

FINANCIAL INCLUSION, AGRICULTURAL-CREDIT FINANCIAL SERVICES AND TECHNOLOGY-CONFLICT CONSTRAINTS: CASE OF MICROFINANCE INSTITUTIONS IN ENUGU

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Abstract

Financial inclusion is a key driver of poverty reduction and economic growth, facilitating access to resources for income generation, consumption-smoothing, and risk management. MFIs were designed to operate on principles of inclusivity, targeting underserved populations and fostering social and economic development within communities. This study examined financial inclusion, agricultural-credit financial services and technology-conflict constraints-case of; Microfinance institutions in Enugu state, Nigeria. The study reveal that small-holder farm businesses are typically excluded from mainstream banking and services due to distance, limited collateral, financial history amongst others. Some policies and procedures of MFIs; fell short of its demand or consumer expectation sine qua none to; facilitating access to financial services and products tailored to the needs of marginalized populations. The study recommended; government's provision of; enabling environment and; increased agricultural credit supply. Also, more technology financial-inclusion tools incorporated by MFIs and other banking stakeholders in the financial system to bridge the financial exclusion problem.

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Keywords: *Financial inclusion, Micro-Finance Institution, Farmers, Technology-constraints*

Introduction

The inception and the dualistic nature of microfinance institutions in Nigeria traces back to the early 1990s, coinciding with the broader recognition of the limitations of traditional banking systems in catering for the financial requirements of the underserved and low-income population segments. These segments, historically, were overlooked by traditional banks due to their perceived riskiness and the associated operational complexities (Olokoyo et al., 2018). Against this backdrop, microfinance institutions emerged as innovative and adaptive institution, focusing on bridging the gap in financial access.

Following, these institutions is anticipated to; cater for the unique financial needs of marginalized individuals, small-scale entrepreneurs, and those residing in remote and underserved areas. By providing a diverse range of services including credit, savings, insurance, and payment options; MFIs are meant to offer tailored financial solutions that empower these individuals and stimulate local economies (Lustig, 2022).

This attention prompted the; incorporating of informal financial-sector operation; formal economic planning, regulation and growth; side by side mobile technology; enabling, MFIs to further facilitate the expansion of microfinance services and to, extend their reach to even the most remote corners of the country (Acha, Ikoh and Nsien, 2016; Acha, 2009a; b; Acha, 2008a; Anyanwu, Okere & Adioha, 2020; Ifionu & Ibe, 2015; Acha, 2012a; Acha, 2012b; Akpan, 2009; Acha, 2007a; b; c).

Connected to the perceived realization of pre-MFIs-financial mainstream policies including; the rural banking scheme, 1977; Community banking, 1990, People's Bank, 1989, the Commercial Bill Financing Scheme, 1972; Agricultural Credit Guarantee Scheme Fund, 1978; Microinsurance (Ukpong and Acha, 2017; Adeola and Evans, 2017a; b; Acha, 2012b); the Nigerian Financial System Strategy 2020 (FSS2020) (Anyanwu, Okere, and Adioha, 2020; Kama and Adigun,

2013; Acha, 2008b); MFIs have improved the Nigerian financial service-sector.

Despite these laudable efforts, a study by EfinA (2021; 2018; 2010) indicates that over 55% of the estimated 106 million adult Nigerians were financially excluded or unbanked. In lieu, the enormity of financial access-gap in Nigeria and financial exclusion challenges wide-ranges the challenge that the poor are most financially excluded and that the provision of financial services to the poor has a crucial role to play in advancing household food security and alleviating poverty (Apata, Apata, Igbalajobi & Awoniyi, 2010; Sanusi, 2010; Ifionu and Ibe, 2015; Aurora, 2012; Rangarajan Committee, 2008); strengthening the case for microfinance banking.

