

International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

Microfinance Impact on Poverty of Rural Households in Ethiopia: In Case of Jimma Rare Woreda

Takele Wogari Irge¹, Dr K. Kiran²

¹Lecturer, Dept of Economics Wollega University. ²Assistant Professor ,Dept of Economics, Wollega University.

ABSTRACT

One of the main challenges of economic development of Ethiopia for decades is poverty. Though different economic policies have been formulated by development researchers to minimize severity of poverty in the country, poverty has continued to be the challenges of economic development of Ethiopia. The study is carried out in Jimma rare Woreda Horro Guduru Zone in Oromia Regional State aimed to estimate determinants of microfinance participation and its impact on poverty of rural households. The study undertook cross-sectional household survey collecting primary data from 326 sample rural households' using simple random sampling method in the 2019/2020 production season. The collected data was analyzed using descriptive statistics and econometric approaches. Binary Logit was used for sake of analyzing determinants of microfinance participation. Additionally, Propensity Score matching model was applied to estimate the impact of microfinance participation on rural household poverty in the study area. The descriptive analysis revealed that the microfinance participation decision differ among participant and non participant on the basis of socioeconomic characteristics such as age, marital status, education, family size and religion. The result of logit model indicated that marital status, education, nonfarm participation, family size, frequency of extension contact, and cultivated land size affect microfinance participation decision of the household positively whereas age of household, distance from the market, and estimated value of asset have negative and significant effect on the participation decision of households in the OCSSCO microfinancing services. Additionally, the study found that microfinance participation has positive and significant effect on rural household poverty. It is recommended that importance of microfinance in poverty reduction is of enormous benefit to the participant households in Jimma rare Woreda

Key words: Rural Poverty, Microfinance , Logit, Propensity score Matching, Impact evaluation

1. INTRODUCTION

The division of the 'haves' and the 'have-nots' characterize the world. While the former lead a luxurious life, the latter suffer from lack of decent, healthful and productive life. The inequality between the rich and the poor is widening apart, which resembles the trend of opening a scissor. Besides, the number of the poor is getting higher and higher as the years go by. Poverty is generally considered as a situation in which the underprivileged do not have adequate food and shelter, lack access to education and health services, are exposed to violence, and find themselves in a state of unemployment, vulnerability and powerlessness. Poverty is multi-dimensional and has to be looked at through a variety of indicators such as levels of income and consumption, social indicators and indicators of vulnerability to risks and socio-political access and participation. The estimated number of undernourished people increased to 815 million in 2016, up from 777 million in 2015(FAO, 2017). This has been largely driven by the world food price hike of 2008 and the food riots that raged in a

number of countries in Africa and South Asia, where more than half of the world's population and two-thirds of the world's poor live, many going to bed hungry.

Poverty remains highly concentrated in rural areas. Given persistent inequality, current trends indicate that the goal of eradicating hunger by 2030 will not be achieved. Globally extreme poverty is decreasing, but in sub-Saharan Africa there are now more extremely poor people than in the 1990s. Extreme poverty, measured in terms of the number of people living below the recently updated poverty line of US\$1.90 a day (valued in 'purchasing power parity', or PPP), has significantly declined since 1990, when almost 2 billion people, or more than 37 percent of the world's population, were extremely poor. In 2012, the global prevalence of extreme poverty was put at 12.7 percent, and was projected to fall to 9.6 percent by 2015. The decline in extreme poverty has been especially pronounced in East Asia and the Pacific, and South Asia (World Bank, 2015). However, poverty still affects more than 700 million people worldwide. Extreme poverty is persistent in sub-Saharan Africa; where in 2015 close to 350 million people were considered extremely poor, 60 million more than in 1990. In developing countries, however, the issue of poverty is a primary concern.

Ethiopia is located in SSA; in particular, with over 110 million people and 1.12 million Km2 areas and it can at best be described as a large country. Agriculture is the backbone of the country's economy. The fact that approximately 78.9% of the country's population lives in the rural areas and derives its livelihood from agriculture proves the sector's outstanding importance (Worldometers, 2019). According to World Bank Group (2018), the share of population living below the national poverty line decreased from 30% in 2011 to 24% in 2016. According to the 2015's UNDP Human Development Report, Ethiopia's human development index (HDI) value was 0.448 putting it in the low human development category and ranked 174th position out of 188 countries. The HDI value increased from 0.283 in 2000 to 0.448 in 2015 indicating 58.2 percent increase over the past 15 years. Between 1990 and 2015, life expectancy at birth increased by 17.5 years to 64.6 years, mean years of schooling increased by 1.1 years to 2.6 years, expected years of schooling increased by 5.3 years to 8.4 years and national income per capita increased by 134.7 percent to \$1523 (2011 PPP\$). The 2010 UNDP Human Development Report acknowledged Ethiopia as one of the top movers of human development in the world. In recent years, however, progress remains flat mainly due to sluggish performance in education particularly in mean years of schooling. According to UNDP (2018), the multidimensional poverty index which identifies multiple overlapping deprivations in three dimensions namely health, education and standard of living computed based on the 2011 household consumption expenditure survey indicated that 88.2 percent of the population is multidimensional poor.

Over the past fifteen years, the headcount poverty rate declined by about 93 percent from 45.5 percent in 2000 to 23.5 percent in 2016. According to the recent Household Consumption Expenditure Survey report, between 2010/11 and 2015/16 about 5.3 million people are lifted out of poverty. Poverty gap and poverty severity indices have respectively declined from 10.1 percent and 3.9 percent in 2000 to 3.7 percent and 1.4 percent in 2016. Nonetheless poverty is still a challenge in Ethiopia as over 22 million people are living below the national poverty line. Poverty is predominantly rural phenomenon in Ethiopia. While urban headcount poverty declined from 36.9 percent in 2000 to 14.8 percent in 2016, rural poverty only declined from 45.4 percent to 25.6 percent in the same period. (UNDP, 2018).

It has been a long-held belief among policymakers that poor households in developing countries lack access to adequate financial services for efficient intertemporal transfers of resources and risk coping, and that without well-functioning financial markets, these households do not have much prospect for

increasing in any significant and sustainable way their productivity and living standards. Because of these reasons, and the fact that traditional commercial banks typically have no interest in lending to poor rural households due to their lack of viable collateral and the high transaction costs associated with the small loans that suit them, most developing-country governments and donors have set up during the past three decades credit programs aimed at improving rural household access to formal credit. The vast majority of these credit programs, especially the so-called "agricultural development banks," which provided credit at subsidized interest rates, have failed to achieve their objectives both to serve the rural poor and be sustainable credit institutions (Adams...*et al*). Both in response to these failures and in recognition of the critical role that credit can play in alleviating rural poverty in a sustainable way, innovative credit delivery systems are being promoted throughout the developing world as a more efficient way of improving rural households' access to formal credit with no or minimal government involvement (Diagne, 1999). According to Parker (2000), poverty has always been a concern of microfinance; and some microfinance institutions use methodologies that target the very poor as a separate client groups, while others are based on non-targeted financial services for all those who lack access to formal credit institutions.

1.2. Statement of the Problem

The main challenge of economic development of Ethiopia for more than two decades is poverty. Poverty is a multi-dimensional phenomenon related to the lack of social, economic, cultural, and political entitlements. The wide-spread poverty, with all the problems that comes with it, is the greatest challenge of our time so that poverty reduction has been an important development challenge over decades. One of the identified constraints facing the poor is lack of access to credit to enable them to take advantage of economic opportunities to increase their level of productivity and income, hence move out of poverty (Sophia, 2012).

