
FACTORS THAT INFLUENCE THE VOLUME OF MICRO-CREDIT AND THE ACCESSIBILITY TO MICROCREDIT AMONG MICRO AND SMALL SCALE ENTREPRENEURS IN NIGERIA: A CASE STUDY OF JALINGO, TARABA STATE

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ABSTARCT

This study investigate the factors that influence poverty micro credit among micro and small-scale entrepreneur in Jalingo, primary data were used and applied on cross sectional survey research design. Data analysis was based on the questionnaire retrieved from 184 and 726 small and micro-entrepreneurs, a total and 794 sample determined by the cochran's simple random sampling formular. The Foster, Greer and Thorbecks (FGT) and Sen-Shorrock's Thon (SST) indices were used to measure poverty. Gini Coefficient Index was constructed to measure income inequality. The FGT poverty rate, depth and severity are 61.95%, 24.67% and 12.92% respectively, while SST poverty rate is 32.68% and gini coefficient is 35.63% indicating high poverty level and income inequality among entrepreneurs. Volume of micro-credit from deposit money banks reduces income inequality by 0.009% (micro) and 0.012% (small-scale) entrepreneurs. The heteroskedasticity robust standard analysis was done and statistical significance was at $p \leq 0.05$. The study conclude that poverty and income inequality are high among micro and small scale entrepreneurs, this can be reduced by increasing the volume of microcredit and frequency of access to microcredit and frequency of access to microcredit through policies that reduces interest rates and stringent collateral requirements for accessing funds.

Keyword; Microcredit, Income Inequality, Micro and Small Scale Entrepreneur, Gini index

Introduction

Micro-credit is defined as a small amount of money loaned to a person or group of persons often without collateral (United Nations, 2004). Micro-credit institutions play a pivotal role in meeting the financial needs of both households and micro-enterprises. This is due to the failure of traditional financial institutions to provide adequate savings and credit services to the poor. Micro-credit institutions and programs have been developed over the years to fill this gap. On the supply side, micro-credit could be the best instrument to bring about poverty eradication by loosening constraints on capital, opening doors for investment, smoothing consumption over time, and meeting emergency liquidity needs. On the demand side, micro-credit institutions could mobilize poor persons' savings and enable them to accumulate interests on their deposits (United Nations, 2008). In general, micro-credit has five features that distinguish it from credit supplied by conventional financial institutions. First; the loan size is small, with an average of about \$100.00. However, this general feature differs from one country to another, depending on each country's socio-economic development. Second, the primary customers of these loans are the rural poor women in particular, who have little access to conventional banking facilities. Third, the purpose of these loans is to create income-generating activities in the rural non-formal sectors through self-employment. Fourth, the existence of tangible collateral-free. Finally, there is another aspect of the micro-credit programs that distinguished them from conventional banking; the micro-lending ventures have integrated loaning and savings mobilization functions. In other words, regular savings is a pre-condition for getting loans from conventional banks (Adediran and Odejimi, 2008).

Income inequality affects the pace at which growth enables poverty reduction (Ravallion, 2004), reducing inequality within countries has been the objective number 10 of the sustainable development goal in recent years because it is believed reducing it will assist to curb some problems (World Bank, 2016). If income were equally distributed there would be no difference between the lowest 20 percent and the highest 20 percent of the population, each quintile would receive exactly 20 percent of the nation's income. Bridging the gap between the poor and the rich is very essential to the growth of the society by encouraging the poor to participate in pro-poor activities which will help them to reduce the gap between the rich and the poor (Baumol et al, 2010). In Nigeria, the formal financial system provides service to about 35% of the economically active population while the remaining 65% are excluded from access to financial services. This 65% are often served by the informal financial sector, through non-government organization (NGO) microfinance institutions, money-lenders, friends, relatives, and credit unions (Central Bank of Nigeria, 2011). It is the view of the World Bank that the failure of formal financial systems to provide requisite services to the small and micro enterprises, particularly in the rural areas and the fact that the poor are mainly engaged in this informal sector, continues to provide a strong basis for microfinance and invariably micro-credit as a viable strategy for income expansion and poverty reduction (Jammeh, 2000). So, microfinance and/or micro-credit are recognized as a strategy for resource transfer/support to poor people to promote self-employment, income generation, and poverty reduction. Availability of adequate credit is consequently central to the improved economic well-being of the poor, particularly in the rural areas. Therefore, providing affordable financial services to the poor has become an important component of development strategy for the past several decades.

The inability to reach the poorest of the poor is a problem that plagues most poverty alleviation programs. Therefore, to be an effective instrument of sustainable poverty reduction, micro-credit schemes must be designed and operated exclusively for the poor, creating a financial system capable of lending to micro-enterprises and low-income households. To reduce the income gap (inequality), Goetz and Gupta (2010), said that the

improvement of access to credit by the poor through microfinance will boost income levels, increase employment at the household level, and thereby alleviate poverty. The question is that why in Nigeria even with micro- credit institutions the level of poverty is high among micro and small-scale entrepreneurs? This study, therefore, seeks to investigate the effects of micro-credit on poverty among micro and small-scale entrepreneurs and draws out policy recommendations that will improve the standard of living of the micro and small entrepreneurs in Nigeria.

