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Analysis of Access to Credit Facilities to Small-Scale Farmers in Wukari Local Government Area of Taraba State, Nigeria

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Abstract

This study analyzed factors affecting access to credit facilities of small-scale farmers in Wukari Local Government area of Taraba State, Nigeria. A multistage sampling technique was used to collect primary data from 120 respondents using a structured questionnaire. Data collected was analyzed using descriptive statistics and binary logistic regression. Result revealed that, 59.2% of the respondents were male, average age was 34years and 43.3% of the respondents were married. The result also revealed that average household size was about 6 while 60.8% of the respondents acquired tertiary education. Majority (72.5%) of the respondents had access to credit and most (60.8%) sourced their loan through informal institution. Respondents (53.3%) agreed that there was misappropriation of credit and the reason for misappropriation was low yield of the farm outputs. The binary logistic regression revealed that educational level, annual farm income, farm size, membership of cooperative and age were significantly affected access to credit in the study area. The major constraints faced small-scale farmers in the study area were high interest rate (3.37), lack of collateral (3.28), low amount of loan (3.19) as well as delay in approval and disbursement (3.10). This study provides critical insights into the dynamics of credit access among small-scale farmers, offering a foundation for

policy interventions and future research aimed at improving the financial inclusivity and economic resilience of this vital sector.

Keywords: Access, Credit facilities, Small- scale farmers, Taraba State

INTRODUCTION

Agriculture remains a cornerstone of the Nigerian economy, employing about 70% of the population and contributing significantly to the country's GDP (Oseni Winters, 2009). In Taraba State, the agricultural sector is predominantly characterized by small-scale farming that relies heavily on rain-fed agriculture with minimal mechanization (Adebayo and Tukur, 1997). This region's diverse climate allows for the cultivation of a variety of crops, including maize, rice, yam, and cassava, which are staple foods that significantly contribute to the state's economy and food security (Chiaka, *et al.,* 2022). Small-scale farmers play a critical role in rural economies, especially in developing countries like Nigeria, where they contribute to food security and poverty alleviation (Binswanger-Mkhize & McCalla, 2010). In Taraba State, these farmers are the backbone of the agricultural sector, providing the majority of food crops consumed locally and contributing to the state and national food baskets (FAO, 2014).

Access to credit is pivotal for the growth and sustainability of small-scale farming. Credit access refers to the ability of farmers to secure necessary financisal resources on acceptable terms, which include the rate of interest, collateral requirements, and repayment schedule (Meyer, 2011). These financial resources are crucial for the procurement of inputs like seeds, fertilizers, and machinery, which can significantly enhance productivity (Zeller & Sharma, 2000). The socioeconomic characteristics of small-scale farmers, such as education level, farming experience, and land ownership status, are closely linked to their access to credit facilities. Studies have shown that lenders consider these factors as indicators of a farmer's ability to repay loans, thus affecting their willingness to extend credit (Coleman, 2006). For instance, farmers with higher education levels or larger landholdings are often perceived as lower-risk borrowers.

With the remarkable achievement of agriculture to the economy of Nigeria, many research has shown that government subsidies usually directed to the agricultural sector have drastically reduced and at such it has led to a fall in productivity and as well as agricultural

development (Ugwu and Kanu, 2012). Lack of credit facilities has been regarded as the major constraint farmers face when they try to improve their economic activity and/or living conditions (Ekwere and Eden, 2014). Despite the fact that capital is an important input in production, farmers have difficulties in accessing this input. The provision of financial services to small scale farming sector has generally been statics and has been decline in some of the developing countries because of risks involved in dealing with farmers (Kuhn *et al.*, 2000). Furthermore, lack of repayment discipline, loan delinquency and default has plagued agricultural credit program in developing countries (Diagne and Zeller, 2001).

The behavior of financial institution set up to finance agriculture reveals that the funds necessary to induce agricultural productivity has not been geared toward agricultural sector and most of the interest rate is not in favor of small-scale farmers. In other for small-scale farmers to access credit services there is need to address their needs (Guja, 2022, Ferris *et al.,* 2014). There is clear indication that they need external financing and the necessity to intensify the existing micro-credit scheme (Harper, 2002). Based on this background, this study sought to identify factors influencing access to credit facilities among small-scale farmers in Wukari Local Government Area of Taraba State, Nigeria.