The large number of population in Ethiopia is rural households, and they have a low level of literacy. Majority of the farm community comprised of subsistence farmers who are not in a position to use high-quality seeds, sufficient fertilizers and improved farm land and limited access to credit. Because of this, small farmers generally characterized by low income, less saving and low capital formation. In line with this, the rural development is hindered due to lack of credits, weak infrastructure, and poor transport systems (Wolday and David, 2010; cited in Simon, 2016).

Different economic policies formulated by development practitioners and researchers to minimize effect of poverty in the country, poverty has been continued to be challenges of economic development of Ethiopia. Poverty reduction strategy and different poverty intervention programmes of the government and other development practitioners in rural areas are some of the testimonies of this. Microfinance institutions were one of the strategies that help to reduce poverty (Abduselam,2017). An important tool in fighting poverty is microfinance which has gain prominence over the last few decades in countries hardly hit by the menace. Feleke (2011) finding result showed that the household's income is positively related to participation in microfinance services. Households participate in microfinance institutions in the expectation that borrowing will increase their earnings, smooth consumption, enhance their food security, sustain self-employment, reduce the risk of vulnerability and increase savings to strengthen the basis for human capital formation. Microfinance also enables households to mobilize and harness their resources and optimally exploit the opportunities available to them. Moreover, microfinance services contribute for the improvement of agricultural productivity by adopting productivity-enhancing inputs and modern farming techniques (Ziaul, 2014).

However, in Ethiopia, the poor households in the country remain with limited access to formal financial services. The majority of rural people and the poor farmers lack access to credit from

modern financial institutions. Besides, formal financial institutions are inefficient and inaccessible in providing credit facilities to the poor (Sileshi, 2014).

The prevailing operation of the formal or conventional financial institutions in many low income countries such as Ethiopia is inefficient in providing sustainable credit facilities to the poor. Access to institutional credit, which contributes to the increase in investment, is very limited in Ethiopia. The majority of the poor access financial services through informal channels, money lenders, Iqub, Iddir, friends, relatives, traders, etc. (Wolday, 2002). Most micro-credit services delivered through NGOs and government initiated projects in Ethiopia did not consider savings as one of most important product both to the client and institution.

Moreover, even though there have been many studies conducted concerning the impact of microfinance at the country level, a high proportion of them have been focusing on contributions to children's education, improving health outcomes for women and children, poverty reduction and empowering women by participation in microfinance services. Moreover, these studies have compared microfinance beneficiaries against non-beneficiaries on outcome variables of interest using descriptive statistics and observable characteristics without addressing the key methodological issues such as selectivity bias and sensitivity analysis. Further, these studies didn't address impact of microfinance on household poverty in rural areas where majority of the people rural households based subsistence farming system.

Importantly, in Jimma rare woreda where this study is conducted, no studies have been conducted related to microfinance institutions in the area. Therefore, to fill these gaps, the researchers motivated to conduct a study which focused on assessing determinants of the rural households' participation in OCSSCO microfinancing and its impact on rural household poverty in case of Jimma rare Woreda, Horro Guduru Wollega of Oromia Regional State using binary logit and Propensity Score Matching model which is applicable for impact assessment.

1.3. Objectives of the Study

1.3.1. General Objective

The general objective is to study major determinants of microfinance participation and estimate the impact of OCSSCO microfinance on poverty of rural households in Jimma Rare woreda **1.3.2. Specific Objective of the Study**

The specific objectives of the study are:

- 1. To examine the extent of rural household poverty in the study area
- 2. To investigate the major determinants of microfinance participation of rural households in the study area
- 3. To estimate the impact of microfinance participation on rural household poverty in the study area

2.METHODOLOGY OF THE STUDY

2.1. Sample Size Determination and Sampling Techniques

The study was conducted in Horro Guduru Wollega Zone of Oromia Regional State. The survey was conducted on respective sample of respondents from Jimma Rare Woreda. The target population of

the study was the households in the study area and sample was taken from 3732 households in the sampled kebeles of the Woreda. The selection was conducted randomly. Multistages stages sample design procedure was adopted for the survey. The first stage was the selection of sample branch (Odo Wayu branch) of the OCSSCO from thirteen branches in the zone based on the time spent in the program i.e. branch of long duration. In the second stage, using purposive sampling method, three kebeles was selected based on the existed agro-ecological condition of the study area and a single kebele was selected from each three agro ecological area of lowland (kola), midland (woina-Dega) and highland (Dega) respectively. Thirdly, sample respondents was selected through simple random sampling as participant and non participant and the selection of sample respondents from three kebeles and distinction of sample households as participant and non-participant is on the basis of proportion to size. The total sample size is 326 of which 203 will from non-participant who make up the control group. Finally, probability proportional to the size was employed to select 123 households from participant and 203 households from non-participants which totally constitute the size of the sample to 326 from selected kebeles.

The required sample respondents was determined based on the Cochran (1977)'s formula of proportion given by

Where, n_0 is the sample size, Z is the selected critical value of desired confidence level, p is the estimated proportion of an attribute that is present in the population, q = 1 - p and e is the desired level of precision level. In this study, it is observed that maximum variability is equal to 63% (p = 0.63), 95% confidence level with 5% precision level. Then the required sample size will be as follow

P = 0.63 and hence q = 1 - 0.63 = 0.37; e = 0.05; z = 1.96

$$n_0 = \frac{Z^2 pq}{e^2} = \frac{(1.96)^2 (0.63)(0.37)}{(0.05)^2} = 358 \dots 3.2$$

To calculate the final sample size, the correction formula of Cochran (1977) which is suggested for finite population which reduces sample size slightly is given below:

Tuble I Sumple Size The cuton of the Selected Resele							
Selected	Number of	Participant	Non	Sample selected from kebele			
Kebeles	households in	households	participant				
	the kebele		households				
Beda Worke	1146 (30.7%)	380 = 34%	766 = 66%	100	34 from client		
					66 from non-client		
Bebel'a	1153(30.9%)	425 = 38%	728 = 62%	101	38 from client		
					63 from non-client		
Dile kolba	1433 (38.4%)	566 = 41%	867 = 59%	125	51 from client		
					74 from non-client		
Total	3732 (100%)	1371	2361	326	326		

Table 1 Sample Size Allocation of the Selected Kebele

Source: Own computation of proportion to size

A total number of households in 22 kebele are about 27215 and 3732 households are the target population of the selected three kebeles in the district. Accordingly, a total of 326 sample households were randomly sellected from three kebeles. Three kebeles were purposively selected due to their duration with the services of OCSSCO and their relative greater number of clients. Then the respondents were selected using simple random sampling method within each stratum.

2.3. Sources and Types of Data

Both primary and secondary data was used for this study. The primary data needed for the study was obtained from randomly selected rural households of Odo shakiso woreda. The types of data which was generated through the various data collection instruments from these sources are quantitative and qualitative data. Secondary sources of data are government policy documents and reports, poverty research reports from the research journals, books and magazine, policy documents and working and discussion papers of various institutions and from the zonal and woreda administration offices, and woreda microfinance.

Then after, a structured household questionnaire was administered to 326 sample households of participant and non-participant in the selected kebeles. In doing so, training was given to enumerators about the questionnaire and follow up was made to ensure that the process of data collection was smooth. The survey questionnaire was pre-tested before full scale data collection in order to clarify issues in the questionnaire.

2.4. Method of Data Analysis

2.4.2. Econometric Analysis

Data analysis followed upon completion of data coding and organizing. The STATA 13 version is the statistical software which was used for analyzing the data. The Logit and PSM models were used for the sake of microfinance participation determinants and evaluation of impact of microfinance on rural household poverty respectively in this study. The following methodologies are employed in analyzing the extent of poverty, participation determinants of microfinance and impact assessment of OCSSCO microfinancing scheme on poverty of rural households.

