

# Impact of Microfinance Banks on Poverty Reduction in Ogbomoso Zone of Oyo State

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**Abstract** – This study was to assess the impact of microfinance bank on poverty alleviation in Ogbomoso zone of Oyo state, Nigeria. It identified people's opinion about microfinance existence, their activities and how effective they are on alleviating poverty among beneficiaries in the study area. The data were collected from 125 respondents in the study area through interview schedule using multistage sampling.

The data collected were analyzed using descriptive statistics, FGT poverty model and Tobit regression model. The findings revealed that the average age was about 41 years, 72.8% were single, majorities were male-headed (60%) and majority of the respondents had an average household size of 4. About 62.4% of the respondents had increase in their annual or monthly income while the loan obtained led to increase in production of about 83.2% of the respondents.

The microfinance programme appears to be a medium of poverty reduction by empowering the people. The FGT poverty profile indicated that microfinance had an effect on the poverty level i.e. the poverty level of the respondents was relatively high before they obtained loan from microfinance bank and an appreciable decrease in the poverty level was seen after the loan were obtained. Poverty level before obtaining micro finance loan was high as compared to its level after obtaining the loan. The incidence of poverty ( $P_0$ ) reduced from 0.592 to 0.542, the poverty dept ( $P_1$ ) also decreased from 0.356 to 0.326 and the severity ( $P_2$ ) from 0.246 to 0.218. The result obtained shows 5% reduction in the incidence of poverty, 3% reduction in the debt and 2.8% reduction in the severity of poverty before the loan was obtained compare to after it was obtained.

The result of tobit model, as specified in the methodology shows that the sigma ( $\delta$ ) is 0.1935 with a t-value of 15.811; hence sigma is statistically significant ( $p < 0.01$ ). These indicate that the model had a good fit to the data. In the analysis, three (3) of the seven (7) variables included in the model were statistically significant at different level of significant. Result of Tobit regression model also revealed that sex, level of education and working experience were statistically significant at different levels of significance. Tobit analysis indicate that sex ( $t=1.937^*$ ), years of schooling ( $t=2.060^{**}$ ), and working experience ( $t = 2.794^{***}$ ) shows positive and significant relationship with the volume of loan obtained from microfinance bank in Ogbomoso zone of Oyo state. The study concluded that microfinance bank have a positive impact on poverty level of beneficiaries in the area.

**Keywords** – Impact, Microfinance Banks, Poverty Reduction.

## I. INTRODUCTION

Microfinance banking came into being in 2005 with the launching of the microfinance policy by the formal central

bank of Nigerian [1] governor chukwuma soludo. The policy was influenced by the globally acclaimed impact of microfinance in helping the economically active poor to exit the poverty threshold and thus leading to significant poverty reduction. Hence microfinance banking was introduced with the expectation that over time, it would help in reducing poverty in the country. Hence, as stated in section 4:2:1 of the microfinance policy, the policy target includes “covering the majority of the poor” but economically active population by 2020 thereby creating millions of jobs and reducing poverty [2].

However, [3] opined that microfinance institution and banks are fast becoming a household name globally due to its acceptance as a means of reaching those people that were not served by the conventional big banks. It therefore means that the adoption of microfinance policy in Nigeria and other countries is part of the global financial integration in the provision of tailor made financial services to those outside the catchments of the big banks either as a result of their income, location, literary level or discrimination. This maybe the reason for a major increase in number of microfinance banks in Nigeria with more coverage area. Although, the central bank of Nigeria recognized 744 registered microfinance banks in operation in Nigeria as at November 14, 2008, the number is relatively small if compared with the 160million population figure of a country where the majority resides in the rural areas.

Small Business Enterprises (SBE) Transformation is all about seeking to bring about improvement in the living condition of the farmer, the artisan, the tenant and the landless within the simple and rustic economies of the country sides and urban slums. The basis for employment generation and entrepreneurship development in the country, therefore, is to enhance the improvement of the living condition of the poor's [4].

The Nigeria microfinance banks has come a long way; it boasts the entire four well known models in the industry. A central bank of Nigeria study identify, as of 2001, 160 registered microfinance bank in Nigeria with aggregate savings worth ₦99.4 million and outstanding credit of ₦649.6 million, indicating huge business transactions in the sector [5].

