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MICROFINANCE BANK'S CREDITS AND AGRICULTURAL PRODUCTIVITY IN ADO-ODO OTA LOCAL GOVERNMENT

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Abstract

This research determined the impact of micro-finance bank credits on the agricultural productivity in Ado-ota town. The other specific objectives accompanying the primary aim are: to determine the impact of Micro-finance Bank Credits on the profits made by the agricultural sector and to examine the impact of Gross Domestic Product on the revenues made by the Ado-Odo Ota local government. Primary research was adopted for this purpose of this research with 100 questionnaires being shared with a 78% return rate. The analysis of hypothesis was done using correlation and regression analysis for hypothesis one and two respectively. The correlation analysis shows the r-coefficient is a positive 0.773 which shows a positive relationship exists between the micro-finance credits and profits while the regression analysis shows a r-square of 73.8% indicating a strong relationship between standard of living and agriculture. It is recommended that more micro-finance credits should be given to the farmers to enable them increase productivity which will in turn increase the productive capacity of the economy.

Keywords: Microfinance, Credits, Profitability, Gross Domestic Product, Productivity.

Introduction

The impact of Agriculture on the general Nigerian economy cannot be underrated. This sector contributes to a significant portion of the country's Gross Domestic Product (GDP). As at the second quarter of 2021 Nigeria's agricultural sector had contributed 23.78% to the country's overall Gross Domestic Product (GDP), the figure is lower than the contribution in the second quarter of 2020 which stood at 24.65 percent but higher than the first quarter of 2021 which recorded 22.35 percent (National Bureau of Statistics, 2021). Between July and September 2021, the agriculture contributed to almost 30 percent of the total GDP, an increase by about six percentage points compared to the previous quarter (Fakayode, Adewunmi, Salau. and Afolabi,2009).

Despite the contribution to the economy, Nigeria's agricultural sector faces many challenges which impact on its productivity. These include; poor land tenure system, low level of irrigation farming, climate change and land degradation. Others are low technology, high production cost and poor distribution of inputs, limited financing, high post-harvest losses and poor access to markets. These challenges have stifled agricultural productivity affecting the sector's contribution to the country's GDP as well as increased food imports due population rise hence declining levels of food sufficiency (Eyo, Nwaogu and Agenson, 2020).

Nwankwo in his contribution in 2021 asserted that the informal sources of finance explored by farmers and most agricultural businesses could not meet the credit needs of the farmers adequately. He further reiterated that in order to encourage the banks, the government established the Agricultural Credit Guarantee Scheme (ACGS) to provide guarantees against inherent risk in agricultural lending. This measure could not achieve the intended objectives because agricultural being both labour and capital intensive venture requires huge capital outlay.

Adu in 2021 argued that microfinance is an effective and efficient mechanism in poverty reduction all over the world. Micro-credit is also an effective means of improving quantity and quality of agricultural production. Availability of credit is also a major determinant of scale of agricultural production, adoption of modern technology, ability to purchase modern inputs and induce farmers to take risks. Access to credit is regarded as one of the key elements in raising agricultural productivity. Micro credit is the name given to extremely small loans made to poor borrowers. It enhances the production capacity of the poor resource farmers through financial investment in their human and physical capital (Adu, Owualah and Babajide, 2019).

Statement of the Problem

The agricultural sector of the Nigerian economy has become a pivotal aspect of the Nigerian economy as a major contributor to the growth of the nation's Gross Domestic Product (GDP) and highly influential as the food storehouse of the nation as well as creating massive job opportunities. However, over the years, the agricultural sector has experienced a massive decline in the output as well as the productivity of the sector to the Nigerian economy. Researchers have therefore come to conclusions with the fact that various agricultural businesses suffer from the lack of capital and appropriate funding which has led to the downturn in this sector (Chidozie and Kanu, 2019).

As stated earlier most literature and researches have failed to take an in-depth look at the impact of micro-finance credit on agricultural productivity in Ado Odo Ota. The various literatures also did not look into the after-effect of the recipients (beneficiaries) of micro-finance credits on the financial performance of farmers. As much as these credits are granted, various researches have shown a lack of effort to study whether or not these micro-finance credits have improved the level of productivity and farm production performance (Adebisi, 2020).