3. RESULTS AND DISCUSSIONS

Pseudo R2

=

Log likelihood = -42.284637

0.8043

This chapter is subdivided into three sub-sections. The first part presents the descriptive statistics on the demographic and socio-economic characteristics of the sampled households. The second section presents the results and discussion on the extent of poverty of sampled households of the study area and finally, the third section deals with the discussion and results on determinants of Microfinance participation and impact of microfinance participation on rural household poverty of sampled households in the study area.

3.3.2. Estimation of Determinants of Microfinance Participation in Odo Shakiso Woreda

The binary logit model was used to estimate the determinants of rural poverty in Odo Shakiso woreda. The estimation result of the model is presented in the following table:

					•		
Microfinance	Coef.	Std. Err	Ζ	P> Z	[95% conf.		
participation					interval]		
Age of HH	0496844	.023872	-2.08	0.037**	0964727002896		
Gender of HH	.0566539	.6779217	0.08	0.933	-1.272048 1.385356		
Marital Status	2.558408	.9481698	2.70	0.007***	.7000289 4.416786		
Religion	-1.258832	.7400296	-1.70	0.089*	-2.709264 .191599		
Education	.1949058	.1099155	1.77	0.076*	0205246 .4103361		
Nonfarm activities	1.895605	.6714493	2.82	0.005***	.5795884 3.211621		
Family size	.6681807	.1509714	4.43	0.000***	.3722823 .9640791		
Dependency ratio	2372544	.1741751	-1.36	0.173	5786313 .1041225		
Extension contact	1.63216	.3387716	4.82	0.000***	.9681803 2.296141		
Distance from market	7127277	.1148765	-6.20	0.000***	93788164875738		
Estimated value of Asset	0000121	3.72e-06	-3.26	0.001***	0000194 -4.82e-06		
Attitude towards risk	0080636	.6524425	-0.01	0.990	-1.286827 1.2707		
Cultivated land size	.3272271	.1056922	3.10	0.002***	.1200743 .53438		
_cons	-4.883993	2.005162	-2.44	0.015	-8.814039953948		
Number of Observation = 326Source: Own computation from survey data (2019)							
LR chi2 (13) = 347.53							
Prob > chi2 = 0.0000							

Table 2: Binary Logit Estimation of Determinants of Microfinance Participation

Note: ***, ** and * denotes level of significance at 1%, 5% and 10% respectively.

In the table 6 above out of 13 explanatory variables, 10 of the variables of which 7 of them are continuous and the remaining 3 significant variables are dummies : Age of the household, Marital status of household, religion of household head, years of education, household Nonfarm participation, size of family members, times of extension contact, distance from the market, estimated value of the Asset and Total size of cultivated land have a significant effect on the rural households participation to microfinance at the significance level at 1%, and 10%. The negative values of explanatory variables in the table above indicate that when the unit change in independent variable lead to decrease in probability of being participant. The positive values of explanatory variables in the table

above indicate that when the unit change in independent variable lead to increase in probability of being participant. Among the significant explanatory variables, marital status, years of education, nonfarm activities participation, family size, extension contact and cultivated land size were affect the dependent variable (microfinance participation) positively whereas the remaining four variables namely age of household head, religion, distance from the market and estimated value of asset were affect the participation decision negatively.

3.3.2.1. Marginal Effect for Logit regression

In view of the fact that the logit model we are using for regression analysis is not linear, the marginal effect of each independent variable on the dependant variable is not constant but it depends on the value of the independent variables. Thus, marginal effects can be a means for summarizing how change in a response is related to change in a covariate. For categorical variables, the effects of discrete changes are computed, i.e., the marginal effects for discrete variables show how P(Y = 1) is predicted to change as Xk changes from 0 to 1 holding all other Xs equal. Whereas for continuous independent variables, the marginal effect measures the instantaneous rate of change, i.e. we compute them for a variable while all other variables are held variables constant .That means in this study change in the probability of being participant with a unit change in continuous independent variable (Greene, 1993).Thus, opposed to linear regression case, it is not possible to interpret the estimated parameters as the effect of the independent variable up on being participant. However, it is possible to compute the marginal effects at some interesting values of the significant explanatory variables. We can see in table 5 below

Variable	dy/dx	Std. Err	Z	P> Z	[95% conf. interval]	Х
Age of HH	0040721	.00218	-1.87	0.061	008339 .000194	42.6779
Gender of HH	.0046034	.05462	0.08	0.933	102448 .111655	.687117
Marital Status	.1450882	.05149	2.82	0.005	.044178 .245998	.745399
Religion of HH	0764704	.04102	-1.86	0.062	156865 .003925	.180982
Education	.0160157	.01038	1.54	0.124	004364 .036312	4.4908
Nonfarm activities	.1701909	.07948	2.14	0.032	.014414 .325968	.484663
Family size	.0547636	.01931	2.84	0.005	.016912 .092615	7.44479
Dependency Ratio	0194452	.01622	-1.20	0.231	051236 .012346	3.69325
Extension contact	.1337707	.04299	3.11	0.002	.049518 .218023	1.62883
Distance from market	0584146	.01786	-3.27	0.001	093414023416	8.01733
Estimated value of asset	-9.93	.00000	-2.62	0.009	-1.7e-06 -2.5e-07	63839.3
Attitude of risk	0006609	.05348	-0.01	0.990	10548 .104159	.506135
Cultivated land size	.0268193	.00987	2.72	0.007	.007476 .046162	2.79525

 Table 3: Marginal Effect of Logit Model

Source: Stata output computation from survey data (2019)

4.3.2.2. Interpretation of Significant Explanatory Variables

The logistic regression model shows that from the total of thirteen explanatory variables hypothesized to influence household's microfinance participation some of them; namely marital status of household, nonfarm activities, Family size, estimated asset value of the household, cultivated land size, frequency of extension contact and distance from the market are significant at 1% probability level whereas age of household head, religion and years of education were significant at less than 10%. The coefficients of three variables were not statistically significant at the conventional

probability levels implying that they were less important in explaining the variability in household's participation decision in the woreda.

These variables are sex of household head, attitude of the household head towards risk and dependency ratio. Thus in what follows, the estimation result of the binary logit model and its interpretations of the significant explanatory variables will be discussed.

Age of household head: The age of a household head was negatively and significantly affected microfinance participation decision of households at less than 10% probability level showing an inverse relationship with household participation. It shows that a one year increase in age of the respondent would result in a 0.4% decrease in the probability of being participant in Microfinance. The possible explanation could be as rural farmers households get aged, their access to information decreases because of decrease in their mobility especially to run income generating activities. Asset accumulation also diminishes as the household's productivity decreases. Moreover, their achievement motivation and level of aspiration diminishes with age. The result is consistent with the findings of Roman (2010).

Marital Status: Household head marital status coefficient results of the study revealed that the variable under consideration is positively related and significant at 10% probability level with the probability of being participant. The coefficient of marginal effect of logit model interpretation could be married household has the probability of 14.5% to be participant compared to others status (single, divorced, and widowed), assuming other things remain constant. The meaning of the result suggests that married couples have greater liquidity needs due to increased financial needs of more persons in the household. Different studies suggested different results regarding how marital status affects household microfinance participation. For example, Forah (2011) conducted study on factors affecting microfinance participation and with regard to marital status of the household head; the coefficient of the married household head was positive and statistically significant at one percent level.

