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Determinants of Rural Women's Decision in Participation of Microfinance Services: The Case of Omo Microfinance in Boloso Bombe District of Wolaita Zone, Ethiopia

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Abstract
In developing countries, among the poor, rural women are the poorest and more vulnerable. In Ethiopia, poverty reduction is the most prevalent national issue that the government and people are determined fighting against it. Many efforts have been made to reduce the level of poverty in the country. Therefore, the main objective of this study was factors that influence women participation decision of microfinance services among smallholder farmers. Socio-economic, institutional, psychological and demographic factors that influence the level of women decision in participation of microfinance services. Employing multi-stage sampling technique 100 households were interviewed to gather data. Primary quantitative data were collected using interview schedule through face-to-face interview whereas qualitative data were collected through key informant interview and focus group discussion. Descriptive, inferential and econometric analyses were carried out. The computed independent T-test for the mean income difference was statistically significant among women decision in participation of microfinance service, suggesting that participants were in better-off position to improve their livelihoods. From the sixteen explanatory variables entered into the model, eight variables were found to be significantly determining women decision in participation of microfinance services in the study area at less than 1, 5 to 10 per cent probability levels. These are education level of the household head, land size, family size, credit service access, saving and livestock ownership significantly and positively affects women decision in participation of microfinance services while distance to market and owners perception affects negatively and significantly women decision in participation of microfinance services at less than 1 and10 per cent probability levels respectively. The findings of the study are likely to be important to microfinance institutions, governments and NGOs in designing policy to empower rural women socially and economically. This study makes the valuable contribution by providing a base to the microfinance institutions for strengthening and expanding their support to rural poor women.
Keywords: Microfinance, Ordered logit, participation, Women and Wolaita Ethiopia

1. Introduction

Globally, women are poorer and more underprivileged as compared to men. Manjoor and Manders (2009), in their study, observed that women composite around 70 per cent of world's poorest people just because of gender inequality. In developing country, women are still dominated by male in household matter which shows their very weak position in the society. The discrimination of women by the society results in worsening poverty level, lower standard of livings and stagnated economic growth. To eliminate such troubles from the society, empowering women through microfinance is deemed to be one of the rays of hope.

Microfinance is supposed to be a new field of financial sector with the aim of providing financial services to low income clients who traditionally lack access to banking. Microfinance institution, when extended to people, especially women in rural areas, coupled them with supporting activities like training, raw material supply, marketing of products leads to investment in micro enterprises, women may become entrepreneurs and reduce poverty (Dereje *et al*., 2013).

In Ethiopia microfinance has been considered as an important tool for agricultural productivity and food security under the Agricultural Development Led Industrialization strategy (MOFED, 2005). The Strategy also emphasizes, among others, credit as a means to increase smallholder production (Jean-Luc, 2006). The importance of the micro and small enterprises sector in Ethiopia, particularly for the low-income, poor and women groups, is evident from their relatively large presence, share of employment and small capital requirement. The burden is worse in rural Ethiopia where peasant women have no alternative to generate their own income and to be self reliant (Haimanot, 2007). These are sufficient reasons for governments and other stakeholders in development to be interested in micro and small enterprises (Gebrehiwot and Wolday, 2001). In line with the development of micro-finance institutions, the Government of Ethiopia set up participatory rules and policies which gave space for women's productivity which constitutes 50 per cent of the population.

Women are also more likely than men to spend their incomes on the welfare of children and dependents. Therefore, poverty reduction programmes which target women are likely to be more effective. There is also the evidence of significant potential for microfinance to enable women to challenge and change gender inequalities

at all levels. Many microcredit programmes have targeted one of the most vulnerable groups in society-women who are in households which own little or no asset. By providing opportunity for self employment, many studies have concluded that these programmes have significantly increased women's security, autonomy, self-confidence and status within their households (Mayoux, 2006).

Some argued that the cause of poverty in developing economies among other things is that the poor does not have access to credit for the purpose of working capital as well as investment for its small business (Jean-Luc, 2006; Dereje *et al*., 2013). In Ethiopia, among other things, lack of finance is one of the fundamental problems impeding production, productivity and income of rural and urban households. Since access to institutional finance is very limited, the majority of the poor obtain financial services through informal channels, such as money lenders, 'Ikub', relatives and others. So the government launched different strategy to increase women participation. Omo-Microfinance is a Micro Financing Institution registered as a business entity under the Ethiopian commercial law and proclamation No. 40/1996 to undertake delivery of financial and non financial services to the poor who are willing, capable and ready to engage in to productive economic activities.

