Relationship between Rural Finance Institution Services and Standard of Living of Rural Farming Households in Anambra State, Nigeria

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ABSTRACT

This study aimed at examining the relationship between Rural Finance Institution (RUFIN) services and standard of living of rural farming households in Anambra State, Nigeria. The study specifically ascertained the RUFIN credit services rendered to the rural households, compared the rural households' standard of living before and after accessing RUFIN credit services and identified the challenges faced by the rural households in accessing the services of RUFIN. The method of judgmental sampling technique was used in selecting 367 farming household heads that benefitted from RUFIN credit services in Anambra State. Data collected were analyzed using descriptive statistics while ANOVA was used to test the hypothesis. Results showed that majority of the RUFIN services were accessible to rural farming households, the rural households were operating at a very

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high extent and high extent in almost all aspects of their livelihood after benefitting from RUFIN credit delivery services. It is recommended that Rural Finance Institution services should give more attention to monitoring and supervision of credit utilization among farming households.

1. INTRODUCTION

In Nigeria, seventy (70) percent of the population is engaged in agriculture, while 90 percent of Nigeria's total food production comes from small farms, and 60 per cent of the country's population earns their living from small farms [1]. As such, International Fund for Agricultural Development (IFAD) [2] recognised this challenge, as well as the vast potential to improve the livelihoods of rural households by increasing their access to a wide range of financial services and sound institution through IFAD subsidiary programme called Rural Finance Institutions (RUFIN). RUFIN is operating in 12 out of the 36 states of the federation and Anambra State is one of the recipients.

In a changing global economy and the context of the widening financial crisis, volatile food and agricultural commodity prices and the perils of climate change, developing inclusive rural financial systems and fostering innovations to increase the access of poor and marginalized women and men to a wide range of financial services is central to RUFIN's mandate. RUFIN tends to be associated with enterprises development, which also includes savings and insurance mechanisms used by the poor to protect and stabilize their families and livelihoods [3]. The overall development goal of RUFIN is to create an enabling microfinance environment for improving the standard of living of the rural households. In particular, it aims to enhance access to financial services by rural-poor farming households, women-headed households, physically challenged and rural youths. Therefore, one of RUFIN's objectives is to develop and strengthen microfinance institutions (MFIs) and establish linkage between them and formal financial institutions, to create a viable and sustainable rural finance system. The RUFIN implementing partners including the Bank of Agriculture (BOA); Central Bank of Nigeria (CBN), National Poverty Eradication Programme (NAPEP), Federal Department of Cooperatives (FDC), National Apex of Microfinance Banks (NAMB), Apex Association for Non-Bank Financial Institutions (ANMFIN) and a large commercial bank in the form of Sterling Bank to review the status of these partnerships and to agree on mechanisms for strengthening their future collaboration with RUFIN.

Some of the challenges of rural households in accessing rural finance include high credit risks, restrictive agricultural or financial policies (particularly interest rate controls), insufficient institutional capacity within rural financial institutions to achieve high levels of outreach sustainably, inadequate regulation and supervision of financial intermediaries and corruption [4]. Rural economies have higher systematic risks, more volatile cash flows, lower risk-bearing abilities and higher vulnerability to economic and natural shocks [5]. The situation is even more complicated in Anambra State due to flood, erosion and other effects of climate change in the study area.

Giving the numerous challenges inherent in remote marginal areas in conflict and post-conflict situations and areas recovering from natural disasters (flood and erosion) in Anambra State, the development of innovative products and delivering mechanisms is critical to meeting the needs of RUFIN target group.

1.1 Statement of the Problem

To enhance the flow of financial services to Nigerian rural areas, the Federal Government [6] both present and the past, initiated a series of publicly-financed micro/rural credit programmes and policies targeted at the poor. Notable among such programmes were the Rural Banking Programme, Sectorial allocation of Credits, a concessionary interest rate, and the Agricultural Credit Guarantee Scheme (ACGS).

