

**MICROFINANCE SERVICES AND POVERTY REDUCTION
AMONG RURAL ENTREPRENEURS IN ANAMBRA STATE,
SOUTHEAST NIGERIA**

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ABSTRACT: This study examined the association between microfinance services and poverty reduction indicators among rural entrepreneurs in Anambra State, Southeast Nigeria. Specifically, the research investigated how access to microcredit, savings services, and financial literacy training relates to income levels, business growth, and asset ownership. A descriptive survey design was adopted, with a structured questionnaire administered to 320 rural entrepreneurs selected through multistage sampling across six local government areas representing the three senatorial districts. Data were analyzed using descriptive statistics (mean scores and standard deviation), while hypotheses were tested using Multivariate Analysis of Covariance (MANCOVA). Findings revealed that access to microcredit was associated with higher income levels (mean = 3.44, SD = 0.78), with MANCOVA showing significant relationship (Wilks' $\Lambda = 0.763$, $F = 6.295$, $p < 0.001$). Savings services were associated with business growth (mean = 3.36, SD = 0.84; Wilks' $\Lambda = 0.815$, $F = 5.017$, $p < 0.001$). Financial literacy training was associated with asset ownership (mean = 3.41, SD = 0.77; Wilks' $\Lambda = 0.802$, $F = 5.588$, $p < 0.001$). The study concluded that microfinance services are positively associated with poverty alleviation and business sustainability indicators. It recommended increased access to microcredit, incentivized savings schemes, and localized financial literacy programs.

Keywords: Microfinance Services, Rural Entrepreneurs, Poverty Reduction, Anambra State, Southeast Nigeria

INTRODUCTION

Poverty remains one of the most daunting challenges confronting Nigeria, particularly in rural areas where economic opportunities are limited, and entrepreneurship is largely informal. Microfinance services—providing small loans, savings, and financial literacy to individuals excluded from formal banking—have emerged as strategic interventions for poverty reduction. In Anambra State, which is part of Southeast Nigeria and characterised by widespread entrepreneurship and informal trading, microfinance institutions offer a relevant context for examining poverty alleviation outcomes. Onyele and Onyekachi-Onyele (2020) argued that microfinance services are positively associated with improvements in household income, business expansion, and increased savings. Access to credit enables rural entrepreneurs to invest in microenterprises, purchase inventory, and adopt

improved business practices. Savings services encourage financial discipline and cushion economic shocks. Financial literacy training enhances entrepreneurs' capacity for informed decision-making (Nkamnebe, 2023). Thus, microfinance potentially supports both financial inclusion and human capital development in disadvantaged communities.

Despite the fact that Nigeria has many microfinance institutions across, actual outcomes vary by region. In Anambra State, cultural and structural barriers, such as lack of collateral, high interest rates, and poor financial literacy, may limit effectiveness. Nevertheless, studies have reported positive associations between microfinance access and poverty alleviation indicators (Edem & Ozigbo, 2024). For them, female entrepreneurs, who form a large part of the rural economy, often face additional hurdles, including gender bias and inadequate training.

Statement of the Problem

Despite microfinance growth, most rural entrepreneurs in Anambra State struggle with persistent poverty, limited access to capital, and stagnant business growth. Many entrepreneurs lack microfinance awareness or are deterred by high interest rates and stringent conditions (Nkamnebe, 2023). Financial literacy remains low, limiting effective fund management. Microfinance institutions often prioritize loan recovery over developmental support, potentially undermining poverty alleviation efforts (Edem et al., 2024). These issues cast doubt on microfinance's true impact, necessitating empirical assessment of how these services relate to income, business growth, and asset acquisition.

Although studies exist on microfinance in Nigeria (Onyele et al., 2020; Nwanna & Okeke, 2022; Ngong Thaddeus & Onwumere, 2022), few have specifically focused on rural entrepreneurs in Anambra State using MANCOVA to analyse multiple dependent variables while controlling for demographic covariates. This study addresses this gap by examining the associations between microcredit, savings services, and financial literacy training and three poverty reduction indicators. Examining these three services will provide added value to understanding microfinance services and poverty alleviation. Furthermore, the analytical value of examining these services together lies in understanding their potentially complementary roles: credit provides immediate capital, savings enable accumulation, and training ensures informed utilization—an integrated perspective that single-service studies cannot capture.

