Influence of Micro - Credit on Asset Accumulation: A Study of Selected Local Government Areas (LGA's) In Bauchi State

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Abstract: *This study focused on the influence of micro credit on asset accumulation by the borrower. We employed regression analysis model in the determination of the relationship between the micro credit and asset accumulation and found that there is a positive relationshiSp. The asset equation shows that borrowing is a relative function of lending facility available to people especially in the local community by micro-finance banks. The study was conducted in Bauchi state covering four local government areas which cover the period of 1998-2013. Questionnaire and personal interviews was used as a means of data collection and analysed through the use of statistical package for social science (SPSS).The study revealed that there is a positive relationship between Credit and Asset, that micro-credit of the micro-finance banks is a good poverty vaccine which can improve the standard of living of the poor in Bauchi state. The study concluded that increase in credit leads to increase in income, which in turn leads to increase in asset accumulation. It means the higher the level of credit, the higher the level of asset accumulator. The study then recommends that there is need to ensure the spread of banks to each local government headquarters and district headquarters. A general reforms needs to be made on the social responsibility of various community banks and they should be made members of the clearing system.*
Keywords*: Asset Accumulation, Micro Credit, Micro-finance Banks, Influence, Bauchi State*

1. Introduction

The subject of accessing credit to the poor has constantly secured attention all over the World, and the World wide economic recession has focused attention on the poor as a potent means of revamping the economies of the developing nations in sub-Saharan Africa and Asian countries. Attention is particularly paid on micro credit of financial sector. The efforts by the poor people to promote their welfare through self-employment are ignored by the Nigerian financial sector. This is because traditionally the very poor have not been recognized as credit-worthy since they do not have collateral securities. Thus, using traditional commercial banking methods, lending to the poor is not believed to be cost-effective. However, the increase in demand by poor people to promote their welfare and grow their business through financial sector has been on the high demand recently thus, this have lead to the emergence of several micro-finance banks in the country which has been able to bring modern day banking to the grass root level.

Micro credit policy as a financial policy is capable of increasing the productive capacity of the poor, raising the return to assets, and promoting wage employment World Bank (2010); Zaman (1999); Wydick (2011); Udry(2008) and Pitt and Khandker (2010). However, there are limited research studies focusing on the influence of micro-credit finance on asset accumulations which the present study is aimed at accomplishing. In order to ensure access to credit by the poor rural dwellers and to achieve grassroots development a micro finance-community based banking was introduced in 1990. Micro finance Bank makes use of credit character as the prime principle of lending over collateral securities. The World Bank's World Development Report (2010) conducted extensive studies on micro credit institutions across the World. The study revealed the suitability of these institutions in providing credit for non-corporate business, small farmers, rural producers, trade groups and other micro enterprises across the World. Therefore, the study tried to investigate the influence of micro credit financing on asset accumulator by the borrowers in Bauchi State. The inability of the borrowers in presenting collateral security has limit their ability to have access to some of this lending facilities offered by most micro-finance banks couple with lack of education which make it difficult for them to read and understand some of the terms given by most banks before they can have access to various lending facility available which the present study tends to proffer answers to. The study will be of immense benefits to policy makers, financial institutions and managers of micro-finance agencies that will enable the people in grass root to have more access to lending facilities which can serve as a good instrument of poverty alleviation.

2. Literature Review

Micro-credit means small size of loan mainly for small-scale investment granted by the lender based on trust as opposed to collateral security. Many studies revealed that micro credit policy through financial institutions is capable of increasing the productive capacity of the poor, raising the return to assets, and promoting wage employment World Bank (2010); Zaman (1999); Wydick (2011); Udry (2008) and Pitt and Khandker (2010). Pulley (2012) also made an extensive study of the strategy for making the poor credit-worthy as a major effort at alleviating poverty in the World. Yaron (1992) reviewed some rural finance institutions in some developing countries. The institutions succeeded in achieving the aims and objectives for which they were established in the environment in which they operated.

