

Full Length Research Paper

Determinants of rural households' participation in microfinance services: The case of Cheliya District, West Shoa Zone, Oromia National Regional State, Ethiopia

Tadele Erena Geleta¹, Alealign Ademe Mengistu¹ and Solomon Amsalu Gesese^{2*}

¹Department of Agricultural Economics, College of Agriculture and Veterinary Science, Haramaya University, Ethiopia.

²Department of Agribusiness and Value Chain Management, College of Agriculture and Veterinary Science, Ambo University, Ambo, Ethiopia.

Received 24 October, 2018; Accepted 13 November, 2018

In under developed countries, most of the poor people have limited access to formal financial services, including credit, savings, and insurance. The study was focused on the determinants of the rural households' participation in microfinance services in the study area. The study was conducted in Cheliya District, Oromia Regional State, Ethiopia. A total of 188 sample households were selected through stratified and simple random sampling techniques and interviewed using a structured questionnaire to elicit data pertaining to participation in microfinance services during the year 2017. The data were analyzed using descriptive statistics and logistic regression model. Logistic regression model was used to analyze determinants of the rural households' use of service in microfinance services. Accordingly, the outcome of the logistic model regression indicated that household heads' sex, education level, cultivated land size, livestock holding and frequency of extension contact positively and significantly affected the rural household's decision to involve in microfinance services; while dependency ratio affected their decision negatively and significantly. It is recommended that the microfinance institutions and other concerning bodies have to arrange the way in which households with high dependency ratio and illiterate can participate in microfinance services. Moreover, attention should be given by microfinance institution staffs and other government bodies to increase female involvement in microfinance services in the study area.

Key words: Microfinance, household, participation, Cheliya, Ethiopia.

INTRODUCTION

In developing countries, microfinance institutions have emerged as a financial institution with the aim of

providing small sized financial service to the poor who were in need of financial services but lack of access to

*Corresponding author. E-mail: solomon.amsalu@ambou.edu.et or somassoromo@gmail.com. Tel: +251 913 996 130.

Author(s) agree that this article remain permanently open access under the terms of the [Creative Commons Attribution License 4.0 International License](https://creativecommons.org/licenses/by/4.0/)

formal commercial banks. The microfinance institutions provide small size of loans, saving, insurance services, money transfer and other relevant services to the target poor people who were excluded by conventional commercial banks due to lack of collateral requirements (Tolosa, 2014). In Ethiopia, many microfinance institutions have been established and have been operating towards resolving the credit access problems of the poor particularly to those participating in the small business (Melese, 2013).

The economy of Ethiopia is predominantly agriculture. The performance of the economy depends on the performance of the agricultural sector. Even though there is a little bit of growth in other economics activities, agriculture is one of the main sector for Ethiopia's economic growth and long-term food security. The stakes are high where 15 to 17% of the Government of Ethiopia's (GOE) expenditures are committed to the sector. Agriculture directly supports 72.7% of the population's livelihoods. It contributes 38.5% of Gross Domestic Product (GDP), and over 80% of export value (NPC, 2016).

The large number population in Ethiopia are 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).

Lack of finance is one of the basic problems in Ethiopia. It hinders the productivity and income of both rural and urban households. Microfinance institutions are working to solve these problems through providing financial and non-financial services in the country. Moreover, these institutions contribute to reduce poverty and economic growth (Wolday, 2004). The concept of microfinance is not new in Ethiopia but, as an industry, it is a relatively new phenomenon. Traditionally, people have saved with and taken small loans from informal channels for unexpected events from the so-called *Iqub*, that is, an association of people having a common objective of mobilizing finance and distribute it to members through rotating and *Idir*, that is, a group or association insurance established and operated by the volunteer community (Bezabih, 2009).

Even though agriculture plays an important role in Ethiopia's economy, recently the sector receives less than 10% of financial services. Moreover, the rural economy of the county was dominated by low distribution of financial services. Although indicators of financial access and inclusion have improved over the past two decades in Ethiopia, recent estimates show that the country is yet to catch up with other developing countries

(World Bank, 2014).

