

## **Impact of Agricultural Credit Finance Scheme on Poverty Reduction in OBIO-AKPOR LGA, Rivers State**

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**Abstract:** *The study was carried out to evaluate the impact of agricultural credit finance scheme on poverty reduction in Obio-Akpor LGA of Rivers State. Specifically, the study described the socio-economic characteristics of the respondents in the study area, determined the effect of agricultural credit finance schemes on poverty reduction and examined the level of access to credit and their sources among the respondents. A Multi-stage randomized sampling technique was used in selecting 50 respondents for the study using a well-structured questionnaire. Data were analysed using descriptive statistics (such as mean, percentages and, standard deviation) and inferential statistics such as logistic regression model. The results of the socioeconomic profile of the farmers showed a mean age of 43.95 years with majority (68.17%) having an age range of between 32-51 years. Majority (61.4%) of the respondents were male, 77.3% were married. The mean number of the years spent in school was 13.95 years with 95% of the respondents having both primary and secondary education. The mean household size was about 6 persons with majority (38.63%) having between 1-5 persons per household. The mean years of farming experience was 8.61 years with majority (45.45%) having between 1-10 years of farming experience. The result of the sources of credit showed that the respondents used both formal and informal sources of credit and also the level of access to credit showed that the amount requested was not fully granted and that the loan duration varied across loan sources in the study area. Furthermore, the result of the impact of agricultural credit finance scheme on poverty reduction showed that age, age squared, used credit and quantum of credit significantly influenced the poverty status of the sampled households in the study area. The study therefore recommends that the monetary authorities and regulatory institutions play effective role in ensuring that cost of micro-funds is affordable, and that commercial banks do not just amass deposits but extend adequate credit to the target population at affordable interest rate.*

**Keywords:** *Agricultural credit finance scheme, poverty reduction, impact, level of access.*

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Date of Submission: 01-08-2018

Date of acceptance: 19-08-2018

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### **I. Introduction**

As indicated by World Bank (2001), Poverty is one of the significant issues on the planet as of late. Three billion people live beneath US\$2 every day; one and half billion people living underneath US\$1 every day. In Nigeria, Poverty is recorded as one of the difficulties regardless of the nation's rich assets in farming, oil riches, human limit and geo-climatic conditions. (CBN, 2010; World Bank, 2009). In fact, it is assessed that more than 70 percent of Nigerians are appointed poor, and half of this number lives in through and through hardship (World Bank, 2009; Landes, 2010). Poverty is especially serious in provincial zones, where up to 80 percent of the populace lives underneath the poverty line and with restricted access to social administrations and frameworks (Adam, 2007; Littlefield, 2005). The country masses depend fundamentally on farming particularly farmhand for nourishment and salary. Women are especially helpless against the frequency of poverty. They contain the greater part of the poor gatherings in the rural areas (Edgerwood, 2009).

In reality, some portion of the involvement in provincial advancement in Nigeria has obviously demonstrated that endeavours at growing the financial base of the rural region quite often waver in view of shortage of and prohibitive access to loan able assets (Ijere, 1992, Okafor, 1999 and Tanko, 2007). The part of money related capital as a factor of creation to initiate monetary development, progression and the need to channel credit to nation economies for financial strengthening of the rural poor can't be over-stressed. This seems to have elevated the requirement for third world nations to build their ability to assemble residential assets (funds) adequately and assign them effectively.

As indicated by Soludo (2005) "strong monetary development can't be accomplished without setting up very much engaged projects to diminish poverty through enabling the general population by expanding their entrance to components of generation, particularly credit."

Agricultural credit is frequently observed as any of a few credit vehicles used to back agricultural exchanges with advances, notes, bills of exchange and financiers acknowledgments. These kinds of backing are adjusted to the particular money related requirements of agriculturists, which are dictated by sowing, reaping and advertising cycles. Agricultural credit advances profitability and way of life by breaking endless loop of poverty of little scale agriculturists. Adegeye and Dittoh (1985), portrayed agricultural credit as the way toward getting control over the utilization of cash, products and enterprises in the present in return for a guarantee to repay at a future date.

Ogunfowora et al. (1972) induced that fund isn't just necessarily for farming purposes, yet additionally for family and use costs; especially in the midst of the off season time frame. To Swinnen et al (1999), access to rural credit has been extremely obliged in third world nations. This is a direct result of the blemished and exorbitant data issues experienced in the money related markets. Such issues are known to be especially critical in agribusiness (Stiglitz, 1993). Farm households are credit obliged and the arrangement of fund would prompt an expansion underway, diminishment in joblessness, and increment in wage.

