



NIGERIA JOURNAL OF COOPERATIVE ECONOMICS AND MANAGEMENT

AN ASSESSMENT OF THE FACTORS AFFECTING AGRICULTURAL CREDIT ACCESS AMONG FARMERS' COOPERATIVES IN ANAMBRA STATE, NIGERIA

¹Ufoaroh Ebele Theresa, ²Ifesinachi Uju Monica, ³Molokwu Ifeoma Mirain

^{1,3}Anambra State Polytechnics, Mgbakwu

²Nnamdi Azikiwe University, Awka

Email: ¹ufoarohebele@gmail.com, ²ifeomamolokwu1@gmail.com

Phone: ¹08062494961, ²07034933898, ³08060482430

Abstract

This study examined the determinants of agricultural credits access among members of farmers' multipurpose cooperative societies in Anambra state. The Specific Objectives of the study is to analyzed the size of farm land of cooperative farmers and its effect on accessing agricultural credit in Anambra state and to ascertain the effect of years of membership in cooperative organization in accessing agricultural credit in Anambra state. In line with the above objectives, two hypotheses were formulated. This study was particularly anchored on the social exchange theory. It was carried out in three agricultural zones in Anambra state, Nigeria. A multi stage random sampling technique was used to arrive at a sample size of twenty four cooperative societies with membership strength of 286 farmers as sample size. The instrument for data collection was a set of structured questionnaires on a 5-point likert-scale Data was analyzed using the multiple regression models. Model results indicated, Farm size significantly (3.00), $t(285) = 13.01, 4.88$ and 12.91 ; and p -values = 0.000, respectively have effect on agricultural credit access and years of membership in cooperative significantly (3.85), $t(285) = 13.36$ and 12.86 ; p -values = 0.000 have effect on agricultural credit access. In line with the findings of this study, it is recommended that there should be a deliberate policy that guarantees. Good Policies on land redistribution to make more land available to cooperative farmers, especially the experienced farmers and relevant government agencies should mobilize the rural farmers and encourage them to join cooperative associations, so that they can derive maximum benefit of collective investment of group savings, as well as increase their chances of accessing formal agricultural credit facilities because of the comparative advantages associated with cooperative societies.

Keywords; Agricultural credit, farm size, years of membership, cooperative.

INTRODUCTION

1.1 Background to the Study

Agriculture in Nigeria is increasingly recognized as central to sustainable economic development as it plays a very significant role in addressing food insecurity, poverty and human development challenges (Sodeeq et al., 2019). In the bid to meet food production target, farmers are particularly in need of credit for investment in agriculture towards expanded production and boosting the country's food self-sufficiency ratio. One of the ways to achieve this is to extend credit facility to farmers (Ibeneme & Mmuo, 2021).

Providing credit to farmers is one of the tools used in building the productive capacity of farmers so that they can efficiently produce and contribute to the economy of the country. Removing farmers' credit constraints and allowing them to get access to enough credit are substantial. The value of output per acre of constrained farmers would be increased by 60%, relative to their current productivity level, if all types of credit constraints could be alleviated (Mukasa, Simpasa, & Salami, 2017). Casemir, Hounghedji and Salami (2021) asserted that access to credit improves agricultural productivity and strengthens the resilience of farmers by allowing them to adapt to climate change, and to hedge against risk (Casemir, et al., 2021). Thus, the availability and adequate access to agricultural credit at a lower rate in the right time from financial institutions is of great importance to farmers (Elias, Ahmad & Patil, 2015) in a bid to encourage farmers' access to credit, governmental and non-governmental organizations instituted many credit programmes. However, these programmes yielded little or no positive effect because of lack of trust in the government by the farmers due to their excessively complicated administrative procedure (Oke, Kehinde & Akindele, 2019, Moahid, Khan, Yoshida, Joshi & Maharjan, 2021).

Anthony, Alabuja and Ebukiba (2022) noted that credit accessibility and utilization is influenced by farmers' socioeconomic characteristics, the challenges of covering long distance to the bank, insistence on provision of collateral, inadequate loan granted, unwillingness of bank in granting agricultural loan, high rate of interest charged by private money lenders, delay and difficulty in communication with bank officials in acquiring loan and management cost. Despite the efforts of the government to make credit services available and affordable in most of the rural areas, access to credit among cooperative farmers remains low. This study seeks to analyze the determinants of agricultural credit access among members of cooperative farmers in Anambra state.

1.2 Statement of the Problem.

Agricultural credit inaccessibility and inadequacy has been a problem militating against the development of cooperative farmers in Nigeria and Anambra state in particular. Agricultural credit has chief role in agricultural production, but cooperative farmers do not have easy access due to bureaucracy and complicated application procedures and restrictions by formal lending institutions (Chandio et al., 2020). So many factors are usually looked into such as the socio economic characteristics of cooperators which include; age education, size of farm land, livestock and off farm income, extension services, salaried agricultural employment, membership strength, amount of savings, experience in credit from a formal financial institution etc.

Despite Government efforts to overcome the widespread lack of financial services especially among cooperative farmers by embarking on good credit policies to ensure availability and accessibility of credit such as rural banking programme, micro finance banks, agricultural credit guarantee scheme and Nigeria agricultural co-operative and rural development bank etc, the desired impact of these policies has not been achieved as the majority still have limited access to this agricultural credits. It is therefore the contention of this study that there is insufficient information as to these factors that determine the access of cooperative farmers to agricultural credit. It is against this backdrop that this study seeks to analyze the determinants of agricultural credit access among cooperative farmers in Anambra state, Nigeria.

1.3 Objectives of the Study

The broad objective of this study is to examine the determinants of agricultural credit access among cooperative farmers in Anambra state.