Objectives of the Study

The study aims to:

1. Assess the association between access to microcredit and income levels of rural entrepreneurs.
2. Assess the association between microfinance savings services and rural business growth.
3. Assess the association between financial literacy training and asset ownership among rural entrepreneurs.

Research Questions

1. How does access to microcredit relate to the income levels of rural entrepreneurs?
2. What is the relationship between microfinance savings services and rural business growth?
3. To what extent does financial literacy training relate to asset ownership among rural entrepreneurs?

Research Hypotheses

H1: Access to microcredit has a significant positive relationship with the income levels of rural entrepreneurs.

H2: Microfinance savings services have a significant positive relationship with rural business growth.

H3: Financial literacy training provided by microfinance services has a significant positive relationship with asset ownership among rural entrepreneurs.

Significance of the Study

The study will provide empirical evidence for policymakers in designing poverty reduction strategies. It will help microfinance institutions understand which services yield strong associations and highlight engagement benefits for rural entrepreneurs even as it contributes to the literature on microfinance and rural development in Anambra State and Southeast Nigeria.

LITERATURE REVIEW: CONCEPTUAL FRAMEWORK

Microfinance Services

Microfinance services refer to financial institutions established to provide micro-level financial services to individuals who typically lack access to traditional banking systems, especially in rural areas. These institutions aim to support small-scale enterprises and low-income earners through the provision of credit, savings, and other financial services. Microfinance services serve as instruments for enhancing financial inclusion, particularly for rural entrepreneurs, farmers, and artisans, by bridging the gap between informal and formal financial systems. They play a critical role in providing working capital and other financial resources needed for business sustainability and expansion. Their unique design allows them to potentially mitigate poverty and empower marginalized populations through tailored financial products (Edem et al., 2024; Onyele et al., 2020).

Poverty

Poverty is a multidimensional condition characterized by the lack of access to basic human needs such as food, shelter, healthcare, education, and income-generating opportunities. It is most prevalent in rural areas where unemployment and underemployment are high. In Nigeria, poverty

is further intensified by inflation, poor infrastructure, and limited access to credit facilities. Rural entrepreneurs often struggle with inadequate capital, making them vulnerable to persistent poverty (Nkamnebe, 2023). Understanding poverty goes beyond income deficiencies; it includes economic, social, and institutional barriers that hinder individuals from improving their standard of living (Ngong et al., 2022).

Poverty Reduction

Poverty reduction involves deliberate strategies aimed at improving the living standards of the poor by expanding their access to resources and opportunities. This concept includes the creation of employment, promotion of entrepreneurship, provision of education and health services, and expansion of access to financial services (Ezeanyej, Usifoh & Ejefobihi, 2020). In rural areas, poverty reduction strategies often focus on enhancing agricultural productivity and empowering artisans and traders. It provides access to microcredit and financial literacy. Microfinance services may contribute to this goal by equipping the poor with tools for self-reliance and sustainable income generation (Bello & Can, 2022).

Entrepreneurs

Entrepreneurs are individuals who create and manage businesses by taking calculated risks to generate profit. Entrepreneurs include farmers, traders, artisans, and other small-business operators who contribute to local economies. Rural entrepreneurs often operate within informal markets and are constrained by limited access to finance, markets, and modern technology (Oluka, Orga, & Monanu, 2023). Despite these challenges, they are vital for rural development and job creation. Supporting these individuals through microfinance initiatives may help unlock their economic potential and stimulate local development (Hambolu, 2021). Entrepreneurship is considered a key pathway to poverty alleviation when paired with proper financial and institutional backing (Osioma, 2024).

Empirical Review

The Association Between Access to Microcredit and the Income Level of Rural Entrepreneurs

Access to microcredit is one of the most commonly provided services by microfinance institutions, potentially enabling rural entrepreneurs to invest in their businesses and increase their incomes. Microcredit enables small business owners to purchase tools, raw materials, and other inputs that may boost productivity and profitability (Onyele et al., 2020). With consistent access to credit, rural entrepreneurs may experience income stability and expansion of their operations. Empirical findings indicate that microcredit is statistically associated with household income and business sustainability (Nwana et al., 2022). When properly monitored and disbursed with supportive policies, microcredit may strengthen income-generating capacities in rural economies (Asuquo, Thompson, & Akpan, 2025). However, some studies have reported mixed findings, noting that the effectiveness of microcredit depends on factors such as loan size, interest rates, repayment terms, and the borrower's existing business capacity (Edem et al., 2024). Methodological limitations in

prior research, including the use of small samples and lack of control variables, also warrant cautious interpretation of positive findings.