In rural Boloso-Bombe, Omo-Micro-finance was giving loan for poor women in group and individual bases. The rural borrowers according to WZOMFD abstract document (2013) were 7121 out of which male are 4481 and females are 2640 who were active rural borrowers. Moreover, micro-finance contributes for income-generating activities encompass a wide range of area, such as small business promotion, job creation schemes, sewing circles and credit and savings groups. Dereje *et al*., (2013) opined that economic empowerment projects usually focused on income-generating activities, which allow women to independently acquire their income. Karanja and Mwaura (2016) evaluated the impact of microfinance program on rural poor households in some backward regions in Kenya. The findings suggested that on the one hand, many of the very poor households were excluded from the program, and on the other, the gains from participation of the program were mostly observed for the better-off section of households, particularly those with high capital income or the large land holders. The study of Karanja and Mwaura (2016) revealed that credit to serve as a sole instrument of poverty alleviation did not seem to be plausible without other corroborative mechanisms that help in increasing the potential of credit use by the poor or the small farmer. It was also found that microfinance institutions had reached only a tiny fraction of the population and the challenge was to multiply the existing services. However, most of the literatures are oriented towards the importance of microfinance services and multiply the existing services rather than identifying its determinants Hunte, (2006).

This paper critically assesses determinants of women's economic empowerment through microfinance services, which are so far limited in the country. This is perhaps due to the fact that both micro-finance development and priority attention to women's economic empowerment are new and are currently recognized as important strategies. Identifying the determinants of women's participation in microfinance services helps to understand the real problems at gross root level. Hence, the information is essential for microfinance institutions to be demand driven rather than supply responsive. Therefore, this study intends to generate information about the determinants of women's decision in participation of micro-finance services based on in-depth study in rural Boloso-Bombe district.

2. RESEARCH METHODOLOGY

2.1. Description of the Study Area,

The study was conducted at Boloso Bombe district, Wolaita zone, Ethiopia. The area has a bi-modal rainfall pattern with two distinct rainy and cropping seasons. The total number of rural households in the district is 21,105 out of which 89.87 per cent are men and 10.13 per cent are women households. The total population of the *district* was estimated to be 126,640 out of which 48.52 per cent were male and 51.48 per cent were female. The average household size is 5.26 greater than Zonal average 4.8. Out of the total area of the district 5 per cent is dega, 20 per cent is woyna dega and 75 per cent is kola. *Boloso Bombe district* has total land area of 27,220 Km^2. Out of this 10,860 Km^2 is cultivable land and cultivated land is 10,245 Km^2. On the other hand, 4,004 Km ^{2}of land is occupied by different kinds of forests and the rest used for different purposes. The average land holding rate of the area is 0.5 hectares (WZFED, 2016).

The main rainy season *meher*, which is also the main cropping season, extends from *June to September*. The short rainy season, known as *belg rain*, usually covers the period from *February to April*. The mean annual rainfall of the area ranges from1201 to 1600 mm. The maximum and minimum temperature of the area ranges from 17.6 to 25ºC. Land preparation mainly done by ox-drawn plough. The *district* is predominantly rural, and depends on agriculture. The major economic activity is rain fed farming. Major crops grown in the *district* include cereals, pulses and cash crops like coffee, fruits, jinger and root crops. Teff and maize are the dominant cereal crops grown. However, the area is known for its low productivity due to land scarcity, land degradation, erratic rainfall and prevalence of pests. As a result, income from non-farm and off-farm activities is the second most important source of livelihood in the *districts*. Especially, small trading plays an important role in generating income for both non-farm and off-farm activities. Apart from trading, income from daily labor and

seasonal workforce movement during harvest time is another source of income (WZFED, 2016). From the total 7121 population in the study area, 4481males and 2640 females were participated in loan and saving activities. In all these activities the number of female is less than half of the total participant population (WZOMFD, 2013).