Most of the poor people who are living in under developed countries have limited access to formal financial services, including credit, savings, and insurance. They instead rely on the informal financial services providers. This occurred due to the formal financial service providers have not considered the poor as a viable market and penetration rates for formal financial services in developing countries are extremely low. Hence, the inability to acquire formal credit support has constrained poor farmers' capability to expand their production and improve technology adoption, nutrition and health status and their living condition (Bauchet et al., 2011).

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).

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).

In the study area, some studies have been conducted. Kebu (2017) studied focusing determinants of financial performance of microfinance institutions in the study area. Further, Birhanu (2016) investigated on the role of microfinance institutions in reduction of unemployment in the study area. However, these studies did not say anything about determinants of the rural households' participation microfinance services on rural households' in microfinance services of the study area. So that this study was focused on assessing determinants of the rural households' participation in microfinance services in the case of Cheliya district, West Shoa zone, Oromia national regional state, Ethiopia.

RESEARCH METHODS

Description of the study area

The study was conducted at Cheliya District, West Shewa Zone, Oromia National Regional State. The capital of the district, Gedo town is located at 175 km West of Addis Ababa on the main road to Nekemte. The district has 20 *kebeles* of which 18 are rural and two urban. The boundaries of the district adjoin MidaKegn district in the

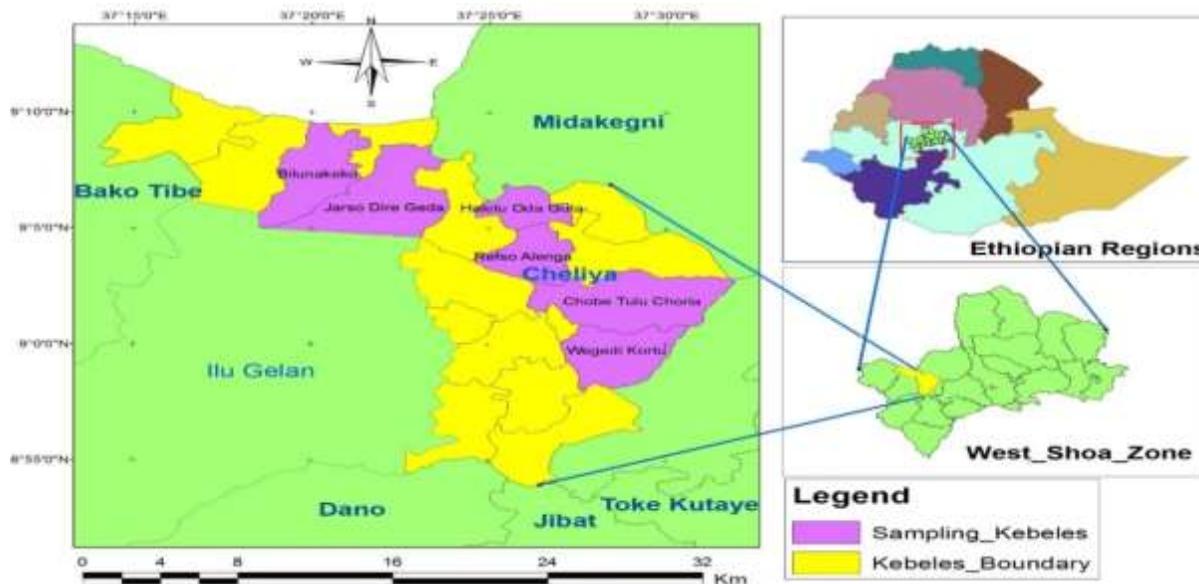


Figure 1. Map of the Cheliya District.
Source: OoA (2017).

north, Jibat and Dano districts in the south, Liban Jawi district in the east and Ilu Gelan and Jimma Rare district in the west. The total population of the district was estimated to be 104,448 of which 52,481 are males and 51,967 are females (Figure 1). Among these, about 89,523 are living in the rural areas, and about 14,925 are urban residents (OoA, 2017).

Types, sources, and methods of data collection

This study was conducted based on cross-sectional data obtained from both primary and secondary sources. Primary data were collected through face-to-face personal interviews using a structured questionnaire. Focus group discussion and key informant interview were also conducted to gather sufficient information and to capture relevant data from beneficiaries. The focus group discussion was carried out with clients of microfinance institutions.