The specific objectives are to;

- i. To analyzed the size of farm land of cooperative farmers and its effect on accessing agricultural credit in Anambra state
- ii. To ascertain the effect of years of membership in cooperative organization in accessing agricultural credit in Anambra state

1.4 Research hypotheses

H₀₁: : Size of farm land of cooperative farmers has no significant effect in accessing of agricultural credit in Anambra State

H₀₂: Years of membership in cooperative organization has no significant effect in accessing agricultural credit in Anambra State

1.5 Significance of the Study

Agricultural Credit plays a major role in enhancing agricultural productivity and encouraging technological adoption and effectively alleviates poverty. The importance of this study can be viewed from two dimensions: theoretical contributions and practical implications. Theoretically, the study fills an important gap in the literature that is, determinant of access to agricultural credit among farmers cooperative societies in Anambra state. On the practical side, the knowledge produced from the study findings would be applicable outside the research setting with its implications going beyond the research becoming significant to the academic, the government and regulatory body and corporate bodies.

REVIEW OF RELATED LITERATUE

2.1Conceptual Review

2.1.1 Agricultural credits

Gültekin (2023) defined agricultural credit as a type of finance that exclusively finances agricultural producers and is mainly used to provide finance for agricultural purposes. Vihi, Nguuma, Sadiku, and Adedire (2018) described Agricultural credits as loans extended to farmers for production, storage, processing and marketing of farm products. Such credit can be short, medium or long term depending on its duration. Ettah and Kuye (2016) saw agric credit as such assistance given to farmers either in cash, kind or both for the purpose of agricultural production, the repayment of which the beneficiaries are expected to make at a further date with or without an interest rate. Indeed, according to agricultural technicians, the credits obtained from financial services allow producers to acquire agricultural inputs in the short and medium term and agricultural equipment and materials in the long term (SNV, 2019). Vihi et al., (2018) stated that

credit involves all advances released for farmers' use, to satisfy farm needs at the appropriate time with a view to refunding it later. Thus, credit can be in the form of cash or kind, obtained either from formal or informal sources

2.1.2 Importance of agricultural credits

Anigbogu et al., (2014) declared that agricultural credit is very important for sustainable agricultural development to be achieved in any country of the world. They noted that it is because credit has proven to be a powerful instrument against poverty reduction and development in rural areas. Farmers are particularly in need of such instrument (ie credit), because of the seasonal pattern of their activities and the important uncertainty they are facing. Agricultural credit enhances productivity and promotes standard of living by breaking vicious cycle of poverty of small scale farmers (Anigbogu, et al., 2014).

2.1.3 Sources of Agricultural credits

The major sources of agricultural credits available to smallholder farmers in Nigeria, are generally classified into three categories namely; formal, semi-formal, and informal sources. Silong and Gadanakis (2020) indicated that the semi-formal and non-formal credit sources are further categorized as informal credit institutions/markets. Formal sources are those established by law, they can be influenced by government policies and consist of agricultural and commercial banks, such as the Nigerian Agricultural Bank (NAB), the Nigerian Industrial Development Bank (NIDB), the state government-owned credit institutions and micro finance institutions (MFIs), private and merchant banks, and finance houses. Formal credit is assumed to be the most effective source from the point of view of overall agricultural development, although it is associated with the problem of inaccessibility by small-scale farmers (Ameh & Lee, 2022). Semi-formal sources of credit include microfinance institutions or NGOs, cooperative societies and support groups, farmers' associations and the rotating savings and credit associations (ROSCAs). Informal sources and institutions can include moneylenders, informal credit associations such as Esusu and Ajo, relatives, and friends. The informal credit sources give loans in cash or in kind to farmers to be reimbursed in cash or kind, often in agricultural produce. Loan accessed from these sources does not usually require a deposit, and no collateral is required (Silong & Gadanakis, 2020).

2.1.4 Determinants of Credit Access

Socio-economic factors play important role in deciding individual smallholder farmers' demand for credits. First, it is a choice that may be affected by variables such as age, gender, marital status, education, size of the farm, size of the household, organizational membership, and level of income. Secondly, the price or cost of the product (commodity) is a factor. Thirdly, the borrower's preference among the alternatives available plays a role. According to the theory of demand for goods and services and prices, the purchasing decisions of consumers and the quantity purchased are associated with the prices of commodities demanded (Silon & Gadanaki, 2020). In other words, when deciding to borrow, an individual farmer looks at the cost of the loan, the available alternatives, the conditions of borrowing from alternatives, and the socio-economic characteristics of borrowers. These put together give bases for consideration to borrow from the alternative sources or not. For example, if borrowing from formal credit sources proves expensive, borrowers are likely to turn to informal sources, and vice versa. This is simply on the basis that if the cost of credit goes up, the marginal utility per unit price raised from that credit goes down. The borrower, therefore, chooses to either not consume or consume less of the credit. The concept of utility and marginal utility explains consumer demand for a commodity (Ameh & Lee, 2022).

2.1.5 Socio-economic characteristics of farmers

The socio economic characteristics of farmers are a great determinant to access to agricultural credits amongst cooperative farmers. The socio-economic characteristics of farmers include: age, sex, marital status, house hold size, education, farm size and years of farming experience (Garba, 2017).

Total farm size and source of land of the respondents

Farm size refers to the totality of the farm lands the respondents owned plus rented during the study period (Garba, 2017).

2.1.6 Cooperative Society

Ibeneme (2021) saw cooperative society as an organization for the promotion of economic interests of its members. Co-operative generally is a type of business owned and managed democratically by members with similar interest. The services and benefits offered by cooperative society are distributed to members equitably on the basis of the share capital and patronage. Cooperative society has been defined as incorporated association in which persons come together on their own

free will to obtain some economic service which would be too difficult or too costly for them to obtain individually (Okechukwu, 2011). Nawai and Shafii (2018) defined Cooperative as an organization that is owned controlled and operated by a group of people who contribute capital and make decision on one-vote principle for the benefit of all members.