But all these have not yielded much result in the reduction of rural household poverty in Nigeria [7,8,9]. Anambra State rates low in household poverty level, but when comparing the urban to rural household poverty level the urban poverty level is okay and the rural household is fairly okay compared to some states in the north (Annual Abstract of Statistics, 2012). The study hence explored the contributions of RUFIN in these regards and hopes to strengthen its

services towards the promotion of rural household socio-economic well being through its financial services and projects delivering for the poverty reduction of these rural farmers' households who are cooperative members in Anambra state. Therefore, the drive to conduct this study was motivated by the need to examine the relationship between Rural Finance Institution services and Standard of Living of Rural Farming Household in Anambra State, Nigeria.

1.2 Objectives of the Study

The broad objective of the study was to examine the relationship between Rural Finance Institution services and Standard of Living of Rural Farming Household in Anambra State, Nigeria.

The specific objectives were to:

i. Ascertain the RUFIN credit services rendered to the rural households;
ii. Compare the rural household's standard of living before and after accessing RUFIN credit services; and
iii. Identify the challenges faced by rural households in accessing the services of RUFIN.

1.3 Hypothesis Testing

H_O: Household heads' access to credit services under the RUFIN programme have not significantly impacted on their standard of living.

Three research questions were posed to guide the conduct of the study:

1. What are the credit services rendered by RUFIN to the rural farming households in Anambra State?
2. When comparing rural household standard of living before and after accessing RUFIN credit services, are there any differences?
3. What are the challenges faced by rural households in accessing RUFIN services and the effects of these challenges on the rural literacy level?

2. METHODOLOGY

The study population comprises rural households of the entire registered and existing Farmers' Cooperative Societies (FMCS) that are clients and beneficiaries of IFAD's Rural Finance Institutions (RUFIN) facilities in Anambra State.

IFAD has 3 RUFIN sites (Anyamelum, Awka and Orumba) in Anambra State which cover only 3 Local Government Areas of the State. These include Anyamelum; Awka North and Orumba North LGAs. Six Hundred and Eighty groups (680 groups) are clients and have benefited from RUFIN's services in the State. These 680 groups have membership strength of 14,612 farmers who are household heads which is the population of this study. The researchers adopted the judgmental sampling technique and selected 30% of the 14,612 beneficiaries to get the sample for the study. Primary data were collected using questionnaire. Data collated from the field were analyzed using both descriptive and inferential statistics. Descriptive statistics (frequency table, simple percentage, mean and five (5) point Likert-type scale rating technique with conventional mean of 3.0 (that is any variable > 3.0 is negative while any ≤ 3.0) was used to analyze objectives 1-3 while Inferential statistics (ANOVA) was used to analyze the hypothesis.

This gave a sample of 4,384 members. To reduce the sample size to a concise number, Taro Yamane formula was adopted.

Taro Yamane (1967) formular = $\frac{N}{1+N(e)^2}$

Where:

n = Concise sample size to be determined
N = The 30% selected sample size (4,384)
$(e)^2$ = Error term usually 5%
1 = Constant

Then:

$$n = \frac{4,384}{1 + 4,384(5\%)^2}$$

$$= \frac{4,384}{1 + 4,384(0.05)^2}$$

$$= \frac{4,384}{11.96} = 366.55 \approx 367$$

= 367 respondents (Farming household heads)

Thus, 367 questionnaires were randomly distributed among the household heads in the 3 Local Government Areas covered for the study. Data collected were analyzed with both descriptive and inferential statistics. ANOVA was used to test the hypothesis.

3. RESULTS AND DISCUSSION

Objective 1: Ascertain the RUFIN credit services rendered to the rural households.