The Association Between Microfinance Savings Service and Growth of Rural Businesses

Microfinance services offer rural entrepreneurs a secure platform for accumulating funds, planning for expansion, and managing business risks. These services encourage financial discipline, support capital formation, and reduce dependence on informal lending sources (Ezeanyejí et al., 2020). Through systematic savings, rural businesses may gain access to self-financing opportunities, which in turn could foster stability and long-term growth (Hussaini, 2023). The relationship between savings and business growth has been reported as particularly strong when entrepreneurs are encouraged to save regularly through incentives and structured plans offered by microfinance institutions (Ngong et al., 2022). These savings mechanisms may be instrumental in fostering resilience and growth among rural enterprises (Akinadewo, 2020). Nevertheless, critics note that savings services alone may be insufficient for significant business growth without complementary access to credit and business development training (Bello et al., 2022). Furthermore, low returns on savings and inflation eroding savings value are limitations rarely addressed in optimistic accounts.

The Association Between Financial Literacy Training by Microfinance Service and Asset Ownership Among Rural Entrepreneurs

Financial literacy training provided by microfinance services plays a potentially crucial role in equipping rural entrepreneurs with the skills to make informed financial decisions. Such training includes budgeting, record keeping, investment planning, and loan management. When rural entrepreneurs are financially literate, they may be more likely to reinvest profits, avoid debt cycles, and acquire productive assets that enhance their business operations (Edem et al., 2024). Bello et al., (2022) noted that financial literacy is significantly associated with the rate of asset accumulation and economic independence. Furthermore, continuous financial education may strengthen the ability of entrepreneurs to plan strategically and grow their asset base, potentially contributing to sustainable poverty reduction (Hambolu, 2021). However, the quality and duration of training programs vary considerably across microfinance institutions, and studies rarely assess whether training content is retained or practically applied. Some research suggests that training effects may be short-lived without ongoing support and reinforcement.

Theoretical Framework: Financial Intermediation Theory

This study adopts Financial Intermediation Theory (Gurley & Shaw, 1960), which posits that financial institutions act as intermediaries between savers and borrowers, facilitating capital accumulation and economic development. Access to financial services reduces transaction costs and risks for entrepreneurs, potentially enhancing productive investment and income generation (Nwanna et al., 2022). In the microfinance context, this theory explains how institutions mediate funds from depositors to rural entrepreneurs, enabling financial inclusion and business development (Edem et al., 2024).

The theory's relevance to this study's dependent variables can be articulated as follows: First, income levels are expected to be associated with microcredit because financial intermediation reduces the transaction costs of obtaining capital, enabling productive investment that generates returns. Second, business growth relates to savings services because intermediation provides secure mechanisms for capital accumulation, which funds reinvestment and expansion. Third, asset ownership connects to financial literacy training because effective intermediation requires informed participants; training enhances entrepreneurs' capacity to utilize financial services for asset acquisition. Thus, Financial Intermediation Theory provides a coherent framework for understanding how all three microfinance services may contribute to poverty reduction outcomes.

METHODOLOGY

This study adopted a descriptive survey research design, which was suitable for collecting, analyzing, and interpreting data on the association between microfinance services and poverty reduction indicators among rural entrepreneurs. The design allowed for the use of a structured questionnaire to obtain firsthand information from respondents across selected rural areas. This method was appropriate because it enabled the researcher to describe existing conditions without manipulating any variables, thereby capturing the current state of microfinance engagement and poverty indicators. The design supported the use of both descriptive statistics and inferential tools like MANCOVA for hypothesis testing.

The area of the study was Anambra State, one of the five states in Southeast Nigeria. Anambra is divided into three senatorial districts: Anambra North, Anambra Central, and Anambra South. From each of these districts, two local government areas were selected, making a total of six LGAs. The selected LGAs were: Ayamelum and Anambra East (Anambra North), Njikoka and Dunukofia (Anambra Central), and Orumba South and Aguata (Anambra South). These LGAs were selected because they are predominantly rural and host a high concentration of small-scale entrepreneurs who actively engage with microfinance institutions.

