Comparative Poverty Status of Users and Non-Users of Micro Credit in Kwara State, Nigeria.

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Abstract

The essence of this study is to assess the impact of Micro credit on farmers’ poverty status in Kwara state, Nigeria. 50 users and 100 non-users of Micro credit facilities were randomly selected. Descriptive statistics was used to describe the socio-economic characteristics of the respondents. The determinants of poverty status of the farmers were analyzed using logistic model. The Foster-Greer-Thorbecke (FGT) model was used to analyze the extent of poverty among the farming households. The results show that majority of the users and non-users are married with 92% and 82% respectively. Majority (96%) of the users had some level of formal education while, majority (88%) of the non-users had no formal education. The FGT result shows that the poverty status of non-users is higher than that of the users. Age of the household head and the household size had positive effect on the household’s poverty status.

Keywords: Micro credit, poverty, income inequality, household income, profitability

JEL codes: C00, C5, Q14
1. INTRODUCTION

Poverty is a universal phenomenon that affects socio-economic and political well-being of its victims whether in a developed or underdeveloped country, however, available statistics shows that poverty in poor country is absolute and more pronounced in the rural areas.

The proportion of Nigerians living below the poverty line of one dollar per day has increased dramatically during the last decades (ADF, 2004). Poverty in Nigeria is on the increase and its incidence and severity are more in the agricultural sector. It is a major problem which is more prevalent in the rural areas as 75% of the poor people in the developing countries are in the rural areas characterized by low productivity, small scale enterprise and crude system of farming (IFAD 2001).

The ultimate goal of agricultural production plans in national development is to raise the standard of living and one of the important yardsticks for measuring standard of living is the average distribution income. There is an existence of high level of income inequality in many low income countries of Sub-Saharan Africa in which Nigeria is inclusive (World Bank, 2005). This high income inequality has been also reported to produce an unfavourable environment for economic growth and development. Income inequality among households in Nigeria rose from 0.429 in 2004 to 0.447 in 2010, indicating greater income inequality during the period (Siebel, 2003).

Again, Okunmadewa, Yusuf, Omonona, (2005) reported that majority of the rural poor are small-scale farmers and the poverty gap is becoming wider over the time which calls for corrective action. Thus, targeting of rural farming households seems imperative in alleviating poverty in Nigeria. According to Kevin (2009) most of the poor farmers have little financial opportunity thus micro-credit could help poor people who have no collateral, but the willingness to work and to do some business activities from which they will acquire employment as well as income.

Micro credit has evolved as an economic development approach intended to benefit low income men and women, thus regarded as an effective tool for economic development (Siebel, 2003; Zarah, 2008; Ojo, 2009). An effective economic development Programme is one in which the poor are the agents of change. The poor do not need aid, they need opportunity thus promoting
economic growth, reduce poverty, support human development and improve the status of urban-rural communities (Tessie, 2005).

Microfinance banks could obviously play an important role to mobilize local savings, extend credit as well as channelize borrowed fund/grant to the local rural farmers. Despite the benefits of micro-credit, its users are being faced with a lot of difficulties ranging from inadequate access to loan, high interest rates on loans as well as low micro credit range.

Some of the difficulties arising as a result of inadequate access to credit include insufficient fund to establish storage facilities, inadequate processing facilities, poor linkage with the market and bad roads (PCU-NFDO, 2005). These problems affect the level of productivity and inhibit full utilization of potentials of Micro credit thereby leading to low profitability, low level of income and poor standard of living.

There are some available studies that have analyzed poverty status of rural dwellers as well as impact of Micro-credit on poverty (Sen etal, 1976; Asad K.G., 2007; Shanti, 2008; Obisesan, 2013). Nevertheless, there appear to be little or no study that had made comparison between the poverty status of users and non-users of Micro-credit facilities, particularly in Kwara state, Nigeria. This gap in knowledge is what this research hopes to fill. This research has two main objectives. First, it assessed the poverty status of the users and non-users of Micro credit in Kwara state. Second, it analyzed the factors influencing the poverty status of the sampled respondents.

2. METHODOLOGY

2.1 The Study Area

This study was conducted in Kwara State, north central Nigeria. The State lies between latitudes 7° 45’ N and 9° 30’ N of the equator and longitudes 2°30’E and 6° 25’E of the equator. It shares boundaries with Osun, Oyo, Ondo, Kogi, Niger and Ekiti states. Kwara State shares an international boundary with the Republic of Benin in the west. The State has a population of about 2.37 million people out of which farmers account for about 70% [14]. The average population density of the state as at 2006 was about 73 people per square kilometer. There are a total of 1,258 rural communities in Kwara State (NPC, 2006). Based on agro-ecological and
cultural characteristics, the state is divided into four agricultural zones – zones A, B, C and D, by the Kwara State Agricultural Development Project.

