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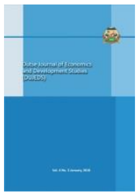

IMPACT OF MICRO CREDIT FINANCING ON ECONOMIC GROWTH FOR POVERTY REDUCTION IN AKWANGA LOCAL GOVERNMENT OF NASARAWA STATE.

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Abstract

The World Bank reports that Nigeria currently has the largest proportion of poor people in the world and this is the result of lack of access to the means of production by a growing number of the population and this is exacerbating the incidence of poverty. Providing access to the means of productivity for inclusive growth offers every nation or country the best opportunity to fight the scourge of poverty. Such opportunities enables people have access to the means of productivity such as credit especially in rural areas which will lift them out of the scourge of poverty attaining the global objective of poverty reduction. This study using data obtained from a field study and analyzed through statistical methods finds that microcredit has an enormous and a significant capacity to reduce the incidence of poverty. Specifically, the result shows that there was a 0.52 per cent incidence of severe poverty in the population before credit and this reduced to 0.022 after microcredit was obtained and utilized. The Gini coefficient which measures the proportion of inequality in a population indicate that there was a high rate of inequality of 0.6 in income and this fell to a low value of 0.4 after microcredit was obtained. The result from the logit regression equation indicates that the computed value of r^2 *is 0.58, which implies that microcredit has a significant influence on poverty reduction status of the respondents. The study recommends that deliberate public policies must be developed, pursued and sustained over time to ensure they produce the desire results to reduce the incidence of poverty.*

Keywords: Microcredit, Inclusive Growth, Sustainable Development and Poverty Reduction
JEL Classifications:

Introduction

Poverty remains a global issue because in spite of changes in development paradigms that have taken place in the last half of the 20th century, the promise to bring wellbeing to all human being remains largely unfulfilled. United Nations (2017) reports that more than 100 million children of primary school age have never stepped inside a class room, about 29,000 children die each day from largely preventable malnutrition and disease and more than 1.2 billion people in the world are struggling to survive - at the margins of human existence " or under a dollar a day. Specifically in Nigeria, more than 80 million people or over 45 per cent of the population are reported to be living below the poverty line using any of the measures of this incidence. The World Bank (2018) actually reports that the country will become the global headquarters of poverty by the end of 2018. That is why the pursuit of pro-poor economic policies by nations of the world such as inclusive growth through micro finance has taken centre stage in the effort of the global community towards eliminating the incidence of poverty and attaining sustainable development goals of the United Nations.

The United Nations (2016) believes that there are currently 836 million people – or 12 per cent of the world's population that experience extreme poverty or are living off less than US$1.25 a day. While the world has seen some progress over the past 15 years in reaching the UN Millennium Development Goals MDGs)which has placed eradicating hunger and poverty on top of the global agenda, extreme poverty remains a pressing challenge. It continues to be a priority in the 2015-2030 Sustainable Development Goals of the world's agency through it emphasis of providing a platform where the vast majority of the people should be given access to the means of production through inclusive growth.

.Broadly, inclusive growth is economic growth that creates opportunity for all segments of the population while distributing the dividends of increased prosperity, both in monetary and non-monetary terms fairly across society. It is intended to address the basic problems of most developing countries in which the target is to increase incomes, up employment opportunities, reduce the incidence of poverty, and create social safety nets that provides for the greatest numbers of members of society thus reducing or eliminating the incidence of poverty. This can be achieved through greater participation in the production process for a large segment of the population through inclusiveness.

In spite of the concerted effort made by the World Bank and different countries, inequality is growing as the benefits of economic growth go only to the richest members of society. This is why even as nations grow, the incidence of poverty has not reduced leading to growing numbers being pushed further into abject poverty. Poverty may have retreated, but it clearly remains a major challenging force in people's lives. No wonder then that there is no bigger policy challenge that preoccupies leaders such as expanding social participation in the process and benefits of economic growth through inclusive growth. This is why the pursuit of inclusive growth has gained currency over time and assumed the prime attention of nations. It is widely believed that by scholars that sustainable economic growth requires inclusive growth. According to Ismail (2000),poverty is a complex singularity and its causes and effects are more complex process.