This continued financial exclusion leads to; the deplorable situation of inadequacy/un-availability of credit – an essential component of rural development; smallholder-Farmers limited resource endowments relative to other farmers in the agricultural sector (Patt, Suarez, & Hess, 2010); delayed achievement of rapid and sustainable growth of agriculture. In view, to boost agricultural production and productivity, farmers have to use improved agricultural technologies, modern inputs, adopt sound technologies that are; relatively expensive (Kiplang'at, & Ocholla, 2016).

Addressing these issues requires an assessment of MFIs, their strategies, and their contributions to expanding financial access, bridging the financial inclusion gap. Also, latency of MFIs in expanding financial access and credit to small holder farmers; shape future interventions, and contribute to the broader discourse on sustainable economic development.

Material and method

Study area

The study was carried out in Enugu State of Nigeria. Enugu state has an estimated total land area of about 8,022.96 sq. km (NBS, 2014). It lays entirely within the tropical zone at latitudes $5^{\circ} 56^{\circ}\text{N}$ to $7^{\circ} 05^{\circ}\text{E}$ of the Equator and longitude $6^{\circ} 53^{\circ}\text{N}$ to $7^{\circ} 55^{\circ}\text{E}$ of the Greenwich Meridian (Enugu State Agricultural Development Project [ENADEP], 2009).

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Enugu shares boundary with Abia State and Imo State to the south; Ebonyi State to the east, Benue State to the northeast; Kogi State to the northwest and Anambra State to the west. Its headquarters is Enugu. Enugu state has a population of 3,267,837 with density of 268 persons per sq km, which is high when compared with the average national density of about 96 persons per sq. km (World Population review, 2019).

The soils are inclusive of; reddish brown, pale clay, loamy-silt and sandy. The climatic conditions are characterized with high temperature ranges of 27⁰C - 28⁰C. There are two seasons, the wet and dry seasons. The wet season extends from April to October, while the dry season extends from November to March. The annual rainfall range is 1680mm – 1700mm. Farming constitutes one major economic activity, although, trading especially in the urban areas is common. Some domesticate animals such as poultry, goats, sheep, pigs, etc despite crop production-agriculture is the main agricultural-endeavor. The University of Nigeria Nsukka is also domiciled in one of her Local Government Area (Ozor, Ozioko, Acheampong, 2015).

Sampling procedure

A multistage sampling technique was implord. In the first stage, three LGAs were selected, from each of the 3 senatorial zones. In the second stage, three sub-urban or rural communities were selected, from each of the LGAs. 40 farmers were randomly selected from the sub-urban or rural communities in the selected LGAs. A total of 120 farmers were sampled.

Data collection

Primary data was used for this study. Farmers were interviewed using a well-structured questionnaire. The questionnaire captures the socio-economic characteristics of the farmers, perception of the small-holder farmers on performance of financial institutions (FIs), effect of financial inclusive capacity-characteristic of usage of formal financial institution products on productive-capacity of smallholder farmers, factors influencing amount of Agricultural credit acquired by Farmers from formal financial institution (FI), sources of credit accessed by

smallholder farmers, constraints faced by small-holder farmers in accessing credit from formal financial institution.

Analytical Framework

Model 1: Perception of smallholder farmers on the performance of financial institutions

The first model was used to determine the perception of small-holder farmers on the performance of financial institutions represented by Micro-finance institution (MFIs) given, selected macroeconomic indicators, including loans and advances of microfinance banks, lending-interest rate, service delivery, information and communication channels, new account setup-ease, sufficient number of branches, operating charges, procedural ease, repayment terms, technical help and quality.

Therefore, the model specified is a 4–point rating scale with specified levels of; strongly agree (SA), agree (A), disagree (DA), strongly disagree (SD) corresponding to values of; 4, 3, 2, and 1 respectively. Based on this, the mean score is computed thus:

$$\frac{4 + 3 + 2 + 1}{4} = 2.50 \text{ [cut off point].}$$

Therefore, any mean score below 2.50 ($MS < 2.50$) will be taken as a weak factor and may not be considered a constraint while any factor with mean score greater than 2.50 ($MS > 2.50$) will be taken as a strong factor. This was used by Oni (2015), to determine the factors influencing credit constraint amongst firms in Ekiti state, Nigeria.

