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Impact of microfinance on women's economic empowerment

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Abstract

Women's economic empowerment a strategy aimed at enabling women in decision-making, increment in income and asset ownership. The main aim of the study is to examine the impact of microfinance on women's economic empowerment. Data were derived from a questionnaire of a sample of 346 women clients of microfinance. Multiple regression and paired sampled *t*-test data analysis techniques were used in the study. Multiple linear regression result revealed that age, marital status, education level, credit amount, and number of training have significant effect on women's economic empowerment. However, previous business experience did not have significant impact on women's economic empowerment. Paired sampled *t*-test result revealed that there is significant mean difference before and after microfinance service in terms of income, asset, and saving. Microfinance has significant positive effect on women's economic empowerment by improving women's independent income, increasing asset possession levels, and improved monthly saving amount. Moreover, the study proved that microfinance has a positive impact on women's entrepreneurship development and business exposure.

Keywords: Microfinance, Women economic empowerment, Impact

Introduction

Microfinance institutions have been considered as important development program in Ethiopia for the last 20 years. The legal foundation for the microfinance movement and expansion in Ethiopia was started after 1996 proclamation. In the development of microfinance, this proclamation considered as a bench mark to start and develop microfinance in the country. Women's participation in microfinance is growing gradually. All microfinance industries have a shared vision of poverty alleviation and women's economic development.

Microfinance institutions are effective instruments for providing basic services like saving, affordable credit, and skill training (Haimanot, 2007; Mahfuz et al., 2017; Misrak, 2012). Microfinance institutions are important economic development agents intended to benefit women and lower income people (Cicchello et al., 2021; Duflo, 2012; Meressa, 2020). Microfinance institution plays a great role in different countries in alleviating women's economic problem, creating self-employment opportunities, and developing businesses for women entrepreneurs. Women are benefited from

participating in microfinance program. Women's participation in microfinance credit program increased their economic position, exercise economic independence, and improvement in their business leadership skills (Addai, 2017; Haimanot, 2007). However, Women's participation in economic activities is very low in Ethiopia (Dawit, 2014; Solomon et al., 2019; Zelalem & Chalchissa, 2014).

Women represent the main economic force in different developing countries. As economies become more and more information-driven, the issues of women's access to and the use of information and communication technologies are growing in importance for developing economies (Michota, 2013). Economic empowerment improves women's opportunity to resources and non-financial resources. Moreover, it creates good opportunity for skill development and market information (Addai, 2017; Khandre, 2015). Women's economic participation is base to exercise women's right and helping them develop decision-making role over their household and influence in their community. Women's empowerment is creating equitable societies (Shaheen et al., 2013).

There are controversies on impact of microfinance on women's economic empowerment. Odell (2010) study identified the difficulty of making generalized conclusions taking to consideration the heterogeneity of microfinance interventions. Stewart et al. (2010) study in Africa found little impact of microfinance on income of beneficiaries. According to Rathirane and Semasinghe (2015) study, there is a weak but significant impact on women empowerment due to microfinance service provision in Sri Lanka. Addai (2017) and Mohammad et al. (2017) study clearly indicated that there is positive effect of microfinance on women's economic empowerment in Ghana and Bangladesh, respectively. Different researchers confirmed the significance effect of microfinance (Kato & Kratzer, 2013; Loomba, 2017; Misrak, 2012).

There are many published studies linking microfinance to women's empowerment. The studies mainly concerned on microfinance role on, poverty alleviation, and socio-economic development through microfinance. Particularly in Ethiopia, the concept of microfinance is at its infancy level that needs further investigation. Therefore, this study is focused to examine how microfinance service has impact on women's economic empowerment taking into account Amhara credit and saving institution of Ethiopia.

Literature review

Microfinance development in Ethiopia

Microfinance program in Ethiopia launched during 1960s as semi-formal microfinance service with credit and saving cooperatives. Semi-formal microfinance created assets to undertake different economic activities, improved household asset building, and manage risks and bad events. Different non-government organizations in Ethiopia have introduced saving and credit cooperatives aimed at creating self-employment and generating income for the betterment of society affected by drought in the country (Befekadu & Berhanu, 2000).

Until the beginning of 1990s financial sources to finance for urban and rural poor and small enterprise in Ethiopia were informal and semi-formal sources of finance like families, friends and moneylenders (Itana et al., 2004). They further noted that, starting in the mid-1990s after known drought in 1984, Non-Government Organizations introduced the idea of saving and credit among poor section of the society as a means for

rehabilitation and development. Later, government programs undertaken in collaboration with international financial institution even though both types of programs were operated in unorganized and scatter manner and lacked sustainability until the year 1996.