2.2. Data Collection Techniques

Data for the study were collected from both primary and secondary sources. Primary data collected by employing household interview schedule survey, focus group discussion, field observation, and key informant interviews to bring the study to realization. Information about personal characteristics of the household head, the knowledge of micro-finance product such as credit, saving and market information, socio-economic and demographic data were collected through individual interviews by using a semi- structured interview schedule. Pilot-tests were made by distributing interview schedule to ten per cent women beneficiaries to assess whether the instruments were appropriate and suited to the study at hand. Necessary adjustments were made based on the comments obtained from pre-test responses from women to ensure reliability and validity. Data collectors were trained with respect to the survey techniques and ethical issues. Additional qualitative information was collected through two focus group discussions, five key informant interviews, and through personal observation. A secondary data source includes journal articles, research reports and other publications, including internet sources of information.

2.3. Sampling Techniques

In the study area, farming households are the main source for making day to day decision on farm activities. Thus, households were the basic sampling units. Three-stage sampling techniques were used to generate the required primary data. At the first stage, *Boloso Bombe district* was selected purposively because it is one of the foods insecure and research sponsored organization present in the area. In the second stage, out of 20 *villages* within the *districts,* three *villages* were selected by purposive sampling technique because for the reason where the women decision in participation practice was high in comparison to the other villages. From these *villages*, sample size was determined using simplified formula provided by Yamane, (1967) and 100 households were determined by employing 90 per cent confident interval and 10 per cent margin errors.

That is $n = \frac{N}{1+N(e)2} = \frac{2640}{1+2640(0.1)2} \approx 100.$

A probability proportion to size (PPS) was employed to determine sample size from each *village* and finally households were selected by using systematic random sampling techniques.

2.4. Data Analysis.

2.4.1 Descriptive Analysis

Data were analyzed through generation of descriptive statistics and ordered logit regression model. Descriptive static techniques such as percentages, means, standard deviations and frequency counts were generated for general information, t-tests were applied to analyze continuous data to compare the mean differences among level of women decision in participation of microfinance services, chi-square tests were applied to analyze categorical data, correlation and cross tabulation method were used to identify inter-dependence among various factors influencing the participation of women decision in Omo microfinance services.

2.4.2. Model Specification

The level of the woman decision in participation of microfinance services has been measured by putting the indicator activities with their score value of frequencies starting from frequently to never participation. The indicators of activities used for this analysis include women decision in participation of different activities. The respondents were asked to what extent they were participating in those activities. This was based on their intervention as frequently, occasionally, seldom and never. Point was awarded for each response with sufficient scoring values as 4, 3, 2 and 1 respectively. The frequency counts of responses have been recorded to compute the Participation Index (PI) of a woman for each of the selected activities. Then Participation Index for each individual activity has been computed by using the following formula;

$PI = (N_1X_1) + (N_2X_2) + (N_3X_3) + (N_4X_4)$ Where:

P_I=Participation Index for different activities of participation in the microfinance

N_1=Number of women who participate frequently

N_2=Number of women who participate occasionally

N_3=Number of women who participate Seldom

N_4=Number of women who never Participate

The Participation Index described above expresses to what extent women are involved in each activity of a given microfinance services. But in order to measure the status of women decision in participation of microfinance as a general, the scores of these activities were calculated for each respondent and converted them in to significant index value as Tilahun (2008) and Roman (2010). In order to achieve the second objective, ‘‘to identify factors

that affect the women decision in participation of micro finance service in the study area'', ordered logit model was employed.

2.4.2.1 Ordinal logit Model

The ordered logit model was employed due to the ordered nature of the dependent variable. Use of appropriate model is usually determined by the nature of the dependent variable or variables. In this study dependent variable has categorical or ordered nature. Then ordinary linear regression is not appropriate because of the non-interval nature of the variable and the spacing of the outcome choices cannot be uniform. Ordinal logit and probit models have been widely used to analyze such types of data (Liao, 1994).

Some polychotomous dependent variables are inherently ordered. Although the outcome is discrete, the multinomial logit or probit models would fail to account for the ordinal nature of the dependent variable (Greene, 2008). The ordered probit and logit models have come in to fairly wide use as a frame work for analyzing such responses (Zavoina and Macelvey, 1975). Hence, the Ordered Logit Model will be used to assess the determinant of the Women Participation decision having three distinct categories. That is low, medium and high participation categories.

