TO ANALYZE THE EFFECT OF MICROFINANCE INSTITUTIONS ON WOMEN EMPOWERMENT, IN WOLAITA ZONE, SOUTHERN ETHIOPIA

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ARTICLE INFO

<table>
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<th>Article history:</th>
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<tr>
<td>Received 29 May 2023</td>
</tr>
<tr>
<td>Accepted 23 August 2023</td>
</tr>
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<th>Keywords:</th>
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<td>Microfinance Institutions; Effect; Women Empowerment; Ethiopia.</td>
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ABSTRACT

Objectives: The main aim of this paper is to analyze the effect of microfinance institutions on women’s empowerment in Wolaita Zone, southern Ethiopia.

Theoretical frame work: The effect of microfinance institutions through women empowerment by measuring economically, socially, and psychologically.

Methods: The data was collected from 399 household respondents, mostly women, about five branches or districts of microfinance institutions. Descriptive statistics and binary logistic regression were used to analyze women’s empowerment after participating in microfinance institutions.

Results and conclusion: The output of the study shows a significantly positive effect of microfinance institutions on the selected indicators such as income, saving, consumption, living standards, medical facilities, decision-making power, political activity, and reducing domestic violence, but not significantly on education or women’s free movement for women’s empowerment. In addition to using descriptive statistics, after joining microfinance institutions, income, saving, and consumption increased by more than 548% compared with before joining the institutions. The findings of this paper can assist policymakers, such as stockholders, non-governmental organizations, and governments, in linking development programs with women.

Implication of the research: In this paper the researcher suggested that the stockholders, donors and government should take action to solve women awareness, support their financial problems, and should design appropriate policy.

Originality/Value: Our work and methodology are novel in the study.

Doi: https://doi.org/10.26668/businessreview/2023.v8i8.3646

ANALISAR O EFEITO DAS INSTITUIÇÕES DE MICROFINANCIAMENTO NO EMPODERAMENTO DAS MULHERES, NA ZONA DE WOLAITA, SUL DA ETIÓPIA

RESUMO

Objetivos: O principal objetivo deste documento é analisar o efeito das instituições de microfinanciamento no empoderamento das mulheres na Zona de Wolaita, sul da Etiópia.

Estrutura teórica: O efeito das instituições de microfinanciamento através do empoderamento das mulheres através da medição econômica, social e psicológica.

Métodos: Os dados foram coletados de 399 entrevistados domiciliares, principalmente mulheres, cerca de cinco ramos ou distritos de instituições de microfinanças. Estatísticas descritivas e regressão logística binária foram usadas para analisar o empoderamento da mulher após participar de instituições de microfinanciamento.

Resultados e conclusão: O resultado do estudo mostra um efeito significativamente positivo das instituições de microfinanciamento nos indicadores selecionados, como renda, poupança, consumo, padrões de vida, instalações médicas, poder de decisão, atividade política e redução da violência doméstica, mas não significativamente na

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Para analizar el efecto de las instituciones de microfinanciación en el empoderamiento de la mujer en la zona de Wolaita, sur de Etiopía

RESUMEN

Objetivos: El objetivo principal de este trabajo es analizar el efecto de las instituciones de microfinanzas en el empoderamiento de las mujeres en la zona de Wolaita, en el sur de Etiopía.

Marco teórico: El efecto de las instituciones de microfinanzas a través del empoderamiento de las mujeres mediante la medición económica, social y psicológica.

Métodos: Los datos se obtuvieron de 399 hogares encuestados, en su mayoría mujeres, de unas cinco sucursales o distritos de instituciones de microfinanciación. Se utilizó estadística descriptiva y regresión logística binaria para analizar el empoderamiento de las mujeres luego de participar en instituciones de microfinanciación.

Resultados y conclusiones: Los resultados del estudio muestran un efecto significativamente positivo de las instituciones de microfinanciación en los indicadores seleccionados, como ingresos, ahorro, consumo, nivel de vida, instalaciones médicas, poder de decisión, actividad política y reducción de la violencia doméstica, pero no significativamente en la educación o la libre circulación de las mujeres para el empoderamiento de las mujeres. Además de utilizar estadísticas descriptivas, después de ingresar a instituciones de microfinanzas, el ingreso, el ahorro y el consumo aumentaron en más de 548% en comparación con antes de ingresar a las instituciones. Las conclusiones de este documento pueden ayudar a los responsables de la formulación de políticas, como los accionistas, las organizaciones no gubernamentales y los gobiernos, a vincular los programas de desarrollo con las mujeres.

Implicación de la investigación: En este artículo, la investigadora sugirió que los accionistas, donantes y el gobierno deberían tomar medidas para resolver la conciencia de las mujeres, apoyar sus problemas financieros y diseñar políticas apropiadas.