The target population consisted of rural entrepreneurs in the six selected local government areas of Anambra State. Using Raosoft Sample Size Calculator, a target sample size of 344 respondents was calculated based on an estimated population of 3,200 entrepreneurs operating micro and small businesses. The population estimate of 3,200 was derived from informal counts provided by local microfinance institution branch managers and micro-entrepreneur association records in the six LGAs. These sources provided rough estimates of active entrepreneurs in sectors such as agriculture, petty trading, tailoring, hairdressing, food vending, welding, and craftsmanship. However, the absence of a comprehensive official registry represents a limitation, and the population figure should be interpreted as an approximation rather than a precise count.

A total of 320 respondents participated in the study, representing 93% of the target sample. The reduction from the calculated 344 to 320 was due to 24 questionnaires that were incompletely filled or not returned. This response rate (93%) is considered adequate for analysis. A multi-stage sampling technique was employed: first, proportionate stratified sampling ensured fair representation across the six LGAs based on estimated entrepreneur populations; second, simple random sampling was used within each LGA to select individual respondents, ensuring that every

rural entrepreneur had an equal chance of being chosen. This method ensured diversity in business types and experiences.

Data were collected using a closed-ended structured questionnaire designed based on the study objectives and research questions. The questionnaire was divided into two parts: Section A captured demographic data of respondents, while Section B measured perceptions of access to microcredit, savings services, training, and poverty indicators (income, business growth, and asset ownership). A four-point Likert scale format was used: Strongly Agree (4), Agree (3), Disagree (2), and Strongly Disagree (1). This format minimized respondent confusion and facilitated quantification of opinions.

To ensure content validity, the questionnaire was reviewed by three experts in microfinance, rural development, and research methodology. Their feedback guided revisions to improve clarity, relevance, and alignment with the study objectives. To assess reliability, the questionnaire was pilot-tested with 30 rural entrepreneurs in a non-participating LGA. Cronbach's alpha coefficients were calculated for each construct: microcredit ($\alpha = 0.82$), savings services ($\alpha = 0.79$), financial literacy training ($\alpha = 0.84$), income ($\alpha = 0.81$), business growth ($\alpha = 0.78$), and asset ownership ($\alpha = 0.83$). All coefficients exceeded the acceptable threshold of 0.70, indicating satisfactory internal consistency.

Data were collected by two trained field assistants, who administered the questionnaire to 320 selected rural entrepreneurs over a three-week period in April 2025. Data collected were analyzed using mean scores and standard deviation to summarize responses and examine patterns in perceptions. The decision rule was based on a benchmark mean of 2.50, with scores above it considered positive agreement and those below it indicating disagreement.

For hypothesis testing, Multivariate Analysis of Covariance (MANCOVA) was employed to assess the joint relationship of multiple microfinance services with poverty reduction indicators, while controlling for covariates (age, gender, and education level). Prior to analysis, MANCOVA assumptions were tested: (1) multivariate normality was assessed using Q-Q plots, which showed approximately normal distributions; (2) homogeneity of covariance matrices was tested using Box's M test ($p = 0.124$), which was not significant, indicating the assumption was met; (3) linear relationships between covariates and dependent variables were confirmed through scatterplot examination; (4) multicollinearity was assessed using variance inflation factors ($VIF < 3.0$ for all predictors), indicating no serious multicollinearity.

Ethical standards were strictly observed. Participants were informed of the study's purpose, and verbal consent was obtained. Anonymity was ensured by using codes rather than names on questionnaires, and confidentiality of responses was guaranteed. Participation was voluntary, and respondents could withdraw at any time without consequence.

RESULTS

Demographic Profile of Respondents

Table 1: Demographic Characteristics of Respondents

Demographic Variable	Categories	Frequency (n)	Percentage (%)
Gender	Male	165	(51.56)
	Female	155	(48.44)
Age	18–30	112	(35.00)
	31–45	108	(33.75)
	46–60	66	(20.63)
	Above 60	34	(10.63)
Marital Status	Single	113	(35.31)
	Married	183	(57.19)
	Divorced	17	(5.31)
	Widowed	7	(2.19)
Educational Qualification	No Formal Education	39	(12.19)
	Primary	53	(16.56)
	Secondary	118	(36.88)
	Tertiary	110	(34.38)
Years in Business	Less than 1 year	52	(16.25)
	1–3 years	98	(30.63)
	4–6 years	95	(29.69)
	Above 6 years	75	(23.44)
Do you have access to Microfinance Savings	Yes	206	(64.38)
	No	114	(35.63)
Do you have access to Financial Literacy Training	Yes	211	(65.93)
	No	109	(34.06)

Source: Field Work, April 2025.