The Central Bank of Nigeria (CBN, 2004) defines small-scale enterprises as enterprises whose annual turnover ranges between N25000-N50000. Ogundele (2007) defines SMEs as one who has a minimum of 5 employees with a minimum capital outlay of not less than N5000. In the work of Awoyemi, Akomolafe, and Osunyikanmi (2020), the definition of micro, small and medium enterprises (MSMEs) varies by country, a small enterprise in the USA does not necessarily imply a small enterprise in Nigeria. The World Bank defines MSMEs as businesses with less than 300 employees and \$15 million in assets. The inter-American development describes MSMEs as businesses with a maximum of 100 employees and less than \$3 million in revenue (Dahlberg 2011).

Research question

1. What are the factors that influence the volume of micro-credit and the level of accessibility to microcredit in Jalingo, Nigeria?

Objectives of the study

1. Identify the factors that influence the volume of micro-credit and the level of accessibility to micro- credit in Jalingo, Nigeria.

2. Suggest policy measure to reduce poverty among micro and small scale entrepreneurs in Jalingo, Nigeria

LITERATURE REVIEW

One of the effects of unequal distribution of income and wealth in the country will result in poverty, which is reflected in low consumption levels, low per capita income, and low standard of living of the mass of the people, despite more than two decades of development planning, hunger, malnourishment and suffering from the chronic and debilitating disease are still the bane of the majority of the population in India (Jlingan, 2005). The elimination of widespread poverty and even high growing income inequality are the core of all development problems and define for many people the principal objective of development policy. Inequality is a challenge to the eradication of extreme poverty and tends to reduce the pace and durability of growth (UNICEF et al., 2014; Ostry et al., 2014). Inequalities have also been found to hinder social cohesion and increase the risk of violent conflict (UNDP, 2013; Stewart, 2010). Inequality undermines social justice and human rights. Inequalities have resulted in the poorest people – including many women, young and older people, persons with disabilities, indigenous peoples, and rural populations – making less progress towards development goals (Kabeer, 2010; World Bank, 2013). Economic, political, and social inequalities tend to reproduce themselves over time and across generations (World Bank, 2006). There is some overlap between those affected by poverty and those negatively affected by inequality, although it is important to note that certain groups and individuals are disproportionally affected. Deprivation or inequality in one dimension can influence other dimensions: for example, social inequality can lead to economic inequality (Sumner, 2013; Kabeer, 2010). It is important to understand the drivers of poverty and inequality to combat

them effectively. Drivers of poverty include shocks; lack of inclusive economic growth and jobs; insecure jobs and low wages; limited opportunities; low capabilities; inequality; poor governance; weak civil society; lack of respect for human rights; climate change; the global recession; violent conflict and displacement; and an individual's human capital, physical and social assets, and behavior.

Shakina (2019) investigated the impact of micro-credit and poverty alleviation in Bangladesh. A cross-sectional survey was conducted on the three rural parts of the upazillas area of Bangladesh. Data have been collected through a well-structured questionnaire from 100 – micro-credit recipients/borrowers of Bangladesh Rural Advancement Committee (BRAC) and Association for social advancement (ASA) – two giant micro-credit providers in Bangladesh and from 50 non-borrowers of the study areas. Respondents were selected randomly. The tabular method was used to describe the data. Hypothetically, the outcomes were found significant results from the chi-square test (χ^2 – test) and ANOVA (Analysis of Variance) without an exception for clothing expenditure. The study revealed that micro-credit disbursed through BRAC and ASA plays a dynamic role to reduce poverty in the study areas by income-generating activities of the poor women borrowers and by improving their living standards. It is found from the study that micro-credit has a positive impact on income expenditure, condition of the dwelling house, education, health, and decision-making ability of the poor women borrowers who spent at least five years in BRAC and ASA compared to the non-borrowers.

Popoola and Omosebi (2018) conducted a study on the impact of micro-credit on poverty alleviation among women entrepreneurs in Ile-Ife, Nigeria, the study adopted an exploratory/descriptive survey research design in investigating the impact which micro-credit could have on poverty alleviation, three hundred questionnaires were distributed to the women, out of which 287 were returned and collected. This gives a response rate of 96%. The target age is between 20 and 50 years. The study discovered that all things being equal, micro-credit could be an effective strategy for poverty alleviation.

Oladayo (2018): This study systematically assessed the impact of micro-credit in poverty reduction. A systematic search for quasi-experimental, observation and comparative studies published between 2008 and 2018 was conducted in five literature databases, lists of relevant studies, and websites. Both qualitative and quantitative studies were included in the review and their quality was assessed. Inclusion criteria were met by twenty studies. These studies showed how micro-credit influences poverty reduction among petty traders who are beneficiaries of micro-credit. Among these studies, fourteen focused on microfinance and poverty reduction and seven were on micro-credit and poverty alleviation. Most studies were quantitative; eight had missed methods and one had a qualitative analysis. Among the included studies nineteen supported the hypothesis that micro-credit contributed to poverty reduction and only one study objected to this hypothesis, while the finding of this review has revealed that micro-credit is a strategy for poverty reduction, some challenges hinder the accessibility to micro-credit.