Originalidad/Valor: Nuestro trabajo y metodología son novedosos en el estudio.

Palabras clave: Instituciones de Microfinanciación, Efecto, Empoderamiento de la Mujer, Etiopía.

INTRODUCTION

Microfinance institutions' services are vital tools to create social and psychological facilities for clients, including improvements in self-confidence, enhancing education, health facilities, and leadership capabilities (Gnawali, 2018). Savings and loans assist low-income households without collateral, as well as women who do not have access to commercial banking services. The contribution of household income has a significant effect on economic development and has changed the living standards of millions of people in the world, especially women in developing countries (Ayam et al., 2020).

Developing countries like Sri Lanka, India, Uganda, Bangladesh, Pakistan, Indonesia, Zimbabwe, and other developing countries have had effective microfinance to increase...
Mengesha, M., Mishra, S. (2023)  
To Analyze the Effect of Microfinance Institutions on Women Empowerment, in Wolaita Zone, Southern Ethiopia

Incomes, improve saving capacity, and give women control over resources (Kumari et al., 2019). Microfinance is one of the dominant institutions to reduce poverty in developing countries such as Ethiopia, where women lack financial resources, live in rural areas, and live below the poverty line, all of which are critical for women’s empowerment and the ability of women (Mecha, 2017; Sharaunga et al., 2019).

In developing countries, women face social, political, and economic disadvantages in many ways, such as a lack of education, limited control over resources, limited funding alternatives, domestic violence, low income, limited decision-making power, lack of saving skills, increased unemployment, and lower productivity when compared to their male counterparts (Patel, 2017). Women contribute more than 50% of Ethiopia's population, but most of them are poor, marginalized, neglected in asset allotment, have a work burden, are prohibited from decision making, engaged in more time-consuming jobs, dependent on their husbands’ control, and have no freedom (Nuri and Melese, 2020; Sharaunga et al., 2019).

Microfinance on women’s economic empowerment means, for example, women’s control over resources, access to credit, support of the family employment, and increased household ownership of properties and assets. Social empowerment for women includes freedom of movement, sending children to school, the abolition of discrimination against daughters, and commitment, but by preventing household income from harmful and ineffective projects, men are more effective than women in Ethiopia (Addai, 2017). Both developing and developed countries have historically engaged in various forms of moneylending, whether formally or informally, with or without collateral. In Africa, Europe, and Asia, its history is most notable. It gave rise to modern microfinance institutions (Zainuddin et al., 2020).

Ethiopia is one of the poorest countries in the world because of civil wars, droughts, and where women have low standards of living; income differences with the gender gap; lack of decision-making power; restriction of women's freedom; lack of saving habits; lack of health and sanitation; and lack of self-confidence. Microfinance institutions are important to solving this problem and to motivating women.

Some of the empirical studies showed that microfinance institutions were significantly related to women’s economic, social, political, and psychological empowerment through (Herath et al., 2015; Josephat et al., 2018; Kumari et al., 2019; Mecha, 2017) improving financial sustainability and promoting small business, with the majority of the sources coming from fund-raising organizations and governments through microfinance institutions,
particularly to poor women (Samer et al., 2015) found that microfinance in Ethiopia has a significant impact on income generation and enhances saving habits for females.

Binaté Fofana et al., (2015), concluded that MFI s have a positive contribution to women’s participation in decision-making. There is no uniformity among scholars and researchers on the effect of microfinance on women's empowerment. This study was conducted to fill the gaps by adding the previous studies and to analyze the effect of microfinance institutions on women's empowerment in Wolaita Zone, Southern. The next part of this paper is organized into four sections: section two describes literature reviews, both empirical and theoretical; section three describes methodology and data; section four analyzes results and discussion; and section five describes conclusions and recommendations of the study.

LITERATURE REVIEW

Concept of Microfinance and Women Empowerment

Microfinance was established formally back in the early 1970s, when Muhammed Yunus started his micro-lending program in Bangladesh (Dafer et al., 2013). Microfinance institutions have been growing in the last 45 years, particularly since 1972 as a critical policy level for helping women to enter the labor force, reduce violence, and thus decrease destitution. After joining MFIs in Bangladesh, average consumption is slightly higher than the average income, indicating that some households may need to borrow money to make up the difference in consumption. This means the majority of MFI customers also obtain loans from other sources, like selling farm products, which are among the borrowers' other primary sources of funding (Mohammad et al., 2017).