2.4.2.2 Model specification

By following Green (2008) and Liao (1994) the functional from of ordinal logit model is specified as follows:

$$y^* = \sum_{k=1}^{k} \beta_k + \varepsilon. \qquad (1)$$

y*= is unobserved and thus can be thought of as the underlying tendency of an observed phenomenon

$\varepsilon =$ is assumed it follows a certain symmetric distribution with zero means such as normal or logistic distribution. What it is observed is

$$\begin{aligned} &y=1 \text{ if } y^* \leq \mu_1 \\ &y=2 \text{ if } \mu_1 < y^* \leq \mu_2 \\ &y=3 \text{ if } \mu_2 < y^* \leq \mu_3 \\ &y=j \text{ if } \mu_{j-1} < y^* \end{aligned} \qquad (2)$$

Where y is observed in j number of ordered categories, μ_s are unknown threshold parameters separating the adjacent categories to be estimated with β_s. The general form of the probability that the observed y falls into category j and $\mu_s$and the β_s are to be estimated with an ordinal logit model is

$$Prob\ (y = j) = 1 - L\left(\mu_{1-1} - \sum_{k-1}^{k} \beta_k\, x_k\right) \qquad (3)$$

Where L(.) represents cumulative logistic distribution. The Odds ratio on each participation status is calculated by

$$\frac{\delta\ prob(Y = j)}{\delta\ X_k} = \left[f\left(\mu_{1-1} - \sum_{k-1}^{k} \beta_k\, x_k\right) - f\left(\mu_{1-1} - \sum_{k-1}^{k} \beta_k\, x_k\right)\right]\beta_k \qquad (4)$$

Where f(.) represents the probability density function

Dependent Variable: The dependent variable for this study was women decision in participation of microfinance services. Therefore, these activities include participation in household decision making, ownership of income generating activities. A score value is prepared for indicator activities given for participating in each activity namely frequently, rarely, seldom and never. Participation in household decision making, ownership and income generating activities were identified based upon the response given by the sampling units in the interview schedule and cross checking the responses through field observation and discussion with participants. So the variables were measured and put in to participation index calculated from different indicators. The sample respondents were classified in three participation categories as low, medium and high according to the score obtained from the participation indicators. Participation in household decision-making: refers to the extent of sampled women's ability to participate in formulating and executing decisions regarding decision on loan taking and investing, decision on child education, decision on child health, decision on big purchase, decision on saving, etc and ownership of income generating activities: it refers to ownership and control of income generating activities and its benefit(s) by the sampled respondent.

Table 1. Independent Variables and their Expected Sign

Variable Code	Description and measurements	sign
EDL	Categorical, educational level of women households.(1=illiterate; 2= elementary; 3= Secondary)	+
DR	Continuous variable, dependency ratio	-
FAMS	Continuous variable, number of people in the household	+
AGE	Continuous variable, age of the women households in years	-
RDON	Dummy variable, Radio ownership (1, owned and 0 otherwise)	+
LSZ	Continuous variable, size of land owned by women households	+
LSH	Continuous variable, live Stock holding owned by households	+
HHIN	Continuous variable, household monthly saving in (Birr)	+
DCMFO	Continuous variable, distance from microfinance office to women home in (Km).	-
DCMAR	Continuous variable, distance from women home to the market (Km).	-
ACTR	Dummy variable**,** women access to training in definite fiscal years(1=received training, 2= not received)	+
ACSP	Categorical variable, active social participation (1= low, 2= medium 3= high)**.**	+
ACHMO	Categorical variable, achievement motivation(1= low, 2= medium 3= high)	+
PRSP	Dummy variable, (1 for those who perceive it as a constraint and 0 otherwise)	-
MRST	Categorical variable, marital status of the women(1= single, 2= married, 3=widowed, 4= divorced)	+
CRUT	Dummy variable, sufficiency of the credit(Yes=1, No= 0)	+

Source: Own survey, (2015).

3. RESULT AND DISCUSSION

3.1 Descriptive analysis

In order to investigate the presence of group means difference with respect to the hypothesized socio-economic, geographical and institutional factors were used T-test and Chi-square test were used, respectively to identify potential continuous and dummy variables differentiating level of participation decision in Micro-finance services.

3.1.1. Continuous variables differentiating level of participation decision in Micro-finance services

Age (AGE): The result of the study shows that the age of the respondent laid on productive age category which was 34 years. Women in the ages from 18-44 are actively participating in the services than other age categories. However, the level of participation decreases when the age of the woman exceeds 45 years. More than 69 per cent of the participants were in the ages between 18-44 years. The t-test reveals that the variable had significant mean difference among the level of women decision in participation of microfinance service at less than one per cent probability level (t= 33.66, p= 0.000).