Throughout the years, government has possessed the capacity to think of approaches, plans and palliative measures to help rural farmers in improving efficiency. A portion of these plans incorporate; the agricultural credit guarantee scheme established in 1977, the agricultural credit support scheme, commercial agriculture credit scheme and the certifying of Micro Finance Banks.

The plan was intended to urge business banks to build loaning to the farming part by giving certifications against natural hazard in agricultural loaning.

Over a time of the presentation of the rural credit plan in Nigeria, its adequacy in tending to poverty particularly among rural inhabitants remains a far from being a questionable issue. As per Akanji (2006), in spite of the tasks of agricultural credit plot in Nigeria, poverty level in the nation particularly among rural occupants keeps on expanding enormously on account of the constrained learning of poor people who should profit by the plan. As shown by Nelson and Nelson (2010), the persuasive certainty that poverty level in Nigeria is expanding despite numerous farming credit plans is troubling. The interest of this investigation accordingly isn't just to analyse the impact of agricultural credit scheme on poverty reduction in Nigeria, however to what broaden has these plans fared throughout the years.

### **Objectives of the Study**

The main objective of the study is to empirically evaluate the effect of agricultural credit fund scheme on poverty decline in Obio-Akpor LGA of Rivers State. Specifically, the objectives are to;

- i. describe the socioeconomic features of the respondents in the study region
- ii determine the effect of agricultural credit finance schemes on poverty reduction.
- iii evaluate the effect of socioeconomic variables on poverty reduction in the study region.
- Iv.examine the level of access to credit and their sources among the country farmers.

### **Theoretical Literature**

Poverty has turned into an all-inclusive wonder that is seen to mean distinctive things to various individuals at various circumstances and spots. Ogwumike (2001) characterized poverty as a circumstance in which a family unit or an individual can't afford the essential necessities for survival, which incorporate utilization and non-utilization things, considered as least prerequisite to maintain vocation. Others, for example, Madinagu (1999), Oladunni (2001) and Englama and Bamidele (1997) characterized poverty as a condition of absence of satisfactory essential necessities of life, for example, nourishment, garments, shield; powerlessness to meet social and monetary commitments, absence of beneficial work, abilities, assets and certainty, limited access to social and monetary establishment, for instance, education, , prosperity, versatile water and sanitation. There have been numerous reviews on the meaning of poverty. In any case, one could condense the meaning of poverty as a condition of need or articulated hardship.

Farming grant is frequently observed as any of a few credit vehicles used to back farming exchanges, plus advances, notes, bills of exchange and investors' acknowledgments. These kinds of financing are adjusted to the particular money related necessities of agriculturists, which are dictated by cultivating, gathering and advertising cycles. Farming grant improves efficiency and advances the way of life by destroying endless loop of poverty of small scale farmers. Adegeye and Dittos (1985) depicted rural credit as the way toward acquiring control over the utilization of cash, products and ventures in the present in return for a guarantee to reimburse later.

Credit has been distinguished to be noteworthy contribution to improvement of the agricultural sector in Nigeria (Balogun, 1990).Due to challenges encountered by farmers in getting access to credit, the administration of Nigeria throughout the years thought of a few palliative plans to determine a portion of the difficulties encountered by farmers, and these include: Agricultural Credit Guarantee Scheme in 1977, Agricultural Credit Support Scheme and Commercial Agricultural Credit Scheme in 2009 amongst others.

Ayegba and Ikani (2013) on the Impact Assessment of Agricultural Credit on Rural Farmers in Nigeria utilizing essential information accumulation inferred that much is yet to be done to help agriculture by empowering farmers by means of sufficient farming credit without strings. The outcomes additionally demonstrate that unrestricting private cash loan specialists (53.33%) make up the real wellspring of loan which isn't sound for a system that is prepared to develop. It was similarly evident that the genuinely necessary banks in the provincial territories are basically established in the city regions abandoning the country agriculturalists short of official wellsprings of credit.

The real restrictions or difficulties in getting to farming credit as discovered in the report incorporate; great financing costs, administrative blocks, delayed endorsement of advances, pointless demand for underwriters and guarantee. The examination likewise prescribed that the central Government in a joint effort with banks should make credit tools and managements that are customized to the hazard and exchange stream plans out of the farming segment to maintain a strategic distance from or lessen the difficulties specified.