Women's empowerment is thought to be multidimensional and occurs on many different levels, including socio-economic, political, and cultural. Around the world, the majority of women have been targeted by microfinance because women have limited access to necessities like clean water, health care, and education (Khan et al., 2020). Despite the fact that the entire institution has a shared vision for eradicating poverty and promoting empowerment, microfinance is gradually increasing. The definition of a microfinance institution is focused not only on strengthening the financial system but also on the economic, social, and political systems that bring neglected and persecuted women together in a network of organized groups in the world (Abera and Asfaw, 2019; Pandey, 2020). Microfinance institutions prefer to lend money for non-farm activities. However, the history of credit cooperatives shows how crucial financial services are for landowners and peasants.
The importance of agrarian microfinance from a development perspective is also vital to the country (Zainuddin and Yasin, 2020). Due to foreign capital being unable to support their loan portfolio, microfinance institutions face significant challenges in Ethiopia (Abera and Asfaw, 2019). Microfinance members tend to be self-employed, increase income and consumption, and are better able to look after financial assets than their non-participating counterparts in both urban and provincial areas (Gnawali, 2018). Microfinance institutions have played a key role in reducing financial problems among all unbanked people by providing low-income earners with access to financial services including micro-insurance, credit, and saving (Gul et al., 2017; Issahaku Salifu, 2019).

Microfinance institutions are crucial in helping women who are financially disadvantaged, promoting opportunity for self-employment, and expanding business for female entrepreneurs (Addai, 2017; Mengistie and Singh, 2019, Anwar et al., 2023). Microfinance institutions in Ethiopia have a significant relationship with women's empowerment based on the indicators of use of assets and control over resources, income, consumption, change in employment, social networks, decision-making power, access to health care, and educational opportunity at individual and community level (Abera and Asfaw, 2019). Microfinance in Ethiopia is confronting distinctive challenges in empowering women by accessing collateral resources for women, improving living conditions in inaccessible areas, by reducing work burden, by increasing income, and by investing in rural infrastructure, by improving organizational capacity (Nuri and Melese, 2020).

Women constitute about 50% of the worldwide total population and make a significant contribution to global and national development in the different sectors of the economy (Richardson, 2018). In 2015, the United States named empowering women the 5th of 17 MDGs (Millennium Development Goals) along with promoting equality and educating women (Miotto et al., 2019). Women's empowerment has a significant effect on economic development because low-income women cannot manage resources and have little or no decision-making autonomy in family matters and family chores (Nasir and Farooqi, 2016). Women's empowerment means assessing the multidimensional process such as increasing decision-making capacity; by increasing income, consumption, saving; improving control over resources; freedom movement; and improving choices of individuals and groups at community level.

Microfinance is one of the most important economic tools for bringing about significant change in the social and economic circumstances of the poor, especially in developing countries. The promotion of women's entrepreneurship through microfinance has received a lot
of attention from governments and NGOs (Non-Governmental Organizations). Even though women contribute just as much to the world as men do, discrimination still exists and women are also weak in political participation (Patel, 2017). The Women's Empowerment concepts and principles offer a way of promoting correspondence about sexual orientation and engaging young women in the trading center, increasing self-confidence at the family and community level (Damesa and Ogato, 2016, Baikuni et al., 2023).

The foundation for women to exercise their rights and support them in enhancing their decision-making roles within their communities is their economic participation. Microfinance institutions' intention is to highly target women because they are restricted to daily labor, more credit-obligated, and higher records of credit reimbursement rates than men (Mohammad et al., 2017). Even though MFIs cannot directly empower women, they can help them by providing training and raising awareness in order to challenge the customs, to make wise life decisions, control over resources, cultures, and values that put them at a disadvantage in comparison to men (Addai, 2017).

The empowerment of women is a main factor in the development of any country due to the fact that women are an integral part of all social activities in the community improving their life style and living status (Binaté Fofana et al., 2015; Chin, 2016; Gram et al., 2019; Nasir and Farooqi, 2016). Microfinance aims to raise the social status of women, including the growth of mobility, reduce domestic violence and self-confidence in society for community empowerment (Panda, 2017; Pandey, 2020, Zulpahmi et al., 2023). Microfinance institutions support and empower women to get freedom of movement inside and out of their homes, to manage their business activities and to visit their friends.