Research Objective

The main objective of this study is to determine the impact of microfinance bank credits on agricultural productivity in Ado-Odo Ota town while the specific objectives are:

i. To determine the impact of Micro-finance Bank Credits on the profits made by the farmers in Ado-Odo Ota town.
ii. To examine the impact of micro-finance credits on the revenue generated by farmers in Ado-odo Ota town.

Research Questions

The following questions have emerged from the stated problems and the research objective; therefore this study will aim to find answers to the following questions:

i. To whatextent is the impactof micro-finance bank'scredits on the profits of farmers in Ado-Odo Ota?
ii. To whatdegree is the impact of micro-finance credits on the revenue generated by farmers in Ado-Odo Ota town?

Research Hypotheses

The study will aim to test the following hypotheses

Hypothesis One (1)

H_0: There is no significant relationship between micro-finance credits and profits of farmers in Ado-Odo Ota.

H_1: There is a significant relationship between micro-finance credits and profits of farmers in Ado-Odo Ota.

Hypothesis Two (2)

H_0: Micro-finance credits do not have significant impact on the revenue generated by farmers in Ado-Odo Ota town.

H_1: Micro-finance credits have significant impact on the revenue generated by farmers in Ado-Odo Ota town.

Literature Review

Concept of Micro-finance Credits

Credit has been recognized as an essential tool for promoting small and medium scale enterprises as well as agricultural production. An appreciable percentage of the population is engaged in agricultural production. Micro credit finance refers to the process of obtaining control over the use and acquisition of credit in the present for special or particular business or project, in exchange for a promise to repay the money in the future date. Agricultural micro credit finance can be defined as the act of acquisition and use of capital in agriculture, other than those of conventional financial Institutions (banks, finance institution), in other words, agricultural micro credit finance refers to a refundable loan granted to a farmer for farming purpose through micro credit institutions. Micro credit finance is services to provide financial service to the poor who are traditionally not serve by the conventional financial institutions (Adu, 2021).

Agricultural Credit Financing

Agriculture continues to be a fundamental instrument for sustainable development and poverty reduction yet financial constraints in agriculture remain pervasive, and they are costly and inequitably distributed, severely limiting smallholders‟ ability to compete‟. Sudden and dramatic changes in food prices have exposed the vulnerability of agricultural production in meeting global demand and call for increased investment in agriculture at all levels. The question is how the right amount of investment can be acquired, particularly in a challenging milieu where financial uncertainty causes a reduction in available resources along

with increased fear and scrutiny of risk. An answer to addressing these constraints goes beyond conventional measures since agriculture has always been difficult to finance through formal financial institutions and approaches (Adebisi, 2020).

As a result of economic reforms in Central and Eastern Europe (CEE) new structures in agriculture are emerging. The changes of agriculture together with macroeconomic uncertainty have created difficulties in the normal process of financing agricultural activity (Ayeomoni and Aladejana, 2016). At the same time the banking sector is undergoing a major transformation, and so credit markets are underdeveloped, inhibiting the effectiveness of monetary, credit and trade policies (Eyo, Nwaogu and Agenson, 2020).

The problems in the credit market for agriculture stem from both demand and supply forces. The majority of both private farmers and large scale farm managers indicated that problem in accessing credit were mainly due to- "high interest rates" in all these countries. These high interest rates reflect both transition and structural problems with CEE agriculture. Lack of collateral, low profitability and macroeconomic uncertainty makes banks view the agricultural sector as a high risk consumer. Expected declining profitability and macroeconomic uncertainty are discouraging borrowing at high nominal interest rates. Immediate plans of farmers are uncertain because of the lack of working capital. There is also the long-term problem of ensuring adequate funds to facilitate structural adjustment and to enable farmers to apply effective technologies (Chidozie and Kanu, 2019).

Empirical Review

A number of empirical studies have been conducted to study the relationship between access to credit and agricultural productivity. They include the following; In their studies to establish the relationship between access to credit and agricultural productivity in Ghana (Adetiloye, and Babajide, 2012) analysed responses from 109 farm households of borrowers and non-borrowers concluded that the difference in productivity of borrowers and borrowers was statistically significant. The increase in productivity was attributed to the technical efficiency of borrowers.

