

Full Length Research Paper

Determinants of women's participation in microfinance services: empirical evidence from Rural Dire Dawa, Ethiopia

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Accepted 26 July, 2013

This study intended to identify the potential determinants of women's participation decision in microfinance services in Rural Dire Dawa, Ethiopia. 203 participants were selected and stratified into users (151) and non-users (52). The survey data was analyzed using descriptive statistics like chi-square test and T-test. Binary probit regression model was also fitted. The study revealed that amount of monthly saving; family size and landholding in hectares were the significant determinants of the women's participation decisions on microfinance services. Therefore, the study concluded that creating an enabling land access institutions and capital asset accumulation were priority strategy for microfinance development.

Key words: Women's participation, microfinance services, Rural Dire Dawa, Ethiopia, decisions.

INTRODUCTION

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, when extended to people, especially women, in rural areas coupled with supporting activities like training, raw material supply, marketing of products leads to investment in micro enterprises, women may become entrepreneurs and reduce poverty (Akinsanmi, 2005). 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 (Pitt and Khandker, 2003; Jean-Luc, 2006).

In Ethiopia microfinance has been considered as an important tool for agricultural and food security under the Agricultural Development Led Industrialization strategy (Belay, 2001; FDRE, 2002). The Strategy also emphasizes, among others, credit as a means to increase smallholder production (Jean-Luc, 2006). The Micro credit Summit Campaign reports that 14.2 million of

the world's poorest women now have access to financial services accounting for nearly 74% of the 19.3 million poorest served by microfinance (Margaret, 2001).

Although the development of microfinance institutions in Ethiopia started very recently, the industry has shown a remarkable growth in terms of outreach particularly in number of clients (Wolday, 2000). 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% of the population. Padma and Swamy (2003) noted that government has formulated and issued the Ethiopian women's policy to speed up the economic and social advancement of women. This policy gives special emphasis to rural women by 'facilitating the

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necessary conditions whereby they can have access to basic services and to ways and means of lightening their workload (Haimanot, 2007). In rural Dire Dawa administrative region, Eastern part of the country, there were nine branches of microfinance which were giving loan for poor women in group and individual bases. These contributes for income-generating activities encompass a wide range of area, such as small business promotion, cooperatives, job creation schemes, sewing circles and credit and savings groups. Albee (1994) opined that economic empowerment projects usually focused on income-generating activities, which allow women to independently acquire their income. Sarangi (2007) evaluated the impact of microfinance program on rural poor households in some backward regions of Madhya Pradesh in India. 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. Sharma (2007) examined the impact of participation in microfinance program on women's autonomy and gender relations within the household. The study of Krishnaraj and Kay (2002) concluded 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 (Wolday, 2007). Moreover, studies that critically assess the determinants of women's economic empowerment through microfinance services are so far limited in the country (Padma and Getachew, 2004). This is perhaps due to the fact that both micro-finance development and priority attention to women's economic empowerment are new and are now currently recognized as important strategies. Identifying the determinants of women's economic empowerment through microfinance services helps to understand the real problems at gross root level (Seifu, 2002). 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 women's participation of micro-financing services based on a case-study of women microfinance clients in rural Dire Dawa administration.

LITERATURE REVIEW

Concept of Microfinance

Microfinance Institutions (MFI's) are defined as institutions

whose major business is the provision of microfinance services (Oyunjargal and Nyamaa, 2002). It is the provision of a broad range of financial services such as deposits (savings), loans, payment services, money transfers and insurance to poor and low-income households and their micro enterprises (Putzeys, 2002). Microfinance has undergone several transformations in terms of concept, services type and approaches/modes of provision. Indeed, microfinance is said to be a new and emerging field in which there is still a lot to learn (Dunford, 2000). Others, however, argue that since it is rather not easy in practice to consistently serve clients that are living below the poverty line, micro-financing is meant for those who are presumed to be able to repay loans (Meagher, 2002).