Five focus group discussions involve 7 to 10 members in each group employed. Six key informants were also contacted with the staff members of microfinance institutions to get information about how the institution was operating in the area and about the opinion of the people towards the program intervention. On the other hand, secondary data were collected from secondary sources such as review of books, journal articles, unpublished study documents and other official reports, and internet sources.

Sampling technique and sample size

Cheliya district was selected purposively because of insufficient studies on the impact of microfinance service on rural households' income in the study area. For this study, both simple random and stratified probability sampling techniques were employed to select the sample of respondent households. First, among eighteen rural *kebeles* of the district, six rural *kebeles* were selected, using simple random sampling technique through lottery method. Then, households in the sample *kebeles* stratified into participants and non-participants. Finally, the sample size of the respondents was determined by using Kothari (2004) sampling design formula:

$$n = \frac{Z^2 pqN}{e^2 (N - 1) + Z^2 pq}$$

where n=sample size; N=total population (4332); Z=95%confidence interval under normal curve (1.96); e=acceptable error term (0.05) and P and q are estimates of the proportion of population to be sampled (P=0.5 and p + q= 1). 7% of error term (e=0.07) was used to take representative and cost-effective data for this study. Accordingly, the sample size for the study was determined as follows:

$$n = \frac{(1.96)^2 0.5 \times 0.5 \times 4332}{(0.07)^2 (4332 - 1) + (1.96)^2 \times 0.5 \times 0.5} \approx 188$$

Based on this formula, the total sample size was 188 sample household heads. Finally, from a total of 188 sample households, 94 participants and 94 non-participants were selected to get good matching in the propensity score matching estimation. Table 1 shows the households' distribution and sample size.

Methods of data analysis

Both descriptive statistics and econometric analysis were used to analyze the empirical data of the study. These tools are outlined and discussed in the following.

Descriptive statistics

Descriptive statistics such as mean, standard deviation, percentage and frequency of distribution were used to describe the socio-economic and demographic characteristics of the participant and non-participant groups. Chi-square and t-test were employed to test the statistical significance for both dummy and continuous variables, respectively.

Table 1. Distribution of sample households in *kebeles*.

Rural Kebeles	Participant		Non-participant		Total	
	N		Households	N	N	
Jarso Dire Geda	353	27	887	27	54	
Bilofi Keku	320	24	497	15	39	
Halelu OdaGuta	150	12	361	11	22	
Refso Alenga	200	15	364	11	26	
Chobi Tulu Cori	97	7	641	20	28	
Wegidi Kortu	120	9	342	10	19	
Total	1240	94	3092	94	188	

Source: Own Construction (2017).

Econometric model

The logit model was used to identify and analyse determinants of the rural household participation in microfinance services in the study area. The mathematical formulation of the logit model is as follows:

$$pi = \frac{e^{zi}}{(1 + e^{zi})} \quad (1)$$

where P= the probability of participation for ith household and it ranges from 0-1, e = represents the base of natural logarithms (i.e., 2.718...), z_i=is a function of n-explanatory variables which is also expressed as:

$$Z_i = \beta_0 + \sum \beta_i X_i + U_i$$

where i = 1, 2, 3, ..., n, β_0 =intercept, β_i =regression coefficient to be estimated or logit parameter, U=a disturbance term, X_i=participant households' characteristics, $\beta_1, \beta_2 + \dots + \beta_n X_n$ =slope of the equation in the model, and Z_i=clients' participation.

The probability that a household belongs to non-participant is:

$$1 - p = \frac{1}{1 + e^{zi}} \quad (2)$$

Therefore, the odds ratio can be written as:

$$\frac{pi}{1 + pi} = \frac{1 + e^{zi}}{1 + e^{-zi}} \quad (3)$$

Now, it is simply the odds ratio in favour of participating in microfinance services. It is the ratio of the probability that an individual would participate in the microfinance to the probability that he/she would not participate in the microfinance service. The odds ratio implies the ratio of the probability (Pi) that an individual would choose an alternative to the probability (1-Pi) that he/she would not choose it. Finally, taking the natural logarithm of the Equation 4 and the log of odds ratio can be written as follow:

$$L_i = \ln\left(\frac{pi}{1-pi}\right) = Z_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 \dots + \beta_n X_n + u_i \quad (4)$$

where p_i = is a probability of being participated in microfinance

and Z_i is a function of n explanatory variables (X_i) which are also expressed as:

$$Z_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_n X_n \quad (5)$$

where β_0 is an intercept, β_2, \dots, β_n are slopes of the equation in the model which is log of the odds ratio, which is not only linear in X_i but also linear in the parameters, X_i = Pre-intervention characteristics of the individual in the study area.