Several studies have documented the impact of micro credit financing on poverty reduction around the world and has generally become a reference point for policy makers in their attempt at reducing the scourge of poverty towards attaining the objective of eliminating its incidence by the year 2030. Access to credit enables poor people to become entrepreneurs, increasing their earnings and improving their quality of life. Many lending firms in microcredit schemes often accompany their small loans and financial services with peer support, networking opportunities and even health care to improve their clients' odds of building a successful small business. By doing so they hope to eliminate the incidence of default and create a synergy for borrowing individuals or firms to pool their skills for efficient management of resources because such micro financing has a powerful potential to reducing poverty.

Although microfinance is no panacea for successful business management because numerous studies have shown that country-specific and cultural factors are determinants in how microfinance will interact with poverty, there are devastating tales of failure in which the inability to repay a very small loan has plunged households further into desperate penury. Despite this, there is no doubting the fact that microcredit has the potential of substantially acting in positively reducing the incidence of poverty. Evidence of the workability of micro credit is mixed as studies examining its impact in rural Pakistan, urban Kenya and Uganda, among other developing countries, have both confirmed and contradicted the premise of Yunus's (2003) innovation. Such studies are largely absent in Nigeria- regarded as the global headquarters of poverty and where it has become a household phenomenon with devastating effects. This study attempts to fill this void by examining the impact of microcredit financing on economic growth and poverty reduction in Akwanga area of Nasarawa State using data from a field study.

Literature Review

Microfinance has been variously defined by Authors. A micro credit firm that which is licensed by the Central Bank of Nigeria (CBN) to carry on the business of providing microfinance services such as savings, loans, domestic funds transfer and other financial services that are needed by the economically active poor, micro, small and medium enterprise to conduct or expand their business as defined in the guideline of MFB in Nigeria. Such services are mostly targeted at those that cannot access funds from the formal financial sector due to restrictive borrowing terms. The philosophy of microcredit financing has its theoretical underpinning on the structuralist view point which is anchored on the need to overcome financial repression of the formal sector that is heavily market driven. The resort to the informal sector is premised on the structuralist argument where the credit lending activities of actors are intended to serve social goals rather than for profit making, they are often the consequence of social rather than for pure economic pursuits. This is not to suggest that they do not charge interest, but such interest are only for administration and to defray the cost of operation while providing incentive for further and future contributions Farmers make new investments to innovative products through micro-lending which instigate poverty reduction through their easy access to credit. In order to reduce income gap (inequality), Goetz and Gupta (2010), said that the improvement of access to credit by the poor through the microfinance will boosts income levels, increases employment at the household level and thereby alleviates poverty.

Micro credit according to Otero (1999) is considered to be "the provision of financial services to low-income poor and very poor self-employed people". These financial services generally include savings and credit, but can also include other services such as insurance and payment services as revealed by Ledgerwood (1999). There is no doubt that credit is a powerful instrument to the fight against poverty as it offers the recipient the opportunity to access the means of production and participating in the process of productivity. There are several types of micro credit schemes that pervade the landscape according to Aryeetey (1996) such as Self-financing, where a farmer decides to reinvest his savings in other another agricultural projects or expanding already existing ones. This however, is a slow process since savings money depends on a lot of factors which could be economic., social or political; others are Government sources where government at the Federal, State and Local level decides to give agricultural loans to farmers either directly or indirectly through some agencies like Ministries of Agricultural Banks, the Agricultural development programme (ADP). Credit creates opportunities for self-employment rather than waiting for employment to be created and this liberates both poor and women from the clutches of poverty.