A study conducted by Ojo and Oluwaseun in 2015 to determine the effect of agricultural credit participation on farmers' productivity revealed that agricultural credit has a positive significant effect on rice yield. The results revealed that credit users had 157.2 kg per hectare of paddy more than non-credit users. A similar conclusion was drawn by Anthony (2010) in his analysis of the impact of agricultural credit on farmers' output and yield. The results of his analysis concluded that agricultural credit has a significant positive impact on agricultural productivity.

Fakayode, Adewunmi, Salau and Afolabi in 2009 undertook a research to determine the relationship between microcredit program participation and productivity of small holder farmers. The findings of this work revealed a significant difference between productivity of the participating farmers and non-participating farmers. He concluded that the participation of small holder farmers in micro credit programs could improve their livelihoods.

Methodology

Population of the Study

The population of this study consisted of all farmers which are based in Ado-Odo/Ota Local government which is 50,000 in recent census carried out (Ado Odo Ota Local Govt, 2022).

Sampling Size and SamplingTechnique

The sample size of the research refers to the section of the population that will be focused on by the researcher. For the purpose of this study the sample size of this research aims at One hundred and twenty (100) farmers which will be carefully selected from Ado-Odo town.

Method of Data Analysis

The research will make use of inferential statistics to analyze data. This involves the use o statistical approaches such as regression analysis which will be conducted to ascertain the impact of micro-finance bank credits on agricultural productivity. This analysis will be done using the Statistical Package for Social Sciences (SPSS). The use of regression analysis would enable us know the level of impact the independent variable (micro-finance credits) has on the dependent variable (agricultural productivity) as well as other well stated hypothesis in chapter one.

DATA ANALYSIS, RESULTS AND DISCUSSION OF FINDINGS

Data Analysis and Interpretation

Table 4.2: Questionnaire Prepared Analysis

RESPONDENT	FREQUENCY	PERCENTAGE (%)
Questionnaire returned	**78**	**78**
Questionnaire not returned	**22**	**22**
Total	**100**	**100**

Source: field survey, 2022.

4.2 Bio Data

TABLE 4.2.1: Response from Sex of Respondents

Sex of the respondent

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	17	21.8	21.8	21.8
	Female	61	78.2	78.2	100.0
	Total	78	100.0	100.0	

Source: field survey, 2022.

This section of the data presentation dealt with sex of respondents, the purpose of this section was to show the proportion of male and female respondents. Table 4.3.1 shows that 17 out of 78 respondents are males which make up 21.8% of the entire respondent, while 61 respondents are female which makes up the remaining 78.2% of the total respondent.

TABLE 4.2.2: Response from Age of Respondents

Age of the respondent

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	below 30 years	20	25.6	25.6	25.6
	30-40 years	27	34.6	34.6	60.3
	41-50 years	23	29.5	29.5	89.7
	above 50 years	8	10.3	10.3	100.0
	Total	78	100.0	100.0	

Source: field survey, 2022.

The Table 4.3.2 shows that 20 (25.6%) of the respondent reported age below 30 years, 27 (34.6%) aged between 30-40 years, 23 (29.5%) were between age 41-50 years, and only 8 (10.3%) aged 51 years and above.

TABLE 4.2.3: Response from Marital Status of Respondents

Marital status of the respondent

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	17	21.8	21.8	21.8
	married	61	78.2	78.2	100.0
	Total	78	100.0	100.0	

Source: field survey, 2022.

This section dealt with the marital status of each respondent, to show the response of those that were single or married. Out of the 78 questionnaires returned, 17 respondents were single being 21.8% of the total respondents, 61 respondents were married being 78.2% of the total respondent. This implies that there are more married respondent and as such responses will be reasonable free from bias and items treated maturely.