Oshinowo, Muyiwa, Olawale, and Olanrewaju (2017) conduct an impact analysis of microfinance institutions on the analysis of rural households' wellbeing in Oyo State. A case study of IFAD/RUFIN supported the project. Both secondary and primary data are being used in this research work. The primary data were collected through the use of a well-structured questionnaire. Secondary data were obtained from the records made available by the Rufina coordinating center in Abuja, Nigeria through relevant reviews and publication textbook and publication of the Central Bank (CBN) from the assessment over 80% of the beneficiaries experience improvement in the economic wellbeing while over 70% experiences

improvement in their social wellbeing and over 79% experience improvement in the prevailing environment that have a positive impact on their wellbeing.

Ugochukwu and Onochie (2017) examined the impact of micro-credit on poverty reduction in Nigeria. Using the method of OLS regression analysis, the researcher embarked on empirical work to test the impact of micro-financial activities on poverty reduction. The result showed the expected negative relationship between microfinance lending and poverty. However, the regression result and analysis have shown that there is a lot of room for improvement. The impact of microfinancing on poverty reduction is still low and not significant in wiping out poverty from our land. Taofeek, lim, and Siti (2015): this study examines the role of microfinance vis-a-vis poverty reduction particularly in the South-west zone of Nigeria. Data were collected through a survey questionnaire in the study area. Descriptive statistics together with the Binary logit Regression model were employed to analyze the data collected. The result of the analyses revealed that microfinance loans made a significant impact on the loan beneficiaries in the study area which led to poverty reduction.

Nwele, Ogbonna and Uduimo (2015): This study examines the impact of microfinance lending on Nigeria on the Nigeria economic growth. Specifically, the study sought to evaluate how microfinance lending to micro, small and medium scale enterprises in Nigeria has impacted on changing the business fortunes of the poor, and hence the Nigeria economic primary and secondary data were collected analyzed using program designs, numerical structure response in implementation and performance model in a bid to delineate the relationship between microfinance loans and growth of micro, small and medium scale enterprises in Nigeria. Our results reveal that the microfinance loan has not gone deep enough to ensure a clean break from the community and commercial banking practices.

Ali (2015): the main aim of his study is to analyze the contribution of microfinance in raising the living standard of low-income people and poverty reduction. The study employed a questionnaire to examine the impact of microfinance on the development of poor people in Pakistan. In his study, content analysis is used to investigate the impact of microfinance on poverty reduction from the finding, microfinance has a positive impact on poverty reduction and increase income level, education and develops the living standard of the poor. In the content analysis of the sample of 100 individuals from the microfinance bank. The analysis shows that microfinance is important for poverty reduction. In Pakistan being a nation, approximately 70 percent of people live in rural areas and microfinance for rural is a powerful and the only tool for people in providing a means of livelihood. Its importance and potential should be known to each individual.

Agbaeze and Omouka (2014): this study examined empirically the effect of micro-credit on poverty alleviation in Nigeria using some selected rural farm households in Enugu East Local Government of Nigeria. To achieve this primary data were collected on the sources and access to micro-credit. A multistage sampling technique was used in the selection of the respondents for the study. The first stage involves the random selection of 21 rural communities in the council. The second stage was the random selection of five households per community for the administration of the questionnaire and interviews. The study used the Spearman and Robustness test which the result was consistent that micro-credits has a positive impact on poverty alleviation of rural household in Nigeria. Emefisi and Yusuf (2014) this study was conducted to examine the role of micro-credit on poverty alleviation among farmers in the Karfi Local Government Area of Bauchi State. A survey approach of a total of 100 questionnaires was administrated out of which ninety-five (95) were retrieved

and used for analysis the result, it is clear that micro-credit facilities have a positive impact on rural farmer poverty alleviation status.

Imoisi and Godstime (2014): this research examined the relationship between microfinance and poverty alleviation in Nigeria, to understand the effectiveness of micro-credit within the context of its current practice in Edo State in particular. The study made use of primary data obtained through a field survey from the selected microfinance banks in Edo State. A total of 400 questionnaires were randomly distributed in Edo State, Nigeria, 200 questionnaires were randomly distributed to selected employees in these microfinance banks and the other 200 questionnaires were randomly distributed to selected customers of these microfinance banks. The finding reveals that microfinance, as provided by the government, has not adequately impacted the people's lives rather the private lenders who are closer to the people have filled the gap of saving mobilization and credit delivery.

