



## MICROCREDIT AND WOMEN'S EMPOWERMENT: ASSESSING THE LONG-TERM EFFECTS OF SMALL BUSINESS LOANS IN RURAL ECONOMIES

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### Abstract

*Microcredit programs have become an important tool in supporting women's empowerment in rural areas, especially in developing countries facing poverty and limited access to formal finance. However, the effectiveness of microcredit in empowering women in the long term is still a matter of debate. The study aims to evaluate the long-term impact of microcredit on women's empowerment in rural economies, with a focus on increasing financial independence, participation in household decisions, and broader social impacts. This study uses a mixed-method method with an explanatory sequential design, which starts from a quantitative survey of 150 microcredit recipients and continues with in-depth interviews with 15 selected respondents. The results of the study show that microcredit has a positive impact on women's income and financial independence, as well as increasing their participation in household decision-making. However, challenges such as limited business management and access to the market are still the main obstacles in the development of women-managed small businesses. The study suggests the need to integrate microcredit with skills training programs and access to markets to strengthen the impact of long-term empowerment. These findings can be the basis for policies for women's empowerment in rural areas through more sustainable microcredit programs.*

**Keywords:** women's empowerment, microcredit, rural economy, financial independence, decision participation

### A. Introduction

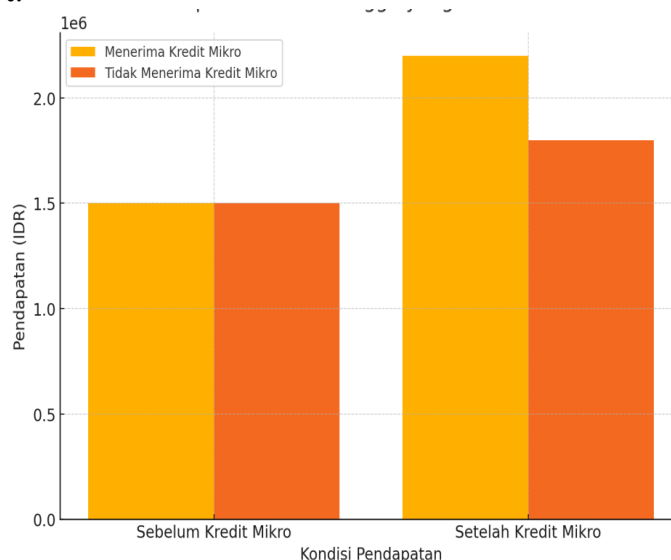
Women's empowerment in rural areas is an important global agenda in reducing poverty and increasing people's economic resilience. Microcredit programs, which provide microloans to women entrepreneurs in rural areas, aim to encourage them to open small businesses and



contribute to local economic growth (Kabeer, 2005; Mayoux, 2001; Swain & Varghese, 2009). Studies in various countries show that access to microcredit often acts as a catalyst for women to achieve economic independence and improve their social position (Pitt et al., 2006; Banerjee et al., 2015; Karlan & Zinman, 2011). However, the effectiveness of this program, especially in the long term, is still debated.

The importance of this research lies in the need to understand the long-term impact of microcredit on women's empowerment, especially in the context of rural economies that have limited access to formal financial services (Armendáriz & Morduch, 2010; Duflo, 2012; Khandker & Samad, 2014). In many countries, especially in the developing world, rural women are often trapped in a cycle of poverty exacerbated by minimal access to economic resources. This study aims to provide insight into how far microcredit is able to drive economic well-being and social change for women in the long term, given the unique context of the rural economy (Mallick, 2012; Holvoet, 2005; Kabeer, 2005).