Perhaps the foundation for micro credit finance for small businesses was laid in the 1970s by a Bangladeshi national Mohamed Yunus when he began offering credit to poor women in the village of Jobra, Bangladesh, so that they could launch income-generating projects to help support themselves and their families. Since then, various forms of micro-lending programs have been introduced in many countries, from India to the United States. According to Jadhav (2014) micro finance is a broad concept which includes small financial services provided by the bank to the needy peoples through small loan, small deposits, micro insurance, technical services. In specific terms, such credit involves the grant of small loan by the bank to needy peoples. According to Convoy (2003), Azeved (2007), Nilsson, (2010), Microfinance is the financial service provided to the poor in the form of deposit/loans; saving, payment services, money transfer and insurance with the primary aim of helping them engage in or expand their livelihood activities hence, reducing poverty and accelerating development.

Several empirical studies have conducted on the impact of microcredit on the growth and development of societies producing diverse results. For example, the study by Sohali et al (1991) on the relationship between microfinance bank credits and agricultural outputs in Pakistan found a statistical significant relationship between microfinance bank credit in Pakistan and the agricultural output. Yaron et al (1997) argues that direct credit programme were associated with the adoption of modern technologies such as green-houses in Morocco and tube wells in North Bangladesh and these innovations were associated with tube wells in North Bangladesh and these innovations were associated with increa se in production of grains in the agricultural sector (ljaiya and Abdulraheem,2000). Emmanuel (2008} carr ied out a study on the impact of macroeconomic environment o n agricultural sector growth in Nigeria. The Macroeconomic policies included in the model are: Credit to the agricultural sector, nominal interest rates on the loan, exchange rate, world prices of agr icultural produce, foreign private investment, and government ex penditure and inflation rate. Using multiple regression analytical technique (ordinary least square), he discovered that nominal interest rate is positively related the index of agricultural production.

This implies that at higher nominal interest rate, more credit facilities are made available to the operators of the Nigerian agricultural sector, but at lower nominal interest rate, credit facilities are no more widely available. The index of agricultural output is a lso positively to world prices of Nigerian major agricultural commodities. This implies that a better world price enhances agricultural output growth in Nigeria . In another study, Nudamatiya, Giroh and Shehu (2009), research on the impact of Micro finance on poverty reduction in Adamawa state. The study was based on a simple random of 88 respondents selected from four micro finance institutions through a questionnaire survey. Data collected were analyzed using descriptive and inferential statistics and revealed that microfinance has a significant impact on the income of beneficiaries and thus it is therefore, recommended that policy should address issues of inadequate access and high interest rates to enable individuals with weak income have greater access to credit. On the other hand, Olaitan's (2005) study on the impact of Micro finance on poverty reduction revealed that access to microfinance is very important because it enables the poor to create, own and accumulate assets and smoothened consumption. Specifically, the result revealed that access to microfinance is very important because it enables the poor to create, own and accumulate assets and smoothened consumption. Annan (2003), through his study observes that "sustainable access to microfinance helps alleviate poverty by generating income, creating families to obtain health care and empowering people to make the choice that best serve their needs.

The availability of credit is intended to serve the following: (a) Make financial services accessible to a large segment of the potentially productive. (b). Promote synergy and mainstreaming of the informal sub-sector into the national financial system; (c). Enhance service delivery by microcredit institutions to micro, small and medium entrepreneurs; (d). Contribute to rural transformation; and (e). Promote linkage programmes between universal/development banks, specialized institutions and microcredit firms or agencies some that are private.

Methodology

The study was conducted in Akwanga Local Government Area of Nasarawa state using primary data collected over a period of seven months between April and Oct in 2017. Primary data were collected with the use of a structured questionnaire from a sample of 480 respondents out of a total of 640 questionnaires distributed. The questionnaires contained information on the socioeconomic status of respondents were distributed in eight wards out of the twelve in the council area in Akwanga LGA of Nasarawa state between April and Dec. 2017 The services of educated members of the immediate family was used to complete the questionnaires while uneducated ones were interviewed orally.