## II. Methodology

Obio-Akpor is a local government area in the city of Port Harcourt, one of the significant focuses of financial exercises in Nigeria, and one of the real urban communities of the Niger Delta with a population of 464,789 (2006 census), located in Rivers State.

### Sampling Techniques and Sample Size

Multi-stage sampling method was utilized in selecting the respondents for the investigation. Stage one involved the arbitrary choice of 5 communities; Rumuodamaya, Ogbogoro, Eliozu, Woji and Choba in the council. Stage two involved the random selection of ten households in each community for dispensation of questionnaires and interview making a total of 50 respondents for the study

### Data Collection

Primary data was used for the study. A well-structured questionnaire with close ended questions. The questionnaires seek data on the socio-economic characteristics of the sampled households, including their credit involvement, credit request, sum approved, interest rate and loan duration of credit used (if any).

### Methods of Data Analysis

In accordance with the work of Eboh (2011), Foster Greer and Thorbecke (FGT) and Logit regression techniques were utilized in analysing the data. Descriptive statistics (frequency tables and percentages) was employed in defining the socio-economic characteristics of the respondents.

The standard Foster Greer and Thorbecke (FGT) poverty index was utilized in evaluating the incidence, depth and severity of poverty among the selected households. The FGT class of poverty measures is characterized by: 
$$\rho = \frac{1}{N} \sum_{i=1}^{\alpha} \left( \frac{Z - Y_i}{Z} \right)^{\alpha}$$

Where:  $\alpha$  = non-negative parameter (0, 1 or 2) reflecting social valuation of various level of poverty. It takes on a value of 0 for poverty incidence, 1 for poverty depth, and 2 for severity of poverty.

$Y_i$  = per capita expenditure (₦ per person daily)

$\alpha$  = number of families with per capita utilization below the United Nations recommended income; characterized as US\$2 per person per day which will be proportional to N720 per person per day (US\$1 = ₦360).

Z = the poverty line (₦720 per person daily); and

N = number of families in the sample

Logit Regression Method: this is utilized to decide the impact of independent variable on the likelihood of being poor. The dependent variable is the poverty status which is denoted as a binary dummy (0 and 1).

$Y = F(X_1, X_2, X_3, \dots, X_n)$

Y = poverty status, (1 if poor and 0 if non-poor)

$X_1, \dots, X_n$  are: age (years), age<sup>2</sup>, gender (female=1, male=0), education (years), family size (number), dependency ratio, credit use (yes=1, no=0), credit volume (₦).

## III. Results And Discussion

**Table 1.0: Socio-economic Profile of Respondents**

Variable	Frequency	Percentage	Mean	Mean Deviation
<b>Age Group</b>			43.86	9.33
32-41	10	22.72		
42-51	20	45.45		
52-61	8	18.18		
62-71	6	13.63		

<b>Household Size</b>			5.61	3.53
1-5	18	40.90		
6-10	17	38.63		
11-15	8	18.18		
16-20	1	2.27		
<b>Experience</b>			8.61	8.067
1-10	20	45.45		
11-20	12	27.27		
21-30	8	18.18		
31-40	4	9.09		
<b>Gender</b>				
Male	27	61.4		
Female	17	38.6		
Total	44	100		
<b>Marital Status</b>				
Single	10	22.7		
Married	34	77.3		
Total	44	100		
<b>Educational Level</b>			13.95	3.25
Primary	2	4.5		
Secondary	21	47.7		
Tertiary	21	47.7		
Total	44	100		

Source: Field Survey, 2018

As can be glanced from the table 1, 68.17% of the respondents had an age range of between 32-51 years while 31.81% of the respondents were between 52-71 years. In other words, majority of the respondents are in their active age. Household size showed that majority (40.90%) of the respondents had a family size of between 1-5 persons, the mean size of 6 persons indicating that majority have average household size. The farming experience showed that the average farming experience was 8.61years and majority (45.45%) had farming experience of between 1-10years. Also, 61.4% of the respondents were males and the majority (77.3%) married. The level of education of the heads of families showed a mean of 13.95 with majority of the respondents (95.5%) having both secondary and tertiary education and this has an effect on their knowledge of credit availability, access and influence on their income.

Table 2.0 Sources of Credit

Sources	Frequency	Percentage
Informal Source	17	38.63
Cooperative Society	15	34.09
Microfinance Institutions and Banks	12	27.27
Total	44	100

Source: Field Survey, 2018

This is one of the main objectives of the study; which is to decide the means of agricultural credit and the degree of access of rural families to the agricultural credit. As can be seen from the table, rural farm households approach agricultural credit from both formal and informal sources. As can be seen from the table, 38.63% gained access to agricultural credit from informal sources like cash loan specialists, friends or relatives while 34.09% accessed agricultural credit from cooperative societies. Finally, 27.27% accessed agricultural credit from the formal microfinance foundations and commercial banks.