The Micro-finance banks have the same basic characteristics as the traditional commercial banks except that the institution and operations are not strictly in line with orthodox banking principles. To achieve credit access to the poor in Nigeria the Community bank and the peoples bank were designed to have access to land, credit and technological know-how by the poor (Mabogunje 1993). Although it has been proved that micro credit is a good instrument of poverty alleviation (Zaman 1999, Wydick 2011, and Udry, 2008), even after the establishment of Micro-finance banks in 1990 the poverty level has been on the increase in Nigeria in general and in Bauchi State in particular (FOS 1999). The question is, are Micro-finance banks assisting asset accumulation by the poor? This needs investigation.

Beside the work of Mobogunje (1993), which show that although micro credit does not lead to increase in consumption, it reduces vulnerability. Udry (1990), in an attempt to see how credit serves as insurance in a rural economy had conducted a survey of four villages in Northern Nigeria. The survey consisted of a series of monthly interview, with heads of household and their wives. The questionnaire was designed to yield a complete picture of each household's assets and debt position on account of its credit, labour, product, asset, and asset- rental transactions over the previous month. He applied a two-stage random sampling procedure, which yielded fifty households in each of the four randomly selected villages near Zaria in Kaduna State. Using chi-square statistical tool of analysis he found that credit transactions play a direct role in pooling risk between households through the use of contracts in which the repayment of debt owed by the borrower depends on the realization of random productive shocks by both the borrower and the lender. His result shows that interest rates are lower and repayment periods longer for debtor households who have experienced adverse shocks.

2.1 Theoretical Bases for the Study

The work is based on the theories of Pulley (2012); Zaman (1999); pitt and Khandher (2010) as highlighted above.

3. Methodology

This research was conducted in Bauchi State covering four local government areas of Bauchi, Darazo, Misau, and Katagum with surviving Micro-finance banks. Ten settlements were selected from these local government areas namelyAkuyam, Azare, Bingi/BulamariDarazo, Yelwa, KafinKuka, Bakin Kura, TasharDanasabe and FadamarMada. These local government areas are selected because agriculture is the main occupation in the area. Local Government Areas in the far north of the state are semi-desert and therefore their inhabitants rely mainly on commerce. The sampling technique used was the combination of simple random sampling and stratified sampling.The far North area also has the problem of seasonal migration to the Southern part of the country. As for Southern part of the state, the rocky nature of the area and the availability of mineral resource mean that agriculture and mining are the two key occupations. To determine the influence of any credit on the main occupation agriculture is, therefore, a problem in the Southern part of the state. The study covered the period 1998 -2013. It was during this period that the bank became established and operational in the area. Our choice of Bauchi state is because it is one of the high rate poverty states in Nigeria with 72.3% poverty rate (NBS Bulletin, 2010).

We also have good knowledge of the area in terms of culture, geography, economy, and politics that will help us in this research. The loan beneficiaries covering these periods were consulted in order to examine the influence of the loans on the borrower's consumption, income, assets etc. The study was carried out by means of primary data. The data was obtained by means of questionnaire from 1998-2013. The questionnaire was limited to straight dichotomy questions, which allow for 'Yes' or 'No' answer. However, fill the blank column was provided where necessary to allow the respondent to agree or disagree to a given statement or fill according to what is in his or her mind. This method of questioning was necessary because the level of education of the people in the area is low. However, the primary method of data collection was supplemented with secondary one collected from the bank. These include the size of the loans disbursed, beneficiaries, and location. The data was collected from the eligible credit users and the eligible non-credit users of the bank. The four Micro-finance banks of Azare, Akuyam, Bauchi and Darazo were chosen because these banks are the only Micro-finance banks recognized as viable in Bauchi State as at 1998.

Our questionnaires were administered to a sample of 90 percent representing 313 respondents of the loan beneficiaries for the major occupation -agriculture in the study areas. This gives us 170 in Azare, 50 in Garu, 52 in Darazo and 60 in Akuyam. We applied a stratified random sampling technique through which every borrower was selected. The population was stratified into borrowers for different agricultural practice, from which 90percent sample was selected, 19 percent of the sample size were women because they constituted 19 percent of the population size. For each bank 90percentof its borrowers were selected. And 90percent was, believed, a fair representation. We administered a total of 332 questionnaires.
To estimate the influence of the credit on asset accumulation we have:

$$A_i + \beta_o + \beta_i W_i + \beta_2 Y_i + \beta_3 X_i + \varsigma_i \ldots$$

Where:
A is log of total asset accumulation per adult equivalent.
B is log of total consumption per adult equivalent.
W is a vector of individual household and village characteristics.
Y_i is $P_l \div P_t X_i + U_1$ and is a latent (unobserved) continuous variable or the participation equation. λ = is Mill ratio.