Two methods were used to analyze the data collected. These are: firstly, descriptive statistics consisting of simple percentages and proportion and bar charts which is used to examine the data collected. Impact of the credit program was assessed by comparing the situation of change in income, assets development, level of living, lifestyle patterns and poverty status before and after engagement with credit program. The second method involved the application of different statistical tests such as Chi-square and a regression equation which were used to analyze the association and extent of contribution within the variables. In order to assess the factors related to income, education and other variables of the borrowers, multiple regression analysis was also performed. The multiple regression model used for this analysis is capture thus:

$$Y = a + b1\ x1 + b2\ x2 + b3\ x3 + b4\ x4 + b5\ x5 + e \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (1)$$

Where: Y is the total income of the credit respondents after joining with credit program;
x1 is loan amount received by the respondents;
x2 is income through utilization;
x3 is number of earning members;
x4 is year(s) of schooling of the respondents;
x5 is household size of the respondents;
b1, b2, b3, b4 and b5 are regression coefficients of the corresponding independent variables
and "e" is random error, which is normally and independently distributed with zero (0) mean and constant variance.

These variables are critical in assessing the ability and capacity of the respondents to utilize the credit obtained appropriately in alleviating poverty. Statistical measures like multiple regression analysis, Chi-square tests. were performed using SPSS and E-views computer software to evaluate the impact of microcredit on poverty. Data collected are presented in tables and graphs where applicable.

The poverty gap index is measured using the following notification:

$$P\alpha = \frac{1/n\ \Sigma\ (Z - Y)}{Z} \quad \ldots\ldots\ldots\ldots\ldots\ldots 1$$

where

$$Z = \frac{\text{Average Annual income of Household from farm activities}}{\text{Total number of days in a year (365 days)}}$$

Where, Pα = Poverty gap, Z = Poverty line, Yi = Income of the i^{th} household in poor population, α = The FGT parameter with values from 0, 1, and 2. n = Total numbers of population studied, α represent less than or equal to 1 for each. That is $\alpha \geq 0$. If $\alpha = 0$, then Po is simply the Headcount Ratio which is also called incidence of poverty and if $\alpha = 1$.

If the result (poverty status) is less than $1.25 dollars naira equivalent, it means that the household is poor as such they were assign (1). But if the result (poverty status) is $1.25 dollars and above it naira equivalent, it means that the household is non-poor; in this case (0) were assign. Assuming that $1.25 dollars naira equivalent is (N450) that is, $1: N360.

On the other hand, the Gini coefficient is derived thus:

$$G = \frac{N+1}{N-1} - \frac{2}{N(N-1)U(\Sigma\ i - 1\ Pi\ Xi)} \quad \ldots\ldots\ldots\ldots\ldots\ldots \quad (2)$$

Where u is the mean income of the population, Pi is the income rank of P of individual i, with income X, such that the richest individual receives a rank of 1 and the poorest a rank of N, this effectively gives higher weight to poorer people in the income distribution, which allows the Gini to meet the transfer formula (Ajekaiya, 2001).

Table I: Assessment of savings' and amount of credit granted to respondents in the area.

Amount saved by respondent	No of respondents	Proportion or Percentage
Less than N30,000	24	5
N30,000 – N50,000	91	19
N51,000 - N70,000	168	35
N71,000 – N90,000	101	21
N91,000 and above	96	20
Total	480	100
Level of Savings' Exhibited		
High	374	78
Low	106	22
Total	480	100
Amount of Credit Granted		
Less than N30,000	53	11.04
N30,000 – N50,000	101	21.04
N51,000 - N70,000	178	37.08
N71,000 – N90,000	96	20.00
N91,000 and above	52	10.83
Total	480	100

Source: Field Survey 2017

Members who were very conscious of their involvement made contribution to the pool so as to enjoy the benefits of the programe. The table above provides information about the various contributions made by such members and the amount of loan they each obtained. About 35 per cent contributed between ₦50,000.00 and ₦70,000.00 annually, while 21 per cent contributed between ₦70,000.00 and ₦90,000.00 annually and 20 per cent contributed between ₦90,000 and above annually. These contributions ensured that such members thus fulfilled the conditions for drawing from the pool of resources of the programe as this was one of the essential features of the programe.