If the disturbance term (U_i) is introduced, the logit model becomes:

$$Z_i = \beta_0 + \beta_1 X_1 + \beta_2 \dots + \beta_n X_n + U_i \quad (6)$$

Variable definition and hypothesis

Dependent variable

The dependent variable was participation in microfinance services, which is a dummy variable indicating 1 for participant and 0 for non-participant households.

Explanatory variables

The explanatory variables are shown in Table 2.

RESULTS AND DISCUSSION

It shows the descriptive statistical analyses on the demographic, socio-economic and institutional characteristics of sample households. The descriptive analysis further extended to discuss the participant and non-participant households concerning different explanatory variables. It also presents regression analysis using logistic regression to identify determinants of rural households' participation in microfinance services in the study area.

Descriptive statistics results

Household's participation in microfinance services is

Table 2. Summary of the hypothesis of explanatory variables included in the model

Variable	Definition	Type	Measurement	Expected sign
Dependent variable	Participation	Dummy	"1" for participants and 0 otherwise	
AGEHH	Age of household head	Continuous	Year	+
SEX	Sex of household head	Dummy	1= male; 0 = female	+
EDL	Education level	Categorical	Level of education or year of schooling	+
CULS	Cultivated land size	Continuous	Hectare	+
FMSZ	Family size	Continuous	Number of families	+
VOSTOK	Livestock holding	Continuous	Tropical livestock unit(TLU)	+/-
OCCPHH	Occupation	Categorical	1= farmer, 2= Petty trader, 3=causal labourer, 4=employed and 5= hand crafter	-
DPCR	Dependency ratio	Continuous	The ratio of number of a dependent family to active labour force of the family	-
FEX	A frequency of extension contact	Continuous	Number of visit per year	+
DISMFIs	Distance from home to microfinance institutions	Continuous	Hour	-
HPGL	Households perception on group lending	Dummy	"1" for those perceived group formation as constraint and "0" otherwise	-
ACSNWK	Access to social network	Dummy	"1" for those have access to the social network and "0" otherwise	+

Sources: Own Construct (2017).

determined by various household attributes. Among these attribute, demographic and socio-economic characteristics were the major ones. Hence, these characteristics are presented and discussed in the following.

Demographic and socio-economic characteristics of sample households

Cultivated land size

The mean cultivated land size of the sampled households ranged from 0 to 3 ha. In the study area, the average land size owned by the two groups is 1.35 and 1.10 ha, respectively. The overall average land size of the respondents was 1.22 ha. The result of the t-test depicted that the mean difference between the two sample groups about the size of cultivated land holding was statistically significant at 1% significance level. This implies that the average land size of

participant households was higher than non-participants.

Livestock holding

The average livestock population held by the sample household was 5.81 in TLU. The mean number of livestock owned by participant and non-participant households was 6.73 and 4.88 TLU, respectively. The mean difference between the treated and control groups regarding the size of livestock was positive and statistically significant at 1% level of significance.

Dependency ratio

The result of the finding showed that the mean dependency ratio for the sample households was 0.77. The mean dependency ratio for the participant was 0.65 and 0.89 for non-participants.

There was a significant mean dependency ratio difference between participants and non-participants at 1% probability level. The significance mean difference of the computed dependency ration between the two groups implies that the non-participant has more dependent family members (member of family aged under 15 years and aged above 65 years) than the participant.

A frequency of extension contact

As shown in Table 3, the mean frequency of extension contact for the participant and non-participant groups was 8.04 and 4.35 per year, respectively. The analysis also indicated that the participant households had better access to extension service than non-participant with the mean difference of 1.6 and which was statistically significant at 1% significance level.