Objectives of the Study

The broad objective is to analyze the factors influencing access to credit facilities among small-scale farmers in Wukari Local Government Area of Taraba State, Nigeria. The specific objectives were to:

i. describe the socioeconomic characteristics of the respondents.
ii. examine the sources and accessibility of credit to the respondents.
iii. ascertain reasons for any credit misappropriation among the respondents.
iv. analyze the factors influencing access to credit facilities among the respondents.
v. identify the constraints faced by the small-scale farmers in the respondents study area.

METHODS

Study Area

This study was carried out in Wukari. Wukari Local Government Area, located in the southern senatorial district of Taraba State, Nigeria, is the focus of this study. It covers an area of 4,308 km² and is geographically positioned between latitudes 7°5'N and 7°85'N, and longitudes 9°47'E and 9°783'E. Wukari is bordered by Gassol, Donga, Benue State, and Nasarawa State, and consists of ten wards: Akwana, Avyi, Bantaje, Chonku, Hospital, Jibu, Kente, Puje, Rafin Kada and Tsokundi. As per the 2018 Nigeria Population Census, it has a population of approximately 241,546, predominantly inhabited by the Jukun people and primarily engaged in agriculture, producing crops like rice, soybean, melon, sorghum, millet, guinea corn, and yam.

Source of Data and Sampling Procedure

Data for this research was collected from primary source with the aid of structured questionnaire administered to the respondents. The study employed the use of multi-stage sampling techniques in the selection of respondents. In the first stage, six wards (Puje, Jibu, Tsokundi, Rafin-kada, Kente and Batanje) out of the ten wards in the local government was purposively selected. In the second stage, four villages each were chosen from each of the selected six wards based on their prominence accessibility to credit and in proportion to the size of the wards selected as first sampling frame. In the final stage, the farmers in each of the twenty-four villages were obtained and numbered. Thereafter at random, five farmers were chosen from each of the twenty-four villages giving a total of 120 farmers. Questionnaires were administered to the 120 respondents which formed the sample size for the study in a ratio proportional to the size of their population.

Analytical Techniques

This study used both Descriptive statistics and Binary logistic regression model, descriptive statistics such as frequency distribution tables, percentages and mean were used in achieving objectives (i), (ii) and (iii) while objective (iv) was analyzed using binary logistic regression model and four likert scale was used to achieve objective (v).

Model Specification

Following Adeniyi and Ojo (2013), a binary logistic regression model was used to examine the determinants of access to credit of the respondents in the study area. Accessibility to

credit which is bivariate, taking the value of 1 for access to credit and 0 for no access to credit was used as the dependent variable. Socio-economic variables were used in the binary logistic regression analysis and specified explicitly in the model as:

$Yi = f(Xi)$ …….……. (1)

Where;

Yi = access to credit = 1 and no access to credit = 0

X*i* is the vector of explanatory variables and βi is the vector of parameters.

The logit model computes the maximum likelihood estimated of βi given the non-linear probability distribution of the random error μi.

$Y = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + b_7X_7 + Ui$ …….. (2)

Where,

Y= Access to credit

X_1 = educational level [in year]

X_2 = Annual arm income

X_3 =Household size [number]

X_4 =farm size (hectares)

X_5 = Extension service

X_6 = Membership of Cooperative (1 = member, 0 = non-member)

X_7 = Age

U = Error term.

RESULTS AND DISCUSSION

Socio Economic characteristics of the respondents

Table 1 shows the result for socioeconomic characteristics of the respondents, the distribution of the respondents by gender shows that majority (59.2%) of the respondent were male while 40.8% were female, implying that male was more actively engaged in farm work than female; although the kind of farm works engaged in by women differs from men. This result is in line with John and Charles (2015) who revealed that men are more

active in farm work than women. The age distribution of the respondents revealed that majority (84%) of the respondent was of active age (20-39). This result is in line with Oluwasola and Alimi (2008) who revealed that farmers who used credit were younger. The marital status distribution of the respondents shows that there are more single household heads (40.8%) than those married (43.3%) separated (7.5%) and widowed (8.3%). This might be due to the vast agricultural land available to the young adults for farming. Respondents with household size of 1-5 and 6-10 have the highest percentage of 47.5% and 48.3% respectively. This result might be centered on the belief that the greater the number of persons in household, the more the hands available for family labour.