Abur and Torruam's (2012) study investigates micro-credit as a strategy for poverty reduction in Benue State, Nigeria. Primary data were used and applied on cross-sectional data of 274 respondents in 2012. The analytical tools include descriptive statistics and a logit regression model. The result shows that 0.52 and 0.022 incidences of serve poverty existed before and after credit. The Gini coefficient also indicates a high and low-income inequality of 0.6 and 0.04 existed before and after micro-credit the result from the logit regression technique. Inadequate that the computed value of negalkerke R² is as high as 0.723, this implies that micro-credit influences the poverty status of the respondents. However, micro-credit has helped in reducing poverty among the respondents.

Omitoyin and Sanda's (2010) study, therefore, investigate the sources and uses of micro-credit in poverty alleviation among fish farmers in Osun State, Nigeria. A two-stage random technique was used to select 137 respondents from the three Osun State. Agricultural Development Programs (ADPs) zones structured questionnaire was used to collect data on demographic characteristics, micro-credit sources and use, occupational, income, and fish production data. Data were analyzed using descriptive statistics. FGT and logit model the result shows that both formal and informal micro-credit sources were used in the area studied with high-interest rate militating against the adequate use of some of the micro-credit sources. Poverty alleviation through micro-credit use will increase efficiency through the use of modern effective and efficient technology leading to greater production.

Aisha, Hafiz, Waqar, and Mohammed (2014): this study shows the effect of microfinance on small business and the implication for poverty reduction in the Faisalabad District of Pakistan. The respondents are the clients of Khushjali Bank Ltd. The data were collected with the help of a well-designed and structured questionnaire, which will be analyzed by applying FGT techniques the results showed that poverty has been reduced by financing the people.

Sefa and Samuelson (2016): this research reviewed the empirical evidence on the impact of micro-credit on poverty in Bangladesh. Drawing on evidence from eight empirical studies with 221 estimates, we examine the impact of micro-credit on three proxies of poverty – income, assets, and consumption/expenditure we find that the effect of micro-credit on assets and income is statistically not significant. Evidence shows a positive but weak effect of micro-credit on consumption/expenditure. Meta – regression analysis reveals that sources of variation in the existing literature such as study design, data characteristics, and empirical methodology can explain the differences in reported estimates.

Joana's (2015) thesis aims to answer the central research question “can micro-credit be considered as an entrepreneurial activity capable of creating innovative and value-added

business rather than a self-employment movement with few effects on economic development in Portugal. The study used quantitative and statistically valid, while the qualitative used text information, collected through the analysis interpretation of what people say or are don. From the analysis, microfinance and micro-credit are quickly expanding in Europe, with 75% of the ENN members granting more than 100 loans per year, while one decade ago the average was about 10 loans per year.

Oladayo (2014): this paper investigates the impact of a microfinance institution in Nigeria. A total of 40 respondents comprising 30 females and 10 males were interviewed through questionnaires. From the investigations, the paper found that micro-credit from microfinance impacted positively on a client in the areas of income, employment, and household wellbeing. However, this study was of a smaller magnitude. As a result of this, the study cannot be generalized in the logical term which prompted the paper to call for holistic appraisal of microfinance institutions as a strategy for poverty reduction

Akosile and Ajayi (2014): this research work focus on the impact of Microfinance Institution (MFIS) in reducing poverty in Nigeria. This study examines microfinance banks and Cooperative Investment and Credit Societies (CICS) TO informal sector and Micro Small and Medium Enterprises (MSMEs) are optimally used to reduce poverty and enhance economic development. The study adopts the survey and descriptive research design of five MFBs and three (CICSSs) in the rural. Forty (40) customers of MFBs, twenty (20) members of CICSSs, and eighteen (18) officials of both institutions are the sample size. Primary and secondary data were collected through questionnaires, personal interviews, and related publication through desk research scope actively. It was found out that credit and financial services provided by the MFBs and CICSSs enable the poor and low-income activities that make them self-reliant, enhance their income and discharge their roles effectively.

Marus, Mary, Fabian and Picho (2019): Financial accessibility and poverty reduction in Northern Uganda Lango Sub-region. The study examined the contribution of financial accessibility in supporting poverty reduction in northern Uganda. Across sectional study design was adopted. The data was collected by the use of the structural and closed-ended questionnaire. The finding revealed that financial institutions had not done much to reach the poor, which limits their product with capacity and capacity to acquire productive assets. The study reveals that financial institutions should endeavour to offer financial management training to clients before extending credit to them.

Methodology

This section presents the results of the regression model estimated to examine the determinants of the volume of microcredit disbursed to micro and small scaled entrepreneurs using Ordinary Least Squares. Also, the results of the Probit analysis of the factors that influence accessibility to microcredit in Jalingo.

To examine the factors that influence poverty among the micro and small entrepreneurs

To examine other factors aside micro-credit that influence poverty among the micro and small entrepreneurs, thus, the Probit equation that capture the association between poverty and explanatory variables is expressed as;

$$PV_{FGT_i} = \eta_0 + \eta_i \kappa_i + \varepsilon_i$$

$$PV_{SEN_i} = \eta_0 + \eta_i \kappa_i + \varepsilon_i$$

Where

PV_{FGT_i} = probability of being poor using FGT measure of poverty

PV_{SEN_i} = probability of being poor using Sen-Shorrocks-Thon Index measure of poverty

κ_u = indexes factors that influence poverty, such as age, household size, gender, marital status level of education etc.