Religion of household: religion of the household head seems to make a significant difference in the demand for credit. The variable was hypothesized as dummy 1 for Muslim and 0 for other religions. The result of the coefficient shows that the Islamic religion has negative effect on the microfinance participation of the house household. The interpretation would be assuming all other thing remain constant being Muslim decreases the probability of being participant in microfinance by 7.65 percents compared to other religions. In an area where the social ties and religion contributes to attitudes and beliefs of individuals, religion affects the credit behavior of the society (Getaneh, 2005). In Muslim religion, credit or saving is not allowed since paying or receiving interest is considered as haram (Getaneh, 2005) and hence people refuse to take credit even though they are unable to finance themselves. This can be witnessed from the study of Ageba & Amha (2006) who found that 1.8 percent of the respondents in their sample did not apply for credit due to religious reason. In addition, Getaneh (2005) reported that in certain areas of Ethiopia such as in the Oromia and in the Amhara region, earning of money by the act of loan is haram.

Education of the household head: education affects positively and significantly rural household decision in participation of microfinance service at less than 10% probability level. The model result shows that when a years of education level increase by one year result in 1.6% increase in the participation probability in microfinance, citrus paribus condition. The implication in that literate household more easily demand and protect his/her right and so education increases the knowledge and skill of the people in a society Hinzen, (2004). Therefore, the more education to a society means the more intervention in different economical and social activities by that society. A household head is relatively better educated; he/she can have relatively better motivation to do income generating activities. The result of this finding is consistent with the results of Sharma and Zeller (2005)

Non-Farm activities: The marginal effect coefficient of logistic regression suggested that nonfarm

activities participation of the households has positive and significant effect on the rural household microfinance participation so that the variable is significant at 1% probability level. The model marginal effect result shows that when the household participate in nonfarm activities, his/her microfinance participation probability increases by 17 percent compared to household who did not participate in nonfarm activities. The meaning of this result is that households who are involved in non-farm activities have higher demand for credit since these activities requiring them huge capital. This is in line with finding in India which suggested skill, opportunities from non-farm investments and occupation of the individuals are key factors influencing borrowers to get a loan from the microfinance (Chaudhuri, 2011).

Family Size: Family size affects positively and significantly women decision in participation of microfinance service at less than one per cent probability level. The model result shows that when the family size increases in one person, the level of household chance of participation decision in microfinance services increase by 5.4%, while the other variables held constant. This might be attributed to large families which are more likely to exert consumption stress on the household borrowing than those in a smaller family as the larger family is more likely to have a higher dependency ratio, which is reflected through an increased probability of microfinance participation (Tekle and Eshetu 2017). This may mean that households with larger families cannot invest in farm capitalization since the large portion of their farm output is used to maintain their family. Oluwasola & Alimi (2008) also found similar result in Nigeria that big family size (11 averagely) increased agricultural credit demand. And also Bendig et al.(2009) reported from Ghana that larger households are more exposed to shock (e.g., illness) because of higher number of household members which ultimately caused them to have participate in microfinance.

Extension contact: The result of logistic regression indicated that the frequency of extension contact had a positive effect on rural households' participation in microfinance services, and was significant at the 5% significance level. This means that those households getting more extension service have a high probability to participate in microfinance services. The marginal effect of the frequency of extension contact was 0.1337707. The computed marginal effect result shows that a unit increases in the frequency of extension contact increases the probability of households participation in microfinance services by 13.38% keeping other variables constant at their means. The explanation would be the extension service was to increase the crop production by using modern agricultural technologies like chemical fertilizer, irrigation etc and had more participated in agriculture intensification activities than the counterparts as a result farmers who have a frequent contact with extension agents are expected to have more information that will influence farm household's demand for credit from the formal sources (Ambachew & Ermiyas, 2016; Titay, 2013). On the other hand, the propensity of households to participate in farm activities is positively influenced by their extent of contact with that since they are better in farm income relatively and it leads them to participate in farm activities (Yishak, 2017).

Distance from the Market (market proxy): Distance from market affects negatively and significantly household decision in participation of microfinance services at 1% probability level. The interpretation of could be a one kilometer increase in distance from the nearest market, the probability of participation declines by 5.8 percent. The most possible explanation is that households living far from market places have less access to valuable information which could have helped them to make advantage of opportunities. Besides, microfinance institutions members get income generating activities selection, planning and management training from the responsible organization. This training helps them to better process and use the information they get as a result of their nearness to the market. Moreover, households those has better access to market has higher chance of

engaging in different income generating activities. As a result, rural households who are close to market have better possibility to be relatively better empowered than those who are far from market and the result of this study was consistent with the study of Ebrahim, (2006); Daniel and Yirgalem (2016).

Estimated Value of Asset: The estimated value of asset that the household own is one variable in this study and the variable is significant at less than one percent affecting the microfinance participation decision of the household negatively. The coefficient of marginal effect in logistic regression shows that as the asset of the household increases the microfinance participation probability of the household can be decreases. This is because when endowment grows, households can automatically finance a greater share of their desire consumption and their demand for credit may decrease. Asset of the household is an important element households take in to consideration when borrowing decision is made. To this respect, the study by (Duflo et al., 2008) indicated that the amount of asset owned has a negative influence on demanding credit as households need no more capital. But the findings of (Mpuga , 2004) and (Mpuga, 2008) contend that it is not the number of the assets rather the value of assets (e.g., building, land) owned by household and other dwelling that strongly influence demand for credit.

Cultivated Land Size: Another important variable is cultivated land size which had a positive effect on the rural households' participation in microfinance services and statistically significant at 5% significance level. The marginal effect result of the study shows that a one hectare increase in cultivated land size increases households' participation in microfinance by 2.68%, keeping other variables in the model constant. The finding of the study coincides with Asfaw (2013), who found that cultivated land size has a positive and significant effect on households' microfinance participation decision. The possible implication is that as household cultivated additional hectare of land, he/she needs more financial resources to fulfill inputs for the production and this could increases the probability of microfinance participation. Similarly, the results of the study by Daniel and Yirgalem (2016) had also revealed that farmers with the cultivated land can be engaged on fertilizer credit. This statement supports the economic logic of the substitutability of fertilizer for land. Rural households facing the problem of low level of production due to shortage of farmland and limited use of modern farm technologies would increase their productivity through the use of fertilizer and other improved farm inputs. This forces farmers for searching credits and saving institutions or individuals and groups. This result is also consistent with studies carried out by Daniel and Yirgalem (2016).

5.1. Conclusion

In the study area even though there is significant number of households who participate in microfinance services, the extent or degree of participation was low and suggests that still the study area rural households were not benefiting from the services as such. The descriptive analysis result showed that the mean difference between the two groups regarding the sex of household head

The study used cost of basic needs method to measure consumption expenditure (per adult equivalent) of the rural household and compared their expenditure with predetermined national poverty line of 5220 birr per adult equivalent expenditure per year. The poverty measure approach revealed that the poverty incidence, poverty gap and poverty severity were found 36, 26 and 8 percent respectively. Headcount index shows that 36% of the households were poor and 64% were not poor, poverty gap result implies 26% consumption shortfall from the poverty line and severity result indicate 8% variation among poor households.

implying female headed household less participated in to microfinance services compared to male headed households in the study area. Again, marital status, education level, cultivated land size; and frequency of extension contact were statistically significant. However, the two groups have shown a statistically insignificant mean difference regarding a dependency ratio.

The estimation result of the logit model indicated that among 13 explanatory variables, which were hypothesized to influence the household heads participation in microfinance services, ten variables were statistically significant while the remaining three variables were statistically insignificant. The significant variables in the model were age of household head, marital status, education level, religion, family size, nonfarm activities, cultivated land size, distance from the market, frequency of extension contact and estimated value of asset are significantly influenced households' participation in microfinance services while dependency ratio, gender of household head and attitude of household head towards risk were the three insignificant explanatory variables.