Educational level of the Respondents shows that 4.2% have informal education, 8.3% primary education, 26.7% have acquired secondary education, 60.8% acquired tertiary education. The study is in line with the conducted research of John and Charles (2015) on agricultural credit sources and determinants of credit acquisition by farmers in Idemili local government area of Anambra State, Nigeria, that majority of the respondents received different level of education. The result for farm types shows (17.5%) of the respondents are livestock farmers (20.8%) are food crop farmers, (5.8%) are cash crops farmer, (22.5%) are food and cash crop farmer, (24.2%) are poultry farmer. The result is an indication of high farming activities in the study with food and cash crop having the highest farming participant.

Source of income shows that 58.3% of the respondents have their source of income from farming, 14.2% are civil servant, and 23.3% are marketers, while 4.2% got their income from trading. The result shows that farming is more profitable to the respondents than other livelihood forms. The result also reveals that 42.5% of the respondents are not into any cooperative association, while 57.5% are in one form of cooperative association or the other. This shows that belonging to a cooperative association makes it easier for the respondents to access loans. Finally, the result shows that 66.7% have had no extension contact while 33.3% had contact with the extension agent. This poor contact with extension agent might be as a result of poor supervising.

Table 1: Distribution of Respondents by Socio-economic Characteristics (n=120)

Socio-economic Variables	Frequency	Percentage
Sex		
Male	71	59.2
Female	49	40.8
Age		
20-39	84	70.0
40-59	29	24.2
60-79	7	5.8
Marital Status		
Single	49	40.8
Married	52	43.3
Widow / Widower	10	8.3
Separated	9	7.5
Household Size		
1-5	57	47.5
6-10	58	48.3
11-15	3	2.5
16-20	2	1.7
Educational Level		
Primary	10	8.3
Secondary	32	26.7
Tertiary	73	60.8
Informal	5	4.2
Farm type		
Livestock	11	17.5
Food crop	21	20.8
Cash crop	25	5.8
Food and cash crop	27	22.5
Poultry	29	24.2
Source of income		
Farming	70	58.3
Civil Servant	17	14.2
Marketing	28	23.3
Trading	5	4.2
Cooperative Membership		
No	51	42.5
Yes	69	57.5
Extension visit		
No	80	66.7
Yes	40	33.3

Source: Authors' compilation

Source and Accessibility of Credit to the Respondents

The result shows that the respondents' major source of loans was the informal institutions at 60.8% while the lesser source of loan, formal institutions take 39.2%. This result might be due to the bottleneck involved in securing loans from formal organization. From the result, 40.0% of the respondents earned between (₦61,000-₦80,000) annually, 21.6% earned (₦41,000-₦60,000), while 17.5% earned above ₦80,000 annually. Only 11.7% earned between ₦21,000-₦40,000 and 9.2% earned less than ₦20,000. This result shows that respondents that earned between ₦41,000-₦80,000 have the highest combined annual farm returns at 61.6%.

The result shows that combined percentages of the source of income from friends, relatives and neighbors give a total of 55.9% while banks, microfinance and government agencies summed up to 42.5% with only 1.6% being self-source of income. This result shows that the respondents get more income from informal sources like friends, relatives and neighbors than from formal financial sources. The result shows that 72.5% of the respondent in the area have access to credit while 27.5% of the respondent did not have access to credit. This could be due to the lack of credit worthiness of rural dwellers or unwillingness of financial institutions to operation in the rural area.