Microfinance Development in Ethiopia

Up until the early 1990s, the sources of finance for rural and urban poor and micro and small enterprise operators in Ethiopia were confined only to informal sources of finance like moneylenders, friends and relatives (Itana et al., 2004). Consequently, the government came up with Proclamation No.40 in June 1996 which facilitated flourishing of several sustainable Micro-finance institutions (Meklit et al., 2005). After the enactment of this Proclamation, about 26 MFIs have been legally registered by the National Bank of Ethiopia (NBE), (Wolday, 2007). 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 (Gebrehiwot and Wolday, 2001). The origins of MFIs in Ethiopia was largely rooted in their NGO past with a clearly defined mission of rural poverty eradication (Pitt & Khandker, 2003). A study conducted on the Dedebit Credit and Saving Institution indicated that the program has had a positive impact on the livelihoods of its clients. The study also concluded that economic empowerment leads to social and political empowerment. (Borchgrevink et al., 2005). The other study was conducted on Omo and Sidama MFIs' women clients in Awassa town. According to this study, a majority of the clients are involved in the making and trading of food, and food-related products. The study also witnessed that there is no diversification in their business activity. Furthermore, it also reflected in many cases in business improvements, decision making process and asset formation at low levels, and it is believed not sufficient (Padma and Getachew, 2004). Ethiopian MFIs have served 1,211,305 clients nationwide up to June 2005. The loan portfolio in the hands of active clients was about Br 1.5 billion (173 million USD). The average loan size was about Br.1000 (116 USD). Ethiopian microfinance industry is dominantly serving the rural poor. About 38 percent of clients of the MFIs are female (Wolday, 2007). As the overriding objective of MF services in Ethiopia is

to provide a broad range of micro-finance services to large numbers of poor households, it should be their (MFIs') priority to accommodate remarkable numbers of women clients to accomplish tangible changes in the livelihood of the rural poor (Haimanot, 2007).

Women's Economic Empowerment through Microfinance

The idea of empowerment has influenced development practitioners, development agencies, theoreticians and donor agencies in the last decade (Padma and Getachew, 2004). In line with the development of micro-finance institutions, the Government of Ethiopia set up participatory rules and policies which gave space for women productivity. Padma and Swamy (2003) noted that, government has formulated and issued the Ethiopian women's policy to speed up the economic and social advancement of women. Rural development programs need to reorient their implementation strategies so that they would target rural women as beneficiaries of development initiatives and programs. Within this framework, anti-poverty and women empowerment could be aspects of the major development strategies. While microfinance institutions have increased their efforts to provide credit to women, in Ethiopia women constitutes only 45% of those reached by microfinance (Getaneh, 2010). As the overriding objective of Microfinance in Ethiopia is to provide a broad range of micro-finance services to large numbers of poor households, it should be their priority to accommodate remarkable numbers of women clients to accomplish tangible changes in the livelihood of the rural poor.

METHODOLOGY

Description of the Study Area

Dire Dawa Administration (DDA) is one of the two federally administered regions located 505 km from the capital town Addis Ababa. There are two major climatic zones in the DDA. *Kola* areas with altitude ranging from 500-1500 meters above sea level covering 1173km², *Weyna dega*, areas with altitude ranging between 1500-2300meters above sea level covering 160km². *Kola* has an average annual temperature of 20-27 degree centigrade and *Weyna dega* with 17.5-200 degree centigrade. The average annual rainfall is 640.3mm with highest 1257.7mm and a minimum of 357.3mm. Based on the census conducted by the Central Statistical Agency of Ethiopia (CSA, 2007), DDA has a total population of 341,834, of whom 171,461 are men and 170,461 women. According to DDA microfinance office report, there are 40 women groups who are supported by the women initiatives projects run by different NGOs.

There are nine microfinance branch offices which are providing service in the form of group, individual and consumption loan for the rural people. The total numbers of clients are 6621 of these males constitute 2331 and females are 4290 during data collection.

Sampling Technique and Data Collection

DDA has 38 rural kebeles. For the purpose of the project from the total kebeles, 3 *kebeles* were selected using random sampling method. For the selected *kebeles*, separate list of beneficiaries of microfinance was prepared. Total sample size was 203 and of which 151 were beneficiaries and the rest were non beneficiaries. It was selected using probability proportional to size random sampling technique. Structured interview schedule was used to collect data from primary source which mainly comprised of target households, microfinance service providers and key informants followed by review of the available secondary data source.