It can be concluded that rural households who are better educated, contacted more frequently by extension more, married household, large family member, has large cultivated land, male headed, and participate in nonfarm activities not Muslim not tend to engaged in microfinance than others. Additionally, the finding of the study showed household with large asset value, far from market, Muslim in religion and higher aged were less inclined to the microfinance participation.

5.2. Recommendation

- ➤ The study, Indicates the poverty magnitude and dimension (poverty incidence, gap and severity) were found to be high relative to national poverty situation. Thus due attention by different stakeholders by searching different opportunities i.e. for example giving credit services, which will increase the well being of rural household in general and in the study area in particular.
- The study Revealed that education was found to have positive contribution in increasing the microfinance participation and this has its role in decreasing rural household poverty. Therefore, expanding both formal and informal education for rural households, creating awareness about importance of education will improve their skill to use farm inputs effectively as well as help to benefit from existing microfinance services appropriately and this can improve the well being of the rural household.
- Family size is found to be one of the key factors that contribute for increase in demand towards microfinance usage. Hence, the government and NGOs, particularly operating at the local levels should design sound implementation programs to put the already endorsed and existing population policy in to effect. To this end, two side actions can be possible. One, a focus on family planning and integrated health service and education provisions must catch the attention of decision-making bodies. Second, the existing microfinance institution (OCSSCO) should facilitate and expand its services for rural household farmers to help them with this high family size and respective financial problems.
- Extension contact is one important variable influencing microfinance participation significantly and positively. This indicates that frequently contacted household has the advantage of improving awareness regarding how to use loan economically, how to manage his/her farm inputs and resources and also come out with skill and experiences to cope with existing situation in life. Therefore, the concerned body both government and non government should due attention to those rural households through creating different training opportunities on issues such as farm related training, advantages and usage of microfinance services, family planning etc so as to improve their living standard.

The positive impact of OCSSCO MFIs in improving expenditure implying that OCSSCO microfinance is important in reducing poverty and enhancing social welfare at Odo Shakiso woreda. Therefore, all necessary support should be provided to the industry from the government and other funding organizations in order to improve their performance and outreach as well as to improve the magnitude and type of impacts towards poverty alleviation. Hence, the importance of microfinance in poverty reduction is of immense benefit to the participant households in Odo Shakiso woreda. There is, therefore the need to help and sustain it and help its growth as its role to the development of the Odo Shakiso woreda and the country at large is very good.

REFERENCES

- Abebe, S., & Bereket, K. (1996). Issues in the Measurement and Dynamics of Poverty: A Summary. In: Bereket and Mekonnen (eds), the Ethiopian Economy: Poverty and Poverty Alleviation. Addis Ababa, Ethiopia.
- Abebe, T. (2006). Impact of microfinance on poverty reduction in Ethiopia, MA Thesis. Addis Ababa: Addis Ababa University.
- Abu, M. G. (2013). The Challenges and Policies of Poverty Reduction in Ethiopia. Ethiopian e-journal for research and innovation .
- ADB. (2000). Finance for the Poor: Microfinance Development Strategy. Manila: Asian Development Bank.
- Abduselam, A. M. (2017). Food Security Situation in Ethiopia: A Review Study in International Journal of Health Economics and Policy. Vol. 2, No. 3, 2017, pp. 86-96. doi: 10.11648/j.hep.20170203.11
- Ajit, S. K., & Raj, S. K. (2001). Economics of Amarty Sen. New Delhi: Deep & Deep Publications, Pvt. Ltd.

Alemu, T. (2000). The Development and Roles of Internal Audit in Micro finance Institution in Ethiopia.

Alex, A.-K. (2014). Causes of Poverty in Africa: A Review of Literature. American International Journal of Social Science, 3 (1), 147-154.

AEMFI Proceeding of the Conference on Microfinance Development in Ethiopia. Bahir Dar.

Amha, W. (2002). Product Development in Ethiopia MicroFinance Industry: Challenges and Prospects. (Ed.)Zaid N. et al. Micro Finance Theory Policy and Experience. Proceedings of the International Workshop on "The Dimension of Micro Finance Institutions in Sub Saharan Afri.

Aredo, D. (1998). Gender and Microfinance in Africa. Microfinance Development Review, Vol.2 No. 1.

Asmelash, B. (2003). The Impact of Microfinance in Ethiopia: the case of DCSI in Ganta Afeshum Woreda of Eastern Tigray. M.A. Thesis, Department of RLDS. Addis Ababa: AAU.

Atkinson, A. (1987). "On the measurement of poverty". Econometrics. Vol.55, 749 - 764.

Awan, M., & Iqbal, N. (2014). Determinants of Urban Poverty: The Case of Medium Sized City in Pakistan.

- Ayelech, E. (2011). An assessment of the role of microfinance institutions in urban Poverty alleviation: MA thesis. Addis Ababa, Ethiopia: Addis Ababa University.
- Banerjee, A., Duflo, E., Glennerster, R., & Kinnan, C. (2015a). The Miracle of Microfinance? Evidence from a Randomized Evaluation. American Economic Journal: Applied Economics, 7(1), 22 - 53.
- Bariagaber, H. (1995). The Dimension of Poverty in Ethiopia. Proceedings of the Inaugural and First Augural Conference of the Agricultural Economics Society of Ethiopia. Ethiopia.
- Barr, N. (2004). The Economics of the Welfare State, 4th ed,. Oxford: Oxford University Press.
- Bendig, Mirko, Giesbert, L., & S., S. (2009). Transformation in the Process of Globalisation Savings, Credit and Insurance : Household Demand for Formal Financial Services in Rural Ghana Mirko Bendig, Lena Giesbert, Susan Steiner. World.
- Berhanu, D., & Yewhalawork, T. (2000). MIS and MFIs in Ethiopia. AEMFI Proceeding of the Conference on Microfinance Development in Ethiopia,. Bahir Dar.
- Berhanu, L. (1999). Micro enterprise Credit and Poverty Alleviation in Ethiopia. The Case of the Project Office for the Creation of Small Scale Business Opportunities in Addis Ababa. MSc. Thesis, Department of Economics. Ethiopia: Addis Ababa University.
- Berhanu, T. (1998). Micro enterprise Lending Program and its Contribution to income in Urban Ethiopia: The case of Debre Berhan and Assela Branches of the Development Bank of Ethiopia, A Master's Thesis, Department of Regional and Local Development Studies (RLDS).
- Bigsten, e. a. (2002). Growth and Poverty Reduction in Ethiopia: Evidence from Household Panel Surveys, Working Paper in Economics No. 65, Department of Economics. Gotenburg University.
- Birhanu G (2016). The Role of Microfinance Institutions in Reduction of Unemployment. Unpublished MA. Thesis, Wollega University.
- Birhanu, H. K. (2018). Journal of Poverty, Investment and Development: Impact of Microfinance on Poverty Reduction in Ethiopia: Case of Omo Microfinance in Hosana Town. An International Peer-reviewed Journal.
- Bisrat, G. (2011). role of micro finance in alleviating urban poverty in Ethiopia.
- Bryson, A., Dorsett, R. and Purdon, S., 2002. The use of propensity score matching in the evaluation of labor market policies. Working Paper No. 4. Department for Work and Pensions.
- Bourchgrevink, A., Valle Halle, v., & Tassew, W. Credible Credit: Impact Study of the Dedebit Credit and Savings Institution (DECSI). Tigray, Ethiopia.
- Busisa, E. (2011). DETERMINANTS OF POVERTY AMONG HOUSEHOLDS IN UGANDA. MAKERERE: MAKERERE UNIVERSITY.

Buckley, G. (1997). Micro finance in Africa: Is it either the problem or the solution? World Development 8(7), 1081-1094.