Table 3.0:Level of Access to Credit

Variables	Informal Sources	Cooperative Society	Microfinance bank and commercial banks
Loan Request (Mean)	14,105.72	23,052.10	25,142.00
Standard Error	4,654.22	4,754.87	3,123.43
Amount Approved	10,120.55	22,098.12	23,987.56
Standard Error	2,765.66	3,871.49	3,276.17
Loan Duration (Mean)	2.10	8.69	6.42
Standard Error	1.32	0.21	0.74
Interest Rate (Mean)	NA	5.64	9.23
Standard Error	NA	0.43	0.65

As could be seen from table 3.0, on the total, formal sources such as cooperative societies and microfinance institutions/commercial banks made available the bulk of credit to rural farm households, while 23.8% of the sampled rural farm household got credit from informal sources. This shows that formal means of agricultural credit are gaining repute in microcredit distribution in the rural areas.

**Table 4.0 Influence of Socioeconomic Variables on Poverty Reduction**

Variables	B Coefficient	S.E	Odd-ratio
Age	.412***	.160	1.542
Age Square	-.005***	.002	.996
Gender	-.596	.517	.551
Education	-.130	.066	.878
Dependency ratio	.702	1.110	2.017
Constant	-13.143***	4.102	.000
Log likelihood	-114.345		
Cox & Snell R square	.373		
Overall Prediction	81.3		

Table 4.0. Is a sum-up of logit regression statistics in light of a model that fuses variables that could impact the probability of a family being named poor or non-poor. These variables comprise; age, age square, gender, education, family size, dependency ratio, and, credit volume. A probability proportion trial of overall significance of the logit model gave a computed chi-square estimation of -114.345, which was significant at  $p < 0.01$ . The evaluated rate of exact forecast was 81.3%, which demonstrates that the model expectations right in 81.3% of the cases thus is dependable.

Among the explanatory variables in the model, age of rural farm household heads, square of the age, and family size were critical at 1% ( $p < 0.01$ ) level, educational level of the head of rural family and volume of credit granted were huge at 5% ( $p < 0.05$ ), while the dummy variable on credit use was huge at 10% ( $p < 0.10$ ). Gender of head of rural family and dependency ratio were not significant. The outcome demonstrates that expanding the level of education of the head of rural homes raises the chances against the family being poor by 0.878.

**Table 5.0 Effect of Agricultural Credit Scheme on Poverty Reduction**

Variables	B. Coefficient	Std Error	Odd Ratio
Constant	.877**	.314	2.403
Credit Use	.616	.295	1.852
Quantum of Credit	.001**	.000	1.511
2Log Likelihood	64.411 <sup>a</sup>		
Cox & Snell R-Square	0.070		
Nagelkerke R-Square	0.094		

Table 5.0 is a rundown of logit regression measurements in view of a model that consolidates variables that could impact the probability of a family being delegated poor or non-poor. The coefficient of quantum of credit and credit use were significant and positive at 5% ( $p < 0.05$ ).

From the table, the probability of being poor reduces significantly with increase in quantum of credit and credit use by the respondents in the study area. This implies that quantum of credit and credit consumers will probably live above poverty line than those that did not use credit or got little credit.

Additionally, quantum of credit gotten by rural farm household brings down the chances of the family of being poor. This result is in agreement with a priori and policy expectation which proposes that entrance to credit and increase in the quantum of credit gotten should bring down the chances of the family being poor.

#### IV. Conclusion

The study evaluated the impact of agricultural credit finance scheme on poverty reduction in Obio-Akpo LGA of Rivers State. Specifically the study described the socioeconomic characteristics of the respondents in the research area, determined the effect of agricultural credit finance schemes on poverty reduction and examined the measure of entry to credit and their means among the rural farmers. The empirical

result of the study confirmed that agricultural credit finance Scheme has significantly impacted positively on poverty reduction of the respondents in Obio-akpor LGA of Rivers State.

Nonetheless, the result showed that the respondents that got the credit from the formal sources experienced a few obstacles of not been capable to get completely the credit amount ask for.