Table 4.2.4: SECTION B

Item	**Strongly Agree**	**Agree**	**Undecided**	**Disagree**	**Strongly Disagree**	**Freq. / Total %**	**Mean**	**Std. Dev.**
credit been used as an essential fool for promoting agricultural Production	25 32.1	21 26.9	4 5.1	15 19.2	13 16.7	78 100	2.6154	1.51384
An appreciable percentage of Population is engaged in agricultural Production	19 24.4	33 42.3	4 5.1	9 11.5	13 16.7	78 100	2.5385	1.41139

The increase in productivity was attributed to the technical efficiency of borrowers	23 29.5	22 28.8	0 0.0	11 14.1	22 28.2	78 100	2.8333	1.65472
Increasing agricultural producers access to credit has significant and positive impact on productivity	74 94.4	4 5.1	0 0.0	0 0.0	0 0.0	78 100	1.0513	.22200
Agricultural credit has the potential to increase income and productivity of farmers	58 74.4	16 20.5	0 0.0	0 0.0	4 5.1	78 100	1.4103	.93191
Valid N (listwise)						78		

Source: Fieldwork, 2022.

TABLE 4.2.5: Analysis of Questions Asked

Item	**Strongly Agree**	**Agree**	**Undecided**	**Disagree**	**Strongly Disagree**	**Freq. / Total %**	**Mean**	**Std. Dev.**
Access to credit may not have a direct impact on productivity	51 65.4	7 9.0	5 6.4	3 3.8	12 15.4	78 100	1.9487	1.51098
Public credit is subside and therefore attracts a low rates	8 10.3	15 19.2	3 3.8	17 21.8	35 44.9	78 100	3.7179	1.45849
The importance of access to credit in agricultural production cannot be overemphasized	8 10.3	10 12.8	6 7.7	37 47.4	17 21.8	78 100	3.5769	1.25377

Government policies provide micro credit finance for development of Agriculture	15 19.2	17 21.8	0 0.0	32 41.1	14 17.9	78 100	3.1667	1.45421
It is easy to gain access to micro-finance credits	74 94.4	4 5.1	0 0.0	0 0.0	0 0.0	78 100	1.0513	.22200
Micro-finance credits are distributed unequally	58 74.4	16 20.5	0 0.0	0 0.0	4 5.1	78 100	1.4103	.93191
There is a relationship between micro-finance credits and profits	25 32.1	21 26.9	4 5.1	15 19.2	13 16.7	78 100	2.6154	1.51384
The granted Micro-bank credits have an effect on the financial performance of the farmers	19 24.4	33 42.3	4 5.1	9 11.5	13 16.7	78 100	2.5385	1.41139
Valid N (listwise)	78							

Source: Fieldwork, 2022

Table 4.2.6: Analysis of Questionnaire

Item	**Strongly Agree**	**Agree**	**Undecided**	**Disagree**	**Strongly Disagree**	**Freq. / Total %**	**Mean**	**Std. Dev.**
There is a lack of access to micro-finance bank credits to farmers from the informal sector	3 3.8	17 21.8	5 6.4	17 21.8	36 46.2	78 100	3.8462	1.31995

A relationship exists between microcredit program participation and productivity in agriculture	32 41.1	15 19.2	1 1.3	16 20.5	14 17.9	78 100	2.5513	1.60880
Lack of access to credit can be as result of demand and supply	17 21.8	28 35.9	4 5.1	10 12.8	19 24.4	78 100	2.8205	1.52676
I have been a beneficiary of micro-finance bank credits	37 47.4	17 21.8	6 7.7	10 12.8	8 10.3	78 100	2.1667	1.40885
Valid N (listwise)						78		

Source: Fieldwork, 2022

Hypothesis Testing
Restatement of Hypothesis

Hypothesis One (1)
H_0: There is no significant relationship between micro-finance credits and profits of farmers in Ado-Odo Ota.

H_1: There is a significant difference between micro-finance credits and profits of farmers in Ado-Odo Ota.

Using Correlation Analysis
Table 4.3.2: Correlation of the Relationship between micro-finance credits and profits of farmers in Ado-Odo Ota

Correlations

		Micro-finance credits	Profits
Micro-finance Credits	Pearson Correlation	1	.773
	Sig. (2-tailed)		.000
	N	78	78
Profits	Pearson Correlation	.773	1
	Sig. (2-tailed)	.000	
	N	78	78

Correlation is significant at the 0.01 level (2-tailed).