The demographic data indicate a fairly balanced gender distribution with a slight male majority (51.56%). The largest age groups were 18–30 years (35%) and 31–45 years (33.75%), showing that a majority of rural entrepreneurs were relatively young adults. Most respondents were married (57.19%), reflecting typical rural household structures. Education levels were diverse, with 36.88% having secondary education and 34.38% tertiary, suggesting moderate literacy levels that could influence microfinance engagement. Business experience was spread, but a majority had been in business between 1–6 years, indicating that entrepreneurial activity is sustained but still developing. Importantly, 64.38% had access to microfinance savings, and 65.93% of respondents had access to financial literacy training, suggesting progress toward stronger financial inclusion.

Association Between Microcredit and Income Levels

Table 2: Descriptive Statistics on Microcredit and Income

Statement	Mean	SD	%
I received microcredit for business	3.42	0.81	78.5%
Microcredit increased my business income	3.48	0.76	81.2%
I was able to repay loan while maintaining income	3.38	0.79	76.8%
Microcredit helped me expand customer base	3.45	0.77	79.6%
My living standard improved from microcredit	3.47	0.75	80.3%
Aggregate	3.44	0.78	79.3%

Source: Field Work, April 2025.

The aggregate mean of 3.44 exceeds the 2.50 benchmark, indicating positive perceptions that microcredit is associated with higher income. With 79.3% average agreement and low standard deviation (0.78), responses were consistent across items.

Table 3: MANCOVA Result for Hypothesis One

Effect	Wilks' Λ	F-value	df	p-value	Partial η^2	Decision
Access to Microcredit	0.763	6.295	4,312	<0.001	0.075	Accept H1

Source: Field Work, April 2025.

MANCOVA results indicate a statistically significant relationship between access to microcredit and income levels (Wilks' $\Lambda = 0.763$, $F = 6.295$, $p < 0.001$). The partial eta squared ($\eta^2 = 0.075$) indicates a medium effect size, suggesting that microcredit accounts for 7.5% of the variance in income after controlling for covariates. Therefore, H1 is accepted: access to microcredit is positively and significantly related to rural entrepreneurs' income levels.

Association Between Savings Services and Business Growth

Table 4: Descriptive Statistics on Savings and Business Growth

Statement	Mean	SD	%
I regularly save with microfinance	3.35	0.85	74.6%
Savings enabled my business reinvestment	3.38	0.83	76.2%
I receive incentives/interest on savings	3.29	0.88	71.8%
Savings help me manage business risks	3.40	0.82	77.5%
Consistent savings contributed to my business growth	3.37	0.84	75.9%
Aggregate	3.36	0.84	75.2%

Source: Field Work, April 2025.

The mean score of 3.36 indicates positive perceptions that savings services are associated with business growth. An average percentage of 75.2% acknowledges the fact that savings may facilitate reinvestment and risk management.

Table 5: MANCOVA Result for Hypothesis Two

Effect	Wilks' Λ	F-value	df	p-value	Partial η^2	Decision
Savings Services	0.815	5.017	4,312	<0.001	0.060	Accept H2

Source: Field Work, April 2025.

MANCOVA results indicate a statistically significant relationship between savings services and business growth (Wilks' $\Lambda = 0.815$, $F = 5.017$, $p < 0.001$). The partial eta squared ($\eta^2 = 0.060$) indicates a medium effect size, suggesting that savings services account for 6.0% of the variance in business growth after controlling for covariates. This supports Bello et al. (2022) and Akinadewo (2020), who found that structured saving enhances financial discipline and capital buildup for reinvestment. Therefore, H2 is accepted: microfinance savings services are positively and significantly related to rural business growth.

Association Between Financial Literacy Training and Asset Ownership

Table 6: Descriptive Statistics on Training and Asset Ownership

Statement	Mean	SD	%
I received financial literacy training	3.40	0.78	78.2%
Training improved my financial management	3.43	0.76	79.8%
Training influenced my asset acquisition	3.42	0.77	79.4%
I now record business transactions	3.39	0.79	77.6%
I used training to acquire new equipment	3.41	0.76	78.9%
Aggregate	3.41	0.77	78.8%

Source: Field Work, April 2025.

The mean score of 3.41 shows positive perceptions that financial literacy training is associated with asset ownership. The 78.8% average agreement with low standard deviation (0.77) indicates consistent responses.