In the assessment of savings habits exhibited by beneficiaries of the microcredit institutions, about 78 per cent of members exhibited a high sense of commitment in making contribution to the scheme while only 22 per cent had a low attitude towards the scheme and this impacted on the amount of loan obtained. Even then this is not to suggest that they had no confidence in the scheme but it was largely the result of the incidence of poverty. In this regard, 21.04 per cent of respondents were granted a facility of between ₦30,000-₦50,000, over 37 per cent were granted between ₦51,000 and ₦70,000, while 20 per cent were granted between ₦71,000-₦90,000 and 10.8 per cent obtained above ₦91,000.00 facility from the programe. The amount granted may be small, it was dictated by two factors: first to ease repayment and second to provide for the financing of a large number of people.

Table 2: Assessment of Annual Income of Respondents

Distribution of Responses	Before Microcredit		After Microcredit	
Average annual income(N)	No	%	No	%
Less than N50,000	124	25.83	48	10.00
N50,000 – N100,000	148	30.88	64	13.33
N101,000 - N150,000	94	19.58	90	18.75
N151,000 – N200,000	68	14.16	136	28.33
N201,000 and above	46	9.58	142	29.58
Total	480	100	480	100

Source: **Field Survey, 2017**

The result from the table shows that 33.74 per cent and 47.08 per cent of the respondent earned annual income of N 101,000 - N 201,000 before and after obtaining microcredit. The average annual income was sufficient to place respondents above 1.25 dollars per day increasing from 36 per cent to 43 per cent and 61 per cent to 87 per cent, before and after obtaining microfinance loan. This means that before obtaining microcredit about 57 per cent respondents were living below 1.25 Dollars benchmark per day. While only 13 per cent of the respondents were living below 1.25 Dollars benchmark per day when they obtain micro finance. The result shows that more respondents earn higher income when they had loan from microcredit institutions. However, average annual income was subjected to poverty status of the respondents. The poverty lines were estimated before and after obtaining microcredit so that classification about the respondents can be made. This can be done as follows:

i. A moderate poverty line equivalent 2/3 of the mean income per year.

ii. A core poverty line equivalent 1/3 of the mean income per year.

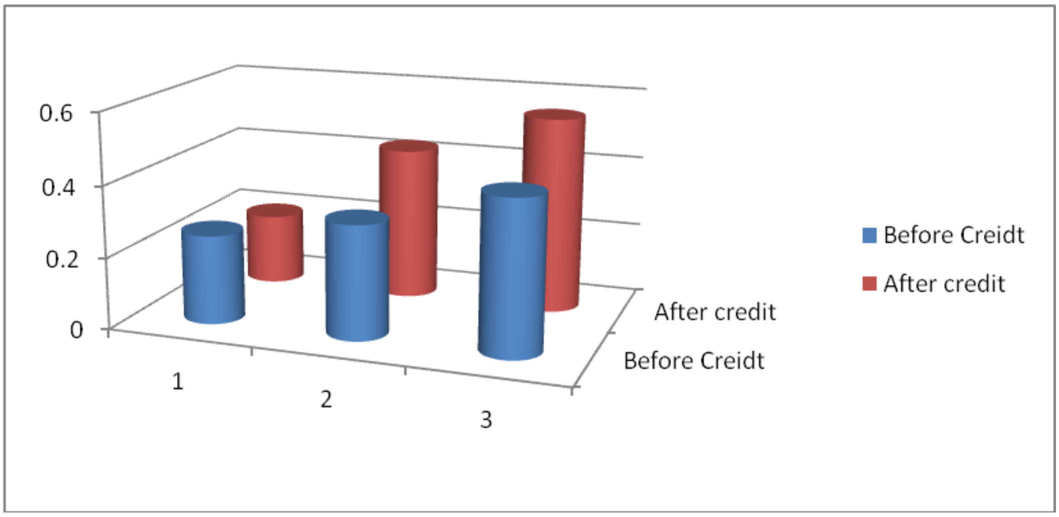
This was done in line with Yusuf, Adesanoya and Awotile's(2008) work on household classification into either as core poor, moderate poor or non poor. Applying the Foster – Greer- Thobecke (FGT) index, the different dimensions of the incidence of poverty, Po P1 P2 Gini coefficient.