η_u = indexes coefficients of factors that influence poverty

To identify the factors that influences the volume of microcredit and the level of accessibility to microcredit in Nigeria

To achieve this objective, both the volume of microcredit and the level of accessibility to microcredit are used to capture micro-credit among the micro and small scale entrepreneurs. In the case of micro-credit volume, a multiple regression is specified, while in the case of access to micro-credit, a probit model is specified. The two models are presented as follows;

$$MCR_{volume_i} = \beta_0 + \beta_y X_i + \varepsilon_i$$

$$MCR_{access_i} = \beta_0 + \beta_y X_i + \varepsilon_i$$

Where

MCR_{Volume} = the amount of micro-credit obtained by the individual entrepreneur

MCR_{access_i} = level of Credit accessibility, measured as binary variable where (yes=1, no=0)

X_i = indexes factors that influence micro-credit, such as registration status, firm size, gender, year of establishment, insurance coverage, level of education, assets, interest rate, etc.

β_y = indexes coefficients of factors that influence poverty

Population

In Taraba State, the total number of micro enterprises as of 2013 was put at 513,973, while small enterprises accounted for 577 enterprises, making 514,550 enterprises in Taraba (SMEDAN and NBS collaborative survey, 2013). Based on this information, a sample of enterprises will be selected. To obtain the sample size that will represent the whole population of about 514,550 enterprises, a simple random sampling technique will be employed to select the respondents without bias, since it is impossible to cover all the enterprises due to time constraint and funding, knowing fully that the majority of these enterprises are located in the urban areas, especially in the state capital Jalingo. Simple random sampling is a probability sampling that allows individual members of the population to have an equal chance of being included in the sample. The random sampling is expressed as;

$$n = \frac{\left[\left(z^2 * p * q + ME^2 \right) \right]}{\left[ME^2 + (z^2 * p * q) / N \right]}$$

Where;

n= sample size

Z= critical value of 95% confidence level= 1.96

P= population proportion, that is, the proportion of enterprises in Jalingo. 0.65 proportion will be used because the exact proportion was unknown.

Q = 1-p = 1-0.65 = 0.35.

ME= margin error = 0.003(3%)

Due to high accessibility to the micro and small entrepreneurs, 3% acceptable (margin of error) will be used. To cater for the invalid responses, 10% attrition rate will be applied. Therefore, 1067 samples are appropriate size for this research.

Sample

Number of clients play significant role to validity of any scientific research endeavor, the data gathered from 912 respondents that was 85.4 percent of the total population. The required information was collected through interviewing schedule, by using face to face survey method. The information thus, collected is tabulated analyzed by using appropriate statistical technique in order to arrive at logical conclusion.

Data analysis tools

Following technique are applied for analyzing the data using STATA 15, EXCEL 2007, 2010

Factors that influence the volume of micro-credit and the accessibility to microcredit

This section presents the results of the regression model estimated to examine the determinants of the volume of microcredit disbursed to micro and small scaled entrepreneurs using Ordinary Least Squares. Also, the results of the Probit analysis of the factors that influence accessibility to microcredit in Jalingo.

The Regression results of factors that influence the volume of micro-credit

Table shows the coefficients of the variables, their standard errors, the t-statistic and associated p-values, R squared and the F-statistics and the associated p-value. From the results, the R-Squared is 58.66%, which indicate that about 59% of the variation in the volume of credit is explained by all the independent variables, while the remaining 41% variation in the dependent variable is explained by unknown variables. The F-statistics is 95.2800 with 0.000 p-value, indicating that the whole model is fit and statistically significant. Looking at the coefficient of the individual variables, it can be seen from the result that there is a positive and significant relationship at the 1 percent level of significance between interest rate and volume of microcredit, which means that there a unit increase in interest rate will increase the volume of microcredit by 9.4%. Similarly, deposits money bank as a source of microcredit positively and significantly influences the volume of microcredit at the 1 percent level of significance. This means that deposits money bank as a source of microcredit increases the volume of credit obtain by the entrepreneurs. In the same vein, bank of industry, microfinance bank, agricultural bank, cooperative and money lender as sources of microcredit have positive and significant effects on the volume of microcredit given to entrepreneurs. Specifically, a change from relative as a source of microcredit to bank of industry, microfinance bank, agricultural bank, cooperative and money lender as sources of microcredit increases the volume of microcredit by 35.81%, 63.07%, 116.36%, 62.12% and 81.37% respectively. This analysis shows that sources of credit significantly determine how much loan is disbursed to entrepreneurs.