Table 1. Sample size distribution of RUFIN sites and benefited groups (Cooperative societies) with their selected membership size

S/N	RUFIN sites and LGAs	No of benefited groups	Membership size	30% of the membership size selected
1.	Awka North	275	5,225	1,567.5
2.	Orumba North	279	5,859	1,757.7
3	Ayamelum	126	3,528	1,058.4
	3 Sites	680 Groups	14,612 Beneficiaries	4,383.6 Selected

Table 2. Distribution of responses based on RUFIN credit services that are accessible to farmers in Anambra State

S/No	RUFIN credit service delivery	Mean	Decision
i.	Facilitates savings mobilization among rural households	4.37	Accessible
ii.	Provision of Loan and credit facilities to households	4.58	Accessible
iii.	Pre loan training on the credit utilization	3.91	Accessible
iv.	Monitoring and supervision of credit utilization among households	2.53	Not Accessible
	Grand Mean	3.85	Accessible

Table 3. Distribution of respondents' rate of the household standard of living before participating and benefiting from the RUFIN credit delivery services

Sl/No.	Household standard of living indices (Before)	Mean	Decision
I	Increase in the amount of money I make monthly (income)	2.74	LE
Ii	Increase in the amount of money I keep monthly (savings)	2.61	LE
Iii	Ability to pay and use power (electricity)	3.18	ME
Iv	Ability to buy fuel and power my house (generator)	3.05	ME
V	household access to clean sanitary toilet	3.27	ME
Vi	household access to clean drinkable water	3.34	ME
Vii	Households access to basic life-enhancing gadgets. E.g. radio, telephone, television, etc	3.46	ME
Viii	Clean Household Floor	4.27	VHE
Ix	My household use gas sources of energy for household cooking	2.44	VLE
X	My household use kerosene stove sources of energy for household cooking	2.66	LE
Xi	My household use firewood sources of energy for household cooking	3.73	HE
Xii	My household use charcoal sources of energy for household cooking	2.81	LE
	Grand Mean	3.13	ME

Note: 4.0 and above = Very High Extent (VHE), 3.5-3.99 = High Extent (HE), 3.0-3.49 = Moderate Extent (ME), 2.5-2.99 = Low Extent (LE), 2.49 and below = Very Low Extent (VLE)
Source: Field survey, 2015

In Table 2, the opinion of the respondents on the RUFIN services that are above the threshold of 3.0 was considered to be accessible to the rural household, while those responses that are below 3.0 were considered not accessible. The result showed that all the RUFIN credit services except monitoring and supervision of credit utilization among households were accessible (2.53) to the rural farming households. Meanwhile, the grand mean score (3.85) shows that the majority of the RUFIN services were accessible. Some of the RUFIN services that are accessible include facilitating savings mobilization among rural households (4.37) and provision of Loan and credit facilities to households (4.58). The evidence in Table 2 revealed that RUFIN credit services are greatly accessible to many rural households but RUFIN still need to do more on the aspect of monitoring and supervision of credit utilization among farming households.

Objective 2: Compare the rural household's standard of living before and after accessing RUFIN credit services.

Table 4. Distribution of respondents' rate of the household standard of living after participating and benefiting from the RUFIN credit delivery services

S/No	Household standard of living indices (After)	Mean	Decision
I	Increase in the amount of money I make monthly (income)	3.87	HE
Ii	Increase in the amount of money I keep monthly (savings)	4.04	VHE
Iii	Ability to pay and use power (electricity)	3.88	HE
Iv	Ability to buy fuel and power my house (generator)	3.64	HE
V	household access to clean sanitary toilet	3.94	HE
Vi	household access to clean drinkable water	3.58	HE
Vii	Households access to basic Life-enhancing gadgets e.g radio, telephone, television, etc	4.18	VHE
Viii	Clean Household Floor	3.99	HE
Ix	My household use gas sources of energy for household cooking	3.75	HE
X	My household use kerosene stove sources of energy for household cooking	3.57	HE
Xi	My household use firewood sources of energy for household cooking	2.53	LE
Xii	My household use charcoal sources of energy for household cooking	2.66	LE
	Grand Mean	3.6358	HE