Table 3: Distribution of Poverty indices before and After Microcredit in the area

Distribution of Responses	Before Microcredit	After Microcredit
Total Average annual income	63,120,000	130,011,052
Mean Average annual income	230,364.96	474,492.89
2/3 of the mean income	153,576.64	31,6328.59
1/3 of the mean income	76,788.32	15,8164.30
Headcount index (Po)		
Core poor	0.25 (25%)	0.2 (2%)
Moderate poor	0.32 (32%)	0.43 (43%)
Non poor	0.43 (43%)	0.55(55%)
Poverty gap index (P1)		
Moderate poor	0.23	0. 22
Core poor	0.26	0. 13
Severity of poverty (P2)	0.52	0.022
Gini coefficient	0. 6	0. 04

Source: Author's computation

The table 3 above and figure I below shows that poverty headcounts before and after obtaining microcredit for core poverty status are relatively high as 0.25 and 0.2, implying that 25 per cent and 2 per cent of the respondents were extremely poor before and after obtaining microcredit, their core poverty status declined from 0.25 to 0.2 implying that only 2 per cent of the respondents were extremely poor after obtaining m microcredit. In the category of moderately poor, the proportion appears to be higher (i.e. 32 per cent as against 43 per cent for before and after obtaining microfinance). However, by placing respondents on poverty line shows that moderate poor status after obtaining microcredit tend to be higher than that of before obtaining micro finance in the area. This may be because with the microcredit, more respondents have moved from the core poverty status to this category. The net implication is overall welfare improvement. Moreover, the poverty gap index (P1) which defines the extent to which a poor individual income level falls below the poverty line is relatively higher before obtaining microcredit, that is 0.23 and 0.26 for moderate poor and core poor respondents.



SOURCE: DRAWN FROM THE RESULT OF TABLE 1 ABOVE
KEY: 1REPRESENTS THE PRO-POOR, 2 STANDS FOR THE MODERATE POOR AND 3 IS FOR THE NON POOR
Fig. 1: Proportion of Respondents before and after obtaining Credit

The above chart shows the pictorial representation of the distribution of the respondents who have had access to credit and how it has impacted on their socio economic status over time against their previous position when they had no credit or lacked the financial support to pursue their economic activities. 1 is the status of the pro-poor before and after access to credit, 2 is for those are moderate poor and 3 stands for the non-poor before and after access to credit.

Results and Discussion

Impact of micro-credit program on poverty reduction

In a general context, the study result is analyzed by considering four dimensions: change in income, change in farm and household assets, change in living standard and change in poverty situations.