Formal microfinance in Ethiopia was developed and flourished recently with fast growth rate. Dawit (2014) noted that Ethiopian owned microfinances were established to provide different services in rural households, promote saving habit and credit accessibility with strong focus on sustainability. Formal microfinance was strengthened in 1990 when an urban micro-financing scheme was initiated at national level with agreement signed between International Development and Ethiopian Government (Befekadu & Berhanu, 2000). After Ethiopian people's democratic front, present Ethiopian government, took over power in 1991, considerable attempt has been made to liberalize the financial sector. As result, Proclamation No. 84/94 was declared, to allow private and domestic investors to engage in insurance and banking business, which were previously monopolized by the government. Another Proclamation 40/1996 was issued to solve financial services delivery of the to poor section of the society (Dawit, 2014). Therefore, the legal foundation for the microfinance industry was laid in the country with Proclamation 40/1996 on supervision and licensing of MFIs in the year 1996. This proclamation act as a framework to start, expands, and develops microfinance in Ethiopia.

Agricultural Development which Leads to Industrialization strategy considered rural finance as an important tool for agriculture and food security. As a result, the Ethiopian government reconsider microfinance operational modality in order to facilitate microfinance service delivery and outreach. Currently, in Ethiopia there are 38 microfinance institutions licensed to operate regional states and throughout the country (Solomon et al., 2019).

Microfinance and women's economic empowerment

Microfinance institutions are considered as society based strategy to give different finance related resources for the poor and disadvantage section of the society in order to improve the life of clients (SEEP, 2006). Microfinance sector plays vital role in supporting the community in their transition towards development of the country and peace building. Microfinance industry support local economic development by providing the needed financial and non-financial services for small enterprise development. According to Kamberidou (2013), women are naturally strong in using financial and non-financial resources in building strong relationships, and creating a culture of collaboration. Some researchers consider microfinance as survival strategy in time of disaster and sustainable peace development (Dawit, 2014; Khanday et al., 2015).

In Ethiopia context Supervision and Licensing of Microfinance Institution Proclamation No. 626/2009 defines microfinance as "financial services provision including credit, savings, drawing, money transfer services and other related services." This microfinance business definition does not confine microfinance institution to only credit. In this article, microfinance is defined as financial services provision to the low-income people and small enterprises that lack access to formal financial institutions. Microfinance is not limited to borrowing activities but also includes savings, transfer facilities, training, insurance and others.

Microfinance sector empowers women economically by providing working capital and support women in order to get constant income to their families (Tandon, 2016). According to Mudakappa (2014) many women were clients of microfinance in different countries. Khanday et al. (2015) believed that development of women economically generated self-esteem and respect for women microfinance beneficiaries. Microfinance provides finance to women who helped them to start new business and expand the existing one. Microfinance institution service of credit and training gives women confidence and helped them to be more active in participating in the household and community affairs.

Microfinance institution service empowers women economically by providing self-employment opportunity, improving labor productivity, and increasing wage rate (UN, 2011). Microfinance impact mostly measured using variation in independent income, employment rate, and household consumption on a sustained basis. Microfinance institution service impact could also be directly known by considering increment in outcomes such as literacy rate, fertility rate, and housing pattern. Changes in income and self-employment opportunity among enterprise owners benefit community at large (Ertu & Tilahun, 2022).

Microfinance service helped the poor section of the society to protect from different risks and diversify business, to increase sources of income which is considered as important instrument in the reduction of poverty and women's economic empowerment (Addai, 2017; Littlefield et al., 2013; UN, 2012). Many researchers result showed that income played significant role on consumption, capital formation and other indicators of human well-being. When the income level increases access to balanced food, access to medical services and children education are positively affected (Solomon et al., 2019). Moreover, microfinance institutions provide services which seek to minimize the risk from adverse effects for the poor society. For example, savings programs are operating to help microfinance institution clients to gradually accumulate working capital for the times of crises and when there is capital need for different purposes. Efficient microfinance program could also reduce the rate of unemployment, and diversify sources of income. Thus, Women's economic empowerment as result of microfinance service could be achieved.

Conceptual framework of the study

Conceptual framework for this study is developed based on the evidence available in literature. More than 40 researches reviewed to develop this conceptual frame work. Based on the literature review, the researcher has developed conceptual framework to show the relationship between independent variables, microfinance service, and dependent variable women's economic empowerment.