Note: 4.0 and above = Very High Extent (VHE); 3.5-3.99 = High Extent (HE); 3.0-3.49 = Moderate Extent (ME);2.5-2.99 = Low Extent (LE); 2.49 and below = Very Low Extent (VLE)
Source: Field survey, 2015

Table 3 shows the result of household responses on the level of their standard of living before they participated and benefited from RUFIN programme. Evidence from the result table revealed that the rural household's standard of living was okay to an extent (grand mean = 3.13) before they participated in the RUFIN programmes. Meanwhile, the result shows that the rural farming households were operating on a low extent in some aspect of their livelihood. These aspects include; monthly income (2.74), amount of money saved (2.61) and sources of energy for cooking (2.44). Based on the findings, the majority of the respondents' basic needs to sustain their standard of living were not fully met and satisfied before their participation in RUFIN programme.

In Table 4, results from the field survey revealed that the rural households' standard of living was improved to a high extent (grand mean = 3.6358) after participating and benefiting from RUFIN credit delivery services. The result shows that the rural farming households were operating at a very high extent and high extent in almost all aspect of their livelihood. Some of these indices are monthly savings (4.04), households' access to basic life-enhancing gadgets (4.18) and

sources of gas energy for cooking (3.57). Also, household use of firewood and charcoal sources of energy for household cooking at a low extent shows that the standard of living of the households has been greatly improved by the RUFIN credit services.

The field survey results before (Table 3) and after (Table 4) accessing credit services when compared show that majority of the rural farming households' basic needs to enhance their standard of living were fully satisfied after their participation in RUFIN programme. The programme was a Seven (7) years initiative which commenced in 2010 and ended in 2017 (FGN 2016). These results agree with the study of Alam [10] who stated that the study on productivity growth of households with Graheem bank found that there was an increase in income (standard of living) of rural households after accessing bank services.

3.1 Hypothesis Testing

Household heads' access to credit services under the RUFIN programme have not significantly impacted on their standard of living.

Table 5. ANOVA

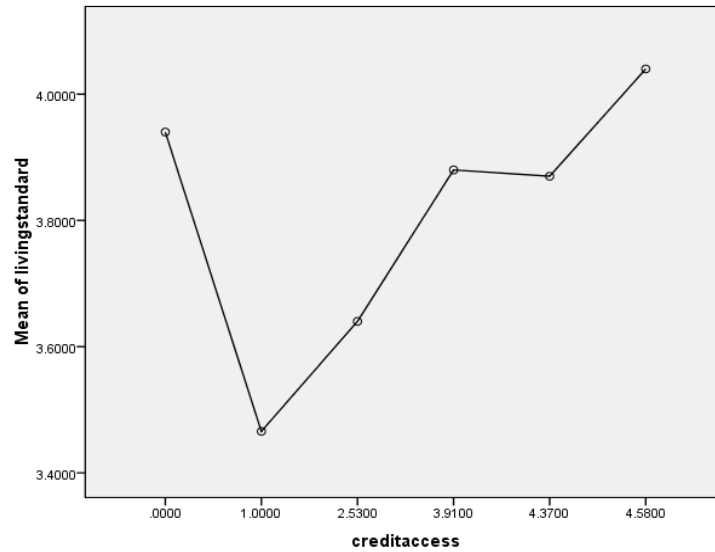| Living standard	Sum of squares	Df	Mean Square	F	Sig.
Between Groups	.573	5	.115	.285	.905
Within Groups	2.415	6	.402		
Total	2.987	11			

Fig. 1. Means plots

The hypothesis was subjected to Analysis of Variance test and the result was presented in Table 5.