According to (Tandon, 2016), there are different definitions of empowerment that both conceptualize, qualitatively, and quantitatively measure women's empowerment. Based on (Murshid, 2018a; Nuri and Melese, 2020), household decision-making, consumption, visiting friends, buying and selling resources, ownership rights, and health care are significant effects of empowering women, especially in developing nations. (Khan et al., 2017; Khursheed et al., 2021) stated that the empowerment of women is an enormous concern in many scientific and social organizations. However, women's empowerment is not encouraged and acknowledged in most developing countries like Ethiopia.
Microfinance Institutions Development in Ethiopia

Microfinance organizations' contributions have been regarded as a benchmark of Ethiopia's development strategy for the past 20 years. In Ethiopia, the microfinance institution legislation was passed in 1996 and women's participation in the microfinance institutions is very important for the facilitating development of the country (Mengstie and Singh, 2020). In Ethiopia, some non-governmental organizations (NGOs) started educating the poor about credit and saving microfinance in the middle of the 1990s as a means of rehabilitation and development after the drought of 1984–1985. Later, specialized government programs started to take shape, mostly in coordination with important international financial institutions. One of the crucial actions taken to liberalize the financial sector is often cited as the issuance of proclamation No. 40/96 (Nuri and Melese, 2020).

The microfinance institutions capital in Ethiopia were measured to be $94.27 million, of which $88.84 million was used for credit and saving, for a total credit of $230.71 million to nearly $1.5 million across the nation. The government of Ethiopia's microfinance institutions is a framework that joins the stockholders to the board, the administration, staff, clients, and community at large and the projects to the low-income society for economic and social empowerment (Abera and Asfaw, 2019). In Ethiopia, the provision of microfinance institutions is defined by proclamation No. 62/2009 as "financial services providers, including credit, savings, and money-related services" (Mengstie and Singh, 2019).

Microfinance is a good opportunity to create new employment opportunities for unemployed individuals to increase home-based businesses, which simply helps get funds and contributes to better living conditions for the community and family (Alshebami and Khandare, 2015). Microfinance institutions in Ethiopia influence women’s empowerment in ways like the increment of literacy rate, improving living standards, and increasing productivity rate (Mengstie and Singh, 2020). Women who are economically empowered have better access to both financial and non-financial resources. She can distribute unequal resources equally both inside and outside the home, making women's conditions particularly poor. In other words, "poor woman" is the final stage that indicates a lack of entitlement and results from a lack of access to the resources and knowledge required to meet one's basic needs (Nuri and Melese, 2020).

The MFIs have been developed to fill these gaps by improving access to financial services for destitute women. Microfinance institutions throughout the nation offer a number of benefits in how they conduct their operations. This includes improving service delivery to
the underprivileged in economic and social activities in urban and rural areas, particularly in addressing the chronic problem of poverty, increasing women's income and living standards, and reducing domestic violence (Abera and Asfaw, 2019). Women in Ethiopia have had a lack of economic opportunity for a long time. This problem is still not solved. For example, in most parts of Ethiopia, land ownership rights belong to their husband or brother, so women have no right to generate their own income.

According to Nuri and Melese, (2020) in Ethiopia, the effect of MFIs on economic empowerment of women were assessed by increasing participation to compare whether clients' family control over resources had like land improved. MFIs in Ethiopia is important to increase economic activities such as income generation, investing in new businesses, improving living standards and the consumption level within the family, and contributing to the GDP level.

Microfinance on Women Economic, Social, Psychological, and Political Empowerment

The building of microfinance institutions that reach significant numbers of poor women because of the need to stimulate their economic activity leads to increasing consumption and saving (Addai, 2017). Microfinance organizations have an extraordinary role in female economic and financial issues, enabling self-employment, enhancing living standards, increasing saving, and creating businesses for women entrepreneurs (Mengstie and Singh, 2020). Women's physical empowerment like the infrastructure, equipment, and fixed assets like land. MFIs help in the areas of economic, social, political, psychological, and other dimensions that have practical implications for women's empowerment (Sharaunga et al., 2019).

Women's developments have enhanced the appreciation and essentiality of women on a psychological, economic, and social level (Khan et al., 2017). Women's economic empowerment is the process of gaining access to and control of resources such as money, property, and improved savings habits. Microfinance participants are without a doubt empowered to make financial decisions and acquire asset ownership, which is expected to lessen domestic strife. Social empowerment is the ability to live independently, move freely in accordance with one's social standing; women can use contraceptives without their husband's intervention, and interact freely with others (Khan et al., 2020). With the help of microfinance institutions, poor women have access to building assets, running new businesses, developing new income-generating activities, participating in the free market economy, and reducing their external shocks like drought, famine, illness, and natural disasters (Binaté Fofana et al., 2015).
Women's economic empowerment, such as high levels of farm income access; control over resources; control of financial activities; improves communication and infrastructure; capital improvement; can control bank accounts; and increase domestic water supply both in urban and rural areas (Sharaunga et al., 2019). Since the early 1990s, MFIs have been promoted to support women in enhancing their living standards and their families while also positively affecting the country's economic development. However, there is little empirical work on the efficacy of lending money, particularly for rural women, despite the proliferation of microfinance institutions (Binaté Fofana et al., 2015).