In Nigeria, credit has been recognized as an essential tool for promoting small and micro enterprise. About 70 percent of the population is engage in the informal sector or in agriculture production. The federal and state governments have recognized that for sustainable growth and development, the finance empowerment of the people is vital. if this growth strategy is adopted and the latent

entrepreneurial capabilities of this large segment of the people is sufficiently stimulated and sustained, then positive multiplier will be felt throughout the economy. To give effect of these aspirations various policies have been instituted over time by the federal government to improve rural and urban enterprise production capabilities [6]. One of the challenges of micro financing in Nigeria is how microfinance institutions (MFI) can reach a greater number of small scale business. Central bank of Nigeria survey indicated that their client base was about 600,000 in 2001 and there were indications that they may not be above 1.5million in 2003. The existing microfinance banks in Nigeria serves less than 1million people out of 40million potential people that need the services [1]. Also, the aggregate microcredit facilities in Nigeria, account for about 0.2 percent of GDP (Gross Domestic Product) and less than one percent of total credit to the economy. The effect is not appropriate addressed this situation would further accelerate poverty, slow down growth and development of small and medium scale enterprises in the country.

The microfinance Banks replaced the ailing community banks created by former military Nigeria head of state General Ibrahim Babangida which was soon caught in the throes of an inefficient Nigerian economic system. This laudable concept has been hijacked by money bags; it has been caught by bureaucracy of the Nigerian politics and economics. The concepts of micro financing are presently being misapplied. The central bank of Nigeria directs every microfinance bank to have a minimum reserve of not less than ₦20million while at the same time directing that the NDIC insures each depositor for a maximum ₦100,000.00 regardless of the amount of money invested. These requirements take the microfinance industry out of the reach of the people. It was intend to serve the very poor.

## II. THE OBJECTIVE OF THE STUDY

The main objective of the study is to analyze the impact of microfinance banks on poverty reduction in Ogbomoso Zone, Oyo State while the specific objectives are to;

- determine the socio-economic characteristics of household in the study area
- examine determinants of volume of loan obtain from microfinance banks
- identify perceived effect of microfinance bank loan on households in the study areas
- determine the poverty level of the household before and after loan was obtained from microfinance banks
- identify constraint or problem facing households in accessing microfinance loan

## III. HYPOTHESIS OF THE STUDY

H<sub>0</sub>: Socio-economic characteristics of households does not significantly determined volume of loan obtained from microfinance bank.

## IV. RESEARCH METHODOLOGY

### A. The Study Area

Oyo state is divided into four agricultural zones; these are the Ibadan/Ibarapa, Oyo/Iseyin, Saki and Ogbomoso zones. Ogbomoso zone in Oyo state is composed of five (5) local government areas, for the purpose of this study; Ogo-Oluwa, Orire and Surulere local government area with headquarters at Ajaawa, Ikoyi and Iresaadu respectively were selected in which agriculture is the major occupation in these areas with farming households constitute majority of the households.

Ogbomoso zone of Oyo State is located at approximately Latitude 8.10° N and Longitude 3.29°E [7]. The vegetation of the area is generally regarded as derived Savannah; the mean monthly temperature is around 28°C with very little variation in March. The raining season usually starts in March and lasts still November, June and July are usually wet months. The estimated population census was 166,034 with 80,356 males and 85,678 females. The major crops grown include food crops such as maize, cassava, yam vegetable, beans and tree crops like mango, cashew and orange.

### B. Sources of Data

Both primary and secondary data were used for the research work. The primary data was obtained using a structured questionnaire, while secondary data were collected from selected microfinance banks in the area.

### C. The population of the study, Sampling procedure and Sampling Size

The population of the study is all beneficiaries of micro finance bank Ogbomoso zone of Oyo State. Sampling procedure adopted was multistage sampling technique. In the first stage, we purposively selected five (5) microfinance bank from the seven microfinance bank present in Ogbomoso zone of Oyo State, the second stage involves random selection of 25 beneficiaries that obtained loan from each of the selected microfinance bank in the last 2 years, in order to have a sample size of 125 respondents which was selected and used for the study and analysis.

### D. Method of Data Collection

Questionnaire, interviews and structured interview plans were used to collect the data used for this research. The questionnaires were designed to get required socio-economic information from the study area such as age, marital status, working experience, occupation, association membership, income and expenditure of loan beneficiaries before and after the loan was collected and so on. Illiterate respondents were interviewed using structured interviewed schedule.

### E. Method of Data Analysis

Descriptive and inferential statistics were used to analyze the data obtained from this study. Descriptive statistics like frequency count, percentage, mean, and standard deviation were used while FGT model and Tobit Regression model was also used as inferential statistics.