In view of the discoveries and conclusion, the researcher therefore recommends the following:

**i.** That monetary authorities and regulatory institutions should play effective role in ensuring that cost of credit funds is affordable, and that banks do not just amass deposits but extend adequate credit to the target population at affordable interest rate.

**ii.** The agricultural division must look for approaches to expand rather than depend on the State to give credit.

**iii.** A decent co-operation of public-private corporation strategy in the establishment of education ought to be advanced so that fundamental difficulties as regards to developments and changes are handled. This would empower agriculturists to constitute a well specialized choice and further help in distributing their production input effectively.

**iv.** Conducive atmosphere ought to be made for enhanced loan retrieval like a legal unit under an independent condition to arraign credit defaulters in order to improve the sustainability of the institution and avert breakdown under pressure of defaulters.

### References

- [1]. Adam, G. (2007) "Role of Microfinance in Actualization MDGs" in Paper Delivered at the Induction Ceremony of Institute of Chartered Economists of Nigeria, Port Harcourt, Rivers State Nigeria.
- [2]. Adegeye, A. A. & Dittoh. S. (1987). *Essential of Agricultural Economics*. Ibadan: University Press, 1-45pp.
- [3]. Agricultural Credit Guarantee Scheme Fund (ACGSF) Guidelines and Operations (2005).
- [4]. Development Finance Department, Central Bank of Nigeria, Abuja.
- [5]. Agbaeze, E. K., and Onwuka, I. O. (2014). Impact of microcredit on poverty alleviation in Nigeria - The case of Enugu East Local Council. *International Journal of Business and Management Review*, 2(1), 27-51.
- [6]. Akanji, O. O. (2006). Microfinance as a Strategy for Poverty Reduction: A Review of Country's Experiences of Finance Programme for the Poor. In C. A. Nwigwe, B. T. Omonona & V. O.Okoruwa (eds.), *Australian Journal of Business and Management Research*, 2(4), 33-40.
- [7]. Central Bank of Nigeria (1999). "Strategies for Improving Poverty Alleviation Programme in Nigeria", Publication of the Central Bank of Nigeria.
- [8]. Foster, J., Greer J. and Thorbecke E. (1984) A Class of Decomposable Poverty Measures. *Econometrica*, 52, (3): 761-766.
- [9]. Ijere, M. O. (1992) *Leading Issues in Rural Development*, Enugu: Acena Publishers.
- [10]. Littlefield, J., Moth, S. & Vernimi, T. (2005) "Is Microfinance an Effective Strategy to Reach the Millennium Development Goals", Research Paper of Consultative Group to Assist the Poor, Washington D.C.
- [11]. Madinagu (1999). "Community Approach to Poverty Alleviation Programme".
- [12]. Nelson, E. E. & Nelson, I. E. (2010). Micro-credit Programme and Poverty Alleviation in rural Nigeria. *International Journal of Economic Development Research and Investment*, 1(2), 168-180.
- [13]. Oladunni A.F (2001, October 15<sup>th</sup>-26<sup>th</sup>). "Conceptual Issue in Poverty and Measurement"
- [14]. Paper Presented at NCEMA Training Programme on Poverty Alleviation Policies and Strategies Ogwumike F.O (2001, October 15<sup>th</sup>-26<sup>th</sup>). "Profile and Dimension of Poverty in Nigeria".
- [15]. Paper Presented at NCEMA Workshop on Poverty Alleviation Policies and Strategies Okafor, F. O. (1999, November 6<sup>th</sup>) "Investment Opportunities Available to Community Banks" Paper Presented at a Seminar on Improving the Profitability of Community Banks in the Next Millennium organized by Citizen Bank Limited, Enugu, (pp. 12 – 14.)
- [16]. Stiglitz, J. (1993), "Incentives Organisational Structures and Contractual Choice in the Reform of Socialist Agriculture" in Beaverman, A; Brooks, K, Csaki, C. (Eds) *The Agricultural Transition in Central and Eastern Europe and Former USSR*. World Bank, Washington D.C
- [17]. Swinnen, J.F.M. & Gow, H.R., (1999), "Agricultural credit problems and policies during the transition to a market economy in Central and Eastern Europe" *Food Policy*, 24(1)
- [19]. World Bank (2001). *Poverty Reduction Handbook*, Washington DC.

\*Mefo, Udoadigo Nkiruka. " Impact of Agricultural Credit Finance Scheme on Poverty Reduction in Obio-Akpor Lga, Rivers State." *IOSR Journal of Agriculture and Veterinary Science (IOSR-JAVS)* 11.8 (2018): 45-50.