Model 2: Effect of financial inclusive capacity-characteristic of usage of formal financial institution products on productive-capacity of smallholder farmers

The second model was used to determine the effect of financial inclusive capacity-characteristic of usage of formal financial institution products on productive-capacity of smallholder farmers. In view, multiple regression analysis, an econometric method used to study relationships involving more than two variables, was used. Awoke (2001) opined that

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for multiple regression, the variation in the endogenous variable is explained by more than one exogenous variable. Gujarati and Porter (2009) also opined that regression models are economic models fundamentally used to explain effect of independent variables on the dependent variable. Thus, forecast the single dependent variable by a set of regressors. The purpose of regression analysis is to arrive at a set of values called coefficient for independent variables (Barbara & Linda, 2013; Eboh, 2009); resulting in a generalization of equation that signify the best predictions of dependent variables from several continuous independent variables.

Multiple regression analysis can be stated either in the implicit or explicit forms as follows:

$$Y=f(X_1,X_2,X_3,X_4,X_5,X_6,\dots\dots\dots X_n,e) \text{ (implicit form)}$$

$$Y=b_0+b_1X_1+b_2X_2+b_3X_3+b_4X_4\dots\dots+b_nX_n+e \text{ (explicit form)}$$

Where:

Y=dependent variable

b₀=intercept

b₁-b_n=regression coefficients

X₁-X_n=independent variables.

Model 3: Factors influencing amount of Agricultural credit acquired by Farmers from formal financial institution (FI)

The third model was used to determine factors influencing amount of Agricultural credit acquired by Farmers from formal financial institution (FI). In view, multiple regression analysis, an econometric method used to study relationships involving more than two variables, was used. It is as specified in Model 2.

Model 4: Perception of the farmers on financial inclusion technology-constraint-performance of Microfinance institutions

The fourth model was used to determine the perception of the farmers on financial inclusion technology-constraint-performance of Microfinance institutions. In view, a 4–point rating scale with specified levels of; strongly agree (SA), agree (A), disagree (DA), strongly

disagree (SD) corresponding to values of; 4, 3, 2, and 1 respectively, was used. This is as specified in Model 1.

Results and discussion

Socioeconomic characteristics of the Respondents

The socioeconomic characteristics of the respondents were described in Table 1. The socioeconomic characteristics used in this study include, age, sex, marital status, household size, educational level, farm experience, farm size, distance to the nearest financial institution and average income (Naira).

Table 1: Distribution of the respondents according to their socio-economic characteristics

Variable	Frequency	Percentage	Mean
Age			31 years
21- 30	19	15.83	
31 - 40	28	23.33	
41 – 50	56	46.67	
Above 50	17	14.17	
Marital status			
Single	37	30.83	
Married	51	42.50	
Divorced	20	16.67	
Widowed	12	10.00	
Household size			5
Less than 3	29	24.17	
3 – 6	60	50.00	
7 – 10	30	25.00	
11 and above	1	0.83	
Educational level			
No formal education	4	3.33	
Primary education	24	20.00	
Secondary education	43	35.83	
Graduate	33	27.50	

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Post-graduate	16	13.33	
Gender			
Male	40	33.34	
Female	80	66.66	
Farming experience			11 years
<5 years	5	4.16	
6 – 10 years	57	47.50	
11 – 15 years	41	34.17	
16 – 20 years	17	14.17	
Farm Size			2.5 Ha
>5.0 Ha	12	10.00	
1.1 – 4.9 Ha	70	58.33	
≤1 Ha	38	31.67	
Distance to the nearest financial institution			
Far	33	27.50	
Close	29	24.16	
Too far	58	48.34	
Average income			
>250,000	35	29.17	
<250,000	85	70.83	
Occupation engaged in other services/economic-sectors			
Yes	114	95.00	
No	6	5.00	

Table 1 shows that 23.33% and 46.67% of the respondents were within the age range of 31 years to 40 years and of 41 years to 51 years old respectively. The mean age of respondents is 31 years old; thus, farming is common and dominated by; adult-youths, who are energetic enough to withstand the stress involved in farm operations. 42.50% of the respondents were married and therefore would have greater family responsibility, whilst 30.83% of the respondents were single.