Table 3. Summary of descriptive statistics for continuous variables.

Variable	Participants (N=94)		Non-participants (N=94)		Total (188)		Mean difference	t-value
	Mean	Std. Dev	Mean	Std. Dev	Mean	Std. Dev		
AGEHH	43.36	7.75	43.82	8.85	43.59	8.3	-0.46	-0.377
FMSZ	5.97	2.07	6.26	2.33	6.11	2.2	-0.29	-0.894
CULS	1.35	0.71	1.10	0.65	1.22	0.67	0.25	2.506***
LIVESTOCK	6.73	2.37	4.88	1.88	5.81	2.13	1.85	5.903***
DPCR	0.65	0.34	0.89	0.48	0.77	0.41	-0.24	3.775***
DISMFIs	2.33	0.84	2.35	0.73	2.34	0.79	-0.02	-0.140
FEX	8.04	4.35	6.45	4.28	7.24	4.31	1.61	2.568***

***Significant at 1% probability level.

Source: Computed from Survey Data (2018).

Sex of household head

As shown in Table 4, among the overall sampled households, 124 (66%) were male-headed while 64 (34%) were female. The result also shows that from the participant households, 71 (75.5%) were male-headed households and 23 (24.5%) were female. On the other hand, 53 (56.5%) of non-participant households were headed male households, whereas 41 (43.6%) of non-participant households were female. The chi-square value ($\chi^2=7.68$; $p=0.008$) indicated that there was a statistically significant difference in the sex of household head between participant and non-participant groups at 1% of significance level. This implies that, male was more participated in microfinance service than female in the study area.

Education level of household head

From the selected household heads for the study, 61.2% were literate while 38.8% were illiterate. As shown in Table 4, out of the total sample households, 52.1% of the participants and 35.1% of non-participants received a primary level education. Similarly, 17% of participants and 11.7% of non-participants received secondary school education level. Besides, 4.3% of the participants and 2.1% of the non-participants have acquired certificate and above, education level. The chi-square result indicated that, the education level of the household heads was statistically significant at 1% significance level. This shows that the educated households were more participating in microfinance credit than the illiterate.

Determinants of rural households' participation in microfinance services

The results of logistic regression identify determinants of the rural households' participation in microfinance services in the study area. The marginal effect of logistic

regression results in Table 5 shows microfinance participation was significantly influenced by six of the twelve explanatory variables used in the propensity score estimation model. These include sex of household head, education level, cultivated land size, livestock holding, dependency ratio and frequency of extension contact.

Accordingly, sex of household head had a positive effect on households' participation in microfinance services and it was statistically significant at 1% significance level. The marginal effect of sex was 0.266. The value of marginal effect indicates that the probability of male-headed households' participation in microfinance services increases by 26.6% more than female-headed households, keeping other variables in the model constant.

Moreover, the result presented the education level of the household head had a positive effect on the probability of participation in microfinance service. But, the significant level was different with different levels of education. Here, from education category, illiterate was taken as the base category. Accordingly, there was a statistically significant difference between illiterate households and those households who have attended primary education level at 1% significance level. The marginal effect of a primary education level was 0.254. The result of marginal effect implies that the probability of those who have acquired a primary level households' participation in microfinance services increases by 25.4% than illiterate household.

Similarly, the finding result indicates that there was a statistically significant difference between illiterate household and those households who have attended secondary education level regarding participation in microfinance services at 5% probability level. In contrast, for occupation, the farmer was taken as a base category, but none of the category was significant. The marginal effect of sex was 0.266. The estimated marginal effect result shows that the probability of male-headed households' participation in microfinance services increases by 26.6% more than female-headed households, keeping other variables in the model

Table 4. Descriptive analysis of both dummy and categorical variables.