Change in income: Micro-credit respondents earned income by undertaking different productive activities utilizing credit received from the micro firms. Main sources of income were raising crops, animal, fisheries, business and other livelihood activities. Change score was computed by considering changes in productive activities that were converted to a value assuming (USD 1=₦ 360). On the basis of level of income *per* month, the respondents (credit and control group) were classified into three different categories, such as low income (up to ₦ 5,000), medium income (₦ 5,001 to ₦ 12,000) and high income (₦ 12,001 and above).Distribution of micro-credit respondents according to their change in income *per* month indicates that before taking loan majority of the respondents (63.3 per cent) were in low income group, nearly one-fourth of them (26.7 per cent) in medium income and the rest10 per cent in high income groups. But after joining the micro-credit program, medium income group increased reasonably (45.6 per cent from 26.7 per cent) and at the same time low income group decreased drastically (40.0 per cent from 63.3 per cent). A few respondents (14.4 per cent) also improved their income with high amount. Only one respondent was economically loser. It maybe that this respondent might have faced some unexpected debacles or disasters that hinder her level of income. Besides, few of them (11.1 per cent) had no change in their income. It could be they might have consumed part of the loan for personal uses rather than investment in income generating activities. Similar results also found by Siddique *et al.* (2002). Barnes *et al*. (1999) who conducted a study in Zimbabwe and concluded some controversial findings. The Chi Square result revealed the following The Chi-square value implies that there is a significant relation between respondents' increase of income and their involvement in micro-credit program.

Change in farm and household assets: Household assets include furniture, farm implements, poultry, livestock and electrical goods. Change scores were computed by considering change in number of different assets. Distribution of number of credit respondents according to their farm and household assets shows that almost all of them increased their assets after joining the credit program (sofa set from 0 to 2pcs, bed from92pcs to 124pcs, mobile phone from 0 to 24pcs, electric fan from 40pcs to 88pcs, hen/duck from 256pcs to 328pcs, goat from 44pcs to 128pcs, cow from 36pcs to 100pcs,radio from 12pcs to 36pcs and television from 0 to 40pcs). It may be after their involvement with credit program, they invested money in different income generating activities and uplifted their economic condition. Similar findings also identified by Haque and Masahiro (2009) by conducting "NGOs-MFIs Members- Impact Assessment Survey". They found that about 98.33 per cent borrowers had some kind of physical assets while the rest could not increase due to some unexplained reasons.

Change in standard of living: Standard of living includes sources of drinking water, toilet condition, medicare, number of clothing per year and electricity consumption level. Change scores were computed by considering changes in above-mentioned sectors. Change in sources of drinking water was considered by number of users before and after joining the credit program. It indicates that all respondents (100 per cent) used tube-well to meet their daily water requirement after their involvement in credit program whereas before joining it was 93.4 per cent and the rest 6.6 per cent used either river or pond water. Change in Medicare was considered by number of service receivers from several qualified health service providers before and after joining the credit program. It shows that after joining with credit program, credit respondents' medical treatments increased to 77.8 per cent, 15.6 per cent, 4.4 per cent, 2.2 per cent and 0 per cent respectively in connection with trained health personnel. Before joining, the corresponding figures were 66.7 per cent, 11.1 per cent, 17.8 per cent,4.4 per cent and 0 per cent, respectively.. It may be that increasing trend of daily earning ability of the credit recipients and their self-awareness was influenced by credit officials. Similar findings were found by Nelly *et al.* (1999) from the study of impact of micro credit in Bolivia that provided to women groups. They found that micro-credit increased income and savings, improved health/nutrition knowledge and practice, as it has empowered women. These results are significant in the sense that Akwanga is a largely rural area where the incidence of poverty is extremely high and this is reflected in the number of people that patronize market for second hand clothing and where a large market for these clothes thrives..

Change in poverty situation:

Distribution of credit and non-credit respondents according to their poverty situation indicates the nature of prevailing poverty situation. Traditionally, poverty is conceptualized in terms of income and expenditure ability. The poverty situation was classified into five categories; these are: non poor, tomorrow's poor, absolute poor, hard-core poor and ultra poor. Poverty situation reveals that after involvement with micro-credit program percentage of non-poor increased from 2.2 to 13.3 per cent and tomorrow's poor increased from 13.3to 46.7 per cent. Chi-square value shows that there is a significant association between the acceptance of micro-credit and reduction of poverty. This implies that micro-credit has a positive impact on poverty reduction. If it is considered that non-poor and tomorrows poor as above poverty line and absolute poor, hardcore poor and ultra poor as below poverty line, the households who live in below the poverty line decreased from about 85 to 40% after involvement with micro-credit. This implies that after involvement with micro-credit program, more than one half of the households graduated from below poverty line to above poverty line.