Household Size (FAMS): Family size is one of the important characteristics of households that determine a households' involvement in different social and economic activities. The larger the family member, the more labor force available in the household, so women can have more time to run their own economic activities. Therefore, family size was hypothesized to have positive influence on women participation in microfinance service. The family size of the sampled respondents classified in to three categories (1-5, 6-10, and 10+). More than half of the sampled respondents 55 per cent were from the households whose family size less or equals to five members and 41 per cent of participants were from the households have 6-10 members. But only 4 per cent of the sampled respondents were from the households that have 10+ members. The total sample respondents' average family size was 5.26, with the standard deviation of 2.74 which is more than the average national household size of Ethiopia according to the most recent CSA survey was 4.8 persons (DHS, 2011). The t-test reveals that the family size had significant mean difference among the level of women decision in participation of microfinance service at less one per cent probability level (t = 30.36, P= 0.000).

Land Size (LSZ): Farmers with large farm size have better chance to earn more income by investing on it. Land is perhaps the most important fixed asset resource especially for farmers as it is the basic for any economic activities especially in rural and agricultural sector. From the three participation categories, 78 per cent of women have less than one hectare of land. When we see clients who have more than 2 hectares, it was only 3 per cent in participation category. From SPSS result the land sizes of the respondents under the low, medium and high participation categories were 0.601, 0.683 and 0.721 respectively. The t-test reveals that this variable had significant mean difference in among the level of women decision in participation of microfinance activities at less than one percent probability level.

Live-stock (LSH): Due to the characteristics of mixed farming system, the livestock ownership is directly

related to the asset accumulation to the household. The main livestock in the study area are cattle, donkey, sheep and poultry. Livestock holding was measured with the help of Tropical Livestock Units (TLU). The result of the study reveals that 8 per cent of clients have no any livestock. However, more than 65 per cent clients were having between one and two different kinds of live stocks and more than 27 per cent of the clients having more than two live stocks. This implies that women having more live stocks are participating better than people without any livestock. The t-test reveals that this variable had significant mean difference in among the level of women decision in participation of microfinance activities at less than one percent probability level (t=23.88, p=0.000)

Distance from the Nearest Market (DCMAR): It is a continuous variable measured by distance from the nearest market is measured in kilometers. Miller and Jerry (2003) indicated that borrowers were characterized by shorter distance to market highly utilize the information than those in longer distance. The closer the women are to the nearest market, the more likely the women will receive valuable information (Ebrahim, 2006). 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, those better access to market them to engage in different income generating activities. As a result, women who are close to market have better possibility to be relatively better empowered than those who are far from market. Results from the analysis show that the mean distance from the nearest market was 7.48 km with its standard deviation of 4.34. The minimum and maximum distance which clients travel to the nearest market centers were 1 and 21km respectively. Out of the total 100 respondents, 82 per cent of the sampled respondents were, from the distance of 1-10 km areas whereas, 17 per cent and 1 per cent of sampled respondents from 11-15 and 16-21 km areas respectively. This reveals that women who are close to market have better possibility to be relatively better empowered than those who are far from market. Therefore, we can clearly understand from the analysis that when the distance is increasing in kilometers, the numbers of the participant decrease. The t-test reveals that this variable had significant mean difference in among the level of women decision in participation of microfinance activities at less than one percent probability level (t = 19.234, p=0.019). (Table 2)

Table 2.Continuous variables differentiating level of women decision in participation of Micro-finance services 100 sample households

Variables		Frequency				t-value
	Category	Low	Medium	High	Total	
Household Size (in number)	1- 5	9	27	19	55	30.36***
	6-10	6	20	14	40	
	10+	1	2	2	5	
	Total	16	49	35	100	
Age of household head (in years)	15-44	11	34	24	69	33.66***
	45-64	4	14	10	28	
	64^{+}	1	1	1	3	
	Total	16	49	35	100	
Land holding size (in hectares)	0.1-0.99	12	38	27	78	21.77**
	1-1.99	3	10	7	20	
	1.99+	1	1	1	3	
	Total	16	49	35	100	
Distance from market in (Km)	0.1-5	6	20	14	40	19.23*
	6-10	7	20	15	42	
	10+	3	9	6	18	
	Total	16	49	35	100	
Livestock holdings (in TLU)	0	3	2	3	8	18.76***
	1-2	9	34	22	65	
	2+	4	13	10	27	
	Total	16	49	35	100	