Women's empowerment in MFI involvement influences decision-making in the family, a significant and positive affect on the relationship (Alshebami and Khandare, 2015; Murshid and Ely, 2016). MFI can empower women’s political, freedom movement, and management control as well as reduce dependency and empower their voices to reduce marital violence at the family level (Khan et al., 2020; Murshid, 2018b). The impact of microfinance institutions on women, such as the use of improved contraceptives, increasing children’s schooling, and enhancing the quality of life for socially disadvantaged people, Women are beginning to consider positive relationships with microfinance organizations such as freedom, rights, self-confidence, responsibilities, and opportunities (Tandon, 2016).

Women's collective effectiveness, pro-activeness, self-confidence, freedom, and identity are thought to increase as a result of microfinance (Khan et al., 2020). Women's empowerment has been proven to occur through microfinance institutions in many different ways, with the most pronounced being economic and social (Addai, 2017). Through increased productivity and income, women acquire their own assets and produce enough products to feed their families. The family's nutritional status has also improved, which has contributed to economic empowerment. Women who receive microcredit are better able to influence their children's wellbeing in terms of emotional health and nutrition, as well as the education of their children (Odoyo, 2022).

Some empirical studies such as (Lavoori and Paramanik, 2014) (Asmare et al., 2017) (Ayam et al., 2020) women's standard of life increased after they joined microfinance institutions. This study supports the idea that having access to microcredit after participating in MFIs increases participants' consumption, income, and savings, their level of living, and their involvement in family decision-making.

According to (Herath et al., 2015), logistic regression found that in the microfinance institutions, members who have income have a significant and positive affect on women's
empowerment. (Ammar and Ahmed, 2016; Rehman et al., 2015) found that MFIs favored women's health empowerment more from a social perspective and strengthened their choice of child education than other activities. (Sarnquist et al., 2018) microfinance institutions take security precautions to remind them to better ensure their clients and avoid violence among women.

According to (Mohammad et al., 2017), women's psychological modes of empowerment include enhancing the feelings that improve living conditions by acting freely in personal ways in their other endeavors. (Cepeda et al., 2017) showed that women's psychological and economic empowerment has a positive and measurably significant relationship with MFIs. (Ranganathan et al., 2021; Zafar et al., 2019) showed that women who experienced sexual violence or their spouse's physical violence had no freedom before joining microfinance institutions. (Binaté Fofana et al., 2015) conducted that women's decision-making capacity is positively related to the effect of microfinance institutions after they join the institutions, which means that women can invest, make business and get a profit.

According to (Panda, 2017), the use of microfinance could lead to a reduction in violence in residential areas. About 80% of the organizations believe that microfinance institutions can lead to a reduction in violence. (Josephat et al., 2018) concluded that women's empowerment is a method of advancing a sense of independence and increasing self-confidence, and acting separately and commonly to alter social connections, including destitute women. According to (Murshid, 2018b), microfinance participation can lead to negative outcomes such as intimate partner violence, increased commitment and financial helplessness, increased workload and burden on women, decreased confidence in society, male dominance, and restricted freedom mobility.

METHODOLOGY

Data Sources and Collection Method

For this study, the data was collected mostly from primary sources. The primary data was collected by a structured questionnaire from microfinance institutions' members' household respondents. The researcher selected five branches (Sodo Zuria, Offa, Humbo, Boloso Bombe, and Kindo Didaye) by the purposive sampling method because of the time, cost, availability of data, and their performance, and then selected the respondents from each village by simple random sampling methods by the Kothar, (2004) formula to reduce sample biasness.
According to Yamane (1967), for sample size formula, 95% confidence level sampling error 0.05, total population (N) = 106,066 and sample size(n) = 399 respondents were collected from the five branches/districts in the study area. \( N/(1 + e^2N) = 399 \). A pilot test was conducted to revise the instrument and methodology like questionnaire and respondents respectively. To check reliability test for the consistency of data was conducted with in sample of 30 clients by using Cronbach’s Alpha coefficient method (Mengstie and Singh, 2019).