2.1.7 Theoretical Exposition

2.1.7.1 The effect of farm size of members on agricultural credit accessibility

Landholding size is seen as a symbol of social status in society. Therefore, farmers with large landholding are more likely to access agricultural credits. This is somewhat consistent with the assertion that the lack of collateral security deprived a large number of farmers from accessing loans from informal sources (Akram, Hussain, Sial, & Hussian 2008). The results of E. Saqib et al. (2018) showed that the total landholding of the farmer was a significant factor in access to credit of the farmer, implying one acre increases credit availability by 0.216 units. Similarly, Nouman & Syed (2013) found a positive relationship between the total land holding of farmers and access to credit. Argaw (2017) found that one unit increase in the cultivated land holding of the farms produced a 0.318% increase in the probability of credit access for the household. Ayele & Goshu (2018) found the size of landholding as a significant determinant factor for accessing agricultural credits.

2.1.7.2 The effect of Years of membership in cooperative organization on agricultural credit accessibility

The number of years of membership in cooperative org. also has a significant positive impact on the likelihood of accessing agricultural credit. A one-year increase in membership of a cooperative organization increased the likelihood of access to credit of the farmer by 3.70% (Gebeyehu et al., 2019).

2.2 Theoretical Framework

This study was anchored on; The Social Action Theory founded by Max Weber (1932)

2.2.1 The Social Action Theory

The Social Action Theory was founded by Max Weber. Just as the name “micro” suggests, Social Action perspectives examine smaller groups within society. Social Action theorists see society as

a product of human activity and stress the ability of individuals to exert control over their own actions. They believe the individual is no passive receptacle of society's directives, but an active creator of social behavior. So, it is society which is constructed by the individuals, and not the other way around. The Social System Theory believes human beings are capable of conscious thought and this enables them to be aware of themselves and others as social beings. They have their own motives and beliefs, and their own interpretation of the meaning of a situation and control their own actions.

- **Relevance of Social Action Theory to the Study**

The nature of farmers' cooperatives is easily explained by the Social Action Theory. Members of farmer's cooperatives engage in self-help activities through a combination of resources and thus are able to confront and overcome several socio-economic challenges confronting them to generate and sustain income for themselves, not waiting until government or society supports them. The credence of social action, as explained above appears to be the essential values of self-help on which cooperatives thrive on and which to a large extent determine their success. Certainly the social action theory is relevant to this study since it will enhance our understanding and analysis of the nature of farmers' cooperative societies which rely on members' joint action, commitment and participation for its success.

METHODOLOGY

3.1 Research Design

This study adopted the descriptive survey research design for more precise investigation because of its ability to provide information on large groups of people with little effort.

3.2 Area of Study

The area of the study was Anambra state, south-east, Nigeria. Its name is an anglicized version of the original 'Oma Mbala', the native name of the Anambra River which is a tributary of the famous River Niger. The boundaries are formed by Delta State to the west, Imo State and Rivers State to the south, Enugu State to the east and Kogi State to the north.

3.3 Sources of Data

In the course of carrying out the research, primary source was used to gather the needed data. **3.3.1**

Primary Source of Data.

The primary data was collected from systematically constructed questionnaire that was administered to the study sample of members of farmer's multipurpose cooperatives.

3.4 Population of the Study

The target population of the study was exclusively farmers' multipurpose cooperatives in Anambra state totaling to about 14,377 cooperative farmers. The study was carried out in three agricultural zones in Anambra state, Nigeria. See appendix

3.5 Determination of the Sample Size

A multi stage random sampling technique was used for this study. This was carried out in four stages. Multistage sampling refers to the selection of samples that are grouped into various structures using progressively smaller sampling units from each structure (Singh & Masuku, 2014).

3.6 Instrument of Data Collection

The instrument for data collection was a set of structured questionnaire on a 5-point likert-scale, which was divided into two sections. The five (5) point likert-scales were ranked thus; Strongly Agree (SA) 5, Agree (A) 4, Undecided (UD) 3, Disagree (D) 2, Strongly Disagree (SD) 1.

3.7 Data Analysis Techniques

Data were analyzed using Descriptive and inferential statistics, such as frequency distribution tables, percentages, and the multiple regression models.

Model Specification

Multiple Regressions

In order to understand the effect of the individual factors of age, educational background farm size and years of membership, on the agricultural credit access to cooperative farmers, an econometrics model (multiple regressions using the least square estimation techniques) was adopted using these factors as independent variables and the access to agricultural credits as the dependent variable.

The functional relationship of these variables is expressed thus:

$$y = f(x_1, x_2, x_3, x_4) \dots \dots \dots (1)$$

where

Y = access to agricultural credit

x_1 = size of farmland (Hectares

x_2 = years of membership in cooperative organization

It is assumed that there is an approximately linear relationship between the dependent variable Y and the independent variables: x_1, x_2, x_3, x_4

Therefore, equation 1 is specified as:

$$Y = b_0 + b_1x_1 + b_2x_2 \dots \dots \dots (2)$$

where

b_0 = intercept term showing value of y when x_1, x_2, x_3, x_4 , are zero. That is, the value y is

$$Y = b_0 + b_1x_1 + b_2x_2 \dots \dots \dots (3)$$

PRESENTATION AND ANALYSIS OF DATA

4.1 Data Presentation

The data presented, analyzed and discussed bear direct relevance to the problem and objectives of the study which apparently are relevant to the testing of the hypotheses formulated in this study. A total of 337 copies of questionnaire were distributed to the members of the societies and 286 copies were retrieved in good condition indicating a return rate of 85%. The retrieved 286 copies of the questionnaire were used for the analysis of the study. Table 4.1.1 shows the summary of the data on the distribution of questionnaire.