Note: Source: own survey data, 2015. ***, **, and * Significant at <1%, 5% and 10% probability level

3.1.2. Categorical variables differentiating level of women decision in participation of Micro-finance services.

Education (EDL): Education affects positively and significantly women's decision in participation of microfinance services at less than one per cent probability level. The implication in that education statuses of rural households enable them acquires knowledge and skill and this in turn increases their productivity. Besides, education level of farmers was assumed to increase their ability to obtain productive loan information and their participation in microfinance service. In descriptive part analysis, result of the study reveals that 8 per cent of the

client women completed 1-4 grades, 76 per cent completed grade 5-8 and the rest 16 per cent of the respondents completed grade 9-12.The result reveals this variable had significant mean difference in among the level of women decision in participation of microfinance activities at less than one percent probability level ($\chi 2$= 28.06, P=0.000).

Sufficiency of the credit (CRUT): Access to rural credit is vital in improving productivity of resources through purchasing agricultural inputs, filling consumption gap when it occurs, and availing resources for meeting social obligations and capital for different business activities, etc. In descriptive part analysis, 60 per cent of the respondents reveal that the credit they received from Omo microfinance was sufficient for the intended purpose and the rest 40 per cent of the respondents expressed credit was not sufficient for their intended purpose. The result reveals that credit had significant mean difference among the level of women decision in participation of microfinance services at less than one percent probability level. ($\chi 2 = 18.86$, p=0.021). Table 3

Table3.Categorical variables differentiating level of women decision in participation of micro-finance services among 100 sample households

Variables		**Frequency in percentage**					$\chi 2$ **-value**
	Category	**Low**	**Medium**	**High**	**Total**		
Education Level(Categorical)	illiterate	2	3	3	8		28.06***
	1-8	11	44	21	76		
	9-12	3	2	11	16		
	Total	**16**	**49**	**35**	**100**		
Sufficiency of the credit(Dummy)	Sufficient	9	20	11	40		18.86**
	Not sufficient	7	29	24	60		
	Total	**16**	**49**	**35**	**100**		

Note: Source: own survey data, 2015. ***, **, and * Significant at <1%, 5% and 10% probability level

3.2. DETERMINANTS OF RURAL WOMEN'S PARTICIPATION IN MICROFINANCE SERVICES

Multicollinearity test were conducted into Statistical Package for Social Sciences (SPSS) program for parametric estimates of Ordinal Logit Regression model. Model fitting and goodness-of-fit statistics ($\chi 2 = 203.8$, df = 16, p= 0.000 and $\chi 2 = 477.751$, p= 0.998) show that the likelihood ratio for all explanatory variables are different from zero and the model fits the data very well. A total of 16 variables which were believed to have influence on women decision in participation of microfinance entered into the model. The result presented in Table 4 shows that eight variables were found to have significant influence on women decision in participation of microfinance service at different probability level. That is, age (AGE), household saving (HHINC), perception (PRSP) and livestock in TLU (LSHO) were significant at less than one percent probability level. Family size (FAMS), educational level (EDL) and land size (LSZ) was significant at less than five percent probability level; whereas distance from the nearest market (DCMAR) was significant at less than 10 per cent probability level.

Age (AGE): age affects positively and significantly women decision in participation of microfinance service at less than one per cent probability level. It shows that one year increase in age of the respondent would result in a 0.948 unit decrease in ordered log-odds of being in a lower participation category. The possible explanation could be as women 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 woman's productivity decreases. Moreover, their achievement motivation and level of aspiration diminishes with age. The result is consistent with the findings of Roman (2010).

Family Size (FAMS): Family size is said to be adult equivalent. Family size affects positively and significantly women decision in participation of microfinance service at less than five per cent probability level. The model result shows that when the family size increases in one person, the level of women participation decision in microfinance services increase by 1.06, while the other variables held constant. This could be due to the fact that women get more time to participate in activities outside the home for that she have other family members to carry out domestic occupation at home. The result of this finding agrees with the results of Assefa (2009).