Household size defined by Aribaba (2013) as the number of people living together and eating from the same pot is; considered an important socio-economic characteristic of respondents. House-hold size determines the extent of savings and also influences decisions taken with respect to risk management and off farm activity to adopt (Aribaba, 2013). The average household size of the respondents from the above table was approximately 3 persons. Invariably thus, majority of the respondents were burdened with responsibilities and this may affect savings and demand for financial services.

From table 1, less than 4% of the respondents interviewed had no formal education; whilst, 35.83%, 27.50% and 13.33% had attained Secondary education, Graduate level of formal education and post-graduate level respectively. Thus, majority of the farmers have attained formal education. Consequently, and invariably, according to Olawepo (2010), these respondents have pre-requisite level of education capable of; evolving realistic and profitable decision on matters related to financial services, productive capacity, agricultural production and; draw-on approaches to better off-farm activities that best reduce the occurrence of low productivity. Again, this may explain the majority (95%) of respondent's occupation-engaged in other economic activities such to probably; leverage multiple streams of income and thus capacity to manage risk. These comprehensively may contain economic issues of; poor access to; credit, technology and, market; weak institution and structure; severe poverty and poor governance system; and limited sources of employment and income from agriculture; experienced in Africa as posited in literature (Tihamiyu, Bwala & Alawode, 2017; Ukwuaba, 2016; Onyemauwa, 2010; Isibor and Ugwumba, 2014; Kainga, 2013; Ebewore and Achoja, 2013; Olawepo, 2010).

Although farming in the Enugu state is open; and common practice to all, it appears from the survey, that females (66.66%) are engaged more in farming than their male (33.34%) counterparts. Table 1 further indicates average farming experience of 11 years. Hence, study-respondents are well grounded in the rudiments of entrepreneurial-engagement. Further, 2.5 ha of farmland average farm-

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size implies that most of the farmers in the study area had relatively small farm holdings and hence were small scale farmers. This result lends further credence to an assertion by Olawepo (2010) that over 90% of the country's local food production comes from small scale farms and about 60% of the population earns their living from small scale farms. Also, majority (70.83%) of the farmers average a farm income of <N250,000.

Whilst farm size and average farm income may be adduced small it, is essential to; supplement household income and diversify sources of income. Again, majority of the respondents (75.84%) are of the opinion that the nearest financial institution is either; too far (48.34%) or far (27.50%) from their location.

Perception of smallholder farmers on the performance of financial institutions

Analysis of the perception of smallholder farmers on the performance of financial institutions was done by means of a four-point Likert Scale with a critical mean of 2.5. These performance areas include: Service delivery quality (2.4), Good information and communication channels (3.0), Fast in new account setup (2.9), Sufficient number of branches (2.1), Low operating charges (2.7), Cumbersome procedures (3.2), Fast in sanctioning loans (3.4), Easy repayment terms (3.0), Technical help from the bank (3.2).

Table 2: Perception of smallholder farmers on the performance of financial institutions

Factors	Mean	SD	Decision
Service delivery quality	2.4	0.9	Reject
Good information and communication channels	3.0	1.2	Accept
Fast in new account setup	2.9	1.0	Accept
Sufficient number of branches	2.1	0.8	Reject
Low operating charges	2.7	1.3	Accept
Zero or low interest rate	2.1	0.6	Reject
Cumbersome procedures	3.2	1.1	Accept

Fast in sanctioning loans	3.4	1.2	Accept
Easy repayment terms	3.0	1.1	Accept
Technical help from the bank	3.2	1.0	Accept

Whilst bank policies and procedure constitute an invaluable structure comparatively to ensure growth and development some of them; policies and procedures; may have fallen short of its demand or consumer expectation sine qua none for; financial service hallmark and agricultural sector advancement (Osondu, Ezeh, Emerole and Anyiro, 2014). These may also stream-from government’s provision of; enabling environment and; agricultural credit supply-extent received by the banking system to bridge these issues.