Table 4.1.1 Questionnaires Distribution and Return rate

S/ N	COOP. SOCIETIES	NO. OF DISTRIBUTI ON	DISTRIBU TION RATE	NO. OF RETURNED	RESPONS E RATE	NO. NOT	RES PO
---------	-----------------	----------------------------	--------------------------	--------------------	-------------------	------------	-----------

				QUESTIONN A	RETUR NED	NSE RAT	
1	Chukwuemeka(Igbariam) FMCS Ltd	12	3.5	9	2.7	3	0.8
2	Nature’s Quest (Igbariam) FMCS Ltd	16	4.7	14	4.2	2	0.5
3	God’s favour (Aguleri) FMCS Ltd	15	4.5	14	4.2	1	0.3
4	Okpuanimuo (Aguleri) fmcs Ltd	14	4.2	12	3.5	2	0.5
5	Chukwudike(Umuenwelu m Anam) FMC Ltd	18	5.3	14	4.2	4	1.2
6	Skyway (Umuenwelum Anam) FMCS Ltd	13	3.8	9	2.7	4	1.2
7	Umu-udo(Umuikwu Anam) FMCS Ltd	15	4.5	13	3.8	2	0.5
8	Ndi olu(Umuikwu Anam)FMCS Ltd	12	3.5	10	2.9	2	0.5
9	Ngozika(Ugbene) FMCS Ltd	16	4.7	13	3.8	3	0.8
10	Igwebuike(Ugbene) FMCS Ltd	11	3.3	11	3.3	0	0
11	Rehoboth(Ugbenu)FMCS Ltd	12	3.5	8	2.8	4	1.2
12	Youngfarmers (Ugbenu)FMCS Ltd	17	5.0	14	4.2	3	0.8
13	Evergreen(Ideani) FMCS Ltd	15	4.5	15	4.5	0	0
14	Arinzechukwu(Ideani)F MCS Ltd	17	5.0	15	4.5	2	0.5

15	Ezeisi (Umuoji)FMCS Ltd	15	4.5	13	3.8	2	0.5
16	Glorious farmers (Umuoji) FMCS Ltd	12	3.5	12	3.5	0	0
17	Akubuike (Awa) FMCS Ltd	14	4.2	9	2.7	5	1.5
18	Unique (Awa) FMCS Ltd	12	3.5	10	2.9	2	0.5
19	Oluoma (Ndikelionwu)FMCS Ltd	10	2.9	10	2.9	0	0
20	Goldenfarmers(Ndikelionwu) FMCS Ltd	15	4.5	13	3.8	2	0.5
21	Udodimma (Umunze) FMCS Ltd	12	3.5	12	3.5	0	0
22	Uzoeji (Umunze) FMCS Ltd	11	3.3	10	2.9	1	0.3
23	Ifeoma(Ogboji) FMCS Ltd	14	4.2	14	4.2	0	0
24	Jarapheal (Ogboji) FMCS Ltd	19	5.6	12	3.5	7	2.1
TOTAL		337	99.7%	286	85%	51	14.2%

Total 286 Source field survey, 2024

From table 4.2.1 above, it is shown that questionnaire totaling 12 with a distribution rate of 3.5% were distributed in Chukwuemeka (igbariam)Fmcs Ltd where the study was conducted. The number of returned questionnaire was 9 with response rate of 2.7% 3 with a response rate of 0.8 were not returned. 16 questionnaires with distribution rate of 4.7% were distributed in Nature's Quest (Igbariam) FMCS Ltd. 14 questionnaires with returned rate of 4.2% was returned 2 questionnaires with a response rate of 0.5 were not returned. 15 questionnaires with distribution

rate of 4.5% were distributed in God's favour (Aguleri) FMCS Ltd. The number returned was 14 at the return rate of 4.2% and 1 questionnaire with a response rate of 0.3 was not returned. 14 questionnaires with a distribution rate of 4.2% were distributed in Okpuanimuo (Aguleri) fmcs Ltd, 12 questionnaire with a return rate of 3.5% were returned 2 questionnaires with a response rate of 0.5 were not returned.

The researcher distributed 18 questionnaire with a distribution rate of 5.3% in Chukwudike(Umuenwelum Anam) FMC Ltd, 14 questionnaire which have a returned rate of 4.2% was returned while 4 questionnaires with a response rate of 1.2 were not returned. 13 questionnaires with a distribution rate of 3.8% were distributed in Skyway (Umuenwelum Anam) FMCS Ltd, 9 questionnaires with a return rate of 2.7% were returned 4 questionnaires with a response rate of 1.2 were not returned. 15 questionnaires with a distribution rate of 4.5% were distributed in Umu-udo(Umuikwu Anam) FMCS, 13 questionnaire with a return rate of 3.8% were returned 2 questionnaires with a response rate of 0.5 were not returned.

12 questionnaires with a distribution rate of 3.5% were distributed in Ndi olu(Umuikwu Anam)FMCS Ltd, 10 questionnaire with a return rate of 2.9% were returned 2 questionnaires with a response rate of 0.5 were not returned. 16 questionnaires with a distribution rate of 4.7% were distributed in Ngozika(Ugbene) FMCS Ltd, 13 questionnaire with a return rate of 3.8% were returned 3 questionnaires with a response rate of 0.8 were not returned. 11 questionnaires with a distribution rate of 3.3% were distributed in Igwebuike(Ugbene) FMCS Ltd, 11 questionnaire with a return rate of 3.3% were returned. 12 questionnaires with a distribution rate of 3.5% were distributed in Rehoboth (Ugbenu) FMCS Ltd, 8 questionnaires with a return rate of 2.8% were returned 4 questionnaires with a response rate of 1.2 were not returned. 17 questionnaires with a distribution rate of 5.0% were distributed in Young farmers (Ugbenu)FMCS Ltd, 14 questionnaire with a return rate of 4.2% were returned 3 questionnaires with a response rate of 0.8 were not returned. 15 questionnaires with a distribution rate of 4.5% were distributed in Evergreen (Ideani) FMCS Ltd Ltd, 15 questionnaires with a return rate of 4.5% were returned showing that all questionnaires distributed were returned. 17questionnaires with a distribution rate of 5.0% were distributed in Arinzechukwu(Ideani)FMCS Ltd, 15 questionnaire with a return rate of 4.5% were returned 2 questionnaires with a response rate of 0.5 were not returned. 15 questionnaires with a distribution rate of 4.2% were distributed in Ezeisi (Umuoji) FMCS Ltd, 13 questionnaire with a return rate of 3.8% were returned 2 questionnaires with a response rate of 0.5 were not returned.12