According to SEEP (2006), impact assessment can be used to improve services, increase impact on poverty and microfinance institution efficiency, to promote good client service and accountability, and provide accountability to donors and other external stakeholders. Ledgerwood (1999) divides impact of microfinance into three categories namely economic impacts, socio political or cultural impacts, and personal or psychological impact. Women's economic empowerment can be influenced by both women's demographic characteristics and access to financial resources from microfinance institutions. Demographic factors are expected to influence access to microfinance services.

If women have access to these services, they will be able to participate in income-generating activities whether to start a new business or improve the existing one. The result expected is empowering economically which is manifested through ownership in income-generating activities, ownership of assets, increased income, savings, and decision-making (Selvaraj, 2016).

Microfinance service (access to credit and training) and demographic variables (age, marital status, and education) leads to women economic empowerment. Addai (2017) study clearly showed that microfinance service has impact on women's economic empowerment but the relationship is mainly take into account marital status, age and educational of the women. Rehman et al. (2015) study found that education and age have impact on women's economic development of women beneficiaries. The main independent variables which microfinance institution provides are access to credit and training which enable women to start their own economic activities or invest more in existing activities and earn an additional income. According to Dawit (2014) and Rehman et al. (2015) increased participation in economic activities raises women's independent incomes and savings, increases control of their own and family income, and other household resources which are basis for women's economic empowerment.

Data and methodology

The research was conducted in Ethiopia in the year 2019. From the literature review, 35 items that would indicate women's income, asset, saving and decision-making were identified. A questionnaire consisting of both open- and a close-ended question was used to obtain information from the selected samples of 346 respondents. The questionnaire basically focused on socio-demographic characteristics, economic empowerment and microfinance service.

The questionnaire was standardized which was used and approved; however, pilot study from selected respondents was conducted to refine the instrument. Questionnaire was tested on some respondents to make the instrument objective, suitable, relevant, to the problem and reliable. Issues raised by the respondents were corrected and questionnaires were refined. Besides, proper detection by senior research was also taken to ensure validity of the instrument. To check internal consistency, reliability test was conducted in with a sample of 30 clients and the Cronbach's alpha coefficient for the instrument was checked. Cronbach's alpha was computed and was 0.85 which is higher than 0.7. Therefore, the instrument was reliable and used for the study.

Multistage sampling technique was used in this research. Amhara region of Ethiopia has 10 zonal towns and the researcher took 3 zone administrations. The researchers Knowledge and experience was used for selecting the study area. In order to evenly distribute the sample in all geographical area; the existing administrative division were taken as a base for allocation of sample size. The numbers of respondents included in the study for each town were found by proportional method based on client's number in each town using Amhara credit and saving institutions data. Finally, respondents enrolled in the study were drawn using simple random sampling technique. As a result, 51.5% of the respondents were from Dessie town administrations, 27% of the respondents were from Debrebirhan town administration and the remaining 21.5% were from Woldia town administrations.

Multiple linear regression analysis was used to determine whether the six independent variables, which are age, marital status, education level, previous business experience, credit amount and number of training have any significant effect towards economic empowerment of women. Moreover, paired sampled *t*-test was used to compare mean difference of income, saving, and asset before and after credit program. The econometrics model used is:

$$CEEI = \beta_0 + \beta_1(AGE) + \beta_2(MARS) + \beta_3(EDUL) + \beta_4(BEP) + \beta_5(TRAЕ) + \beta_6(CUML) + \epsilon',$$

where CEEI = Cumulative Economic Empowerment Index; β_0 = constant; $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6$, are the coefficients, AGE = age; MARS = marital status; EDUL = education level; BEP = business experience; TRAE = training exposure; CUML = commutative loan amount received; ϵ' = error term.

The dependent variable is cumulative economic empowerment index. Accordingly, for measuring economic empowerment of women in the study, a Cumulative Economic Empowerment Index (CEEI) was developed by summing up the individuals' scores obtained from all the four indicators: asset, income, saving, and control over resource. Other researchers (Dawit, 2014; Kaur, 2012; Leonhäuser & Parveen, 2004; Mohammad, 2014; Parveen & Chaudhury, 2009; Simantini & Bimal, 2016) also used similar methods to measure women's economic empowerment by developing a cumulative women's economic empowerment index.

Results and discussion

This section of the study was conducted to contribute new information about the impact of microfinance through Amhara credit and saving institution on women economic empowerment. Multiple regression and paired sample *t* test were employed for data analysis.