Table 7: MANCOVA Result for Hypothesis Three

Effect	Wilks' Λ	F-value	df	p-value	Partial η^2	Decision
Financial Literacy Training	0.802	5.588	4,312	<0.001	0.067	Accept H3

Source: Field Work, April 2025.

MANCOVA results indicate a statistically significant relationship between financial literacy training and asset ownership (Wilks' $\Lambda = 0.802$, $F = 5.588$, $p < 0.001$). The partial eta squared ($\eta^2 = 0.067$) indicates a medium effect size, suggesting that financial literacy training accounts for 6.7%

of the variance in asset ownership after controlling for covariates. This supports Musa. (2023) and Hambolu. (2021), who found out that entrepreneurs receiving financial education show a higher propensity for asset growth. Therefore, H3 is accepted: financial literacy training provided by microfinance services has a significant positive relationship with asset ownership among rural entrepreneurs.

DISCUSSION OF FINDINGS

Microcredit Association with Income Levels

The study confirms H1—access to microcredit has a significant positive relationship with income levels of rural entrepreneurs. The descriptive results (aggregate mean = 3.44, 79.3% agreement) and MANCOVA findings (Wilks' $\Lambda = 0.763$, $p < 0.001$, $\eta^2 = 0.075$) demonstrate that respondents perceive credit access as enabling business investment and enhanced earning capacity. This finding aligns with Onyele et al. (2020) and Nwanna et al. (2022), who reported positive associations between microcredit and income growth. However, the effect size (7.5% variance explained) indicates that while the relationship is statistically significant, other factors not examined in this study—such as market conditions, business skills, and infrastructure—likely also influence income levels. This moderate effect size is consistent with Financial Intermediation Theory, which suggests that credit facilitates productive investment, but its impact depends on how effectively funds are utilized within existing economic structures.

The relatively consistent responses (low standard deviations) suggest general agreement among entrepreneurs regarding credit's positive role. Nevertheless, the finding should be interpreted with caution, given the cross-sectional design, which cannot establish that microcredit causes income improvement. Entrepreneurs with higher incomes may be more likely to qualify for and access credit, creating potential reverse causality.

Savings Services Association with Business Growth

H2 is confirmed—microfinance savings services have a significant positive relationship with business growth. The aggregate mean of 3.36 (75.2% agreement) and MANCOVA results (Wilks' $\Lambda = 0.815$, $p < 0.001$, $\eta^2 = 0.060$) indicate that savings mechanisms are perceived as contributing to business development. This supports Bello et al. (2022) and Akinadewo (2020), who found that structured savings enhance financial discipline and capital buildup for reinvestment. The finding that savings enable risk management (mean = 3.40) and reinvestment (mean = 3.38) aligns with the theoretical proposition that savings mechanisms facilitate capital accumulation for business expansion.

The relatively lower score for savings incentives (mean = 3.29, 71.8% agreement) suggests that microfinance institutions could strengthen this service by offering interest-bearing accounts or matching schemes to encourage more robust savings behavior. The effect size (6.0%) indicates that while savings services are positively associated with business growth, they are one of multiple factors influencing enterprise development. This moderate association may reflect that savings

alone, without complementary access to credit and markets, have limited capacity to drive substantial business expansion.

Financial Literacy Training Association with Asset Ownership

H3 is confirmed—financial literacy training has a significant positive relationship with asset ownership. The descriptive results (aggregate mean = 3.41, 78.8% agreement) and MANCOVA findings (Wilks' $\Lambda = 0.802$, $p < 0.001$, $\eta^2 = 0.067$) underscore that non-financial services are perceived as important for poverty reduction indicators. This finding supports Musa (2023) and Hambolu (2021), who reported that entrepreneurs who receive financial education exhibit a higher propensity for asset growth. The mechanism, as reflected in item-level responses, appears to involve improved financial management (mean = 3.43), more accurate transaction recording (mean = 3.39), and more informed equipment acquisition (mean = 3.41).

The effect size (6.7%) suggests that training explains a meaningful portion of variance in asset ownership, though other factors—including initial capital endowment, family support, and business type—likely also play important roles. This finding demonstrates that financial intermediation involves not just fund transfer but also human capital development, consistent with the broader interpretation of Financial Intermediation Theory that emphasises information and capability building alongside capital allocation.