questionnaires with a distribution rate of 3.5% were distributed in Glorious farmers (Umuoji) FMCS Ltd, 12 questionnaire with a return rate of 3.5% were returned. 14 questionnaires with a distribution rate of 4.2% were distributed in Akubuike (Awa) FMCS Ltd, 9 questionnaires with a return rate of 2.7% were returned 5 questionnaires with a response rate of 1.5 were not returned. 12 questionnaires with a distribution rate of 3.5% were distributed in Unique (Awa) FMCS Ltd, 10 questionnaires with a return rate of 2.9% were returned 2 questionnaires with a response rate of 0.5 were not returned. 10 questionnaires with a distribution rate of 2.9% were distributed in Oluoma (Ndikelionwu) FMCS Ltd, 10 questionnaire with a return rate of 2.9% were 15 questionnaires with a distribution rate of 4.5% were distributed in Golden farmers (Ndikelionwu) FMCS Ltd, 13 questionnaire with a return rate of 3.8% were returned 2 questionnaires with a response rate of 0.5 were not returned. 12 questionnaires with a distribution rate of 3.5% were distributed in Udodimma (Umunze) FMCS Ltd, 12 questionnaires with a return rate of 3.5% were returned, 11 questionnaires with a distribution rate of 3.3% were distributed in Uzoeji (Umunze) FMCS, 10 questionnaires with a return rate of 2.9% were returned 1 questionnaire with a response rate of 0.3 were not returned. 14 questionnaires with a distribution rate of 4.2% were distributed in Ifeoma (Ogboji) FMCS Ltd, 14 questionnaire with a return rate of 4.2% were returned. Finally 19 questionnaire were distributed in Jarapheal (Ogboji) FMCS Ltd with the rate of 5.6% and 12 questionnaire were returned with the returned rate of 3.5%. 7 questionnaires at the rate of 2.1 were not returned.

In summary, a total of 337 questionnaires at the rate of 99.7% were distributed, 286(85%) questionnaires were returned while 51 questionnaires at 14.2% were not returned.

4.2 Analysis of Questionnaire Demography Data

Table 4.2.1: Summary of the gender of the 286 respondents

S/N	SEX	FREQUENCY	PERCENTAGE (%)
1	MALE	189	66
2	FEMALE	97	34
TOTAL		286	100

Source: from questionnaire administered.

From Table 4.3.1 above, 189(66%) of the respondents are males while 97(34%) are females

This implies that majority of respondents are men indicating active participate of males in cooperative activities and are naturally endowed with the strength to embark on farming in the sampled Local Govt. Areas

Table 4.2.2: Summary of the Ages of Respondents.

S/N	AGES IN YEARS	FREQUENCY	PERCENTAGE (%)
1	21 – 30	33	12
2	31 – 40	50	17
3	41 - 50	131	46
4	51 – 60	72	25
TOTAL		286	100

Source: from questionnaire administered

From Table 4.2.2 above, 33(12%) of the respondents are between the age brackets of 21-30 years, 50(17%) of the respondent are between the ages of 31-40 years, 131(46%) of the respondents are between the ages of 41-50 years while 72(22%) of the respondents are between the age bracket of 41-50. This means that majority of the respondents are middle aged. These categories of farmers could be considered to be the economically active population who are eager and willing to involve in agricultural production if the requisite financial assistance in form of soft credits are available.

Table 4.2.3: Summary of the Educational Qualifications of the respondents

S/N	EDUCATIONAL BACKGROUND	FREQUENCY	PERCENTAGES (%)
1	PRIMARY	72	25
2	SECONDARY	196	68
3	TERTIARY INSTITUTION	20	7
TOTAL		286	100

Source: from questionnaire administered.

From Table 4.2.3 above, all the respondents had formal education Majority of the respondents 198(68%) has secondary education. 72 (25%) has primary education, while 20 (7%) has tertiary education. This in effect shows that 96.6% of the beneficiaries of the respondents in the study

area are literate. The high level of literacy equips farmers with sound managerial skills in the farm business.

Table 4.2.4: Marital status of the respondents

S/N	MARITAL STATUS	FREQUENCY	PERCENTAGES (%)
1	Married	240	84
2	Single	29	10
3	Widowed	17	6
	TOTAL	286	100

Source: from questionnaire administered.

From the Table4.2.4 above, it is seen that 240 respondents with the percentage of 84 are married 29 (10%) of the respondents are single and 17(6%) of the respondents are widowed. The greater percentage of married respondents in the study may imply that marriages are expected to attract more support from their children thereby spending less on hired workers.

Table 4.2.5: Number of years of membership in cooperative organization

S/N	OPTION	FREQUENCY	PERCENTAGE (%)
1	1 – 5 years	21	7
2	6 – 10 years	70	24
3	11 – 15	143	50
4	16- and above	52	19
	TOTAL	286	100

Source: from questionnaire administered.