2.2 Sampling techniques

Data used for this study were collected in the year 2014. A three-staged sampling technique was adopted for the study. First, three LGAs were randomly selected from the 16 LGAs in the state. This was followed by purposive selection of five farming communities in each of the selected LGAs. Then, structured questionnaires were administered to ten (10) farming households, giving a total of 150 respondents.

2.3 Data collection:

The data used for this research was collect by means of questionnaire. All the respondents were asked questions about their accessibility to Micro credit. After data collection, the 150 respondents comprises of 50 users of Micro credit and 100 non-users. The micro credit were also asked to supply information about their income before and after their access to micro credit.

2.4 Analytical Techniques

Descriptive statistics was used to describe the socio economic characteristics of the farmers. Foster-Greer-Thorbecke (FGT) poverty index was used to depict the extent of poverty among the users and non-users of Micro credit in the study area. The poverty aversion parameters employed were $P_0$, $P_1$, and $P_2$ which means poverty incidence (headcount), gap (depth) and severity respectively.

The FGT poverty index is given by:

$$P_\alpha(y, z) = \frac{1}{2} \sum_{i=1}^{q} \left( \frac{Z - y_i}{z} \right)$$

Where: $n = $ total number of households in population

$q = $ the number of poor households

$Z = $ the poverty line for the household
\( y_i = \) household income

\( \alpha = \) poverty aversion parameter and takes on value 0, 1, 2

\[ \left( \frac{Z - y_i}{Z} \right) = \text{proportion shortfall in income below the poverty line} \] \hspace{1cm} (2)

\[ P_1 = \frac{1}{2} \sum_{i=1}^{q} \left( \frac{Z - y_i}{Z} \right) \] \hspace{1cm} (3)

This is called Poverty depth or Poverty gap index, which measures the extent to which individuals fall below the poverty line as a proportion of the poverty line.

\[ P_2 = \frac{1}{n} \sum_{i=1}^{q} \left( \frac{Z - y_i}{Z} \right)^2 \] \hspace{1cm} (4)

This is called Poverty severity index measures the squares of the poverty gaps relative to the poverty line.

Construction of Poverty Line: This was done to categorize the respondents into poor and non-poor groups using the two-thirds mean per-capita income as the benchmark, which was adopted from the studies carried out by Households whose mean per-capita income falls below the poverty line are regarded as being poor while those with their per-capita income above the benchmark are non-poor.

\( \text{Total Per-capita Income (TPCI)} = \text{Summation of PCI} \)

\( \text{Mean TPCI} \)

\( = \frac{\text{TPCI}}{\text{Total Number of Households}} \)

\( = \text{MTPCI} \)
Logistic model was used to analyze the determinants of poverty status of the farmers. As such, logistic regression was most appropriate for this study due to its unique ability to account for both categorical and dichotomous dependent variables. According to Pampel, (2000) the model was specified in the implicit form as follows:

\[
\text{Logit } (E \{Y\}) = \text{Logit } (P) = XT \beta
\]

Where

\text{Logit } (E \{Y\}) = \text{is the binary response/dependent variable}
\text{Logit } (P) = \text{the natural log of the odds of success}
XT = \text{the explanatory/independent variables}
\beta = \text{is the regression co-efficient}

The dependent variable was a dichotomous variable depicting the respondent’ poverty status and took the value of 1 if the respondent was poor and 0 if not. The independent variables were the socio-economic factors. The hypothesized independent variables were:

- X1 = Educational level
- X2 = Farm size (Ha)
- X3 = farm income (₦)
- X4 = Age (years)
- X5 = household size
- X6 = access to credit
- X7 = membership of cooperative society (Yes/No)

The double difference model estimator was used to compare the income level of micro credit users before and after the usage of micro credit. Thus, it helps in determining the impact of the usage of micro credit on the farmers’ poverty level.

