFIs), formal credit is still out of reach for many rural households, potentially due to stringent loan requirements, collateral needs, and limited rural bank coverage.

The study also revealed that while the average amount of credit received by households was ₦167,000, the full potential of this credit was not realized, as many farmers underutilized the funds. The mean amount of credit utilized was ₦126,450, suggesting barriers such as inadequate market access, limited technical skills, and lack of financial literacy, which prevent farmers from effectively using loans for productive investments. This underutilization limits the transformative potential of microcredit, as rural farmers are unable to make significant investments that could enhance their productivity and income.

Furthermore, the study identified education, household size, and income as key determinants of access to both formal and informal credit. Higher education levels and income significantly increased the likelihood of accessing credit, while larger household sizes also contributed to greater credit access. These findings underscore the inequality in credit access, as households with lower education levels and incomes are at a disadvantage, exacerbating financial exclusion for the most vulnerable segments of rural populations.

The dominance of agriculture as the main livelihood activity, with 90% of respondents engaged in crop production and 87.5% in livestock farming, underscores the importance of credit for agricultural productivity. However, the reliance on small amounts of informal credit constrains households' ability

to make long-term investments in farming technology, infrastructure, and inputs. This lack of sufficient capital limits their potential to achieve higher productivity and improved livelihoods, keeping them in a cycle of subsistence farming and poverty.

Based on these findings, the following recommendations are made.

1. Financial institutions, particularly microfinance banks, should extend their reach to rural areas by simplifying loan requirements, offering flexible collateral arrangements, and reducing geographic barriers. This will reduce the dependence on informal sources and improve the terms of credit available to rural households.
2. Educational programs should be implemented by the government to improve financial literacy among rural households. This will enhance their ability to utilize microcredit effectively, invest in productive ventures, and avoid potential debt traps.
3. The government and microfinance institutions should provide complementary support services such as access to modern farming techniques, improved seeds, fertilizers, and market access to maximize the benefits of microcredit on agricultural productivity.
4. Specific efforts should be made to increase credit accessibility for women and younger farmers, who face additional barriers to accessing both formal and informal credit. This could be achieved through tailored financial products and policies aimed at fostering inclusiveness.
5. Policymakers should establish frameworks to continuously monitor and evaluate the long-term impacts of microcredit on rural livelihoods, ensuring that credit programs are effectively meeting the needs of rural households and contributing to poverty alleviation.
6. Rural households should be encouraged to diversify their income-generating activities, both within and outside agriculture, to reduce their dependence on single income streams and enhance economic resilience.

ADVANCED RESEARCH

This research still has limitations so further research on this topic is still needed.

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REFERENCES

- Adebayo, C.O., & Adejobi, A.O. (2013). Microcredit and poverty reduction among rural households in Oyo State, Nigeria. *Journal of Sustainable Development*, 6(3):49-57. <https://doi.org/10.5539/jsd.v6n3p49>
- Akinboyo, O.O., & Adejumo, A.V. (2016). Determinants of credit utilization by small-scale farmers in Osun State, Nigeria. *Journal of Agricultural Extension and Rural Development*, 8(6): 87-96.