- Caliendo, M., and Kopeinig, S., 2008. Some practical guidance for the implementation of propensity score matching. IZA Discussion Paper No. 1588, University of Cologne.
- Chaudhuri, B. R. (2011). Demand and Supply Factors in the Regional Disparity of Micro Credit in India.
- Chen, K. C., & Chivakul, M. (2008). What Drives Household Borrowing and Credit Constraints? Evidence from Bosnia and Herzegovina. New York. CIESIN. (2015). Small area estimates of poverty and inequality. Columbia University: New York.
- Cobbinah, P. B., Black, R., & Thwaites, R. (2013). "Dynamics of Poverty in Developing Countries: Review of Poverty Reduction Approaches. *Journal of Sustainable Development*, Vol.6.

Cohen, M. (2000). Evolution of Microfinance.". Video conference. Washington, D.C., USA.

- Daba, M. (2004). The Impact of Micro-financing on Poverty Reduction: A case Study of Oromia Credit and Savings S.Co. A Paper Presented in the International Conference on Micro-finance Development in Ethiopia, January 21-23, 2004, Awassa, Ethiopia.
- Darcon, S., & Krishnan, p. (1996). A Consumption Based Measure of Poverty for Rural Ethiopia in 1989 and 1994. In Bereket Kebede and Mekonnen Tadesse (eds), The Ethiopian Economy, Poverty and Poverty Alleviation. Proceedings of the Fifth Annual Conference on the Ethiopian Economy. Addis Ababa, Ethiopia.
- Deaton, A. (1997). The Analysis of Household Surveys: A Micro econometric Approach to Development Policy. Maryland: The John Hopkins University Press.
- Dehejia, R. H. and Wahba, S., 2002. Propensity score matching methods for nonexperimental causal studies. *The Review of Economics and Statistics*, 84(1):151-161.
- Dejene, D. (1998). Gender and Microfinance in Africa. Microfinance Development, Vol.2 No. 1.
- Dev, T., Sultana, J. & Hossai, M.E. (2017). Analysis of the Impact of Income Diversification on
- Food Security Status of Rural Households in Bangladesh: A Case Study of Rajshahi District. American Journal of Theoretical and Applied Business, 2.
- Diagne, A. (May 1999). Determinants Of Household Access to and Participation in Formal And Informal Credit Markets in Malawi. Food Consumption and Nutrition Division. Washington, D.C. 20006 U.S.A.: International Food Policy Research Institute.
- Dilayehu, D. (2010). The Role of Microfinance Institutions in Accessing Credit and Poverty Reduction in Rural Ethiopia: In the Case of Omo Microfinance Institution in Damot Gale Woreda Woliata Zone SNNPR.
- Donald, M., & Marcus, K. (2005). Poverty and Vulnerability. Zentrum Fur Entwicklyngs Forschung center for Development Research, University of Bonn.
- Duflo, E., Jameel, A., Crepon, B., Pariente, W., & Devoto, F. (2008). Poverty, Access to Credit and the Determinants of Participation in a New Microcredi Program in Rural Areas of Morocco. Access.
- Ermias, H. (2000). Features of Urban Poverty: The Case of Woreda 11, Addis Ababa. M.A Thesis Presented to RLDS. AAU.
- Eva, L., & Jackie, W. (1998). The Measurement of Poverty. Research and Library Services Division: Provisional Legislative Council Secretariat .
- FAO. (2017). The future of food and agriculture Trends and challenges. Rome.
- Feleke, B. (2011). Impact of microfinance services on household income: The Case of Digaf Micro Financing Company.
- Fiona, M. (200). Impact of Micro Credit at Household. In; Mulat Demeke's (ed.) in The development of Micro finance in Ethiopia. Proceeding of the Conference on Micro finance Development in Ethiopia. Bahr Dar, Ethiopia.
- Firafis, D. (2016). Impact of Credit Rationing and Repayment Problems in The Case of Ambo Woreda Eshet Microfinance Institution. *International Journal of African Asian Study*, 4:51-68.
- Fitsum, & Holden. (2005). The Impact of Credit on Changes in Welfare of Rural Households: Empirical Evidence from Northern Ethiopia. Norway.
- Fletschner, D., & Carter, M. R. (2008). Constructing and reconstructing gender: Reference group effects and women's demand for entrepreneurial capital. *Journal of Socio-Economics*, 37(2), 672-693.
- Foster, J. E. (1998). Absolute versus Relative Poverty. The American Economic Review (pp. pp. 335-341). American Economic Association.

Foster, J., J Greer, & Thorbecke, E. (1984). A Class of Decomposable Poverty Measures. Econometrica, 57, 8-17.

- Greer, J., & Thorbecke, E. (1986). "A Methodology for Measuring Food Poverty Applied to Kenya". Journal of Development Economics, 59-74.
- George, O. (2009). Is micro-finance achieving its goal among smallholder farmers in Africa. International Conference on Agricultural Economocs, (pp. pp: 16-22.).
- Goedhart, T. V., Kapteyn, A., & Praag., B. M. (1977). The Poverty Line: Concept and Measurement. Journal of Human Resources , 12(4): 503-20.
- Gujarati, D.N., 2004. Essentials of Econometrics: 4th edition. Mc-Graw-Hill Companies. 1003p.
- Gujarati & porter(2009). Basic Econometrics (Fifth Edition ed.). New York, America: McGraw-Hill/Irwin.
- Gujarati, D.N., 1999. Essentials of Econometrics. 2nd edition. Mc-Graw-Hill Companies
- Halcombe, S. (1995). Managing to Empower: the Grameen Bank's Experience of poverty Alleviation. London: Zed press.
- Hashemi, S., Schuler, S., & Rilely, A. (1996). Rural credit programs and women's Empowerment in Bangoladesh. World developmement 24(4), , 635-654.
- Haughton, J., & Khandker, S. R. (2009). Poverty and Inequality. In T. I. Bank, *Handbook on Poverty and Inequality*. Washington, DC 20433: and Inequality.
- Hermes, N., & Lensink, R. (2011). Microfinance: Its Impact, Outreach, and Sustainability. World Development, 39(6), 875-881. doi:10.1016/j.worlddev.2009.10.021.
- Hossain, M. (1988). Credit for Alleviation of Rural Poverty. The Grameen Bank in Bangladesh. International Food Research Institute Research paper No.65. Washington D.C.
- Hulme, D., & Mosley, P. (1996). Finance Against Poverty: Effective Institutions For Lending To Small Farmers And Microenterprises In Developing Countries. London: Routledge.
- Isobel, F. (9 June 2015). Subjective Poverty Measures. Studies in poverty and inequality institute.
- Jennifer, L. (2010). microfinance: developing paths to self sufficiency An Evaluation on the Effectiveness of Micro Finance Institutions.
- JH. (2005). Poverty Manual, All, JH Revision of August 8, 2005.
- Johnson, S., & Rogally, B. (1997). Micro finance and poverty Reduction, Oxfam (UK and Ireland Kejela
- Kemtessa (2004). Analysis of Financial Returns to Resources for Financing Farm Enterprises in Central Zone of Tigray: A Paper Presented in the International Conference on Micro-finance Development in Ethiopia, January 21-23, 2004, Awassa, Ethiopia.
- Jonathan, H., & Khandker, S. R. (2010). Handbook on Poverty+Inequality. Rawat Publications Jaipur.
- Kebu, C. (2017). Assessment of result oriented performance of Microfinance institutions The Case of Odo Shakiso District West Shoa Zone. BA. Unpublished Thesis.
- Kebu, C. (2017). Assessment of result oriented performance of microfinance institutions: The Case of Cheliya District West Shoa Zone. BA. Unpublished Thesis. Rift Valley University.
- Kejela, K. (2004). Analysis of Financial Returns to Resources for Financing Farm Enterprises in Central Zone of Tigray. A Paper Presented in the International Conference on Micro-finance Development in Ethiopia, January 21-23, 2004. Awassa, Ethiopia.
- Khandker, M. (1998). Socio-economic and psychological dynamics of empowerment of Grameen Bank and BRAC borrowers. In Workshop proceedings "Recent research on microfinance: Sussex, U.K.: University of Sussex, Poverty Research Unit at Sussex.
- Khandker, S. (1999). Fighting Poverty with Micro credit. Experience in Bangladish. Bangladish: the University Press Limited.