Regression result

A further inspection on the regression coefficients of individual predictor variables revealed that age (Beta = 0.285, $p < 0.05$), marital status (Beta = 0.125, $p < 0.05$), level of education (Beta = 0.260, $p < 0.05$), number of training (Beta = 0.224, $p < 0.05$), credit amount (Beta = 0.225, $p < 0.05$), are significant predictors of overall economic empowerment of women. This finding revealed that age, marital status, education level, number of training, credit amount have significant effect on the economic empowerment of women. Previous business experience (Beta = 0.064, $p > 0.05$) variable was found to be insignificant on women economic empowerment in the study area (Table 1).

This finding revealed that age has significant impact on women economic empowerment. An increase in the age of the women raises maturity and their confidence to earn more money, which leads to increases in their overall economic status of women. This study found that age and women's economic empowerment was associated positively, i.e., economic empowerment increase with the increases in age. According to Dawit (2014) explanation for the positive relationship was that women gain more experience and knowledge about different family matters, as women's age increased to older age. This experience gives them better understanding to make decision about their life, family matters and in the community which leads them towards economic empowerment.

Table 1 Regression result

Coefficients ^a					
Model	Unstandardized coefficients		Standardized coefficients	t	Sig
	B	Std. error	Beta		
(Constant)	4.412	1.320		3.342	.001
Age of respondent	1.330	.228	.285	5.835	.000
Marital status	1.941	.704	.125	2.759	.006
Level of education	1.394	.249	.260	5.598	.000
Previous business experience	.200	.160	.064	1.252	.212
Credit amount	.698	.153	.225	4.573	.000
Number of training	1.354	.285	.224	4.757	.000

^a Dependent variable: cumulative economic empowerment index

The result of the study is consistent with previous researchers' findings. For example, Rehman et al. (2015) study found that age has profound impact on women's empowerment. Further, Ringkvist (2013) field study in Burma found that age seemingly has effect on the economic empowerment of women.

As indicated in above table marital status has significant positive impact on women's economic empowerment. The married women were significantly more likely to be enjoying economic empowerment than unmarried, widowed and divorced women. The fulfillment of family requirement may be the main reason to help a married women to earn more and thereby improve the economic status. This finding is consistent with Addai (2017) finding, married women supported by her husband and her children. Conversely, Dawit (2014) study indicated that marital status has insignificant impact on women economic empowerment. His explanation of this result was that single women are the decision-maker of their household and they had more exposure to the external environments to participate in economic activities and improve their livelihood status, and have more freedom and self-esteem in controlling the resources that enhance their empowerment.

The regression results revealed that the educated clients of microfinance were better placed in terms of effective usage of credit and training service and enjoying economic empowerment. In other words, educated microfinance institution clients were found to have a positive impact on raising the economic status of women. Women's level of education has direct relationship with control over resource. Moreover, women's education level affect her decision on contraception, better employment opportunity and income which are the basic indicator of women economic development and empowerment. Addai (2017) study also shows that education level has significant impact on women's economic empowerment. Parveen (2005) also argued that education improve the socio-economic condition of women, facilitates them to demand and protect their rights. Educated and literate women had greater access to information and knowledge that increased their chances for paid jobs, other benefits and resources.

Amount of credit has significant impact on women's economic empowerment. The provision of credit service helps to improve the economic condition of women clients. As the amount loan increases, women use their credit on income-generating activities. They jointly use their income to start new business and expand the existing business.

Members, who borrowed high amount of credit, secured higher economic empowerment index. Women who got more credit are more likely to achieve higher economic empowerment level than those who received low amount of credit. According to Miled et al. (2022) microfinance loans can lead to improve the relative income position of the poor in developing countries, albeit slowly. The finding of this study is similar with the research findings of Khan and Noreen (2012) study in Pakistan. They found that credit given by microfinance institution has significant impact on economic empowerment of women. This finding is consistent with Ringkvist (2013) and Loomba (2017) studies that the loan access by microfinance and its effective utilization have a positive impact on women's economic empowerment.

As can be evidenced in the regression result number of training provided by microfinance has significant effect and leads to women economic empowerment. Women who attended training more likely grow their business skill and attitude than who did not attend training. Number of training significantly affects economic empowerment of women. Regular training is very important, especially so in the initial stage. Microfinance provides training on credit usage, how to start new business and how to expand business. This ensures that women remain committed to the their business and are able to plan in advance as regards the operation of their business. Majority of the respondents reported that all members of microfinance participated in training before they got credit (Beriso, 2021; Dincer, 2014; Leonhäuser, 2004; Rwanda Charles, 2016).

From the regression result, it can be concluded that microfinance program is helpful in empowering women economically. The education and training provided by microfinance program lead to the development of the overall personality of the program participants. The beneficiaries of the program have higher levels of employment, income and participation in household financial decision-making as compared to non-participants.