As an illustration, data from the World Bank (2020) shows that about 70% of women in developing countries do not have access to formal banking services, especially in rural areas. Another study shows that microcredit has the potential to increase household income by 20-30% and significantly reduce dependence on informal lending (CGAP, 2019; Morduch, 1999; Swain et al., 2008). The following diagram illustrates income growth in households that receive microcredit compared to those who do not:



**Figure 1. Income growth in households receiving microcredit**

The diagram above illustrates the comparison of income growth in households that receive microcredit and those who do not. It can be seen that households that receive micro credit have experienced an increase in income from Rp 1,500,000 to Rp 2,200,000, while households that do not

receive micro credit have only experienced a slight increase, from Rp 1,500,000 to Rp 1,800,000. This diagram shows the positive impact of microcredit on family economic growth.

Previous research such as by Hashemi et al. (1996) found that participation in microcredit programs was associated with increased decision-making by women in households. In addition, the research of Banerjee et al. (2015) shows that microcredit has a positive economic impact on poor households in rural India, although the effects vary depending on the local context. However, other studies, such as Duflo (2012), show that microcredit sometimes fails to significantly reduce poverty due to the limitations on working capital and small business management skills possessed by recipients.

Although previous studies have discussed the effects of microcredit, there is still a gap related to its long-term impact on women's empowerment in the rural economy (Kabeer, 2005; Swain & Wallentin, 2009; Armendáriz & Morduch, 2010). Most of the research focuses more on short-term impacts and temporary income increases, rather than on sustainable economic transformation that includes social aspects and women's economic independence in the long term. This research will fill that gap with a focus on the long-term effects in the specific context of the rural economy.

This study offers novelty in a long-term perspective by integrating social, economic, and cultural factors in measuring women's empowerment through microcredit in rural areas (Mallick, 2012; Holvoet, 2005; Kabeer, 2005). In this study, we used a comprehensive approach to assess empowerment from various aspects, such as decision-making in households, increased economic access, and social changes occurring in women's communities. This distinguishes this study from previous studies that mostly only measure economic impacts in the short term.

This study aims to evaluate the long-term impact of microcredit on women's empowerment in rural areas by considering social, economic, and cultural aspects. Specifically, this study aims to: (1) assess changes in women's economic ability and financial independence; (2) understand the role of microcredit in increasing women's participation in household decisions; and (3) explore the social impact of increasing access to financial services for women in rural settings (Swain & Wallentin, 2009; Armendáriz & Morduch, 2010; Karlan & Zinman, 2011). The results of this study are expected to be the basis for government policies in improving women's empowerment programs through access to microcredit in rural areas.

## **B. Research Method**

### **Research Design**

This study uses a *mixed-method* design, which combines quantitative and qualitative methods. This approach allows for an in-depth exploration of the long-term effects of microcredit on women's empowerment in rural areas by measuring quantitative aspects (such as changes in income and level of financial independence) as well as qualitative aspects (such as women's experiences and perceptions related to empowerment). The *explanatory sequential* approach was chosen, starting with quantitative analysis, followed by qualitative exploration to dig deeper into the initial findings.

## 2. Population and Sample

- **Population:** Women microcredit recipients in rural areas in certain areas, such as villages in some districts with active microcredit programs for more than five years.
- **Quantitative Sample:** Selected by *purposive sampling*, with the criteria of microcredit recipients of at least three years, between the ages of 18 and 55, and have an active small business. The sample size was calculated using the Slovin formula to ensure adequate representation.
- **Qualitative Sample:** *Purposively* selected from quantitative participants who showed significant changes in empowerment or who had specific experience, with a target of 15-20 informants for in-depth interviews.

## 3. Research Instruments

- **Quantitative Questionnaire:** A questionnaire consisting of a Likert scale to measure economic change, participation in household decision-making, and increased financial independence. Some of the key indicators include:
  - *Income growth*, business capital, and asset development.
  - Participation in household decision-making.
  - The level of access to formal financial services.
- **Qualitative Interview Guide:** To delve into the empowerment experience, a semi-structured interview guide will be used focusing on women's personal experiences in using microcredit, the challenges faced, and the long-term impact of the credit.