**Methods of Analysis**

This study was used to analyze both descriptive and inferential statistics. The researcher used descriptive statistics by measuring percentages using tables, maps, and charts to represent the study. The data analysis was carried out using SPSS version 16, a statistical package for social science. The paired sample t-test was used to determine the effect of microfinance on the respondents after they joined MFIs. The inferential statistics used in the econometric model of the Binary Logistic regression method (Mohammad et al., 2017). The authors used the logit model to test reliability, model fitness, odds ratio, coefficient, and significance level of data, which affect women’s empowerment. The Binary logit model was applied to the dependent variable women’s empowerment, which means the dichotomous nature (1 for “women empowered”, otherwise 0), and the independent factors. The impact of MFIs on women’s empowerment using the binary logit formula:

\[
WE = \beta_0 + \beta_1 \text{Incomeind} + \beta_2 \text{Consind} + \beta_3 \text{Savind} + \beta_4 \text{Livsta} + \beta_5 \text{Edusta} + \beta_6 \text{Healca} + \beta_7 \text{Decmak} + \beta_8 \text{Politi} + \beta_9 \text{DomVio} + \beta_{10} \text{FedMov} + \varepsilon
\]

Where,

\( WE = \) Women empowerment, \( \text{Incomeind} = \) average income index after and before joining microfinance institutions, \( \text{Consind} = \) consumption after and before joining institutions, \( \text{Savind} = \) average saving after and before joining institutions, \( \text{Livsta} = \) living standards of women after joining microfinance institutions, \( \text{Edusta} = \) education standards of women and child after joining MFIs, \( \text{Healca} = \) health care facilities, \( \text{Decmak} = \) Decision making power of women, \( \text{Politi} = \) political participation of women, \( \text{DomVio} = \) reducing domestic violence after joining the institution, \( \text{FedMov} = \) freedom movement of women after participating MFIs, \( \beta_0 = \) Constant, \( \beta_1...\beta_{10} = \) coefficient of the parameters, and \( \varepsilon = \) error term

**RESULTS AND DISCUSSIONS**

**Model Fitness, and Reliability and Multicollinearity Statistics**

The researchers used to pilot test the consistency of the questionnaire the sample respondents, then modified used for data collection. In the classification, the sensitivity test
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The accuracy rate was very good at 89.5% of those who will choose YES (women empowered) over NO (women not empowered) among the respondents, the sensitivity for the model is 94.5%.

Table 1. Model fitness test

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<tr>
<td>Chi-square</td>
<td>257.157</td>
<td>10</td>
<td>0.000</td>
</tr>
<tr>
<td>Step</td>
<td>257.157</td>
<td>10</td>
<td>0.000</td>
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<tr>
<td>Block</td>
<td>257.157</td>
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<tr>
<td>Model</td>
<td>257.157</td>
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Model Summary

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<th>-2 Log likelihood</th>
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<th>Nagelkerke R Square</th>
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<td>1</td>
<td>240.519</td>
<td>0.475</td>
<td>0.667</td>
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Hosmer and Lemeshow Test

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<th>df</th>
<th>Sig.</th>
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<td>1</td>
<td>15.354</td>
<td>8</td>
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In the above table 1 the Omnibus tests of model coefficients indicate that the model is significant (Sig. 0.000) in good fit to compare to the null model result. The model summery shows that in the binary logit model, pseudo (Nagelkerke) square($R^2$) implies that 66.7% of the variability of women's empowerment is explained by the above independent variables, which shows good explanatory power. The Hosmer and Lemeshow test the model adequately fitted the data because there is no greater difference between the observed and predicted and the significance value (0.053) is greater than the 5% confidence level.

Table 2. Reliability (Cronbach’s Alpha), multicollinearity analysis

<table>
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<th>Variables</th>
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<tr>
<td>Income index</td>
<td>0.721</td>
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<tr>
<td>Consum. Index</td>
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<tr>
<td>Saving index</td>
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<td>Livstan</td>
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<td>Educa</td>
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<td>Healcare</td>
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<td>Decmak</td>
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<td>Politi</td>
<td>0.700</td>
<td>0.741</td>
</tr>
<tr>
<td>DemVio</td>
<td>0.711</td>
<td>0.617</td>
</tr>
<tr>
<td>FerMov</td>
<td>0.687</td>
<td>0.594</td>
</tr>
<tr>
<td>Constant</td>
<td>0.724</td>
<td>1.684</td>
</tr>
</tbody>
</table>

Source: Authors sketch

The reliability test based on measuring the Cronbach’s Alpha test constant value is 0.724, which is greater than 0.7. All other independent variables are except women's freedom movement (0.687) and decision-making (0.689) power greater than 0.7. It indicates the variables empowering women are highly acceptable and consistent. The Cronbach’s Alpha
should be more than 0.7 (Nunnally, 1975), but previous research coefficient Alpha ranges from 0.5 to 0.7, which is still the minimum level of acceptable. In the above table, there is no multicollinearity problem because the tolerance level is more than 0.2 tolerance level between 0.594 and 0.948, and VIF is less than 10(ten). Its maximum VIF value is 1.684. Therefore; based on all tests are satisfying the logistic regression model (Mengstie and Singh, 2020).