The table 4.2.5 above showed that 21 respondents representing 7% of the total respondents have spent between 1-5 years in cooperative organizations,70(24%) of the respondents have between 6-10year in membership of cooperative organization, 143(50%) respondents have spent 11-15year as members of cooperative organizations. While 52 representing 19% of the respondents have spent 16years and above as members of cooperative organizations this implies that Over 85% of the respondents have above 10years of cooperative experience .The membership of cooperatives organizations could give farmers the opportunity to obtain credit, receive inputs and obtain information on important and recent information concerning their farming activities

Table 4.2.6: Size of farm land of cooperative member (in hectares)

S/N	OPTION	FREQUENCY	PERCENTAGE (%)
1	1 – 5	246	86
2	6 – 10	32	11
3	11 – 15	8	2
4	16- and above	2	1
TOTAL		286	100

Source: from questionnaire administered.

Table 4.2.6 above, showed that 246(86%) of the respondents have between 1-5hactares of land, 32(11%) of the respondents have between 6-10 hectares of land, 8(2%) of the respondents have between 11-15 hectares of land while 2(1%) of the respondents have 16 and above hectares of land. This implies that most of the farmers were small holders and subsistence farmers, a situation that may not allow them to engage in large production to guarantee access to bigger credit facilities.

Table 4.2.7: Member Farming Experience (in years)

S/N	OPTION	FREQUENCY	PERCENTAGE (%)
1	1 – 5	13	4
2	6 – 10	76	28
3	11 – 15	154	53
4	15- and above	43	15
TOTAL		286	100

Source: from questionnaire administered.

The table 4.2.7 above showed that 13respondents representing 4% of the total respondents have a farming experience of (1-5) years, 76(28%) of the respondents have between (6-10) years farming experience, 154(53%) of the respondents have (11-15) years farming experience and 43(15%) of the respondents have 15 and above years of farming experience. This implies that farmers in the study area have long years of experience in farming and this will avail them of better knowledge to make use of credit granted to them with the ultimate aim of increasing their level of productivity

Section B: Questionnaire Items

Table 4.3.1 Objective 1: To examine the effect of size of farm land of cooperative farmers in accessing agricultural credit in Anambra state

ITEMS ON SIZE OF FARM LAND							
S/N		RESPONSES					
1	The smaller the size of farm land the smaller the chances of accessing agricultural credit	SA	A	U	D	SD	TOTAL
		127	93	14	33	19	286
		FREQUENCY (%)					
		44	32	5	12	7	100
2	It was easier to access credit because of the largeness of the farm land	103	76	3	54	50	286
		36	28	1	18	17	100
3	Bigger farm lands gave access to bigger agricultural credit	82	149	18	11	26	286
		29	52	6	4	9	100

The result of the analysis as shown in table 4.3.3 reveals that 127(44%) of the respondents strongly agreed that “The smaller the size of farm land the smaller the chances of accessing agricultural credit”. 93(32%) of the respondents agreed with the Statements, 14(5%) of the respondents were undecided 33(12%) disagreed with the statement while 19 (7%) of the respondent strongly disagreed with the assertion. 103 representing (36%) of the respondents strongly agreed that “It was easier to access credit because of the largeness of the farm land”, 76(28%) agreed 3(1%) respondents were indifferent, 54 and 50 respondents representing (18%) and (17%) of the total respondents disagreed and strongly disagreed respectively. On the statement “Bigger farm lands gave access to bigger agricultural credit” 82 respondents strongly agreed, 149 agreed, 18 were indifferent, 11 disagreed, while 26 respondents strongly disagreed with the statement.

Table 4.3.2 Objective 2: To ascertain the effect of years of membership in cooperative organization in accessing agricultural credit in Anambra state

ITEMS ON YEARS OF MEMBERSHIP IN COOPERATIVE SOCIETIES							
S/N		RESPONSES					
1	I was able to access agricultural credit because of my number of years in cooperative society	SA	A	U	D	SD	TOTAL
		73	154	15	30	14	286
		FREQUENCY (%)					
		26	54	5	10	5	100
2	The older the membership in cooperative societies, the higher the chances of accessing agricultural credits	137	82	7	43	17	286
		48	29	2	15	6	100
3	Newer cooperative members could not access agric credits	48	33	88	70	47	286
		17	12	31	24	16	100

The result of the analysis as shown in table 4.3.4, demonstrate that 73(26%) respondents strongly agreed on “I was able to access agricultural credit because of my number of years in cooperative society”. 154(54%) agreed to it, 15(5%) were indifferent, 30(10%) disagreed to this statement while 14(5%) strongly disagreed. For the statement that, “The older the membership in cooperative societies, the higher the chances of accessing agricultural credits” 137(48%) of the respondents strongly agreed. 82(29%) agreed, 7(2%) were indifferent, 43(15%) disagreed to this statement whereas 17(6%) strongly disagreed to the assertion. The result also demonstrate that 48 (17%) strongly agreed and 33 (12%) agreed with the statement “Newer cooperative members could not access agric credits”. 88 (31%) were undecided 70 (24%) disagreed while 47 (16%) strongly disagreed with the statement.

4.4 Test of Hypotheses

The two hypotheses postulated in chapter one was tested with statistical tools aided by computer through the application of statistical packaging for social sciences (SPSS version 23) of Microsoft. For testing of the hypotheses, the multiple regression model was used to test the two hypotheses.

4.5. Decision Rule

Decision rule is stated as thus: Reject Null hypothesis H_0 where the calculated probability value (p -value) is less than 0.05 level of significant, do not reject H_0 , if otherwise

4.6 Data Presentation

Research Question 1

What are the effects of size of farm land of cooperative organization in accessing agricultural credit in Anambra state

Table 1

Mean Responses on the Effects of Size of Farm Land of Cooperative Farmers on Their Access to Agricultural Credit

($N=286$)

S/N		Mean	SD
1.	The smaller the size of farm lands the smaller the chances of accessing agricultural credit.	3.97	1.25
2.	It was easier to access credit because of the largeness of the farm land.	3.45	1.55
3	Bigger farm lands gave access to bigger agricultural credit.	3.87	1.14

Mean responses displayed in Table 3 show that the respondents accepted that the smaller the size of the farm the lower the chances of accessing agricultural credit (Mean = 3.97), that it was easier to access credit because of the largeness of farm land (Mean = 3.45), and that bigger farm lands gave access to bigger agricultural credit (Mean 3.87). These responses suggests that the size of the

farm of land possessed by the cooperative farmers affects their ability to access agricultural credit in Anambra State.