### F. Model specification

The models that were used in this study are stated below:



### 1. Concept of FGT (1984)

The Foster-Greer-Thorberke (FGT) model is a poverty assessment tool developed by Thorberke, Greer and Foster [9]. The formula measures how income is distributed below the poverty line and taken into account the incidence and severity. The use of which requires the definition of poverty which was calculated on the basis of aggregated data on expenditure that is, two-third (2/3<sup>rd</sup>) of mean per capita expenditure. The FGT measure was based on a single mathematical formulation as follows:

$$P_0 = \frac{1}{N} \sum_{i=1}^q \left( \frac{Z - Y_i}{Z} \right)^\alpha$$

Where  $Z$  = poverty line

$q$  = Number of individuals below the poverty line

$N$  = Total number of individual on the reference population

$Y_i$  = per Capita Expenditure of the household

$\alpha$  = the degree of Aversion and it takes the value 0, 1, 2...

When  $\alpha = 0$

$$P_\alpha = P_0 = q \div N$$

This corresponds to the headcount ratio

When  $\alpha = 1$

$P_1$  = depth of poverty

$$P_1 = \frac{1}{N} \sum_{i=1}^q \left( \frac{Z - Y_i}{Z} \right)^1$$

This corresponds to the poverty gap

$P_2$  = incidence of poverty

$$P_2 = \frac{1}{N} \sum_{i=1}^q \left( \frac{Z - Y_i}{Z} \right)^2$$

In this study, per capita expenditure was used as measure welfare. It is preferred to income which is not a good measure of welfare.

### 2. Tobit Regression Model

This was used to analyze the determinants of volume of loan obtained from Microfinance Banks.

The model was stated as:

$$Y^* = \beta x + e$$

$$y = y^* (\beta x + e) \quad \text{if } y^* > 0$$

Therefore,  $y = 0$  if  $y^* \leq 0$

$Y$  = Proportion of loan obtain from Microfinance Bank

$Y$  = Actual loan obtained from Microfinance bank

Loan Demanded from Microfinance bank

$X$  = a vector of explanatory variable

$\beta$  = vector of unknown parameter to be estimated

$e$  = error term

The included variables are,

$X_1$  = Age in years

$X_2$  = Marital status

$X_3$  = Gender

$X_4$  = Household size

$X_5$  = Level of education in years of schooling

$X_6$  = experience in Primary occupation in years

$X_7$  = Years of working experience

$X_8$  = total asset in naira

## V. RESULTS AND DISCUSSION

### 1. Identifying perceived effect of microfinance bank loan on respondents household.

Table 1 shows that loan obtained by 83.2% of the respondents led to increase in their production, while 80.8% of the respondents had improvement in their business after obtaining loan. There is improvement in household consumption as indicated by 66.4% of the respondents. There is also improvement in the standard of living of the respondents 86.4%, 72% of the respondents have access to better health care, 74.4% of the respondents have access to better education, 66.4% have access to better housing facilities, 16% of the respondents were turned into a debtors due to the loan obtained, loan obtained increased the annual or monthly income of 62.4% of the respondents while there was no positive effect on the business of 21.6% of the respondents due to the loan obtained.

Table 1: Percentage distribution of respondents based on identifying perceived effect of microfinance bank loan on respondent household.

Effect of microfinance bank loan on their households	Frequency	Percentage
Loan obtained led to increase in production.	104	83.2
Improvement in business.	101	80.8
Improvement in household's consumption.	83	66.4
Improvement in their standard of living.	108	86.4
Access to better healthcare.	90	72.0
Access to better education.	93	74.4
Access to better housing facilities.	83	66.4
Turned in to a debtor.	20	16.0
Increased annual/monthly income.	78	62.4
Not having positive effect on their business.	27	21.6

\*Multiple response

Source: Field survey, 2011.

2. Identification of constraints or problem facing households in accessing microfinance loan.

Table 2 shows that 68% of the respondents indicate the problem of delay in release of loan payment as a constraint, 50.4% of the respondent indicated the problem of high interest rate as a constraint, while 45.6% of the respondent population indicated insufficient loan disbursement as a major problem. Also, 57.6% of the respondent had difficulties in providing the collateral demanded, while 54.4% of the respondents identified the

problem of excessive bureaucracy as a constraint, while about 8% of the respondents identified the demand for bribes by microfinance bank officials as a problem they encountered in obtaining loans. In addition, 51.2% of the respondents were unable to present a guarantor of the required caliber, about 43.2% of the respondents were unable to meet the required security needed for the loan, while 78.4% of the respondents had problems in obtaining loans due to default by former beneficiaries.