- Khandker, S. (2003). Micro Finance and Poverty: Evidence Using Panel Data from Bangladesh; World Bank Policy Research Working Paper 2945.
- Kimalu, P. (2002). A Situational Analysis of Poverty in Kenya. Nairoby: The Kenyan Institute for Public Policy Research and Analysis (KIPPRA) Working Paper Series WP/6/2002.
- Korynski, P. (2007). Transforming Microfinance Institutions: Providing full financial services to the poor. *Enterprise Development and Microfinance*, 18(4), 374-377.
- Laura, B., & Gloria, M. (2005). Evaluating the impact of conditional cash transfer programs. (pp. 20: 29-55.). The World Bank Research Observer.
- M. Ravallion. (1992). Poverty Comparison: A Guide to Concept and Methods. LSM Working Paper No. 88.
- Magri, S. (2002). Italian Households ' Debt : Determinants Of Demand And Supply. Education.
- Marguerite, R. (2000). microfinance Revolution. Video Conference. Washington D.C.
- Meehan, F. (2000). "Poverty Alleviation and Institutional Context. Relief Society of Tigray. *Microfinance Development Review of AEMFI*, (p. Vol.1 No. 1).
- Melese, M. (2013). Impacts of Microfinance Institution on the Living Condition of Rural Women: A case study on the Oromia Credit and Save Share Company in ShirkaWoreda, Oromia Region. Ethiopia: St. Mary's university.
- Mengistu, B. (1998). Credit service administration under the micro enterprise project. A paper presented to the national micro enterprise workshop (Amharic version) June 9-11. Addis Ababa.
- Mengistu, B. (1997). Determinants of Microenterprise Loan Repayment and Efficiency of Screening Mechanism in Urban Ethiopia The Case of Bahir Dar and Awasa TownsMSc. Thesis, Department of Economics, Addis Ababa University, Ethiopia. Ethiopia.

Messele, S. (2002). Historical background, status and perspectives of microfinance institutions in Ethiopia. Italy: OHIO State University.

MoFED. (2002). Ethiopia: Sustainable Development and Poverty Reduction Program. Addis Ababa, Ethiopia.

- MoFED (2012) Ethiopia's progress towards eradicating poverty: An Interim Report on Poverty Analysis Study (2010/11). Addis Ababa: Ministry of Finance and Economic Development
- Moges, A. G. (2013). The Challenges and Policies of Poverty Reduction in Ethiopian e-journal for research and innovation, Vol 5, No 1.
- Mohammed, B. M. (2017). Measurement and Determinants of Urban Poverty in Case of Southern Nations, Nationalities, and Peoples' Region (SNNPR), Ethiopia. International Journal of Scientific and Research Publications, 7 (3), 181-190.

Mohieldin, M. S., & Wright, P. W. (2000). Formal and Informal Credit Markets in Egypt.

- Montgomery, R. (1996). Disciplining or Protecting the Poor? Avoiding the Social Costs of Peer pressure in Micro credit Schemes". Journal of international development 8(2), 289-305.
- Morduch, J. (1998). Does Micro Finance Really Help the Poor? New Evidence From Flagship Programs in Bangladesh Department of Economics and HIID Harvard University and Hoover Institution. Stanford University.
- Morduch, J. (1999). Microfinance Promise. Journal of Economic Literature, 37(4), 1569-1614. doi:10.1257/jel.37.4.1569.
- Mosley, P., & Rock, J. (2004). Microfinance, labor markets and poverty in Africa: a study of six institutions. *Journal of International Development*, 16(3), 467-500.
- Mpuga, P. (2008). Constraints in Access to and Demand for Rural Credit : Evidence from Uganda.
- Mpuga, P. (2004). Demand for Credit in Rural Uganda : Who Cares for the Peasants ? By Human Development.
- Mwawana, P. K. (2011). The Role Of Microfinance In Alleviating Poverty Among Women Groups In Kisauni District, Kenya (Doctoral dissertation, University of Nairobi).
- NBS. (2015). Household Statistical Survey Household Budget Survey (HBS), carried out by NBS.
- Nguyen, C. H. (2007). Determinants of Credit Participation and Its Impact on Household Consumption : Evidence From Rural Vietnam.
- Nwaru, J. C. (2011). Determinants of Informal Credit Demand and Supply among Food Crop Farmers in Akwa Ibom State, Nigeria. Rural and Community Development.
- Osarfo D. (2016). The Impact of Nonfarm Activities on Rural Farm Household Income and Food Security in the Upper East and Upper West Regions of Ghana
- Oruc, N. (2015). Urban IDPs and Poverty: Analysis of the Effect of Mass Forced Displacement on Urban Poverty in Bosnia and Herzegovina. Croatian Economic Survey, 17 (1), 47-70.
- Padma, M., & A.Getachew. (2004). Women Economic Empowerment and Micro-finance. A Review on Experiences of Awassa Women Clients: A Paper Presented in the International Conference on Micro-finance Development in Ethiopia. Awassa, Ethiopia.

Parker, J. (2000). Assessing poverty of Microfinance clientele. A review of current practice. Washington D.C., USA.

- Pitt, M. M., & Khandker, S. R. (1998). The Impact of Group Based Credit Programs on Poor Households in Bangladesh: Does the Gender of Participants Matter? Journal of Political Economy, Vol. 06 No. 5. University of Chicago.
- Prathap, B. N., Mahesh, K., & Karthik, K. R. (2018). IMPACT OF MICRO FINANCE ON POVERTY ALLEVIATION. JOURNAL OF MANAGEMENT.
- Rahman, R. (1996). Impact of Gramen Krishi Foundation on the Socio economic condition of Rural HHs" BIDS Working Paper No.7 BIDS. Dhaka: Bangladesh Institute of Development Studies.
- Rahut, B.D., Abdul, K. & Ali, A. (2017). Rural Livelihood Diversification Strategies and Household Welfare in Bhutan. The European Journal of Development Research: doi: 10.1057/s41287-017-0120-5.
- Rao, K. N. (2005). Poverty in India Global and Regional Dimensions Deep & Deep Publication. page no. 212.
- Ravallion. (1994). Poverty Comparisons. Chur: Harwood academic publishers Sen, 1979. "Personal Utilities and Public Judgments: Or What's Wrong With Welfare Economics.". *The Economic Journal* 89, no. 335:537 558.
- Ravallion, M. (1992). Poverty Comparison: A Guide to Concept and Methods, LSM Working Papre No. 88. Washington, DC.
- Ravallion, M. (2010). Poverty Lines across the World, World Bank, 1818 H Street NW. Washington DC: Development Research Group,.

Ravallion, M., & Bidani, B. (1994). How Robust is a Poverty Profile? The World bank Economic Review, Vol. 8, No. 1.