Therefore, A = f(AGMI76O, AGFI76O, ADEQHRS, AGHHH, AGHHHSQ, REHHS,HHHLR, LGLAQO, OTBLI, HHHPR, HHHSS, HHHSX, VILI, VIL2, VIL3,VIL4, VIL5, VIL6, VIL7, VIL8, VIL9, VTLIO, BMVA, MLOADUMI,MLOADUM2, MLOADUM3, ULOADUM1, ULOADUM2, ULOADUM3, MEMLEN], MEMLEN2, MEMLEN3, MEMLEN4).

Variable definition for asset model

LGASSET	= Log of total Asset consumption per adult equivalent
LGLAQO	= Log of quantity of land owed
AHHH	= Age of the household head in years
AG1-IHHSQ	= Age of the household head squared
AGM1760	= Number of adult males in the household aged 17 - 60
AGM 1760	= 176O Number of adult females in the household aged 17-60
OTBLI I	= 1 if household member of other lending institutions, o if not
HHHLR	= 1 if household head is a manual labourer, or if not
ADEQHSR	= Ratio of the number of adult equivalents to household size
DEPEND	= Number aged under 17 plus those over 60
REHHS	= Ratio of earners to household size
HHHHT	= 1 if household head is in good health, o if not
HHHPS	= 1 if house hold head attended primary school, 0 if not
HHHSS	= if household head attended secondary school, 0 if not
HHHAS	= 1 if household head attended advance Secondary School, 0 if not
HHHUNI	= 1 if household head attend University, 0 if not
HHHSX	= 1 if household head is male, 0 if not
BMVA	= 1 if household head is the bank's member, 0 if not
MLOADUMI	= l if household has equivalent of 100 acres of land and Has borrowed less than 5000 Naira, 0 if not.
MLOADUM2	= 1 if household has more than equivalent of 100 acres of land and has borrowed Between 5000 to 10,000, 0 if not.
MOLADUM 3	=1 If household has more than equivalent of 100 acres of land and has Borrowed more than 10,000 Naira, 0 if not.
ULOADUM 1	= 1 If household has less than equivalent of 100 acres of land and has Borrowed less than 5000 Naira 0 if not.
ULOADUM 2	= 1 is household has less than equivalent of 100 acres of land and borrowed between 5000-l0,000Naira, 0 if not
ULOADUM 3	= 1 If household has less than equivalent of 100 acres of land and has borrowed more than 10,000 Naira, 0 if not.
MEMLEN 1:	1 If membership length between 1-12 months, 0 if not.
MEMLEN 2:	1 If membership length between 12-24 months, 0 if not.
MEMLEN 3:	1 If membership length between 24-36 months, 0 if not
MEMLEN 4:	1 If membership length more than 36 months, 0 if not.
VALVIL:	1 If village is inside a valley or embankment, 0 if not.
DISMKT:	Distance from market in kilometer.
N1-1H98:	Number of eligible households in the village in 1998.
VIL 1	Akuyam
VIL2	Azare
VI 3	Bingi/Bulamari
VIL4	Darazo
VIL5	Yelwa
VIL6	KafrnKuka
VIL7	Bakin Kura
VIL8	TasharDanasable
VIL9	FadamarMada
VILIO	Sarma

4. Results and Discussions

Table 1Presents the credit and asset relationship. Although the dimension of credit and asset is similar to that of credit and savings, there is a sharp change of asset with credit than of savings with credit. Those within the Nl0,000 loan threshold accumulated as much as the average of 6161.43 .The average asset accumulation for those within the N 20,000 loan threshold is as much as N 10, 807.81. The average asset accumulation continued to increase to N2593 9.53 for those on N30, 000 loan thresholds and to N32, 152.63 for those on N40, 000 loan threshold. The increase in the average asset accumulation was more tremendous at N50, 000 loan threshold N52968.75 worth of asset) and N60, 000 loan threshold (N66, 117.24 worth of asset). This means that increase in credit leads to increase in income, which in turn led to increase in asset accumulation. It means that the higher the level of credit, the higher the level of asset accumulation.