**Impact on Income, Consumption and Saving in the Descriptive Statistics**

In the above figure 1, the average annual income, consumption, and saving before joining microfinance institutions are 10,457, 9,802, and 654 respectively, but after joining institutions, the average annual income is 65,242, 61,655, and 3,587, which shows that the total percentage change in income members increases 624%, consumption increases 629%, and saving increases 548% After joining MFIs members at the highest level, they start income generating activities by obtaining loans at low interest without any collateral from the institutions. The consumption level increases means that women can buy without any discrimination; their decision-making capacity also increases; their savings lead to improved capital, new investment, support emergency health issues for family members. Therefore, microfinance institutions are an effective tool for women's empowerment in the study area (Mula and Sarker, 2013).
Logistic Regression Model Result Summery

Table 3. Binary logit model summery

<table>
<thead>
<tr>
<th>Variables</th>
<th>B (Coeff)</th>
<th>S.E.</th>
<th>Wald</th>
<th>df</th>
<th>Sig.(p-value)</th>
<th>Exp(B)</th>
<th>odd ratio</th>
<th>95% C.I. for EXP(B)</th>
<th>95% C.I. for EXP(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower</td>
<td>Upper</td>
</tr>
<tr>
<td>Income index</td>
<td>3.913</td>
<td>1.245</td>
<td>9.869</td>
<td>1</td>
<td>0.002</td>
<td>50.031</td>
<td>4.356</td>
<td>57.461</td>
<td></td>
</tr>
<tr>
<td>Consum index</td>
<td>1.805</td>
<td>0.914</td>
<td>3.896</td>
<td>1</td>
<td>0.048</td>
<td>6.079</td>
<td>1.013</td>
<td>36.49</td>
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</tr>
<tr>
<td>Saving index</td>
<td>1.981</td>
<td>0.766</td>
<td>6.691</td>
<td>1</td>
<td>0.001</td>
<td>7.249</td>
<td>1.616</td>
<td>32.515</td>
<td></td>
</tr>
<tr>
<td>Livst</td>
<td>3.428</td>
<td>0.631</td>
<td>29.527</td>
<td>1</td>
<td>0.000</td>
<td>30.802</td>
<td>8.947</td>
<td>106.044</td>
<td></td>
</tr>
<tr>
<td>Edusta</td>
<td>0.134</td>
<td>0.359</td>
<td>0.14</td>
<td>1</td>
<td>0.708</td>
<td>1.144</td>
<td>0.566</td>
<td>2.31</td>
<td></td>
</tr>
<tr>
<td>Healca</td>
<td>0.552</td>
<td>0.241</td>
<td>5.258</td>
<td>1</td>
<td>0.022</td>
<td>1.737</td>
<td>1.083</td>
<td>2.784</td>
<td></td>
</tr>
<tr>
<td>DecMak</td>
<td>1.414</td>
<td>0.475</td>
<td>8.852</td>
<td>1</td>
<td>0.003</td>
<td>4.114</td>
<td>1.62</td>
<td>10.445</td>
<td></td>
</tr>
<tr>
<td>Politi</td>
<td>1.011</td>
<td>0.277</td>
<td>13.281</td>
<td>1</td>
<td>0.000</td>
<td>2.748</td>
<td>1.595</td>
<td>4.732</td>
<td></td>
</tr>
<tr>
<td>DomVio</td>
<td>0.998</td>
<td>0.369</td>
<td>7.295</td>
<td>1</td>
<td>0.007</td>
<td>2.713</td>
<td>1.315</td>
<td>5.597</td>
<td></td>
</tr>
<tr>
<td>FreMov</td>
<td>0.448</td>
<td>0.34</td>
<td>1.732</td>
<td>1</td>
<td>0.188</td>
<td>1.565</td>
<td>0.803</td>
<td>3.047</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-19.752</td>
<td>2.215</td>
<td>79.536</td>
<td>1</td>
<td>0.000</td>
<td>.000</td>
<td>.000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources: Authors competition from survey

Number of observations= 399, Log likelihood= 240.519, Prob> chi² = 0.0000

In the table 3 reveals that the independent variables explain dependent variables. The odd ratio minimum is 1.144, the maximum is 50.031. The researcher can say odd ratio more than 1(one) or more than 100% means that the probability of empowered women is greater than non-empowered women by supporting the microfinance institutions.

In table 3, the Betta coefficient also revealed that one unit of income index, consumption index, saving index, living standards of women, health care facilities, and decision making power, political participation, and reducing domestic violence increases women's empowerment by 3.913 times, 1.805 times, 1.981 times, 3.428 times, 0.552 times, 1.414 times, 1.011 times, and 0.448 times, respectively.