Data Analysis

Descriptive statistics tools such as mean, standard deviation and percentages was used to analyze the quantitative data that were collected from primary sources. Independent t-test was used to test mean difference among continues variables, and Pearson's χ^2 (Chi-square) tests for categorical variables was run to compare groups with respect to variables of interest. Binary probit regression model was employed to identify the determinants of women's participation decisions on microfinance services. Following Green (2000) probit/participation equation is specified as,

$$Z_i^* = \sum_{k=1}^k \gamma_k W_{ki} + u_i ; \quad u_i \sim (0, \delta_u)$$

$$Z_i = 1 \text{ if } z^* > 0 \text{ and}$$

$$Z_i = 0 \text{ if } Z^* \leq 0$$

Where,

Z_i^* Participation decision in MF estimates which has dichotomous realization on Z_i (unobserved)

γ_k = unknown parameters of the k^{th} variable to be estimated, W_{ik} = variables determining participation decision in MF services, u_i, ε_i = disturbance terms of the first and second equations, respectively.

Table 1. Demographic and socio-economic characteristics of sample respondents (continuous variables).

Variable Definition	Users (N=151)		Non-users (N=52)		Total (N=203)		t-test
	Mean	SD	Mean	SD	Mean	SD	
Demographic issues							
Age in years	36.04	7.71	36.25	10.21	36.09	8.42	59.6***
Resource endowments							
Land holding	0.36	0.28	0.32	0.21	0.35	0.26	1.87*
Livestock holding	3.23	2.16	2.94	1.93	3.16	2.10	13.7***
Income indicators							
Monthly Saving	98.28	678.47	36.02	76.34	79.84	570.1	18.49***

*** and * statistically significant at 1% and 10%, respectively. Source: Survey result, 2013.

Table 2. Demographic and socioeconomic characteristics of respondents (categorical variables).

Variable definition	Categories	Users (%) (N=151)	Non-users (%) (N=52)	Total (%) (N=203)	χ^2 -test
Religion	Orthodox	1.04	1.57	2.61	6.16**
	Muslim	73.29	23.5	96.34	
	Protestant	0	0.52	0.52	
Marital status	Single	4	0	4	1.429
	Married	64.5	23.1	87.3	
	Widowed	11	4	15	
	Divorced	3	1	4	
Educational status	Illiterate	64.5	37	82.8	10.32**
	write	11	12	23	
	Grade 1-4	4	1	5	
	Grade 5-8	3	1	4	
	Grade 9-12	1	1	2	
Main occupation	farmer	70.4	52	92.5	2.51
	Non-farmer	7	0	7	
Family size	1-4	36	17	53	
	5-12	62.5	36	49.5	
	More than 12	1	0	1	
Access to land	Yes	92.0	87.5	98.9	1.098
	No	8	15.5	9	

***, and ** Statistically significant at 1% and 5%, respectively, Source: Survey result, 2013.

Table 3. Maximum Likelihood estimates of probit model and its marginal effects.

Variables	Coef.	t-value	ME
Constant	-019.14	-1.17*	-1.0341
Age (in years)	-0.132	-0.75	-1.013
(Age) ² (in years)	0.432	0.36	0.0091
Religion	0.0191	0.21	0.103
Marriage	1.750	0.95	0.173
Education	0.462	0.60	-0.630
Occupation	1.4956	0.78	0.4726
Family size (adult equivalent)	-0.569	-3.01**	-1.76
Household Head	-1.562	0.16	0.218
Source of livelihood	0.0093	0.04	0.0026
Land holding	2.00	1.64***	1.934
Livestock holding (TLU)	0.224	- 1.62	1.253
Monthly saving (Eth.Birr)	0.004	3.82***	1.804

Number of observations (N) =203, Uncensored observations (N) =151, Chi-square = 113.47***, Pseudo R-square = 0.793, ***, **, * Statistically significant at 1%, 5% and 10%, respectively, Source: Survey result, 2013.

RESULTS AND DISCUSSIONS

Demographic and Socio Economic Characteristics of Respondents

The result of the study (Table1) showed that the mean age of the respondent laid on productive age category which was 36 years. Average age difference among microfinance users and non-microfinance users was also statistically significant at 1% level even if the average economic difference was very invisible (0.21years).