- Ravallion, M., Chen, S., & Sangraula, M. (2008). Dollar a Day Revisited.
- Ravallion., M., & Sen., B. (1996). When Methods Matter: Monitoring Poverty in Bangladesh. *Economic Development and Cultural Change*, Vo. 44, No. 4.
- Razan, I. (2017). The Impact of Microfinance on Poverty Alleviation: A Case Study of Borrowers in Ramallah. Ramallah. Palestine: Birzeit University. Reda, K. (2016). The Impact of Microfinance Institutions on Poverty Alleviation: A case Study in Ethiopia. Ritsumeikan Asia Pasific University.
- Remeni, J. (1991). Where Credit is Due. London: IT Publications.
- Robinson, M. (2001). The Microfinance Revolution: Sustainable Finance for the Poor:. Washington, D.C.: World Bank.
- Rogally, B. (1996). Micro finance Evangelism, Destitute Women, and the hard selling of a new anti-poverty formula", *Development in Practice6(2)*, 100-112.

Rosenbaum, P. R., 2002. Observational Studies. 2nd ed. New York: Springer

- Rosenbaum, P.R. and Rubin, D.B., 1983. The central role of the propensity score in observational studies for causal effects. *Biometrika*, 70(1): 41-55. Roth, V., Hing, V., Phann, D., & Sum, S. (2014). *Estimation the Economic Effect of Remmittances on the Left-Behind in Cambodia*. Partnership for
- Economic Policy, Cambodia.
- Ruddar, D. (2008). Growth, Poverty and Equity. New Delhi : Deep & Deep Publications.
- Ruddar, D., & K.P.M., S. (2008). Indian Economy. New Delhi: Chand and company Ltd.
- Samson, J. (2002). Financial Arrangements and Determinants of Consumption Credit use by Rural Households: The case of Loume Woreda: A Thesis Presented to the School of Graduate Studies, Alamaya University, Department of Agricultural Economics.
- Shahidur R Khandker. (2009). Microfinance and Poverty: Evidence Using Panel Data from Bangladesh: *The World Bank Economic Review*, Volume 19, Issue 2, 2009, Pages 263–286

Schrieder, G. (1996). The Role of Rural Finance for Food Security of the Poor in Cameroon. Frankfurt.

- Sen, A. (1979). "Personal Utilities and Public Judgements: Or What's Wrong with Welfare Economics?". The Economic Journal , 537-58.
- Sen, A. (1985). Commodities and Capabilities. North-Holland.: Amsterdam.
- Sesric. (2015). Measurement Of Poverty In Oic Member Countries: Enhancing National Statistical Capacities. Ankara –Turkey: Standing Committee For Economic And Commercial Cooperation Of The Organization Of Islamic Cooperation (Comcec).
- Shehua Abdulaziz ,and Sidique F. (2014). A propensity score matching analysis of the impact of participation in non-farm enterprise activities on household wellbeing in rural Nigeria.
- Sharif, G., & Wood, S. (1997). Where Credit is due. Dhaka and London: UPLand Zed Press.
- Sileshi C (2014). Loan repayment performance of farm households: M.Sc. Thesis, Haramaya University.
- Simon NE (2016). Examining Firm Specific Determinants of Profitability of Micro Finance Institutions in Ethiopia. International Journal of Research in Finance and Marketing 6(9):70-81.
- Sissay, A., & .Adugna, L. (2002). Eradicating rural poverty and food Insecurity in Ethiopia: The Quest for Sustainable Institutions and technologies.
- Sophia (2012), an analysis of microfinance and poverty reduction in Bayelsa state of Nigeria. Kuwait chapter of Arabian journal of business and management review vol. 1.
- Tadele, E. G., Alelign, A. M., & Solomon, A. G. (2018). Analysing the Impact of Credit on Rural Households' Income in the Case of Cheliya District, West Shoa Zone, Oromia National Regional State, Ethiopia . Journal of Global Economics .
- Tang, S. .., Guan, Z., & Jin, S. (2010). Formal and Informal Credit Markets and Rural Credit Demand in China.
- Tassew, W. (2004). The Impact of the Dedebit Credit and Savings Institution on Poverty Reduction and Community Development. A Paper presented in the International Conference on Microfinance Development in Ethiopia. January 21-23, 2004,. Awassa, Ethiopia.
- Taye, C. (2014). The Impact of Microfinance Financial Services on the Economic Empowerment of Women: The Case Study of wisdom Micro Financing Institution. Ethiopia: St. Mary's University.
- Teferi, Z. (2000). Micro finance and the Poor: The case of Dedebit Credit and saving Institution in Tigray, MA Thesis, department of Economics. addis Ababa university.
- Todaro, M. (2004). Development Economics. New York.
- Tolosa, N. (2011). the role of microfinance institutions on poverty reduction and Improving living standards, M.sc thesis. Addis Ababa: Addis Ababa University.
- Titay, Z. (2013). Impact of Livelihood Diversification on Rural Households' Food Security in Fedis Weroda, Eastern Hararge Zone, Oromiya Regional State, Ethiopia. *Journal of Poverty, Investment and Development: An International Peer-reviewed Journal, 32.*
- TOWNSEND. (1987). Social Policy. United Kingdom: University of Bristol.
- Tsehay, T., & Mengistu, B. (2002). The Impact of Microfinance Services among Poor Women in Ethiopia. Occasional Paper No. 6. Addis Ababa: AEMFI.
- United Nations Development Programme (UNDP). (2015). Accelerating Inclusive Growth for Sustainable Human Development in Ethiopia: National Human Development Report 2014 Ethiopia. Addis Ababa, Ethiopia: United Nations Development Programme.
- UNDP. (2018). Paper to be presented to the Inter-Agency Group Meeting On the "Implementation of the Third United Nations Decade for the Eradication of Poverty (2018 2027)". *Ethiopia's Progress Towards Eradicating Poverty*. Addis Ababa Ethiopia.
- UNHCR. (2004). Human Rights Dimension of Poverty. United Nations High Commissioner for Human Rights.
- Wolday, A. (2001). Experience Sharing Visit of Ethiopian Microfinance Practitioners to Bangladesh. Occasional Paper No.3. Addis Ababa.: AEMFI.
- Wolday, A. (2003). Microfinance in Ethiopia: Performance Challenges and Role in Poverty Reduction. Addis Ababa, Ethiopia.: AEMFI.
- Wolday, A. (2002). Product Development in Ethiopia MicroFinance Industry: Challenges and Prospects. (Ed.)Zaid N. et al. Micro Finance Theory Policy and Experience.
- Wolday, A. (2000). Review of micro finance industry in Ethiopia. regulatory frameworks and performance, Occasional Paper No. 2, Addis Ababa, Ethiopia.
- Worku, G. (2000). Microfinance Development in Ethiopia. AEMFI Proceeding of the Conference on Microfinance Development in Ethiopia. Bahir Dar.
- WorldBank. (1991). Vocational and Technical Education and Training. Policy Paper. Washington, D.C.
- WorldBank. (2001). World Development Indicators 2001. Washington, DC.
- World Bank. (2015). Ethiopia : Well-Being and Poverty in Ethiopia, The Role of Agriculture and Agency

World Bank Group. (2018). Ethiopia Economic Update: The Untapped Benefits of Services Reforms. Addis Ababa, june 11, 2018

- Worldometers, (2019). Ethiopian population.
- Yitay Elema 2011, "Assessment of institutional performance and sustainability of selectedmicrofinance institutions: a data envelopment analysis approach", Msc. thesis, Addis Ababa University.
- Zaman, H. (2001). Assessing the Poverty and Vulnerability Impact of Micro-Credit in Bangladesh; A Case Study of BRAC.
- Zeller, M., Diagne, A., & Mataya, C. (1997). Market Access by Smallholder Farmers in Malawi : Implications for Technology Adoption , Agricultural Productivity , And Crop Income Manfred Zeller , Aliou Diagne , and Charles Mataya.