Research Question 2

What are the effects of years of members in cooperative organization in accessing agricultural credit in Anambra state?

Table 4

Mean Responses on the Effects of Cooperative Farmers Years of Membership on Their Access to Agricultural Credit

(N=286)

S/N		Mean	SD
1.	I was able to access agricultural credit because of my number of years in cooperative society	3.85	1.07
2.	The older the membership in cooperative societies, the higher the chances of accessing agricultural credits.	3.98	1.28
3	Newer cooperative members could not access agric credits	2.88	1.30

Mean responses displayed in Table 4 show that the respondents agreed that they could access agricultural credit because of the number of years they have been in the cooperative society (Mean = 3.85), and that the older the membership in cooperative societies, the higher the farmers have the chances of accessing the credit (Mean = 3.98). However, they respondents were undecided on whether newer cooperative members could not access agricultural credit (Mean = 2.88). The mean responses from the two items suggests that the duration of membership in cooperative societies affects the farmers' capacity to access agricultural credit in Anambra State.

Hypothesis 1

Size of farm of cooperative farmers has no significant effect in their accessing of agricultural credit in Anambra state.

Table 3

One Sample t-test on Mean Responses on Effects of Size of Farm on Cooperative Farmers' Access to Agricultural Credit

S/N		Mean	SD	Df	T	p	Decision
1.	The smaller the size of farm lands the smaller the chances of accessing agricultural credit.	3.97	1.25	285	13.01	.000	S
2.	It was easier to access credit because of the largeness of the farm land.	3.45	1.55	285	4.88	.000	S
3	Bigger farm lands gave access to bigger agricultural credit.	3.87	1.14	285	12.91	.000	S

The one sample t-test results presented in Table 7 indicate that there was a significant difference between the mean responses on the effects of cooperative farmers' farm size on their access to credit and the test value (3.00), $t(285) = 13.01, 4.88$ and 12.91 ; and p-values = .000, respectively. Since the p-values were less than 0.05 level of significance, the null hypothesis was rejected. It was therefore concluded that farm size of cooperative farmers has effect on their access to agricultural credit.

Hypothesis 2

Years of membership of cooperative farmers has no significant effect in their accessing of agricultural credit in Anambra state.

Table 4

One Sample t-test on Mean Responses on Effects of Years of Membership of Cooperative Farmers on Access to Agricultural Credit

S/N		Mean	SD	Df	T	p	Decision
1.	I was able to access agricultural credit because of my number of years in cooperative society	3.85	1.07	285	13.36	.000	S
2.	The older the membership in cooperative societies, the higher the chances of accessing agricultural credits.	3.98	1.28	285	12.86	.000	S
3	Newer cooperative members could not access agric credits	2.88	1.30	285	-1.60	.111	NS*

*Not Significant

The one sample t-test results presented in Table 8 shows that there was a significant difference between the mean responses on the effects of cooperative farmers' years of membership in the cooperative society on their access to credit and the test value (3.85), $t(285) = 13.36$ and 12.86 ; p-values = .000, respectively. Since the p-values were less than 0.05 level of significance, the null hypothesis was rejected. It was therefore decided that cooperative farmers' years of membership in the cooperative society has effect on their access to agricultural credit.

4.7 Discussion of Findings

In the preceding section of this chapter, the researchers presented and analyzed the results of this study using the objectives of the study as a guide.

Hypothesis one was tested with One Sample t-test on Mean Responses on Effects of Size of Farm on Cooperative Farmers' Access to Agricultural Credit. The result showed there was a significant difference between the mean responses on the effects of cooperative farmers' farm size on their access to credit and the test value (3.00), $t(285) = 13.01, 4.88$ and 12.91 ; and p -values = .000, respectively. Since the p -values were less than 0.05 level of significance, the null hypothesis was rejected. It was therefore concluded that farm size of cooperative farmers has effect on their access to agricultural credit. The results of this study are in line with research conducted by Ameh & Lee(2020), Taremua et al.,(2022) Hussain and Thapa (2012), who reported that small-scale farmers with a landholding size ranging from 2.5 acres to 5.00 acres had above average access to formal sources of credit compared to those with a landholding size below this range.

Hypothesis two was tested with One Sample t-test on Mean Responses on Effects of Years of Membership of Cooperative Farmers on Access to Agricultural Credit. The finding in respect to objective two revealed that there was a significant difference between the mean responses on the effects of cooperative farmers' years of membership in the cooperative society on their access to credit and the test value (3.85), $t(285) = 13.36$ and 12.86 ; p -values = .000, respectively. It was therefore decided that cooperative farmers' years of membership in the cooperative society has effect on their access to agricultural credit. The finding aligns with the work of Luka et al.,(2022) who found that farmers' access to agricultural credit was positively influenced by years of membership in cooperative societies.

SUMMARY OF FINDINGS, CONCLUSION, RECOMMENDATIONS AND CONTRIBUTION TO KNOWLEDGE

5.1 Summary of Findings

The objectives set out in chapter one has been achieved, the result based on descriptive statistics and analysis revealed the following respectively:

1. Size of farmland have a significant effect the test value (3.00), $t(285) = 13.01$, 4.88 and 12.91; and p-values = .000, on agricultural credit access among cooperative farmers in Anambra state.
2. Years of membership in cooperative societies also have a significant effect test value (3.85), $t(285) = 13.36$ and 12.86; p-values = .000 on agricultural credit access among cooperative farmers in Anambra state.