Integrated Perspective

Collectively, the findings suggest that microfinance services may work in complementary ways. Credit provides immediate capital; savings enable accumulation and risk management; training supports informed financial utilization. The effect sizes (ranging from 6.0% to 7.5%) indicate that each service, individually, explains a modest but meaningful portion of the variance in poverty reduction indicators. This integrated pattern supports the theoretical framework and highlights the potential value of comprehensive microfinance approaches that combine financial and non-financial services. However, the moderate effect sizes also suggest that microfinance is not a singular solution to rural poverty and should be viewed as one component within broader development strategies.

Conclusion

Based on these findings, which confirm all three hypotheses, the study concludes that microfinance services are positively associated with poverty reduction indicators among rural entrepreneurs in Anambra State, Southeast Nigeria. The acceptance of H1 demonstrates that access to microcredit is positively associated with income generation, potentially by providing capital for business investment and expansion. The confirmation of H2 establishes that structured savings services are positively associated with entrepreneurs' capacity for financial planning, capital accumulation, and reinvestment decisions. The validation of H3 indicates that financial literacy training is positively associated with asset accumulation, likely through enhanced capacity for informed investment choices and expense tracking. These collective associations suggest that a well-designed microfinance framework integrating credit provision, savings schemes, and financial education may

serve as a useful model for rural poverty alleviation efforts. The associations appear more pronounced when access is inclusive and accompanied by capacity-building programs, though causality cannot be inferred from this cross-sectional design.

Limitations of the Study

Several limitations should be acknowledged. First, the study's cross-sectional design captures associations at a single point in time and cannot establish causal relationships between microfinance services and poverty reduction indicators. Second, the reliance on self-reported data introduces potential response bias, as entrepreneurs may overstate positive outcomes. Third, the population estimate of 3,200 entrepreneurs was derived from unofficial sources, meaning the sampling frame may not fully represent all rural entrepreneurs in the study area. Fourth, the study was conducted only in Anambra State, limiting generalizability to other states in Southeast Nigeria or other regions with different socioeconomic contexts. Fifth, while MANCOVA assumptions were tested and met, unobserved variables not included in the model (such as market access, family support, or entrepreneurial motivation) may influence the relationships examined. Finally, the effect sizes, while statistically significant, were moderate (6.0-7.5%), indicating that substantial variance in poverty indicators remains unexplained by microfinance services alone.

Recommendations

Based on the findings and acknowledging the study's limitations, the following recommendations are offered:

1. Microfinance Institutions should expand microcredit access to underserved areas and reduce bureaucratic requirements, especially for first-time borrowers. Simplified application processes and flexible collateral requirements may enhance income generation potential. Given the moderate effect size, institutions should also monitor loan utilization and provide follow-up support to maximize credit effectiveness.
2. Microfinance Institutions should design incentivized savings schemes that reflect rural business income flows. The relatively lower score for savings incentives suggests that interest-bearing accounts, matching contributions, or loyalty bonuses could encourage more consistent savings behavior. Savings products should allow flexible withdrawal schedules aligned with agricultural cycles and trading patterns.
3. Microfinance Institutions should make financial literacy training compulsory and continuous, customized to literacy levels and delivered in local languages. Training should cover budgeting, record-keeping, investment planning, and debt management with practical demonstrations. Periodic refresher courses and peer learning groups may help sustain training effects beyond initial sessions.
4. Microfinance Institutions should develop integrated service packages combining credit, savings, and training. The complementary associations observed in this study suggest that bundled services may produce stronger outcomes than single-service approaches. Cross-referrals between services and coordinated delivery schedules could enhance uptake and impact.

5. Government and Policymakers should develop supportive regulatory frameworks promoting microfinance growth while protecting entrepreneurs from predatory practices. Interest rate caps and client protection mechanisms should be enforced. The moderate effect sizes suggest that microfinance should be integrated with complementary interventions such as business development services, infrastructure investment, and market access programs.
6. Government and Policymakers should provide capacity-building support to microfinance institutions through technical assistance and refinancing facilities. Strengthening institutional capacity may improve service quality and outreach to underserved populations.
7. Future research should employ longitudinal designs to examine whether associations between microfinance services and poverty indicators persist over time and to better establish temporal ordering. Studies could also investigate which specific components of financial literacy training (e.g., budgeting vs. investment planning) are most strongly associated with asset accumulation.
8. Researchers should examine contextual factors that may moderate the relationships identified, including gender, business sector, and local economic conditions. Qualitative studies could provide a deeper understanding of how entrepreneurs utilize microfinance services and the barriers they encounter.

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