Household Monthly Saving (HHINC): Household saving affects positively and significantly women decision in participation of microfinance service at less than one per cent probability level. The coefficient of the variable also confirmed that a unit changes on the amount of monthly saving changes the probability of women's participation decision in microfinance services by 1.86, keeping the effect of other variables held constant. This can be due to the fact that the monthly saving capacitates individuals to search for microfinance services. The expectation of microfinance use is to generate income, provide employment, and alleviate poverty and empowerment of women Suleiman *et al*., (2012). This finding was similar with the previous study conducted on impact of microfinance participation on women's household income, the case of Amahara Credit and Saving Institution in Kobo, Ethiopia Haimanot, (2007). In addition, the study of Suleiman *et al*., (2012) similarly reported in their study on the significant of monthly saving on women's participation decisions in India and

Dereje *et al*., (2013) reported determinants of women's participation in microfinance services: empirical evidence from Rural Dire Dawa, Ethiopia.

Livestock ownership (LSH): livestock ownership affects positively and significantly women decision in participation of microfinance service at less than one per cent probability level. The coefficient of this variable confirmed that livestock in TLU owned by women increased by one would result in the probability of women's decision in participation of microfinance services by 3.29 the other variables citrus paribus. The implication in that in an agrarian economy of the study area, livestock ownership are the major assets for household economy. Livestock serves as a means of income, traction power and nutrition. Usually small ruminants, cows and chickens are controlled by women. Physical and financial asset ownership and empowerment are highly correlated. As a result households who have relatively larger livestock holdings hence income from it are better off than those who have less or none. This improves women's self-confidence and their ownership of property and assets and their economic contribution for the household MoFED, (2005); Hossaena, (2013).

Education level (EDL): education 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 a years of education level increase by one, result in 0.315unit increase in the ordered logit-odds of being in a higher participation category in citrus paribus condition. The implication in that literate women more easily demand and protect 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 woman is relatively better educated; 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)

Perception (PRSP): To get formal loans individuals are expected to pass through different processes, which is time-taking, cumbersome and sometimes difficult to understand. Rather they prefer to take loan from the informal credit institutions for the sake of ease even if it charges higher interest rates. Bhenda (2003), in his India case study, revealed that households with positive perception about the service were among the users. This is manifested in the form of complicated application procedures and restrictions. This variable represents the borrower's perception of difficulty of the lending procedure. Therefore, it was expected that, this variable negatively affects household's utilization of micro credit. Besides, the descriptive data also supports empirical evidences in that woman level participation in microfinance service and credit utilization increases by 64 per cent in the study area by the influence of perception variable. Thus, perception is hypothesized to have negative relation with dependent variable. This result is also consistent with studies carried out by Daniel and Yirgalem (2016).

Land size (LSZ): The model result reveals that land size was positively and significantly affects women decision in participation of microfinance services at less than five per probability level, meaning that land size exhibits a positive relationship with the women decision in participation of microfinance services. The possible implication in that as women have land, she can produce more from her landholding, so that she needs to opt for microfinance services. Similarly, the results of the study by Daniel and Yirgalem (2016) had also revealed that farmers with the landholding can be engaged on fertilizer credit. This statement supports the economic logic of the substitutability of fertilizer for land. A woman facing the problem of low level of production due to shortage of farmland and limited use of modern farm technologies would increase her productivity through the use of fertilizer and other improved farm inputs. This forces women for searching credits and saving institutions or individuals and groups. This result is also consistent with studies carried out by Daniel and Yirgalem (2016).

Distance from the nearest market (DCMAR): distance from the nearest market affects negatively and significantly women decision in participation of microfinance services at less than 10 per cent probability level. The most possible explanation is that women 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, those better access to market them to engage in different income generating activities. As a result, women who are close to market have better possibility to be relatively better empowered than those who are far from market. The closer the women are to the nearest market, the more likely the women will receive valuable information Ebrahim, (2006); Daniel and Yirgalem (2016). (Table 4).