There is a positive and significant relationship at 1% level of significance between land as a collateral and volume of microcredit, which means that a small portion of land as collateral reduces the volume of microcredit by 37.73%. Also, there is a positive and significant effect of house as collateral on volume of credit. Specifically, at the 1 percent level of significance, a unit increase in the number of houses as collateral increases the volume of credit by 26.01%. Moreover, type of business scale has positive and significant effects on the volume of microcredit. A change from micro enterprises to small enterprises increases the volume of credit by 10.05% at 1% level of significance. This indicates that business expansion also influences the volume of microcredit obtain by entrepreneurs.

A repayment period of 3 months decreases the amount of microcredit by 70.75% at 1% level of significance, while repayment period of 6 months increases the amount of microcredit by 61.00% at 1% level of significance. This indicates that a shorter repayment period decreases

the volume of credit while longer repayment period increases the volume of microcredit. Furthermore, a positive change in the business profit increases the volume of microcredit, indicating that an increase in profit will increase the volume of microcredit by 0.00026%, while increase in business expenditure will decrease volume of microcredit by 0.00012%. Also, Frequency of Credit access (monthly) and (annually) have positive and significant effects on the volume of microcredit meaning that monthly and yearly access to microcredit stimulate the volume of microcredit by 9.92% and 13.85% at 1% level of significance respectively. In conclusion, source of credit (deposit money bank), source of credit (Bank of Industry), source of credit (Microfinance bank), source of credit (Agricultural bank), Source of credit (Money lenders), collateral (Land), collateral (House) and business scale (small business) positively and significantly influences volume of microcredit while repayment periods (3 months) and period of business establishment negatively and significantly influences volume of microcredit.

Table 1: The Regression results about the factors that influence the volume of microcredit

Volume of Credit	Coef.	Robust Std. Err.	T-statistics	P > t
Interest rate	0.094	0.0069	4.8600	0.0000***
Source of credit (Deposit money bank)	0.8519	0.1709	4.9800	0.0000***
Source of credit (Bank of Industry)	0.3581	0.0253	14.1400	0.0000***
Source of credit (Microfinance bank)	0.6307	0.1829	3.4500	0.0010***
Source of credit (Agricultural bank)	1.1636	0.1955	5.9500	0.0000***
Source of credit (Cooperative bank)	0.6212	0.2007	3.0900	0.0020***
Source of credit (Money lenders)	0.8137	0.1865	4.3600	0.0000***
Collateral (Land)	0.3773	0.0642	5.8800	0.0000***
Collateral (House)	0.2601	0.0582	4.4700	0.0000***
Business Scale (small business)	0.1005	0.0495	2.0300	0.0420**
Repayment Periods (3 months)	-0.7075	0.0757	-9.3500	0.0000***
Repayment periods (6 months)	0.6100	0.0845	7.2200	0.0000***
Repayment period (> 12 months)	-0.0305	0.0672	-0.4500	0.6500
Changes in profit	2.04e-07	0.0000	7.8300	0.0000***
Changes in business profit	0.0000	0.0000	9.6400	0.0000***
Year of business	-0.0020	0.0019	-1.0300	0.3010
Frequency of Credit access (monthly)	0.3798	0.0829	4.5800	0.0000***
Frequency of Credit access (Quarterly)	0.0992	0.0996	1.0000	0.3190
Frequency of Credit access (annually)	0.1385	0.0532	2.6000	0.0090***
Constant	7.9949	0.4599	17.3800	0.0000
R-squared	.586			
No of Observation	9		1	2
F-statistics	9.5		2.8	0.0
Prob - F-statistics	0.		0	0

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Source: Author's computation from STATA 15, (2021)

Probit Model Analysis of factors that influence the accessibility to microcredit

The results from table 1 shows that as interest rate increases, z score decreases by 0.060 at 1 percent level of significance, meaning that as interest rate increases, respondents are less likely to access microcredit. Looking at the effects of various sources of credit on microcredit accessibility, the results show that a change from relative to deposit money bank as a source

of credit, increases z-score by 0.742 meaning that respondents who source credit from DMBs source are more likely to have access to credit. Also, Microfinance banks as a source of microcredit increases the z-score increases by 0.410 at 1% level of significance, meaning that respondents who source credit from Microfinance banks are more likely to have access to credit. However, as Money lender as a source of credit, decreases the z- score by 0.378 at 1% level of significance, indicating that respondents who obtain credit from money source are less likely to have access to credit. Also, land as a source of collateral increases the z-score by 0.328 at 1% level of significance, meaning that as respondents use land as a source of collateral, they are more likely to access microcredit. Also, house as a source of collateral, increases z-score of 0.595 at the 1 percent level of significance, which implies that as respondents use the house as a source of collateral, they are more likely to have access to microcredit. However, 3and 6 months repayment periods as well more than 12 months repayment periods decrease the z-score by 1.122, and 1.067 respectively at 1 percent level of significance. This implies that shorter repayment periods decrease the likelihood to credit accessibility. Also, a decrease in in profit, increases z-score by 0.000015% at 1% level of significance, indicating that lower level of profit increases the likelihood of accessing microcredit.