Effect of financial inclusive capacity-characteristic of usage of formal financial institution products on productive capacity of smallholder farmers

Regression results of the Effect of financial inclusive capacity-characteristic of usage of formal financial institution products on productive capacity of smallholder farmers is presented in table 3-5. The result in table 3 reveals an R-square and Pseudo R² value of 0.520 and 0.514 respectively. This shows that the regression line captures 52% of the total factors-variation affecting financial inclusive capacity-characteristic of usage of formal financial institution products on productive capacity of smallholder farmers.

Table 3: Regression model summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.788 ^a	.520	.514	.910

^aPredictors

Table 4: Regression test of significance

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	180.13	10	18.013	21.739	.000 ^b
Residual	304.101	367	.829		

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Total	358.140	377
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^bPredictors

The Sig. value of 0.000 which is less than 5% and 10% significant levels implies that there exists a significant relationship between financial inclusion (predictors) and productive capacity of small-holder farmers in the area.

Table 5: Effect of financial inclusive capacity-characteristic of usage of formal financial institution products on productive capacity of smallholder farmers

Variable	Standardized Coefficients	Std. Error	T	Sig.
Age	.0312353	.0149662	1.01	0.612
Gender	-.0350	.5112	-7.831	.000
Ownership of bank account	.037	.5330	.967	.342
Savings extent	.0598566	.312076	0.35	0.530
Number of FI products used	.02752753	.608113	1.06	0.291
Saving in the bank account	.02387456	.4968042	0.48	0.331
Access to more than one bank	.15122147	.0485273	0.45	0.679
Membership to informal savings group	0.0831	.014	1.18	0.008
Financial literacy	.018824387	.20494546	2.53	0.021
Distance from financial institution	.00573236	.2189065	2.94	0.004

The coefficients of factor-variables affecting financial inclusive capacity-characteristic of usage of formal financial institution products on productive capacity of smallholder farmers is presented in table 5. The coefficients for gender, membership to informal savings group, financial literacy, distance from financial institution were financial-inclusive characteristics found to significantly affect productive capacity proxied by; the square-root of the sum of farm-size level and average income level.

This result implies an inverse relationship between the dependent variable and the other predictor variables. In other words, male-farmers represented with the dummy variable-value of 1 had

greater access to credit relative to female farmers in the study area. Following, by offering tailored financial products and services, MFIs contribute to reducing vulnerabilities and improving economic opportunities for the underserved (Christen et al., 2014). At its core, enabling underserved and marginalized populations to participate actively in the formal financial system; seeks to break the cycle of poverty, promote economic growth, and foster social development especially for; impoverished individuals and households.

The relationship between financial inclusion and poverty is emphasized in the critical role of MFIs and other financial service-providers in creating pathways for all individuals to build assets, manage risks, and invest in income-generating activities, empower individuals to access formal financial tools, escape the poverty trap and enhance their overall quality of life (Beck, Demirgüç-Kunt and Levine, 2007). Consequently, limited access to financial services by women is a major barrier to escape the clutches of poverty.

Sources of credit accessed by smallholder farmers

Sources of credit (table 6) utilized by the farmers in the study area were; Community banks (24.33%), Commercial banks (1.21%), Agricultural banks (2.34%), Microfinance banks (8.67%) and Money lender (23.56%).

Table 6: Sources of credit accessed by small-holder farmers

Institution	Percentage (%)
Agricultural Banks	2.34
Community Bank	24.33
Micro finance banks	8.67
Commercial banks	1.21
Money lenders	23.56

*Multiple observations recorded

Arguably non-bank credit (Money lender) is one major source of credit among the respondents. According to Olagunju (2007), Money lenders relative to, bank-institutional sources of credit is more attractive in view

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of; little or no insistence on collateral security. Further too as posited by CGAP (2010), Olagunju (2007); despite over 60-70% of Sub-Saharan African population living in rural areas and engaged in agriculture; yet most of this population does not have access to formal financial services. These issues on investment and capital may in turn affect resource use.