Table 1: Average Asset Accumulation of Credit Users

Observations	**Credit ₦**	**Average Asset₦**
70	10,000	6,161.43
64	20,000	10,807.81
43	30,000	25,939.53
19	40,000	32,152.63
16	50,000	52,968.75
29	60,000	66,117,24

Source: *Survey Data, 2014*

Figure 1 gives the graphical presentation of credit and asset relationship. The curve shows that there is a positive relationship between credit and asset. However, the relationship is not linear. To linearise the curve we take the log of assets accumulation of households from the matrix of poverty model in Table 1. The matrix also recorded some other socio-economic and demographic factors that may affect assets accumulation.

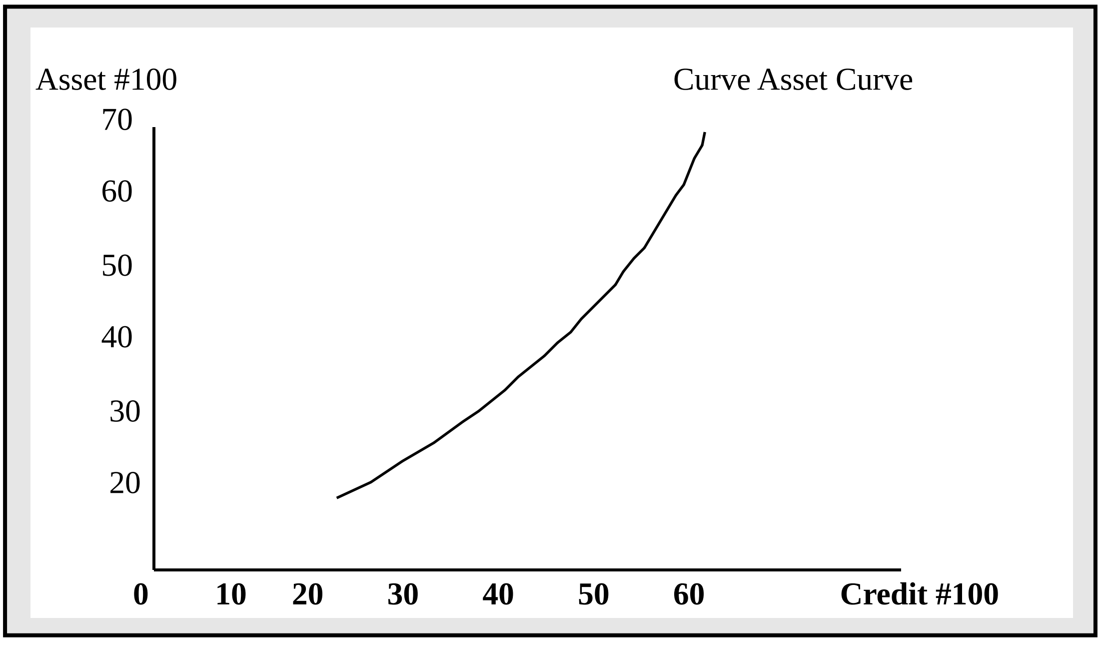

Table 2: Detailed Regression Result for Assets Accumulator

Variables	Coefficients eqn	SD eqn 3.32	Coefficient eqn 3.62	SD eq 3.62
.Alihh	0.01776	0.03732	1388	1516
Aghhsq	-0.00029	0.0004715	19.16	-19.83
Agm 1760	0.04528	0.04629	1873	2070
Agf 1760	0.02288	0.08574	3488	904
Otbli	0.1478	0.1850	7608	-7152
Hhht	0.4026 **	0.2009	8283	19881 **
Hhhps	0.1406	0.1194	4825	-850
Llhhss	0.2514**	0.1088	4416	-388
Hhhss	0.2514**	0.1088	4416	-388
Hhhsx	-0.5l02***	0.1242	5095	-7706
Hhlr	-0.0890	0.1026	4145	567
Rehhs	-0.3075	0.1863	7567	-7530
Loglag	0.00610	0.05682	1.555	0.843
Bmra	1.1520***	0.1723	7020	12883
Mload 1	9.0799	0.147 1	6002	-7642
Mload2	-0.0669	0.1446	5915	-8337
Molad3	0.0494	0.1656	6787	-33827
Mload4	0.1031 **	0.2268	9354	240
Mload5	0.2980	0.1958	8032	17126**
Mioad6	0.5059***	0.1639	6663	23410***
Mlen 1	0.0158	0.1391	5756	3489
Mlen 2	-0,1653	0.1506	6195	-7891
Mlen 3	0.1635	0.1400	5807	-1966
Mlen 4	0.2558	0.1461	5947	2128
Vii 1	0.0175	0.1953	8594	1769
Vi1 2	0.0959	0.1312	6538	-5446
Vii 3	O.7836***	0.2836	12530	23480*
Vi1 4	0.1805	0.1643	7707	6588
Vi1 5	0.1872	0.1948	8288	6060
Vi1 6	-0.1552	0.1700	7371	-18384**
Vil 7	-0.1146	0.2791	11437	-374
Vil 8	-0.3587*	0.2149	9179	-7762
Vil 9	0.3611*	0.2205	9492	15613*
Vi1 10	-0.0006	0.00815	335.9	-189.1
R- squared	**0.452**	**-**	**0.219**	**-**

**** Significant at 1 percent, ** Significant at 5 Percent, * Significant at 10 Percent.*
Source: *Computed by the Author*

The asset equation (Table 1) also shows that borrowing N60, 000 and using it for about 4 years raises assets accumulation by about 22.11% (significance at 1 percent level) relative to an identical non-borrowing member. Gender effect is significant at 5 percent level. Hence a female borrower of the same amount for the same years raised assets accumulation by about 36.92 percent relative to an identical non-borrowing member. Gender is not significant in the OLS equation. However, the equation shows that borrowing N50, 000 raised assets accumulation by about 8.45 times relative to an identical non-borrowing member (significant at 5 percent level). It also shows that borrowing N60, 000 raises assets accumulation by about 10.22 times (significant at 1 percent level) relative to an identical non-borrowing member. Considering the relative low size of our R-squared in the OLS equation, the result of our equation 3.3 is more acceptable.