Finally, period of business establishment increases z-score by 10%. This shows that increase in the period of business establishment increases the probability of microcredit accessibility. Overall, interest rate, sources of microcredit (money lenders), repayment periods (3 and 6 months), and changes in profit are negative factors that influence the frequency of microcredit accessibility. However, sources of microcredit (deposit money banks, microfinance banks), collateral (land and house), changes in business expenses and period of business establishment are significant factors that influence the frequency of microcredit accessibility positively.

Table 2: Probit Analysis of factors that influence accessibility to microcredit

Credit accessibility	Coeff.	Std. Err.	Z	P > z
Interest rate	-0.05957	0.013995	-4.260	0.000***
Deposit money bank	0.741764	0.16147	4.590	0.000***
Microfinance bank	0.410145	0.143322	2.860	0.004***
Cooperative bank	0.179442	0.165063	1.090	0.277
Money lenders	-0.37778	0.141751	-2.670	0.0088***
Collateral (Land)	0.328364	0.107878	3.040	0.002***
Collateral (House)	0.595036	0.114533	5.200	0.000***
Business Scale (Micro-business)	-0.09846	0.116529	-0.840	0.398
Repayment Periods (3 months)	-1.12196	0.169732	-6.610	0.000***
Repayment periods (6 months)	-1.06697	0.201784	-5.290	0.000***
Changes in profit	-1.50E-07	2.72E-08	-5.500	0.000***
Changes in business expenses	4.02E-08	2.38E-08	1.690	0.091*
Period of business establishment	0.010023	0.003956	2.530	0.011**

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Source: Author's computation from STATA 15, (2021)

Marginal effects of factors that influence accessibility to microcredit

The marginal effect is measured in unit of probability and the associated effects are reported in Table 2. The result shows that the probability that a respondent will have weekly access to microcredit as a result of an increase in interest rate is 0.04%. The probabilities that a respondent will have monthly and quarterly access to microcredit as a result of an increase in interest rate is 1.389% and 0.51% correspondingly. Contrarily, the probabilities that a respondent will have access to microcredit annually and once in two years as a result of a decrease in interest rate are 1.098% and 0.624% respectively. The probability that a respondent will have a weekly, monthly and quarterly access to microcredit from the deposit money bank are approximately by 0.26%, 12.43% and 6.27% correspondingly less likely than from the relative source. However, the probabilities that a respondent will have annual and once in 2 years access to microcredit from the deposit money bank are approximately 32.47% and 10.27% more likely than from relative source. This indicates that the probability that the respondent will get weekly, monthly and quarterly loan from DMBs is very low while the respondents have a higher probability of accessing yearly and once in 2years microcredit from the DMBS. Similarly, the probability that a respondent will have a weekly, monthly and quarterly access to microcredit from the deposit money bank are approximately by 0.28%, 9.21% and 3.52% less likely than from the relative source. However, the probabilities that a respondent will have annual and once in 2 years access to microcredit from microfinance bank are approximately 68.35% and 44.8% more likely than from relative source. This indicates that the probability that the respondent will get weekly, monthly and quarterly loan from microfinance bank is very low while the respondents have a higher probability of accessing yearly and once in 2years microcredit from the microbank bank.

Also, the probability that a respondent will have a weekly, monthly and quarterly access to microcredit from the cooperative bank are approximately by 0.11%, 3.89% and 1.58% less likely than from the relative source.

However, the probabilities that a respondent will have annual and once in 2 years access to microcredit from cooperative bank are approximately 2.74% and 2.04% more likely than from relative source. This indicate that the probability that respondent will get weekly, monthly and quarterly loan from cooperative bank is very low while the respondents have a higher probability of accessing yearly and once in 2 years microcredit from the cooperative bank while the probability that a respondent will have a weekly, monthly and quarterly access to microcredit from the money lender are approximately by 0.36%, 9.48% and 3.07% more likely than from the relative source. However, the probabilities that a respondent will have annual and once in 2 years access to microcredit from moneylender are approximately 8.14% and 3.58% less likely than from relative source. This indicates that the probability that the respondent will get weekly, monthly and quarterly loan from money lender is very high while the respondents have a lower probability of accessing yearly and once in 2 years microcredit from the money lender.

The result shows that the probability that a respondent will have weekly access to microcredit as a result of increase in collateral (land) is 0.22%. The probabilities that a respondent will have monthly and quarterly access to microcredit as a result of increase in collateral(land) is 7.43% and 2.83% correspondingly. Contrarily, the probabilities that a respondent will have access to microcredit annually and once in two years as a result of the decrease in collateral land are 5.64% and 3.56%, respectively. Also, the result shows that the probability that a respondent will have weekly access to microcredit as a result of increase in collateral(house) is 0.383. The probabilities that a respondent will have monthly and quarterly access to microcredit as a result of increase in collateral (house) are 12.864% and 0.508%. Contrarily, the probabilities that a respondent will have access to microcredit annually and once in two years as a result of the decrease in collateral land are 8.824% and 6.767% respectively.