Table 4: Parameter estimate of the Order Logit Regression Model Result

Variable	Estimate	Stand.error	Wald	Exp (β)
AGE	-0.073***	0.033	4.951	0.948
RDON	1.077	0.491	4.804	0.39
FAMS	0.010**	0.128	0.006	1.06
DR	-0.152	0.359	0.180	0.21
EDL	0.043**	0.092	0.221	0.315
LSZ	0.515**	0.569	0.819	1.87
LSHO	0.065***	0.060	1.164	3.26
HHINC	0.005***	0.005	0.804	1.86
DCMFO	0.169	0.266	0.402	0.43
DCMAR	-0.061*	0.050	1.494	0.87
ACCTR	0.447	0.464	0.929	1.09
ACCSP	-0.241	0.575	0.176	0.67
ACHMO	-0.288	0.479	0.363	0.09
PRSP	-0.640***	0.226	8.054	0.65
MRST	-0.160	0.279	0.326	0.53
CRUT	-0.054	0.479	0.013	0.22
Model-2log likelihood = 529.25, Chi-square = 203.8, df=16, P= 0.000 **Goodness-of-fit chi-square = 477.751, p = 0.988**				

Note: ***, **, and * Significant at <1%, 5% and 10% probability level.

4. Conclusions and Recommendations

4.1. Conclusions

The purpose of this study was to analyze factors influencing women decision in participation of Omo-Microfinance services in Boloso-Bombe District of Wolaita Zone, South Nations, Nationalities and People's Regional State, Ethiopia. Socio-economic, institutional, psychological, communicational and demographic factors that influence women decision in participation of microfinance services among smallholder farmers in rural Boloso-Bombe district of Wolaita Zone, Ethiopia. Employing multi-stage sampling technique was used to gather data. At the first stage, *Boloso Bombe district* was selected purposively because it is one of the districts which is food insecure and least microfinance service participation practices observed. In the second stage, out of 20 *villages* within the *districts,* three *villages* were selected by purposive sampling technique because of the reason where the women participation practices in micro-finance service was high in comparison to the other villages. Primary quantitative data were collected using interview schedule through face-to-face interview whereas qualitative data were collected through key informant interview and focus group discussion.

The data were analyzed with the help of descriptive statistics and ordered logit model. In descriptive finding women decision in the participation of microfinance service was low in the study area. According to the result of the study, on the bases of Participation Index, 35 per cent of the respondents were in the highest participation category, 49 per cent of the sampled respondents were in the medium and 16 per cent were in the low level of participation category in microfinance services.

Empirical analysis result reveals that different factors influenced women's decision in participation of microfinance services in the study area. Age of the respondents, family size, livestock ownership, educational level, perception, distance to market, land size, household saving, and insufficiency of the credit were important variables determining the participation level of women decision in microfinance services. The result of the study further shows that age of the respondents, owner's perception and distance from the nearest market affects negatively and significantly affects the probability of women decision in participation of microfinance services. Similarly, it was reported that households' access to land, education, amount of monthly saving, family size and livestock ownership affects positively and significantly the probability of women decision in participation of microfinance services.

4.2. Recommendations

Based on the findings of the study the following recommendations are made for the improvement of women decision on participation of microfinance services.

First, education level is significant factor that affects women decision in participation of microfinance, government education offices should open and strengthen rural adult literacy centers to enhance basic education for women in need. Besides, social campaigns focusing on the value and importance of adult education should be undertaken in local education offices at regular intervals.

Second, increasing improvement in income and asset accumulation of the clients of Omo-Micro finance

should be encouraged to sustain. However, saving seems to be diminished by the rise in family size. In order to further extend improvement of client's economic condition in general and saving habit in particular, trainings may take into account family planning as well as effective labor utilization of existing family size as appropriate. Along with this clients decision making power, business management skills, self-esteem and self-confidence should also be further extended.

Third, along with the saving and credit facility other employment oriented training programs should be introduced to the rural farmers in order to boost up their economic productive ability. Special emphasis should be given on agricultural training since majority of the people are dependent on agriculture.

Fourth, most of poor households have no or little agricultural land. Therefore it is recommended to help women farmers to make the arable land available in the area should be certified to the women farmers to raise additional income. Moreover, pays attention should be given to production in their homestead including growing vegetables, milk production and rearing of goat and keeping poultry the women has paid little attention to the benefits.

Fifth, as perception could be changed to better only by continued awareness raising and factual presentations of matters that are pertinent to microfinance services, interventions should be made by the institution together with stakeholders to perform result oriented work in the institution by creating good relationship with women clients. Moreover, open discussion based on successful and effective woman role modeling to change the overview of women about the services.

Sixth, further there is need for a study to be done by all development stakeholders such as government, research institutes and donors to distinctively find out the more factors that affect participation of women in microfinance services. This is a critical area of study as research shows it can help much in policy decision making that would help achieve gender equality, economic development and eventually eradicate poverty**.**

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