Table 2: Source and Accessibility of Credit to the Respondents

Source and Accessibility of Credit	Frequency	Percentage
Source of Loan		
Formal	47	39.2
Informal	73	60.8
Annual Income		
Less than 20,000	11	9.2
21,000-40,000	14	11.7
41,000-60,000	26	21.6
61,000-80,000	48	40.0
Above 80,000	21	17.5
Source of Income		
None	2	1.6
Friends	23	19.2
Relatives	20	16.7
Neighbors	24	20.0
Banks	14	11.7
Microfinance	21	17.5
Government Agencies	16	13.3
Access to Credit		
Access	87	72.5
No Access	33	27.5

Reasons for Credit Misappropriation

Misappropriation of credit of the Respondents

In analyzing the reasons for Credit Misappropriation, the descriptive statistics was used. The result in Table 3 shows the level of fund misappropriation of the respondents. The result shows that 53.3% of the respondents misappropriated credit while 22.5% used their fund rationally and 24.2% of the respondents were neutral on their fund usage. The higher percentage (53.3%) of fund misappropriation might be as a result of unbudgeted expenses that came as a result of sickness or natural disaster. On the non-misappropriation of credit, the respondents have an equal response of 38.3% respectively while those neutral were at 23.3%. The equal responses of 38.3% might entail that the respondents were liberal in accommodating changes in their financial budget. According to John and Charles (2015) the most common reason given among the small scale farmer (55.89%) of those who misappropriated acquired agricultural credit, was meeting non food needs of the household.

Table 3: Misappropriation of credit of the Respondents

Variables	Yes		No		Neutral	
	Freq	Percentage	Freq	Percentage	Freq	Percentage
Misappropriation of Credit	64	53.3	27	22.2	29	24.3
Non Misappropriation of credit	49	38.3	48	38.3	28	23.3
Total	120	100.0	120	100.0	120	100.0

Source: Authors' compilation

Reasons for the Misappropriation of Fund by the Respondents

Table 4 shows the various reasons for the misappropriation of fund by the respondents. 60.8% of the respondents confirmed that low yield, 49.2% accounted for meeting household need for food, and 44.5% accounted for meeting non household need while 42.9% lay claim to being defrauded as reasons for the misappropriation of fund. According to John and Charles (2015) the most common reason given among the small-scale farmer (55.89%) of those who misappropriated acquired agricultural credit, was meeting nonfood needs of the household.

Table 4*:* Reason for Misappropriation of credit of the Respondents

Variables	Yes		No		Neutral	
	Freq	percentage	Freq	percentage	Freq	Percentage
Low yield	73	60.8	30	25.0	17	14.2
Meeting of Household need	59	49.2	41	34.2	20	16.6
Meeting of non Household need	53	44.5	42	35.3	22	18.5
Defrauded	51	42.9	36	30.0	32	26.9
Total	120	100.0	120	100.0	120	100.0

Source: Authors' compilation

Factors Influencing Access to Credit Facilities among Small Scale Farmers

Table 5 shows factors that influence access to credit of farmers in the study area. The result shows that pseudo R^2 is 0.7803 and is significant at 1%. This implies that all explanatory variables included in the model were able to explain about 78% of the variability among credit farmers in the study area. The prob> $chi^2$is 0.0000 and it was significant at 1% meaning that the binary logistic model is appropriate for this study. The five variables which were found to be significantly influence access to credit out of which seven (7) explanatory variables used during analysis include: sex, age, marital status, household size, farm size, extension agent and cooperative society of the respondents.

Educational level (X_1), which has a coefficient of 0.2241796 and significant at 10%, it indicates that as level of education increases, access to credit increases at 1.3 units. This is in line with the assertion of Olatade *et al* (2016), that the respondents have an appreciable level of education, which is expected to influence their level of credit. The result of annual farm income (X_2) has a coefficient of 1.36485 and significant at 5%. It reveals that the more annual farm income increases, access to credit among farmers increase by 3.1 at odd ratio. Farm size (X_4) has a coefficient of 4.16578 which has a positive significant at 1%. It indicates that the more the farm size of the farmer, the access to credit increases at 6.4 units at odd ratio. This is in agreement with the assertions of Oluwasola and Alimi (2008) revealed that farmers who used credit were younger (average 47years) and cultivated farm size (average 3.8Ha)

The result of membership of cooperative (X_6) has a coefficient of 2.699091 and it is significant at 1% which indicates that being a member of cooperative, the likelihood to have access to credit increases at 14.87 units. Age (X_7) of the respondents has a coefficient

of 2.699091 and it is significant at 5%. It indicates that the more the age of the farmers in the study area, it decreases the probability of being having access to credit decrease. This is in consonance with the findings of Alabi, (2006) that agricultural productivity is expected to increase when population is comprised of young individuals with vital energy.