5. Conclusion and Recommendations

From our findings we can conclude that micro credit finance banking is a good poverty vaccine, which improved the standard of living of the poor. It has a strong influence on asset accumulation. The result confirms the works of many other scholars in the area of micro finance and poverty especially Zaman (1999). It further justified the earlier theories that poverty is a result of self-perpetuating, social, cultural and economic deficiencies, which are beyond the capacity of individuals to remedy through their own efforts (CBN 1999, and World Bank 2001). The results also contradict the earlier theories that poor people are lazy and indolent, and have joyfully chosen poverty as a way of life. Once the poor people are opportune they can set themselves free from poverty. The major contribution of this work to knowledge is the addition to the stock of literature on the influence of micro credit in asset accumulation in Nigeria.

Having seen the influence of Micro-finance banks micro credit on poverty alleviation, the coverage of Micro-finance banks is grossly inadequate for the impact to be felt on the general populace. There is therefore, the need to ensure the spread of the banks to the local government and District headquarters. A general reform needs to be made on the social responsibility of the Micro-finance banks. The responsibility should not be in terms of low cost of borrowing but in terms of having entrepreneurial training as a condition of getting the loans. Credit with education is found effective in poverty alleviation in Ghana and Bangladesh (Zaman 1999).

The Micro-finance banking system should be a member of the clearing system. The National Board for Micro-finance banks (NBCB) can be empowered to open and equip state offices and be the agent in the clearing system for the Micro-finance banks. The bank suffered from lack of patronage by some communities as a result of the delay in executing some services. The micro-finance banking micro credit should be seen as a vaccine for poverty and hence the attention of international institutions, aid bodies, the National Policies on Poverty Eradication and the Local Support Programs should invest in micro-finance banking.

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