According Alene (2020) findings level of educational, entrepreneurial experience, access to training, finance, and information, government support, land ownership are significant in explaining women entrepreneurs. The results with respect to multiple regressions have presented several interesting observations. Different variables like age, education marital status, credit amount, number of training has significant relation to women's economic empowerment. However, previous business experience has insignificant influence on the economic empowerment of women. Bera (2014) study concluded that participation in the microcredit program increases if the women are aged, educated, currently married, education levels of the heads of their families are high, and possessed more non land assets.

Paired *t* test result

In this study, paired *t* test used to compare mean difference of income, saving, and asset before and after credit program. Paired sample *t* test was conducted to determine the effect of microfinance on women's asset after credit and before credit program, there was significant effect on asset, $t(345) = 16.444, p = 0.00$. It can be observed from Table 2 that the mean asset difference after credit and before credit program is significant and microfinance program has positive impact on women asset ownership. The result of the study is similar with Temba (2016), a study conducted in Tanzania and showed that microfinance has able to managed to help women to avoid poverty and empower

Table 2 Paired sample test results

	Paired differences				<i>t</i>	<i>df</i>	Sig. (2-tailed)
	Mean	Std. deviation	Std. error mean	95% confidence interval of the difference			
				Lower Upper			
Asset after credit – asset before credit	3.72254	4.21088	.22638	3.27729 4.16780	16.444	345	.000
Income after credit – income before credit	3.23121	2.53068	.13605	2.96362 3.49881	23.750	345	.000
Saving after credit – saving before credit	2.90751	2.76890	.14886	2.61473 3.20030	19.532	345	.000

themselves economically by increasing their asset ownership when compared to before joining microfinance program.

As clearly shown in table above, there is significant mean difference in income after and before credit program $t(345) = 23.750$, $p = 0.00$. Based on the result by pair t test statistics shown, there is significant mean difference after women get credit from microfinance and before credit program. Gangadhar and Malyadri (2015) and Wanjiku and Njiru (2016) study also supports the result of this study.

Paired sample t test was conducted to determine the effect of microfinance on women's saving amount after credit and before credit program, there was significant effect on saving amount, $t(345) = 19.532$, $p = 0.00$. Before joining microfinance most women did not save and few women save but the saving amount were small. The main reason for not saving is lack of additional income and lack of awareness about business and microfinance service. After credit program, almost all of women clients put their money in saving accounts maintained with microfinance institutions and commercial banks.

Conclusion and recommendation

Conclusion

Multiple regressions have presented several interesting observations. Different variables like age, education, marital status, credit amount, and number of training has significant relation to women's economic empowerment. However, previous business experience has insignificant influence on the economic empowerment of women.

To know the use or non-use of microfinance on women's asset, income, saving, pair t test was employed. The result of study concludes that the difference in asset, income, and saving amount were significant. Therefore, one can easily conclude that microfinance plays a great role on improving women asset, income, and saving. Different researchers also show the importance microfinance on women's asset ownership improvement, income increment, saving amount improvement, and effective decision-making. Participation in microfinance program has led to greater level of women's economic empowerment in terms of increase in economic status, knowledge

of business activities, self-confidence on participating in income-generating activities, social and political awareness, developmental of organizational skills and mobility.

Recommendation

The findings of this study have important implications for interventions designed to enhance the economic empowerment status in Amhara region of Ethiopia. Since women's economic empowerment depends on the level of income, saving amount, and asset ownership, attention should be given to those factors that influence women's economic empowerment. Some factors were identified and the following recommendations are provided:

- Amhara credit and saving institution services to women's economic empowerment should be improved by working with town administration women's affair office and other non-government organization which are working on women empowerment.
- Most of the respondents considered the loan offered as very small which is not adequate to start business. In fact, the loan size increases as settled the loan in full and take another. However, the loan still falls short of the amount needed to start business. Therefore, Amhara credit and saving institution should adjust the amount of credit provided to women clients.
- Majority of microfinance clients are dissatisfied with high interest rate. Therefore, Amhara credit and saving institution needs to revise its interest policy so as to attract more women clients and achieve women's economic empowerment objective.

Abbreviations

MIs	Microfinance institutions
UN	United Nations
MSEs	Micro- and small enterprises

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Author contributions

The author has carried out the study. The author read and approved the final manuscript.

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Ethics approval and consent to participate

During data collection, respondents consent was met for the data collectors.

Consent for publication

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Competing interests

The author declares that there are no competing interests.

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