5.2 Conclusion

The outcome of the study revealed that agricultural credit is very important for sustainable agricultural development to be achieved in any country of the world. Providing credit to farmers is one of the tools used in building the productive capacity of farmers so that they can efficiently produce and contribute to the economy of the country. The results of the multiple regression analysis revealed that credit accessibility is influenced by farmers' socioeconomic characteristics size of farmland and years of membership in cooperative societies.

5.3 Recommendations

The study recommended that government in Nigeria should:

1. Good Policies on land redistribution should be made to make more land available to cooperative farmers, especially the experienced farmers.
2. The relevant government agencies should mobilize the rural farmers and encourage them to join cooperative associations, so that they can derive maximum benefit of collective investment of group savings, as well as increase their chances of accessing formal agricultural credit facilities because of the comparative advantages associated with cooperative societies

REFERENCES

- Ameh, M.; Lee, S.H.(2022) Determinants of loan acquisition and utilization among smallholder rice producers in Lagos state, Nigeria. *Sustainability*, 14, 3900 2-15
<https://doi.org/10.3390/su14073900>
- Ameh, M.; Iheanacho, A.C. (2017) Socio-economic factors influencing agricultural loan acquisition among small-scale rice farmers in Benue State, *Nigeria International Journal of Innovation Agriculture Biology Research* 5, 8–17.
- Anigbogu, T. U.(2018) Environmental determinants of agricultural output among members of farmers multipurpose cooperative societies in Ogbaru Local Government Area, Anambra

- State *International Journal of Trend in Scientific Research and Development* 2(4) 1327-1335
- Anigbogu, T. U., Uzundu, C. S. & Nduka, H. O.(2018) Gender disparity in farmers access to agric credit among members of cooperative societies in Ogbaru Local Government Area if Anambra State. *Open Journal of Economics and Commerce* 1(1) 19-27
- Casemir B. HOUNGBEDJI and Salami D(2021) Analysis of the Determinants of Access to Agricultural Credit at Local Bank of Mutual Agricultural Credit *Asian Journal of Advances in Agricultural Research* 17(3): 41-48, 2021; Article no.AJAAR.79768 ISSN: 2456-8864
- Chandio, A.A.; Jiang, Y.; Wei, F.; Guangshun, X.(2018) Effects of agricultural credit on wheat productivity of small farms in Sindh, Pakistan. *Agric. Financ. Rev.* 78, 592–610.
- Elias S, Ahmad IM, Patil BL.(2015) The determinants of access to agricultural credit for small and marginal farmers' in Dharwad district, Karnataka, India;3(5):1–5.
- Ettah, O.I. & Kuye, O.O.(2016) Socio-economic characteristics and factors affecting credit acquisition and output of rice farmers in Yakurr local government area of Cross River State, Nigeria. *International Journal of Science Research*, 5(1) 5-15
- Garba A (2017). Analysis of the determinants of adoption of improved sesame seed technology among small-scale farmers in jigawa state, Nigeria. Unpublished Ph.D thesis Abubakar Tafawa Balewa University Bauchi, Nigeria
- Gültekin, U.(2023) Factors determining farmers' access to agricultural credit in Turkey *Ciência Rural, Santa Maria* 53(9), 1-9.
- Ibeneme, O. T. & Mmuo, A.N(2021) Accessibility to credits by members of farmers multi-purpose Cooperative societies (FMCS) IN SOUTH-EAST NIGERIA *Unizik Journal of Educational Research and Policy Studies* 8; 136- 145
- Kehinde & Ogundeji (2022). The simultaneous impact of access to credit and cooperative services on cocoa productivity in South-western Nigeria *Agriculture & Food Security* 11(11), 1-21 <https://doi.org/10.1186/s40066-021-00351->
- Manteaw S. A.1, Folitse, B. Y., Swanzy, F. K., and Agyarko-Fosuhene, F.1 and Mahama S.(2023) Exploring the constraints of accessing agricultural credit by small-scale oil palm processors: evidence from the kwaebibirem municipal assembly, eastern region, Ghana. *Fayoum Journal of Agricultural Research and Development* 37(2)156-168
- Moahid M, Khan GD, Yoshida Y, Joshi NP, Maharjan KL.(2021) Agricultural credit and extension services: does their synergy augment farmers' economic outcomes? *Sustainability* 13:3758.
- Mukasa, A. N., Simpasa, A. M., & Salami, A. O. (2017). Credit constraints and farm productivity: Micro-level evidence from smallholder farmers in Ethiopia. African Development Bank Abidjan, In Working Paper Series 247, 1–40.

- Nawai, N., & Shafii, Z. (2017). Understanding Islamic cooperatives mechanisms for the accessibility promotion of Islamic finance in Malaysia *Journal of Islamic Philanthropy & Social Finance*, 1(1), 1-13
- Oke JTO, Kehinde AD, Akindele AJ.(2019) Determinants of access to credit by cocoa farmers in Osun state Nigeria. *International Journal of Agricultural Research Innovation Technology*.9 (2):57–61.
- Silong, A. & Gadanakis, Y. (2020) Credit sources, access and factors influencing credit demand among rural livestock farmers in Nigeria. *Agricultural Finance Review*, 80 (1) 68=90
- Sodeeq A.E Saka J.O Lamidi, L.O Oguntade, M.I& Adegbuji U.(2019) Impact of Credit Access on Crop Farmers' Well-being in Osun State, Southwestern Nigeria *Journal of Economics and Sustainable Development* 10(4,) 109-116
- Vihi, S.K., Ngu-uma, k.B., Sadiku, Y & Adedire, O(2018) Determinants of access to credit for agricultural production among crop farmers in Bassa Local Government Area, Plateau State, Nigeria *International Journal of Innovative Agriculture & Biology Research* 6(3):49-58