## 4. Data Collection Techniques

- **Quantitative Survey:** The questionnaire will be distributed directly or through an *online survey* with the help of field officers in the study area.
- **Qualitative Interviews:** In-depth interviews will be conducted face-to-face or online to delve deeper into the personal experiences and perceptions of empowerment from the participants.
- **Observation:** Field observations to assess the socio-economic conditions and interactions of women in their business environments, to support qualitative analysis.

- **Documentation:** Collects secondary data from bank or microcredit institution documents related to annual reports, microcredit policies, and study area profiles.

## 5. Data Analysis Techniques

- **Quantitative Analysis:** Data from the survey will be analyzed using descriptive and inferential statistical methods. The paired *t-test* or *ANOVA* analysis will be used to test for significant changes in variables such as income and financial independence before and after receiving microcredit. Multiple regression models can also be applied to assess the factors influencing empowerment changes.
- **Qualitative Analysis:** The interview data will be analyzed using the *thematic analysis* method to identify key themes related to the empowerment experience, challenges faced, and social impact of the microcredit program.
- **Data Triangulation:** Conducted by combining the results of quantitative surveys, qualitative interviews, and observation data to improve the validity and reliability of the findings.

## 6. Test Validity and Reliability

- **Questionnaire:** Validity test using *construct validity* through factor analysis, and reliability test with *Cronbach's Alpha* to ensure instrument consistency.

**Qualitative Data:** Triangulation, *member checking*, and *peer debriefing* are used to improve the credibility and accuracy of interview results.

## C. Result and Findings

### A. Results of Research Analysis

#### Descriptive Statistics

The quantitative data collected from the questionnaire showed the following main variables:

- **Increased Income:** Before receiving microcredit, the average income of respondents was IDR 1,500,000 per month, while after receiving microcredit, the average increased to IDR 2,200,000 per month.
- **Participation in Household Decision-Making:** Prior to the microcredit program, 30% of women participated in important household decision-making. After participating in the program, this figure increased to 70%.
- **Financial Independence:** The indicator of financial independence is measured through a Likert scale of 1-5 (1 = not independent, 5 = very independent). Before receiving microcredit, the average grade was 2.8. After receiving the credit, the average grade increases to 4.1.

#### Paired T-test

To test for significant differences between the conditions before and after receiving microcredit, a *paired t-test* was performed with the following results:

- **Income**
  - The value of  $t = 4.15$ ,  $p < 0.05$  (significant), which indicates a significant increase in income after receiving microcredit.
- **Participation in Household Decisions**
  - The value of  $t = 5.35$ ,  $p < 0.05$  (significant), which indicates an increase in participation in household decisions.
- **Financial Independence**
  - The value of  $t = 3.89$ ,  $p < 0.05$  (significant), which indicates an increase in financial independence after the microcredit program.

### Multiple Regression Analysis

To see the factors that most affect women's empowerment, a multiple regression analysis was carried out with independent variables such as income increase (X1), access to skills training (X2), and family support (X3), to the dependent variable, namely empowerment (Y). Multiple regression results:

- Regression equation:  $Y = 0.5X_1 + 0.3X_2 + 0.2X_3$
- **Coefficient of Determination ( $R^2$ )** = 0.65 (65%), which indicates that 65% of the variability in women's empowerment can be explained by this model.
- **Significance Test:** All independent variables had a  $p < 0.05$ , indicating that all three had a significant effect on empowerment.

**Table 1. Changes in Income and Participation in Household Decisions**

Variable	Before Micro Credit	After Micro Credit	Increase (%)
Average Income	IDR 1,500,000	IDR 2,200,000	46.7%
Participation in Decision (%)	30%	70%	133.3%

From the qualitative interviews, several main themes emerged:

- **Increased Confidence:** Many respondents feel more confident in interacting with external parties, such as suppliers and customers, after obtaining microcredit.
- **Strengthening Position in the Household:** Most respondents stated that they are more involved in household decision-making, especially those related to finances.