Table 5: Factors Influencing Access to Credit of the Respondents

Variables	Coefficient	Odd Ratio	p>(z)
Constant	-9.338888	.0000879	0.003
Educational level	.2241796	1.251296	0.061*
Annual farm income	1.36485	3.915134	0.023**
Household size	.0002024	1.000202	0.171
Farm size	4.16579	64.44354	0.002***
Extension service	-.4166166	.6592737	0.414
Membership of cooperative	2.699091	14.86621	0.006***
Age	-1.189775	.0304287	0.023 **
Pseudo R^2	0.7803		
Prob > chi^2	0.0000***		

*** Sig at 1%, ** Sig at 5%, * Sig at 10%

Constraints Faced by the Small-scale Farmers

The result of constraints faced by the small scale farmers in table 6 shows that high interest rate is a major constraint to the respondents with a ranks with 1st with a mean score of 3.37, non-cooperative of the staff and lack of collateral have the same constraint rank of 2nd with a mean score of 3.28, low amount of loan has a rank of 3rd with a mean score of 3.19, inconvenient repayment period has a rank of 4th with a mean score of 3.18, transaction cost of loan has a rank of 5th with a mean score of 3.15, high collateral and delay in disbursement/approval has a rank of 6th with a mean of 3.10, many family dependent has a rank of 7th with a mean score of 3.09 complicated formality has a rank of 8th with a mean score of 3.08, lack of awareness regarding the loan detail as a rank of 9th with a mean score of 3.02, distance from source of credit has a rank of 10th with a mean score of 3.00, moratorium has a rank of 11th with a mean score of 2.96, bureaucratic problem has rank of 12th with a mean score of 2.95, poor harvest has a rank of 13th with a mean score of 2.91, exploitation of meddle men has a rank of 14 with a mean score 2.89, low subsidy has rank of 15th with a mean score 2.84. This result indicate that respondent face challenging constraints when it comes to accessing credit. This finding is in agreement with that of Oluwafemi *et al.* (2019), they observed that high interest rate is among the constraints that farmers face during acquisition of credit.

Table 6: Constraints Faced by the Small Scale Farmers

Variables	Mean	Rank
High interest	3.37	1st
Lack of collateral	3.28	2nd
Non cooperative of staff	3.28	2nd
Low amount of loan	3.19	3rd
Inconvenient repayment Period	3.18	4th
Transaction cost of loan Very high	3.15	5th
Delay in approval/ disbursement	3.10	6th
High collateral	3.10	6th
Many family dependent	3.09	7th
Complicated formalities	3.08	8th
Lack of awareness regarding the loan detail	3.02	9th
Distance from source of credit	3.00	10th
Moratorium	2.96	11th
Bureaucratic	2.95	12th
Poor harvest	2.91	13th
Exploitation off middlemen	2.89	14th
Low subsidy	2.84	15th

Source: Authors' compilation

CONCLUSION

The study identifies key factors that significantly influence access to credit among small-scale farmers in Wukari Local Government Area, Taraba State, Nigeria, including educational level, annual farm income, farm size, and cooperative membership, all of which positively impact credit access. Conversely, older age negatively affects credit access, highlighting the need for targeted interventions to support younger farmers, enhance educational opportunities, and promote cooperative membership to improve credit accessibility in the state.

Based on the findings of the studies, the following recommendations were made:

i. Financial education programmes should prioritize byproviding targeted financial lit eracy programs for farmer,this can assist address the knowledge gap that prevents s ome farmers from accessing funding.

ii. Expansion, promoting and facilitating the establishment of farmers' cooperatives can offer a more stable foundation for farmers to access loans and other financial services.

iii. Developing ageinclusive financial products is essential to ensure that older farmers have access to financing without facing any obstacles due to their age.

iv. Assessment and improvement of Extension Services: In light of the study's conclus ion that extension had minimal impact, it may be necessary to examine and maybe revamp the delivery methods of these services in order to enhance their efficiency in assisting farmers with obtaining credit.

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