3. RESULTS AND DISCUSSION

3.1 Data and Sample characteristics

NB: Table 1 Here
The result in table 1 revealed that the average age of household head in the study area was about 53 years old while the majority of the respondents (47%) were found in the age bracket 43 – 52 years. This indicated that majority of the respondents were getting older and this might decline productivity as well as a threat to food production viz-a-viz impoverish the farming households. It was also shown that over 87% of the sampled respondents have married which implies that most of the respondents were mature and responsible to cater for their households as well as have clear knowledge of their wellbeing. About 60% of the respondents had no formal education, while the remaining ones were educated either by primary (17.5%), secondary (7.5%) and tertiary (14.5%) schools communicates that majority of the farming households were literate and one would deduce that this would alleviate poverty in the study area. Household size has been seen as one of the major determinants of poverty that is positive to being poor in this part of the world. The mean household size was 8 persons per house and the majority of the respondents (43.3%) fall between 7 and 12 persons per house. Income has been a vital tool in accessing human wellbeing. About 62.0% of the sampled households earn less than ₦31, 001 per month. While, just only one farming households earn over N131, 001 per month. The average household income was ₦37068.6 which means that looking at the responsibilities of these people couple with their household size, there is need to improve on household income in order to alleviate poverty in the study areas. The study further gave insight to the type of farm enterprise ventured into in the study area using multiple responses. It was revealed that a 85% of the respondents was into arable crop farming, while 34.5% of the households were into processing and just 37% of them were into livestock or animal husbandry.

3.2 impact of Micro credit on farmer’s poverty status: Monthly Income of micro credit users before and after accessing microcredit

NB: Table 2 Here

The result in table two shows that the users of micro-credit were better off after the usage of micro credit than before micro-credit usage. About 52% of the farmer are earning income between >₦10,000 and ₦30,000 but, after they became users of micro-credit all of them had move above this level. The minimum income of the users before was ₦10,000. It had now become ₦32,000. The maximum income of the users before accessing micro-credit was ₦
80,000 but this has increased to ₦145,000 after the usage of micro-finance. Thus, pointing to the fact that the usage of Micro Credit actually helped in reducing poverty among farmers by increasing their income.

3.3 Poverty Status of the Farming Households

NB: Table 3 Here

FGT poverty index was used to depict the extent of poverty among the farming households in the study area. The poverty aversion parameters employed were P₀, P₁, and P₂ which means poverty incidence (headcount), gap (depth) and severity respectively.

The poverty status of the respondents were shown in table 3. The poverty incidence shows that among the micro credit users, 52% of the population were poor while among the non-users of micro credit, 63% of the population were poor. The poverty depth of the users and non-users are 0.0588 and 0.1202 respectively. This implies that their per capita household income would need to be increased by 5.88% and 12.0% respectively for them to come out of poverty and become non-poor. The poverty severity measures the distance of each poor person to another. Among the users the distance is 0.04327 while in the non-users the distance is 0.0083. A comparison of the poverty status of the users and non-users shows that the poverty status of non-users is higher than that of the users.

3.4 Determinants of Respondents’ Poverty status:

NB: Table 4 Here

Table 4 shows factors influencing poverty status of the respondents. The chi-square of 169.54 obtained in the study implies that the parameters included in the logistic model are significantly different from zero at the 1 per cent significant level.

Moreover, the likelihood function of the model was significant (Wald = 16.572317, with p < 0.0000) showing strong explanatory power of the model. The results of the regression model indicated that five of the explanatory variables influenced the poverty status of the respondents. Variables that positively affected poverty status include age and household size that is, the higher their age and household size, the poorer they become. This can be justified based on the fact that
an increase in age could result in decline in strength and productivity (Mar, 2005). Household size also increases the likelihood of being poor and this could be because of increase in household size directly reduces income per-head (per-capita income) as well as impair standard of living of the households (Mar, 2005; Asad, 2007). On the other hand, farm income, access to credit, belonging to a poverty alleviation group had negative coefficients and significantly affects the level of poverty in the study area. An increase in the value of any of these variables increases the likelihood of not being poor. This implies that farming household that belongs to any poverty alleviation group, access to agricultural credit viz-à-viz increase in farm income may likely be non-poor in the study area.

The marginal effect obtained in the result can be explained as follows:

A unit increase (₦) in the farm income will reduce the probability of the farmer being poor by 0.081%

A unit increase (year) in the age of the farmer will increase the farmer’s probability of being poor by 82%.

A unit increase in the household size would increase the probability of the farmers being poor by 257.9%. This is because more individuals would be competing for the few available resources.

A unit increase in the farmer’s access to credit would lead to 238.4% reduction in the farmer’s probability of being poor.

Belonging to a poverty alleviation group would lead to a 397.7% reduction in the probability of a farmer being poor.