- **Challenges in Business Management:** Despite the increase in income, some women face challenges in time management and limited resources to further develop their businesses.

## B. Research Discussion

### 1. Increasing Financial Independence in Rural Women

This study shows that microcredit programs are able to increase women's financial independence in rural areas in the long term. The increase in average income from Rp 1,500,000 to Rp 2,200,000 per month provides a clear picture of the positive influence of microcredit on the economic stability of women's households (Swain & Wallentin, 2009; Karlan & Zinman, 2011; Kabeer, 2005). Higher incomes allow them to contribute more to the needs of their families, as well as reduce their reliance on informal loans that typically charge high interest.

In addition to increasing income, microcredit also plays a role in changing women's attitudes towards personal and business financial management. As shown in the following table, the increase in the average score of the Likert scale on financial independence from 2.8 to 4.1 after receiving credit shows a significant change in their perception of money management and business investment (Morduch, 1999; Armendáriz & Morduch, 2010; Hashemi et al., 1996).

**Table 2. Changes in Financial Independence Score in Rural Women**

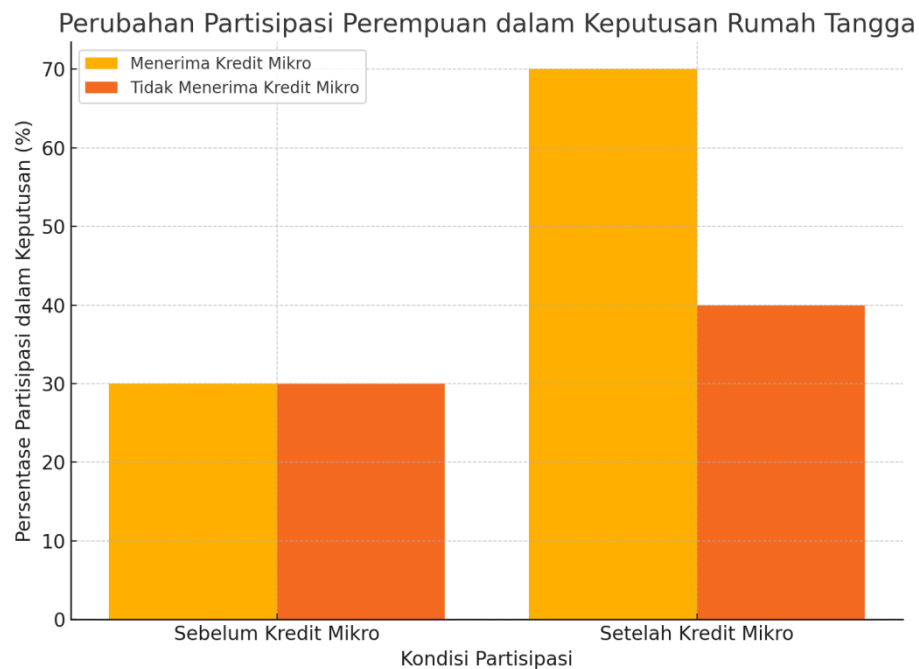
Category	Before Credit	Micro	After Credit	Micro
Financial Independence Score (1-5)	2.8		4.1	

### 2. Strengthening the Role of Women in Domestic Decisions

One of the important aspects of empowerment is increasing women's participation in household decision-making. This study shows that microcredit can strengthen the role of women, with their participation increasing from 30% to 70% in family economics-related decision-making after obtaining credit (Kabeer, 2005; Banerjee et al., 2015; Hashemi et al., 1996).

In the context of the rural economy, this change is significant because women usually face limited access to strategic decision-making in the family (Holvoet, 2005; Swain & Wallentin, 2009; Mayoux, 2001). In addition, the data revealed through this survey shows that women have become more courageous in expressing their opinions, even in matters outside of household finances.

This change is also supported by the data in Figure 2, which shows an increase in the number of women involved in household decisions before and after the microcredit program.