Source: Fieldwork, 2022

Restatement of Hypothesis Two (2)

Hypothesis Two (2)

H_0: Micro-finance credit does not have a significant impact on the revenue generated by farmers in Ado-Odo Ota town.

H_1: Micro-finance credits have a significant impact on the revenue generated by farmers in Ado-Odo Ota town.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.738[a]	.545	.540	.617

a. Predictors: (Constant), Micro-finance Credits

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	40.147	1	40.147	105.433	.000[b]
	Residual	33.509	88	.381		
	Total	73.656	89			

a. Dependent Variable: Revenue

b. Predictors: (Constant), Micro-finance credits

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.614	.230		2.671	.009
	Micro-finance credits	1.386	.135	.738	10.268	.000

a. Dependent Variable: Revenue

Discussion of Findings

Hypothesis One

H_0: There is no significant relationship between micro-finance credits and profits of farmers in Ado-Odo Ota.

H_1: There is a significant difference between micro-finance credits and profits of farmers in Ado-Odo Ota.

From Table 4.8, it was observed that the returned Correlation Coefficient (r) was calculated as +0773. Also, the returned p-value = 0.000< 0.01, the criterion level of significance, thus the null hypothesis is rejected and alternative hypothesis accepted. This also shows that Correlation coefficient (r) has a positive and average correlation. Hence, there is a significant relationship between micro-finance credits and profits.

This indicates that there was a positive and significant correlation between micro-finance credits and profits of farmers in Ado-Odo Ota with r = +0.773 and p-value = 0.000 < 0.01.

Hypothesis Two

Hypothesis Two (2)

H_0: Micro-finance credits do not have significant impact on the revenue generated by farmers in Ado-Odo Ota town.

H_1: Micro-finance credits have significant impact on the revenue generated by farmers in Ado-Odo Ota town.

From the model summary table above, the adjusted R square is 0.545 indicating that 54.5% variance in the dependent variable (revenue) is explained by the independent variables (Micro-finance credits).

The ANOVA table shows that the p-value of 0.000 is significant as it is less than the 0.05 level of significance. This indicates that the independent variable (Micro-finance credits) model is fitted.

The Co-efficient table shows the standard of error of Micro-finance credits is .135 with a t-value of 10.268. The p-value is 0.000. As a result, the null hypothesis is therefore rejected and the alternate hypothesis is accepted, this therefore implies Micro-finance credits have a significant impact on the revenue generated by farmers in Ado-Odo Ota town.

Summary of Findings

The first objective aims to determine the relationship between micro-finance Bank Credits and the profits made by farmers in Ado-Odo Ota town. From the analysis, the following were found: it was observed that the returned Correlation Coefficient (r) was calculated as +0773. Also, the returned p-value = 0.000< 0.01, the criterion level of significance, thus the null hypothesis is rejected and alternative hypothesis accepted. This also shows that Correlation coefficient (r) has a positive and average correlation. Hence, there is a significant relationship between micro-finance credits and profits.

The second objective focused on examining the impact of micro-finance credits on the revenue generated by farmers in Ado-Odo Ota local government. From the results and analysis - the adjusted R square is 0.545 indicating that 54.5% variance in the dependent variable (revenue) is explained by the independent variables (micro-finance credits). The ANOVA table presented showed that the p-value of 0.000 is significant as it is less than the 0.05 level of significance. This indicates that the independent variable (micro-finance credits) model is fitted. The standard of error of micro-finance credits is 0.135 with a t-value of 10.268. The p-value is 0.000. As a result, the null hypothesis is therefore rejected and the alternate hypothesis is accepted, this therefore implies that there is a significant effect of micro-finance creditson the revenue generated by farmers in Ado-ota town.

Conclusion

From the analysis shown on each objective, the following conclusions were made:

i. There was a positive and significant correlation between micro-finance credits and profits in the agricultural sector.
ii. There is a significant effect of Gross Domestic Product (GDP) obtainable from Agriculture in Ado-ota local government on revenue generated.

Recommendations

The following are recommendations on the basis of the results:

i. The government should aim to exploit the strength of farm production in Ado-Ota Local Government.
ii. More micro-finance credits should be given to the farmers to enable them increase productivity.

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