The probability that a respondent will have a weekly, monthly and quarterly access to microcredit from Business Scale (Micro-business) are approximately by 0.77%, 2.36% and 0.84% more likely than from the small business. However, the probabilities that a respondent will have annual and once in 2 years access to microcredit for Business Scale (Micro-business) are approximately 1.93% and 0.99% less likely than from small business. This indicates that the probability that the respondent will get weekly, monthly and quarterly loan as a micro business entrepreneur is very high while the respondents have a lower probability of accessing yearly and once in 2years microcredit from the micro business entrepreneur. The probability that a respondent will have weekly access, monthly and quarterly access to microcredit as a result of increase in year of business is 0.007%, 0.234% and 0.863% correspondingly while the probabilities that a respondent will have monthly and quarterly access to microcredit as a result of decrease in year of business is 0.185% and 0.105% respectively. Also, the result shows that the probability that a respondent will have weekly access, monthly and quarterly access to microcredit as a result of change in profit is 1.0E-05, and 0.863% correspondingly. The probabilities that a respondent will have monthly and quarterly access to microcredit as a result of decrease in change of profit is 0.185% and 0.105% respectively. In the same vein, the probability that a respondent will have weekly access, monthly and quarterly access to microcredit an increase in year of business is 0.007%, 0.234% and 0.863% correspondingly while the probabilities that a respondent will have monthly and quarterly access to microcredit as a result of decrease in year of business is 0.185% and 0.105% respectively.

Table 3: marginal effects of factors that influences the level of accessibility

Credit accessibility	W e e k l y	M o n t h l y	Q u a r t e r l y	A n n u a l l y	Once in two years
Interest rate	0.0004273(1.92)	0.0138813(4.34)	0.0051271(3.7)	-0.0109766(-3.92)	-0.0062405(-4.18)
Deposit money bank	-0.002575(-2.08)	-0.1242419(-6.43)	-0.0627402(-4.63)	0.032476(1.62)	0.1027869(3.84)
Microfinance bank	-0.0027837(-1.76)	-0.0921352(-2.96)	-0.0352174(-2.83)	0.0683551(3.16)	0.0448251(2.55)
Cooperative bank	-0.0010519(-1.12)	-0.038864(-1.16)	-0.0157664(-1.07)	0.0273939(1.32)	0.0204257(1.01)
Money lenders	0.0035659(1.75)	0.0948018(2.57)	0.03068(2.58)	-0.0813374(-2.42)	-0.0357616(-2.88)
Collateral (Land)	-0.0022382(-1.88)	-0.0743454(-3.12)	-0.028282(-2.86)	0.0560468(3.08)	0.0355814(2.75)
Collateral (House)	-0.0038254(-2.29)	-0.1286403(-5.44)	-0.0507881(-4.7)	0.0882401(5.69)	0.067685(4.44)
Business Scale (Micro-business)	0.000769(0.75)	0.0235761(0.82)	0.0083578(0.86)	-0.0192938(-0.78)	-0.0099636(-0.88)
Repayment Periods (3 months)	0.0254823(2.2)	0.3226719(5.8)	0.0608884(7.12)	-0.3069271(-5.24)	-0.0780111(-7.67)
Repayment periods (6 months)	0.0316633(1.85)	0.3247366(4.78)	0.0449771(4.86)	-0.3239991(-4.5)	-0.0608778(-7.86)
Repayment period (> 12 months)	0.0055773(2.24)	0.1734627(7.55)	0.0669474(6.6)	-0.1157492(-5.8)	-0.0916055(-6.35)
Changes in profit	0.0000000107(2.41)	0.0000000349(5.4)	0.0000000129(4.65)	-0.0000000276(-4.93)	-0.0000000157(-4.71)
Changes in business profit	-0.00000000289(-1.52)	-0.00000000937(-1.67)	-0.00000000346(-1.66)	0.00000000741(1.65)	0.00000000421(1.69)
Year of business	-0.0000719(-1.78)	-0.0023356(-2.47)	-0.0008627(-2.44)	0.0018469(2.37)	0.00105(2.51)

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Source: Author's computation from STATA 15, (2021)

CONCLUSION

It was concluded that source of credit (deposit money bank), source of credit (Bank of industry), source of credit (microfinance bank), source of credit (agricultural bank), source of credit (money lenders), collateral (house), and business scales (small business) positively and significantly influence volume of microcredit while repayment period (3 months) and period of business establishment negatively and significantly influence volume of microcredit.

RECOMMENDATION

The government needs to do more to educate the citizens on the real motive of savings. There should be a reorientation to these business owners which must be done even before any government intervention else those proceeds from the intervention may still be wrongly used.

Also, loan size should be increased to meet the requirements of borrowers, but this should be done very carefully depending on the ability of the client to pay and on the suitability of each project. This is critical for business expansion as the micro-business owners would need microcredit to be able to expand their businesses and this will also create employments thus achieving the SDG one of poverty reduction and inequality.

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