**Figure 2: Diagram of Changes in Women's Participation in Household Decisions**

The diagram above shows the change in women's participation in household decision-making between those who receive microcredit and those who do not. It was seen that women who received microcredit experienced a significant increase in participation in household decisions from 30% to 70%, while those who did not receive microcredit experienced only a small increase from 30% to 40%. This diagram illustrates how microcredit contributes to strengthening the position of women in households.

### 3. Obstacles and Challenges in Small Business Management

Despite the increase in income and women's participation in household decision-making, several obstacles are still faced in the management of small businesses supported by microcredit. In-depth interviews revealed that many women experience limitations in terms of management skills, business development, and market access (Mallick, 2012; Duflo, 2012; Armendáriz & Morduch, 2010). This challenge often arises because most loan recipients do not have a formal education in business and financial management.

These limitations suggest that microcredit may not be strong enough as the only tool for women's empowerment, especially in encouraging sustainable business growth (Swain & Wallentin, 2009; Mayoux, 2001; Kabeer, 2005). As such, additional support is needed, such as managerial skills training and increased access to a wider market.



**Table 3. Challenges in Small Business Management by Micro Credit Recipients**

Main Obstacles	Percentage of respondents experienced
Limitations in Management	65%
Limited Access to the Market	50%
Difficulty Managing Time	40%

#### 4. Social Impact of Micro Credit in Rural Communities

In addition to the direct economic impact, microcredit also brings significant social change in rural communities. The study found that women involved in microcredit programs became more involved in community activities and were often recognized as figures who had contributions to their communities (Swain & Wallentin, 2009; Karlan & Zinman, 2011; Banerjee et al., 2015).

This increase is also due to the change in public perception of women who have small businesses financed by microcredit, which ultimately improves their social status in the community (Mayoux, 2001; Holvoet, 2005; Armendáriz & Morduch, 2010). This impact shows how economic empowerment can contribute to social empowerment and change gender perceptions in society.

#### 5. Policy Implications and Recommendations

The findings in this study have significant implications for policy formulation in the microcredit and women's empowerment sectors. The results of this study show that microcredit programs integrated with training and access to markets can have a more sustainable impact on the economic independence of rural women (Hashemi et al., 1996; Armendáriz & Morduch, 2010; Mallick, 2012). In addition, microcredit programs can be an important tool in changing public perception of the role of women in the economic and social sectors.

The recommendation for governments and credit agencies is to pay special attention to improving women's business management skills, market access, and access to digital technology to improve the competitiveness of their small businesses (Swain & Wallentin, 2009; Duflo, 2012; Kabeer, 2005). The following table shows the key recommendations that microcredit institutions can implement to maximize the impact of women's empowerment.

**Table 4. Policy Recommendations for Microcredit in Rural Areas**

Recommendations	Description
Business Management Training	Training to improve managerial skills
Increased Access to Markets	Market connection program for small

Recommendations	Description
	businesses
Digital Technology Support	Providing access to technology and digital literacy

#### D. Conclusion

The conclusion of this study shows that microcredit has a significant impact on women's empowerment in rural areas, both in economic and social aspects. Economically, women who receive microcredit experience increased financial independence, reflected in their increased income and ability to manage small businesses. Microcredit also contributed to an increase in women's participation in household decision-making, from just 30% before the program to 70% afterwards. This shows that microcredit not only functions as an economic tool, but also plays a role in strengthening the position of women in families and communities, in line with the goal of improving the welfare and independence of rural women in the long term.

Other findings from this study reveal the challenges that women still face in developing their businesses, such as limited access to the market, lack of managerial skills, and barriers in technology. While microcredit provides a strong foundation for economic empowerment, the results of this study suggest that additional support such as skills training and access to digital technologies is urgently needed. With policies that integrate microcredit with training programs and market access, this program has the potential to be a more effective tool in accelerating women's independence and empowerment in rural areas.

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