The results of the study showed that the significant number of sample respondents were Muslims (96.34%) as compared to Orthodox (2.6%) and Protestants (0.5%). The difference between microfinance users and non-microfinance users in relation to education was also statistically significant at 5% level (Table 2). Among the microfinance users, married women constitutes 64.5% and the remaining 15%, 4% and 3% were widowed, single and divorced women, respectively whereas, among non-microfinance users 23.1, 4%, 1% were married, widowed and divorced, respectively as shown in the (Table 2). The results of the (Table 2) shows that 64.5% of sample respondents were illiterate and those who can write and read constitute only 11%. But, the difference is statistically insignificant in relation to main occupation of the respondents (Table 2). The mean monthly saving amount in birr between microfinance users (98.28 Ethiopian Birr) and non-users (36.02 Ethiopian Birr) was statistically significant at 1% level

(Table1). On the other hand, microfinance users (0.36hectares) have higher average land holding as compared to non-microfinance users (0.32hectares) and the mean difference was also statistically significant at 1% level (See Table 1). The average tropical livestock unit (TLU) owned by microfinance user (3.23TLU) was greater than non-microfinance users (2.94TLU) and the differences were also statistically significant at 1% level (Table1). The results of the study revealed that 98.9% of the sample respondents have access to land whereas only 9% have no access to land. Among microfinance users, more number (92%) of the women has access to land as compared to non-microfinance users (87.5%) even if the difference between microfinance users and non-microfinance users in terms of access to land was statistically insignificant.

Econometric Model Outputs

Monthly saving

The expectation of microfinance use is to generate income, provide employment, and alleviate poverty and empowerment of women (Suleiman et al., 2012). The results of the study revealed that saving experiences of sample respondents were positively and significantly affect women's participation decisions on microfinance services. This can be due to the fact that the monthly saving capacitates individuals to search for microfinance

services (Malik and Luqman, 2005). The coefficient of the variable also confirmed that a unit change on the amount of monthly saving changes the probability of women's participation decision in microfinance services by 1.804, keeping the effect of other variables constant (Table 3).

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 to, 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.

Family Size

Family size was one of the important characteristics of households that determine a households' involvement in different social and economic activities. Family size was converted in to adult equivalent to identify the productive family members who were capable and generating household income to be involved in microfinance services. However, the result of the study revealed that the household size of the respondents significantly but negatively affects the women's participation decision on microfinance services. This was further elaborated that the significant family size, which was unproductive against its number has limited participation decisions on microfinance services. More conclusively, the household size of each sample respondent was lacked productivity and generates limited household income.

Conversely, large productive family size in the rural household generates and enhances household income of rural women and enables them to be involved in microfinance services. Having large family size may imply that the household has enough labor supply for participation in different income generating activities like microfinance services. The marginal effect of the probit model (Table 3) shows that a unit increase of family size in adult equivalent decrease probability of women's participation decisions by 1.76, keeping the effect of other variables constant.

Landholding

Currently, land scarcity and lack of alternative non-farm employment opportunities are serious problems in rural areas. Severe land shortage, high levels of landlessness and unemployment and widening poverty are eroding peasant's ability to withstand environmental stresses and food shortages. Land is one of the important factors for farm production. The possible explanation was that as women have land, she can produce more from her land holding, so that she needs to opt for microfinance

services. Similarly, the results of the study by Berhanu (1993) 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 farm land 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. The results of the study revealed that the households' access to land positively and significantly increased the probability of participation decision by 1.934 (Table3). This result is also consistent with studies carried out in India by (Subbarao, 1980).

CONCLUSIONS

The result of the study showed that the mean age of the respondent laid on productive age category. The difference between microfinance users and non-microfinance users in relation to education was also statistically significant. The mean monthly saving amount in birr between microfinance users and non-users was statistically significant. The study revealed that the amount of monthly saving of sample respondents were positively and significantly affects women's participation decisions on microfinance services. Similarly, it was reported that households' access to land positively and significantly affects the probability of participation on microfinance services. Therefore, the study concluded that creating and enabling land rights and capital asset accumulation were priority strategy for pro poor microfinance development.

ACKNOWLEDGEMENTS

The Authors acknowledged the development agents of the three study sites for their cooperation during data collection. Great appreciation goes to women who spared their precious time to respond to the lengthy questionnaire willingly; without their cooperation, this study could not have been completed. Lastly our appreciation extends to Haramaya University, office of Vice president for research affairs for funding the study.

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