Variable	Participant (N=94)		Non-participant (N=94)		Total		χ^2 -value
	Frequency	%	Frequency	%	Frequency	%	
SEXHH							
Male	71	75.5	53	56.4	124	66	7.68***
Female	23	24.5	41	43.6	64	34	
Total	94	100	94	100	188	100	
EDLHH							
Illiterate	25	26.6	48	51.1	73	38.8	11.96***
Primary	49	52.1	33	35.1	82	43.6	
Secondary	16	17	11	11.7	27	14.4	
Certificate and above	4	4.3	2	2.1	6	3.2	
Total	94	100	94	100	188	100	
OCCPHH							
Employed	2	2.1	1	1	3	1.5	4.23
Farmer	85	90.4	81	86.2	166	88.3	
Petty trader	6	6.4	6	6.4	12	6.4	
Causal laborer	1	1.1	4	4.3	5	2.7	
Handcrafter	2	2.1	2	2.1	2	1.1	
Total	94	100	94	100	188	100	
HPGL							
Perceived as constraint	9	9.6	16	17	25	13.3	2.26
Not perceived as constraint	85	90.4	78	83	163	86.7	
Total	94	100	94	100	188	100	
ACSNW							
Have social network	69	73.4	67	71.3	136	72.3	0.11
No social network	25	26.6	27	28.7	52	27.7	
Total	94	100	94	100	188	100	

***Significant at the 1% probability level.

Source: Computed from Survey Data (2018).

constant.

On the other hand, cultivated land size had a positive effect on the rural households' participation in microfinance services and statistically significant at 5% significance level. The finding of the study coincides with Asfaw (2013), who found that landing holding size has a positive and significant effect on households' microfinance participation decision. The marginal effect result shows that a unit increase in livestock holding size increases households' participation in microfinance by 11.1%, keeping other variables in the model constant.

The result of logistic regression showed that the size of livestock positively influenced the probability of participating in the microfinance services at 1% significance level. This result is consistent with the findings of Amine (2016) who found that livestock ownership positively affected the probability of

participating in the microfinance services. Moreover, the marginal effect result shows that a unit increase in livestock holding size increases households' participation in microfinance by 11.1%, keeping other variables in the model constant.

Dependency ratio negatively influenced the rural households' participation in microfinance and it was statistically significant at the 5% significance level. This result is similar to that of Feleke (2011), who found that the dependency ratio had a negative and significant influence on the rural households' participation decision in microfinance services. The marginal effect indicated that a unit increase in the dependency ratio decreases the probability of households' participation in microfinance services by 17.7%, keeping other variables constant at their means.

The result of logistic regression indicated that the

Table 5. Marginal effect estimation of logistic regression for determinants of the rural households' participation in micro finance services.

Variable		dy/dx	Standard Error	Z-value	P> Z
SEXHH		0.266	0.092	2.88	0.004***
AGEHH		0.007	0.009	-0.69	0.488
FMSZ		0.011	0.038	0.30	0.768
EDLHH	Primary school (1-8)	0.254	0.077	3.29	0.001***
	Secondary school (9-12)	0.269	0.109	2.47	0.014**
	Certificate and above	0.286	0.211	1.36	0.175
OCCPHH	Petty trader	0.002	0.144	0.01	0.989
	Causal laborer	-0.306	0.181	-1.69	0.090
	Employed	0.216	0.245	0.88	0.377
	Handcrafter	-0.102	0.288	-0.35	0.724
CULS		0.153	0.075	2.04	0.041**
LVSTOKH		0.111	0.025	4.38	0.000***
DPCR		-0.312	0.135	-2.31	0.021**
HPGL		-0.177	0.128	-1.39	0.165
ACSNWK		0.097	0.106	0.92	0.358
DISMFIs		-0.005	0.059	-0.08	0.938
FEXC		0.025	0.011	2.27	0.023**

*** and **Significant at the 1 and 5% probability levels, respectively.
Source: Computed from Survey Data (2018).

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 0.025. The computed marginal effect result shows that a unit increases in the frequency of extension contact increases the probability of households in microfinance services by 2.5% keeping other variables constant at their means.

Conclusion

Based on the main finding of the study, the following summary and conclusions is drawn. This study has focused on assessing determinants of the rural households' participation in microfinance services at Cheliya District, West Shoa Zone of Oromia National Region State, Ethiopia. In this study, twelve explanatory variables were hypothesized to explain the determinants of the rural households' participation in microfinance services in the study area. These variables were demographic, socio-economic and institutional determinants to explain participation variable.