Socio-economic factors accompanying amount of Agricultural credit acquired by Farmers from formal financial institution (FI)

Table 7 shows the regression estimate of socio-economic factors accompanying volume of credit obtained by the farmers. The magnitudes of R^2 and Adjusted R^2 of; 0.703 and 0.687 shows that the regression line captures 70% of the total factors-variation associated with the amount of Agricultural credit acquired by Farmers from formal financial institution. The Sig. value of 0.038 which is less than 5% and 10% significant levels implies that there exists a significant relationship between socio-economic factors (predictors) and accompanying agricultural credit volume acquired by small-holder farmers in the area.

Table 7: Regression estimates of socio-economic factors influencing volume of credit obtained

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
Variable	B	Std. Error	Beta		
Age	.074	.160	.071	.499	0.312
Household size	-7.274	.110	-7.294	.259	0.730
Education level	0.0391	0.071	.06	.060	0.021
Gender	.005	.240	0.05	.464	0.631
Farming experience	1.41	.850	1.11	.312	0.002
Farm size	.059	.007	.387	.931	0.238
Marital status	1.25	.490	.987	.222	0.012
Distance from financial institution	.002	.210	1.17	.505	0.003
R²	.703				
Adjusted R²	.687				
F-ratio	13.0864				0.038

The coefficients of socio-economic factor-variables (predictors) accompanying agricultural credit volume acquired of smallholder farmers is presented in table 7. The coefficients for educational level, farming experience, marital status and distance from financial institution were socio-economic characteristics found to be associated significantly to the volume of credit obtained.

Increasing these socio-economic characteristics may convive increased volume of credit obtained. Following, tendency for increased loan borrowing decreased with increasing household size. This attribute may also decrease; loan repayment potential and, management though; invariably increase adoption of new productivity enhancing technologies. Also, this insight may shape future loan-requests, and contribute to the broader discourse on sustainable loan volumes acquired by smallholder farmer’s towards fostering economic development.

Perception of the farmers on financial inclusion technology-constraint-performance of Microfinance institutions

Analysis of the perception of farmers on financial inclusion technology-constraint performance of MFIs was done by means of a four-point Likert Scale with a critical mean of 2.5. This analysis areas include; Saving in MFIs is less complicated (pre-2 years relative) due to improved technology-infrastructure (3.5000); Accessing cash in MFIs is easier (pre-2 years relative) due to improved technology-infrastructure (3.2931); Distance to MFIs is shorter (pre-2 years relative) (3.8621); Requirement for opening an account in MFIs is less complicated (pre-2 years relative) due to improved technology-infrastructure (3.5255); Communication (language) is easier in MFIs (pre-2 years relative) due to improved technology-infrastructure (3.7500).

Table 8: Perception of the farmers on financial inclusion technology-constraint-performance of Microfinance institutions

Perceptions	Mean	Std. Deviation	Decision
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Saving in MFIs is less complicated (pre-2 years relative) due to improved technology-infrastructure	3.5000	1.20307	Accept
Accessing cash in MFIs is easier (pre-2 years relative) due to improved technology-infrastructure	3.2931	1.10832	Accept
Distance to MFIs is shorter (pre-2 years relative)	3.8621	0.47566	Accept
Requirement for opening an account in MFIs is less complicated (pre-2 years relative) due to improved technology-infrastructure	3.5255	0.45071	Accept
Communication (language) is easier in MFIs (pre-2 years relative) due to improved technology-infrastructure	3.7500	0.94713	Accept

Whilst CBN; bank policies, procedures; the FSS-2020 cardinal objectives and other financial constructs; constitute an invaluable structure comparatively to reduce constraints on financial inclusion and financial services; more needs to be achieved to ensure sustainable growth and development. Such areas for concern include; financial inclusion technology-constraints across MFIs and other financial institutions.