3.2 Minitab Output

One-way ANOVA: Standard of living versus credit access

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Source          DF SS     MS     F     P
Credit access   9  1.898  0.211  0.94  0.003
Error           6  1.347  0.225
Total           15 3.245
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S = 0.4739   R-Sq = 58.48%   R-Sq(adj) = 0.00%

**Table 6. Distribution of responses based on the challenges that member of farmers'
cooperative societies encountered from accessing RUFIN services**

S/No	Challenges indices	Mean	Decision
i	Low level of education among recipients	3.69	Challenge
ii	Long-distance and location of RUFIN official offices	3.84	Challenge
iii	Limited funds (loan) provided	3.76	Challenge
iv	The high rate of credit default among recipients	2.61	Not a Challenge
v	Inadequate availability of farm inputs (e.g. fertilizer, seeds, pesticides)	3.13	Challenge
vi	High collateral demands for accessing RUFIN services	2.51	Not a Challenge
vii	Lack of ability to adapt and apply the diffused technology	3.08	Challenge
viii	Poor agric extension services delivery	3.24	Challenge
ix	Weak monitoring and supervision by RUFIN officials	2.63	Not a Challenge
x	Political instability and interference	3.44	Challenge
xi	Weak infrastructure (e.g. accessible roads and electricity)	3.68	Challenge
xii	Low investment and assets of recipients	3.82	Challenge
xiv	Poor market access to dispose of farm produce	3.31	Challenge
xv	Corruption among RUFIN officials	3.55	Challenge
xvi	High level of poverty rate among rural farming households	4.43	Challenge
	Grand Mean	3.6018	Challenge

Source: Field survey, 2015

3.3 Interpreting the Results

In the ANOVA table, the p-value (0.003) for credit access indicates that there is sufficient evidence that not all the means are equal when alpha is set at 0.05.

3.4 Decision

Based on the evidence presented in Tables 3 and 4 the researcher rejected the null hypothesis and accepted the alternate. That is, Household heads' access to credit services under the RUFIN programme have significantly impacted on their standard of living.

Objective 3: Identify the challenges faced by rural households in accessing the services of RUFIN.

Table 6 result was deduced from scale analysis of 5 points with a weighted mean of 3.0. The table shows that the respondents are likely to face various constraints that hinder their access to RUFIN services. The grand mean (3.6018) from the result shows that the majority of the respondents agreed that rural households have major challenges in accessing RUFIN services. The result is in line with the study of Imai, Arun and Annim [11] who revealed that rural households have some constraints in accessing Microfinance Institutions (MFIs) loans which include corrupt MFI officers, not been able to access loans individually and high collateral demands.

4. CONCLUSION

This study aimed at examining the relationship between Rural Finance Institution (RUFIN) services and standard of living of rural farming households in Anambra State, Nigeria. The specific objectives were to ascertain the RUFIN credit services rendered to the rural farming households compare the rural households' standard of living before and after accessing RUFIN credit services and identify the challenges faced by the rural households in accessing the services of RUFIN. Results showed that majority of the RUFIN services were accessible to rural farming households, the rural households were operating at a very high extent and high extent in almost all aspects of their livelihood after benefitting from RUFIN credit delivery services. Some of the challenges faced by rural households in accessing RUFIN services include; the low level of education of recipients, corruption among RUFIN officials, limited funds provided and low investments and assets of the farmers. Hypothesis testing revealed that household heads' access to credit services under the RUFIN programme has significantly impacted on their standard of living.

5. RECOMMENDATIONS

Based on the findings, the following recommendations were made:

I. RUFIN should give more attention to aspects of monitoring and supervision of credit utilization among farming households. This will encourage rural farming households to utilize RUFIN services for agricultural purposes.
II. To deliver credit services effectively to farming households, RUFIN urgently requires more extension staff to sensitise the farmers to improve their ability to adapt and apply improved technology.
III. RUFIN should increase the amount of funding made available to rural farming households.

CONSENT

As per international standard, respondents' written consent has been collected and preserved by the author(s).

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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