The above table 3, the binary logistic regression model result shows that after joining microfinance institutions on women's increasing empowerment measuring variables like income index (P=0.002); saving index (p=0.001); consumption index (p=0.048), living standards of women (p=0.000) such as employment opportunity, dietary and nutrition status; women's decision making ability (p=0.003) includes: can repair and build houses without consulting their husband; getting power buying and selling resources; and control resources affects positively 5%(one percent) significant relationship on women's empowerment.

Some similar studies (Ammar and Ahmed, 2016) they found that after joining MFIs have a significant effect on generating income and improve consumption to the empowerment of women. (Damesa and Ogato, 2016; Mengstie and Singh, 2020; Nuri and Melese, 2020)
concluded that in Ethiopia, microfinance service, especially to women, have a significant effect on improve income, resources possession levels, employment opportunity, and living status of poor individuals. Based on (Ayam et al., 2020) these findings, it can be claimed that women's involvement in household decision-making has significantly increased as a result of joining MFIs and receiving microcredit. However, (Murshid and Ely, 2016) found that MFI women jointly making decision was higher but not significant to members in MFIs. (Mohammad et al., 2017) found that MFIs was not significantly affected women decision making of buying, voting, and child marriage.

The results of social and psychological indicators in the above table 3 such as health care facilities are family member access to medical facilities (p=0.022), take care of health and hygiene, and aware of health treats; political participation (p=0.000) which are participating in community activities, getting community advice on different issues, being more aware of political positions, and participating in meetings; and domestic violence reduction (p=0.007) have positively affect at 5% significant level on women empowerment.

For example in consistency with the previous research according to (Al-Asfour et al., 2017; Ayam et al., 2020; Khan et al., 2017; Mohammad et al., 2017) microfinance institution has a significant effect on empowerment of women by helping them make policy decisions such as visiting relatives, getting medical treatment, buying their products, contraceptives, and free movement within the family after using microfinance services. According to (Matjasko et al., 2020) the impact on IPV (Intimate Partner Violence) is critical for microfinance institutions in the United States to consider benefits such as financial performance, increased savings, security planning, and gender balance. But based on (Ranganathan et al., 2021) found that women improvement in the economic conditions turn out to be defensive against intimate partner violence between women empowerment such the commitment to violence in the partnership.

However, the results of this study the variables of freedom movement and educational opportunity to women and their child did not show the significant relationship effect on empowerment in the microfinance institutions. But according to (Ammar and Ahmed, 2016) MFIs have a significant effect on empowering women and improving access to education; and freedom movement of women.

**CONCLUSION AND RECOMMENDATION**

Microfinance institutions are important for development, especially in developing countries like Ethiopia. The authors focused on both theoretical and empirical studies that
To Analyze the Effect of Microfinance Institutions on Women Empowerment, in Wolaita Zone, Southern Ethiopia

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examine the effect of microfinance institutions on women's empowerment in the study area. The results of the quantitative study shows that microfinance institutions have a positive and significant effect on women's empowerment through the measuring indicators such as consumption, income, saving, health care facilities, living standards of women, decision-making ability, domestic violence reduction, and political participation after joining institutions in the binary logistic regression model. The some results found in the descriptive statistics indicators, there were significant percentage changes, which increased income(624%), consumption(629%), and saving(548%) the differences between before and after joining microfinance.

Microfinance institutions have great advantages for women's empowerment. Basically, financial contributions without collateral create suitable economic development such as enhanced purchasing power parity, new investment and job opportunities, improve business activities and welfare, and control resources in their families, communities, and country level. After joining microfinance institutions, women gained access to social, psychological, and political empowerment, including decision-making power, improved medical facilities, reduced violence, developed confidence, and participated in political positions. However, after joining microfinance institutions women have not empowered like involvement in education for children and women and freedom movement of women do not significantly affect women's empowerment in the MFIs because of the backwardness of their male dominance mentality in society.

This study generally shows that microfinance institutions positive effect on women empowerment through different measuring indicators such as economic empowerment, social, psychological, and political empowerment, except for the indicating variables such as educational standards and women's freedom movement. The researchers found similar results in both the descriptive statistics and the binary logistic regression model for women after participation in microfinance institutions in Wolaita Zone, Southern Ethiopia.

The authors recommended that microfinance institutions' stockholders take action to address the education facilities to children and women's freedom movement problems, such as increasing awareness through capacity building; proper vocational and technical skill training must be needed to solve the backwardness mentality of male dominance in society; and the equality problem between men and women. Educated women send their children to school early, instill ethical values in their children, and can move freely without permission, so that different non-governmental organizations and the Ethiopian government should support
finance to address capacity building. Finally, the Ethiopian government must design the appropriate policy, especially one that promotes awareness at the community level.

REFERENCES


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