Table 2: Percentage distribution of respondents based on identification of constraint or problem facing households in accessing microfinance loan.

Constraint or problem facing household in accessing Microfinance loan	Frequency	Percentage
Delay in release of loan payment	85	68
High interest rate	63	50.4
Insufficient loan disbursement	57	45.6
Demand for collaterals	72	57.6
Excessive Bureaucracy	68	54.4
Demand for bribes by microfinance bank officials	10	8
Inability to present guarantors	64	51.2
Inability to meet the required security needed for loan	54	43.2
Loan default by formal beneficiaries	98	78.4

\*Multiple response

Source: Field survey, 2011.

3. Comparison of poverty level before and after obtaining loan from microfinance bank.

Table 3 shows that poverty level before obtaining micro finance loan was high as compared to its level after obtaining the loan. The incidence of poverty ( $P_0$ ) reduced from 0.592 to 0.542, the poverty debt ( $P_1$ ) also decreased from 0.356 to 0.326 and the severity ( $P_2$ ) decreased from 0.246 to 0.218. The result obtained shows 5 % reduction in the incidence of poverty, 3% reduction in the debt and 2.8% reduction in the severity of poverty before the loan was obtained compared to after it was obtained. The table shows that the poverty level of respondents was relatively high before they obtained microfinance loans and an appreciable decrease in the poverty level was seen after the loan was obtained showing that respondents who collected microfinance loans have a decreased in poverty level and their standard of living can be said to have improved.

Table 3: Comparison of poverty level before and after obtaining loan from microfinance bank.

Poverty before and after loan ( $P_\alpha$ ) Profile			
	$P_0$	$P_1$	$P_2$
Poverty before	0.592	0.356	0.246
Poverty after	0.584	0.326	0.218

4. Tobit analysis showing the determinants of volume of loan obtained from microfinance bank

The results on table 4 were achieved using Tobit models, as specified in the methodology. The result shows that the sigma ( $\delta$ ) is 0.1935 with a t-value of 15.811; hence sigma is statistically significant ( $p < 0.01$ ). This indicates that the model had a good fit to the data. In the analysis,

three (3) of the seven (7) variables included in the model were statistically significant at different levels of significant. Tobit analysis indicate that sex ( $t = 1.937^*$ ), years of schooling ( $t = 2.060^{**}$ ), and working experience ( $t = 2.794^{***}$ ) shows significant positive relationship with the volume of loan obtained from microfinance bank in Ogbomoso zone of Oyo state. The positive relationship between sex and volume of credit indicates that sex has a decisive effect on the volume of loan obtainable from microfinance bank. This implies that sex of a respondent is a determinant of the volume of loan obtained from a microfinance bank as men had access to more volume of loan than their female counterpart.

Table 4: Determinants of volume of loan obtained from microfinance bank

Variables	Coefficient	T – value	P – value
Constant	0.8123	8.008	0.0000
Age	- 0.4239	- 0.141	0.8876
Sex	0.5554	1.937*	0.0832
Yrs of School	- 0.2822	2.060**	0.0321
Primary occupation	-0.1783	- 0.275	0.7832
Marital status	0.2699	0.060	0.9521
Family size	0.9306	0.765	0.4444
Working experience	0.2003	2.794***	0.0072

Source: Field Survey, 2011.

Sigma  $\delta$  is 0.1935\*\*\*

Number of observations 125

Log likelihood function 27.89135

\*\*\*denotes significance at 1% and\*\*denote significance at 5% while\*denotes significance at 10%.



Years of schooling also shows a decisive relationship with the volume of loan obtained from the bank. The positive relationship indicates that level of education also determines the volume of loan obtained by the respondents. Educated respondents seem to have access to more volume of loan than those without education. Years of working experience also determines the volume of loan obtained from the bank. Respondents, with longer years of working experience in their chosen careers seem to have access to more volume of loan.

## VI. CONCLUSION

The poverty models shows that the poverty level of the respondents was relatively high before they obtained loan from microfinance banks and an appreciable decrease in the poverty level was seen after the loan were obtained. Thus from all indices as obtained from this study, loans from microfinance banks are a veritable tool for alleviating poverty among the loan beneficiaries in Ogbomosho zone of Oyo state.

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