The descriptive analysis result showed that the mean

difference between the two groups regarding the sex of household head, education level, cultivated land size, dependency ratio, livestock holding and frequency of extension contact were statistically significant. However, the two groups have shown a statistically insignificant mean difference regarding age of household head, family size, occupation, distance from microfinance institutions, a household perception of group lending and access to a social network.

The estimation result of the marginal effect of the logit model result indicated that among 12 explanatory variables, which were hypothesized, to influence the household heads participation in microfinance services, six variables were statistically significant while the remaining six variables were statistically. The significant variables in the model were sex of household head, education level, livestock holding, cultivated land size and frequency of extension contact are positively and significantly influenced households' participation in microfinance services while dependency ratio is negatively influenced the households' participation in microfinance services in the study area.

RECOMMENDATIONS

Based on the findings of this study, the following

recommendations are forwarded. The logistic regression model results indicated that dependency ratio had a negative influence on the probability of households' participation in microfinance service. Therefore, microfinance institutions should encourage rural households those who have a high dependent family member to enhance their involvement in the microfinance service.

As observed from the study, education level had a positive influence on the households' participation in microfinance services. Hence, the microfinance institutions should create awareness of its financial services for those illiterate households to enhance their participation.

In the study area, female participation in microfinance services was less than male. Therefore, the microfinance institutions should give attention to encourage female participation in microfinance services. The study showed that households those have large cultivated land size more participate in microfinance services. Therefore, the microfinance institutions should encourage the households those who have a small cultivated land size to enhance their participation. As the study result indicated households who have small number of livestock less participate in microfinance services. Thus, the microfinance institutions need to introduce its service to the households those who have a small number of a livestock.

According to the findings of the research, frequency of extension contact had a positive effect on households' participation in microfinance services. Therefore, development agents should strengthen their support by providing training and technical support for rural households in order to improve households' participation in microfinance services in the area.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

ACKNOWLEDGEMENT

The authors thank the respondent households, Cheliya District Microfinance Institutions staff members and Cheliya Agricultural Office staff members for their cooperation in facilitating data collection.

REFERENCES

- Asfaw T (2013). Impact of microfinance on the livelihood of Smallholders farmers: the case of Oromia credit and Saving Share Company, Grawa branch, East Hararghe Zone, Oromia National Regional State, M.Sc. Thesis, Haramaya University.
- Bauchet J, Marshall C, Starita L, Thomas J, Yalouris A (2011). Latest Findings from Randomized Evaluations of Microfinance. October P 2.
- Bezabih E (2009). Cooperatives: a path to economic and social empowerment in Ethiopia. Coop AFRICA working paper, Number 9.
- Birhanu G (2016). The Role of Microfinance Institutions in Reduction of Unemployment. Unpublished MA. Thesis, Wollega University.
- Feleke B (2011). Impact of microfinance services on household income: The Case of Digaf Micro Financing Company. M.Sc. Thesis, Haramaya University.
- 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.
- Kothari CR (2004). Research Methodology, Methods and Techniques, 2nd edition New Age International (P) Ltd.
- 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. URL: <http://hdl.handle.net/123456789/1925>
- National Planning Commission (NPC) (2016). Federal Democratic Republic of Ethiopia Growth and Transformation Plan II (GTP II) (2015/16-2019/20). Volume I: NPC May, 2016, Addis Ababa.
- Office of Agriculture (OoA) (2017). Cheliya District Agricultural Office. West Shoa Zone, Oromia National Regional State, Ethiopia. Available at: <https://en.wikipediavailable.org/wiki/Cheliya> [Accessed 12 February 2017]
- 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.
- Tolosa N (2014). Performance of Loan Repayment Determinants in Ethiopia Microfinance: An Analysis. Eurasian Journal of Business and Economics 7:29-49.
- Wolday A (2004). The Development of Microfinance Industry in Ethiopia: Current Status and the Prospect for Growth. Journal of Ethiopian Economy 8:2.
- World Bank (2014). Global Financial Development Report 2014: Financial Inclusion. Washington, D.C: World Bank. License: Creative Commons Attribution CC BY 3.0. doi:10.1596/978-0-8213-9985-9.
- Ziaul HM (2014). Microcredit, household livelihoods and community capacity: case study from Bangladesh. M.SC, Thesis, Pacific University, Asia.