- Augsburg, B., De Haas, R., Harmgart, H., Meghir, C. (2015). The impacts of microcredit: Evidence from Bosnia and Herzegovina. *American Economic Journal: Applied Economics*, 7(1):183-203.
- Babatunde, R.O., & Omotesho, O.A., & Oyinbo, O. (2016). Effectiveness of microfinance on poverty reduction in Nigeria: An empirical analysis. *Journal of Poverty, Investment, and Development*, 29: 1-12.
- Banerjee, A.V., Duflo, E. (2015). Mandated Empowerment: Handing Empowerment Policy Back to the Poor? - *Annals of the New York Academy of Sciences*, 1136(3): 333-334.
- Balana, B.B., Oyeyemi, M.A. (2022). Agricultural credit constraints in smallholder farming in developing countries: Evidence from Nigeria. *World Development Sustainability*, 1, 100012.
- Benami, E., Carter, M.R. (2021). Can digital technologies reshape rural microfinance? Implications for savings, credit, & insurance. *Applied Economic Perspectives and Policy*, 43(4): 1196-1220.
- Cherotich, J. (2018). Role of financial knowledge on extent of credit access and performance of women farm entrepreneurs in Kericho County, Kenya (Doctoral dissertation, Egerton University).
- Falola, A., Olowogbon, T.S., Mukaila, R., Ayodele, O.S., Ibrahim, F. (2023). Financial literacy of rural farming households in Kwara State, Nigeria: A guide for financial inclusion. *Journal of Rural and Community Development*, 18(3): 215 - 230.
- Hossain, S., Galbreath, J., Hasan, M.M., Randøy, T.M. (2020). Does competition enhance the double-bottom-line performance of microfinance institutions? *Journal of Banking & Finance*, 11, 105765.
- Kabeer, N. (2018). Gender, livelihood capabilities and women's economic empowerment: reviewing evidence over the life course.
- Karlan, D., Morduch, J. (2010). Access to finance. In *Handbook of Development Economics*, 5:4703-4784. Elsevier.
- Kayembe, H., Lin, Y., Munthali, G.N.C., Xuelian, W., Banda, L.O.L., Dzimbiri, M.N.W., Mbughi, C. (2021). Factors affecting the sustainability of microfinance institutions: a case of Malawi microfinance institutions.
- Khandker, S.R., Koolwal, G.B. (2014). Does institutional finance matter for agriculture? Evidence using panel data from Uganda. Evidence Using Panel Data from Uganda (June 1, 2014). World Bank Policy Research

Working Paper (6942).

- Langyintuo A. (2020). Smallholder farmers' access to inputs and finance in Africa. *The role of smallholder farms in food and nutrition security*, 133-152.
- Lin HC, Qin ZH, Chi RY. (2019). China small and medium enterprises development report.
- Mallick, R. (2000). Implementing and evaluating microcredit in Bangladesh, *Development in Practice*. 12:153-154.
- Manzoor F, Wei L, Sahito N. (2021). The role of SMEs in rural development: Access of SMEs to finance as a mediator. *Plos one*, 16(3): e0247598.
- Milana, C., Ashta, A. (2020). Microfinance and financial inclusion: Challenges and opportunities. *Strategic Change*, 29(3): 257-266.
- National Bureau of Statistics- NBS (2020). Nigerian Gross Domestic Product Report, 2019 National Bureau of Statistics, Abuja, Federal Republic of Nigeria. Available at: <https://nigerianstat.gov.ng/elibrary/read/1241168>.
- Olutumise, A.I. (2023). Impact of credit on the climate adaptation utilization among food crop farmers in Southwest, Nigeria: application of endogenous treatment Poisson regression model. *Agricultural and Food Economics*, 11(1), 7.
- Okunmadewa, F., Oke, M.O. (2016). Microfinance and poverty reduction in Nigeria: a case of Osun State. *International Journal of Business and Social Science*, 7(6): 1-12.
- Raza A, Tong G, Sikandar F, Erokhin V, Tong Z. (2023). Financial literacy and credit accessibility of rice farmers in Pakistan: Analysis for Central Punjab and Khyber Pakhtunkhwa regions. *Sustainability*, 15(4): 2963.
- Tenaw, S., Islam, K.Z. (2009). Rural financial services and effects of microfinance on agricultural productivity and on poverty. University of Helsinki Department of Economics and Management (Discussion Papers series). 1, 28.
- Uddin, M.B., Islam, T. (2016). Revisiting Socio-economic Effects of Microcredit: A Case of Mymensingh District in Bangladesh. *Asian Journal of Research in Business Economics and Management*, 6(3): 103-114.