Relationship between access to micro-credit and poverty reduction:

Data contained in Table 1 are the basis for testing the research hypothesis which shows that micro-credit has a significant impact on poverty reduction.

Table 4: Associate Relation between Access to Credit and Poverty Category.

Poverty category	Access to credit		d.f.	Chi-square value
	Before	After	1	
Poor	406 (84.58%)	156 (32.5%)		34.40**
Non-poor	74 (15.42%)	324 (67.5%)		
Total	480	480		

Source: Author's Computation from the Data-2018

** Indicates significant at 1% level of significance. Critical Value of Chi-square = 6.63.

This also indicates that before involvement with credit program the poor were 84.58 per cent and thereafter decreased to 32.5 per cent. Accordingly, before being involved with micro-credit, the non-poor were 13.3 per cent and then increased to 60.0 per cent. This implies that incidence of poverty decreased through access to credit. These are quite significant decreases and if sustained over a period, such effort can remove a substantial number of people from the scourge of poverty. The chi-square value is significant at 1 per cent level of significance since the computed value of this statistic is far greater than the critical value at the 1 per cent. It can be concluded that access to micro-credit has a significant relationship with the reduction of poverty. This finding validates the hypothesis that micro-credit has a significant impact on poverty reduction. In order to assess the factors related to income of the borrowers, multiple regression analysis was used and this was further established the a priori position developed for the study which is that micro credit has the potential of creating income generating activities that can alleviate poverty.

Table 5: Multiple Regression Coefficients of Contributing Factors on Total Income after Joining Micro-Credit Program

Dependent variable	Independent variables	Regression Coefficient	Adjusted R2	F-value
Total income after joining credit program	Loan amount received	0.055*		
	Income through utilization of credit	0.008**		
	Number of earning member	0.033*	0.58	2.917*
	Years of schooling	0.035*		
	Household size of the respondent	0.102		

Source: Author's Computation from the Data-2018

* and ** indicate signifi cant at 5% and 1% level of significance respectively. Critical value of F = 2.2141.

The result of the regression shows that there is a significant contribution in loan amount received, income through utilization of credit, number of earning member and years of schooling after joining the micro-credit program. Among these, income through utilization of credit is the most important contributing factor (significant at 1 per cent level of significance), whereas the coefficients of other factors are significant at 5 per cent level of significance. The variables of number of household earning members is also significant at the 5 per cent level indicating that if more members of the society are engaged, their income will rise. The proportion of all variations in the dependent variable explained by changes in the explanatory variables is at 58 per cent while the F-statistic is significant at the 5 per cent level. This results are similar to several others such as that of Jehangir*et al.* (2002) who conducted a study and found that there was a positive and significant relationship between the amount of credit and the total income.

Conclusion

It is an established fact that poor people are mostly deprived of all transaction powers such as economical, social, legal, political facilities from Government. This study shows that microcredit has the potential to reduce poverty in Akwanga Local Government local government of Nasarawa state. There may be some little problems such as, The social bond between the poor and the rich is very weak which results into insecurity, the poor do not get legal support when the need arises. Nonetheless, it is strongly believed that access to microcredit has a huge potential of lifting a large proportion of the population out of the scourge of poverty if properly administered. Several other studies have found that micro-credit program helps to improve socio-economic status of the rural women in several rural areas such as Bangladesh Kenya, Uganda, Bostwana and Zambia. It thus suggests that efforts should be given to increase the income earning capacity of members through proper utilization of micro-credit and that appropriate monitoring system needs to be established by the micro-finance institute. What remains the major driver towards the achievement of this goal is the political from those in authority to do the needful in providing the policy framework for availability of credit.

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