4. CONCLUSION AND RECOMMENDATIONS:

Going by the empirical evidence emanating from this study, the majority of the rural farming households in the study area were poor. The level of income disparity was high and they struggled to find a means of coping with the syndrome of poverty. It therefore suggests a number of policy options that can assist in alleviating poverty. These options are: Policies that will encourage farmers to go into massive production should be put in place. Increased productivity would lead to greater farm income for the farmers. Stakeholders should encourage youths to go into farming so as to reduce pressure that is on white collar jobs. Awareness creation on family planning will go a long way in reducing the household size of the rural farming households since
there is tendency of being poor with large household size. Credit facilities should be made available and accessible to the farming households.

REFERENCES


**APPENDIX**

**Table 1: Socio-economic Profile of the Respondents**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>Users (50)</th>
<th></th>
<th>Non-users (100)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Frequency</td>
<td>Percentage</td>
<td>Frequency</td>
<td>Percentage</td>
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<tr>
<td><strong>Age</strong></td>
<td>≤ 22</td>
<td>1</td>
<td>2.0</td>
<td>0</td>
<td>0.0</td>
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<tr>
<td></td>
<td>23-32</td>
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<td>8.0</td>
<td>6</td>
<td>6.0</td>
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<td></td>
<td>33-42</td>
<td>17</td>
<td>34.0</td>
<td>20</td>
<td>20.0</td>
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<tr>
<td></td>
<td>43-52</td>
<td>22</td>
<td>44.0</td>
<td>25</td>
<td>25.0</td>
</tr>
<tr>
<td></td>
<td>53-62</td>
<td>4</td>
<td>8.0</td>
<td>12</td>
<td>12.0</td>
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<tr>
<td></td>
<td>63-72</td>
<td>2</td>
<td>4.0</td>
<td>17</td>
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<td></td>
<td>73 and above</td>
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<td>0.00</td>
<td>20</td>
<td>20.0</td>
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<tr>
<td><strong>Marital status</strong></td>
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<td>6.0</td>
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<td>8.0</td>
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<td>92.0</td>
<td>82</td>
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<td></td>
<td>Male</td>
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<td>92.0</td>
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<tr>
<td><strong>Educational level</strong></td>
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<td>4.0</td>
<td>88</td>
<td>88.0</td>
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<tr>
<td></td>
<td>Primary</td>
<td>12</td>
<td>24.0</td>
<td>11</td>
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<td></td>
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<td>14.0</td>
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<td>NCE</td>
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<td>10.0</td>
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<tr>
<td>Income range (N)</td>
<td>Frequency before</td>
<td>Frequency after</td>
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<td>10001-20000</td>
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<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Field survey, 2014

Table 2: Frequency Table of monthly Income of micro credit users before and after accessing microcredit: Impact of Micro credit on farmers poverty status
Table 3: Poverty Incidence, Depth and Severity of Respondents

<table>
<thead>
<tr>
<th>Incidence(P₀)</th>
<th>Depth(P₁)</th>
<th>Severity(P₂)</th>
</tr>
</thead>
<tbody>
<tr>
<td>users of microcredit</td>
<td>0.52</td>
<td>0.058846</td>
</tr>
<tr>
<td>Non-users of microcredit</td>
<td>0.63</td>
<td>0.1202</td>
</tr>
</tbody>
</table>

Source: Field survey, 2014

Table 4: Logistic Regression Result on the Determinant of Poverty Status

| Variable | Coefficient  | Standard error | z-value | p>|z| |
|----------|--------------|----------------|---------|-------|
| Education | 1.887416 | 1.49718 | 1.26 | 0.207 |
| Farm size | 0.0998424 | 0.0996288 | 1.00 | 0.316 |
| Farm income | -0.0000808** | 0.000313 | -2.58 | 0.010 |
| Age | 0.8195713 * | .4315403 | 1.90 | 0.058 |
| Household size | 2.579717*** | .7857872 | 3.28 | 0.001 |
| Access to credit | -2.384505*** | .832154 | -2.87 | 0.001 |
| Belonging to a poverty alleviation group | -3.977612** | 1.547435 | -2.57 | 0.010 |
| Constant | -8.528851** | 4.142843 | -2.06 | 0.040 |

Chi^2 = 169.54
Pseudo R^2 = 0.8365
Log likelihood = 16.572317

Note: ***, ** and * = Figures significant at 1%, 5% and 10% significant levels respectively
Source: Computation from Field Survey Data, 2014