This multifaceted approach enable; a comprehensive exploration towards financial inclusion achievement via; MFIs broader economic dynamics that shape the extent and nature of financial inclusion in Nigeria; attenuated interplay between deposit levels in; MFIs, commercial banks; use of; microfinance loans and advances extended by MFIs; money supply, lending interest rates, inflation rates, and the national poverty index (Akanbi et al., 2020; Lustig, 2022). More importantly, these technology-financial inclusion approach must further

facilitate access to financial services and products tailored to the needs of marginalized populations. Otherwise, the pivotal role of MFIs in; increasing access to credit, promoting savings mobilization, enhancing financial literacy among marginalized populations (Christen et al., 2014), offering tailored financial products and services, reduce economic vulnerabilities with improving opportunities for the underserved (Demirgüç-Kunt & Klapper, 2012; Armendariz & Morduch, 2010; Christen et al., 2014); may be impeded. Thus, innovative practices, such as digital financial services, have presented new opportunities for scaling up operations and expanding outreach to previously inaccessible populations (Ledgerwood, 2018).

Constraints faced by small-holder farmers in accessing credit from formal financial institution

Table 9 presents the distribution of response according to the constraints to acquiring agricultural credit. Analysis of the constraint was done by means of a four-point Likert Scale of a critical mean of 2.5. The factors hindering access to credit in the study area are presented in Table 9.

Table 9: Constraints encountered in the quest of credit acquisition

Variables	Mean	SD	Decision
Lack of collateral	2.9	1.1	Accept
Distance from source of credit	3.1	1.5	Accept
Delay in loan approval/disbursement	3.0	1.2	Accept
High interest rate	3.0	1.4	Accept

Note: SD = Standard Deviation

Table 9 shows that lack of collateral, distance from source of credit, delay in loan approval/disbursement and high interest rate were accepted by the farmers as major constraints encountered in quest for loan acquisition. This finding agrees with Olaleye (2000), who noted that creditors generally charged exorbitant rates from farmers and in some cases extracted economic surplus provided by peasant labour, capital and possibly land-resource of farmers.

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In economic terms, Farmers' failure to realize expected loan approval or early loan disbursement constrain their activities and income that could lead to loan default, which would prevent them from acquiring more loans. Another dimension is that these constraints may hold the potential of MFIs to advance financial inclusion, drive poverty reduction and economic growth, facilitate access to resources for income generation, consumption-smoothing, risk management (Akanbi et al., 2020; Lustig, 2022; Demirgüç-Kunt & Klapper, 2012) and; increase such challenges as sustainability, operational efficiency, and financial service-demand in remote areas (Ledgerwood, 2018; Demirgüç-Kunt & Klapper, 2012; Armendariz & Morduch, 2010) – all – pre-requisite for agricultural sector advancement (Osondu, Ezeh, Emerole and Anyiro, 2014)

Conclusion and recommendation

Understanding the current performance of MFIs and other financial institutions is essential to; shape future loan-requests, and contribute to the broader discourse on sustainable loan volumes acquired by smallholder farmer's towards fostering economic development. From this research, policy is informed especially towards framing structures to grapple with technology-driven constraints currently faced by MFIs. Thus, afford enhanced financial inclusion, provision of credit and improved financial services for; productive activities. Hence, accelerate sustainable growth and improved agricultural production and productivity.

In addition to the cardinal objectives of the FSS-2020 and in view of the results of this study these are recommended:

1. More financial-service technology tools be adopted by MFIs and other financial institutions particularly in extending credit and framed-approach to loans and loan access
2. MFIs and other financial institutions formulate new strategies to tackle financial exclusion by increasing adoption of low-cost branchless-banking such as ATMs, POS, Mobile and Internet banking

3. The Nigerian government should evolve a comprehensive banking blueprint to foster increased number of microfinance banks especially in sub-urban and rural areas
4. The CBN should introduce microfinance non-interest banking to deal with financial exclusion and services to the interest of the overall financial growth of Nigeria

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