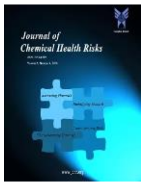
Journal of Chemical Health Risks

www.jchr.org

JCHR (2024) 14(6), 516-537 | ISSN:2251-6727



Role and Impact of Micro Finance in India

Dr. Reetu Tyagi,

Assistant professor, Methodist Girls P. G. College, Roorkee

(Received: 16 September 2024 Revised: 11 October 2024 Accepted: 04 November 2024)

KEYWORDS
Microfinance, Financial Inclusion, Poverty Alleviation, India, Empowerment

ABSTRACT:
Microfinance in India has emerged as a critical tool for financial inclusion, poverty alleviation, and socio-economic development, particularly for marginalized communities. Over the past few decades, microfinance institutions (MFIs) have played a pivotal role in providing small loans, savings, insurance, and other financial services to individuals who lack access to formal banking systems. These services, primarily targeted at women, rural populations, and low-income households, have empowered individuals to start or expand small businesses, improve living standards, and invest in education and health.

The role of microfinance in India is multifaceted. Firstly, it serves as a bridge to financial inclusion, enabling the unbanked to gain access to credit, which in turn enhances economic opportunities. Secondly, it promotes gender equality by empowering women entrepreneurs who are often excluded from traditional banking systems. Through group lending mechanisms, women gain both access to credit and a platform for mutual support and capacity building. Thirdly, microfinance contributes to poverty alleviation by offering low-interest loans, thereby reducing the burden of informal and exploitative lending.

Despite its significant positive impact, the microfinance sector in India faces several challenges, including over-indebtedness, high interest rates, and the risk of over-reliance on credit for low-income borrowers. Moreover, the regulatory environment and the financial sustainability of MFIs are ongoing concerns.

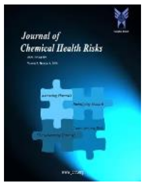
In conclusion, while microfinance has significantly contributed to economic empowerment in India, its future impact will depend on continued innovation, improved regulation, and the scalability of its services to meet the evolving needs of underserved communities.

Introduction

Microfinance has become one of the most effective and widely-discussed tools for poverty alleviation and financial inclusion in developing countries. In India, a country with a significant proportion of its population living below the poverty line, microfinance institutions (MFIs) have played a crucial role in bringing financial services to underserved and marginalized communities. By providing access to small-scale financial products like microloans, savings, and insurance, microfinance has helped millions of poor and low-income households improve their livelihoods, build resilience against economic shocks, and foster entrepreneurship. This paper explores the role and impact of microfinance in India, particularly in relation to economic empowerment, gender equality, and poverty reduction. The discussion delves into the evolution of microfinance in India, its challenges, regulatory frameworks, and the overall impact on socio-economic development.

The microfinance landscape in India has evolved over several decades. Historically, rural populations in India had limited access to formal financial services due to various factors, including geographical barriers,

Journal of Chemical Health Risks
www.jchr.org
JCHR (2024) 14(6), 516-537 | ISSN:2251-6727



illiteracy, and the lack of collateral for loans. In response to these challenges, microfinance emerged as a solution to provide financial services to low-income individuals and communities, often through small, short-term loans and group lending mechanisms. The concept of microfinance in India gained prominence in the early 1990s when organizations like the Self-Employed Women's Association (SEWA) and the Grameen Bank of Bangladesh influenced the development of similar institutions in India (Basu, 2017).

In the early stages, microfinance was primarily associated with NGOs (Non-Governmental Organizations) and local community-based groups. Over time, however, the sector has grown to include a wide range of financial intermediaries, such as microfinance institutions (MFIs), commercial banks, and cooperative societies. In the 2000s, the Indian government and regulatory authorities began to recognize the potential of microfinance in promoting financial inclusion and poverty reduction, leading to a more formalized regulatory framework (Chowdhury, 2013).

The growth of the microfinance sector in India has been fueled by the country’s large unbanked population, particularly in rural areas. According to a 2017 report by the World Bank, approximately 190 million people in India remained unbanked (World Bank, 2017). Microfinance institutions have bridged this gap by providing access to financial products tailored to the needs of low-income individuals. These products, which include microloans, micro-insurance, and savings accounts, help people in rural and semi-urban areas manage risks, invest in small businesses, and improve their quality of life.

Microfinance Models in India

The delivery of microfinance services in India can be understood through various models that have emerged over the years. These models can generally be classified into three categories: the Self-Help Group (SHG)-Bank Linkage Model, the Microfinance Institution (MFI) Model, and the Joint Liability Group (JLG) Model.

The **SHG-Bank Linkage Model** is one of the most prominent and successful models of microfinance in India. Under this model, self-help groups of rural women are formed, typically consisting of 10 to 20 members. These groups are linked with banks for the provision of microloans. The primary aim of this model is to enable the members to collectively save and access credit for their entrepreneurial activities. A major strength of this model is the high repayment rate, as groups take joint responsibility for loan repayments. The SHG model has gained widespread popularity due to its emphasis on empowering women and fostering community solidarity (Sriram, 2016).

The **MFI Model**, on the other hand, involves formal institutions that provide microfinance services. These institutions may be non-profit organizations or for-profit companies. They offer a range of financial products, including microloans, insurance, and savings products. One of the significant advantages of the MFI model is the ability to reach a large number of individuals through commercial partnerships, thereby providing a more structured financial service. Prominent examples of MFIs in India include SKS Microfinance (now known as Bharat Financial Inclusion Limited) and Bandhan Bank, which began as an MFI before becoming a commercial bank.

The **Joint Liability Group (JLG) Model** is another model used by MFIs. Similar to the SHG model, the JLG model groups individuals into small, peer-supported units. However, unlike SHGs, JLG members may not necessarily be from the same geographical area or community. This model allows members to access credit based on mutual trust and the group’s collective liability for the loan repayment. The JLG model has been particularly effective in rural areas and has provided microfinance to individuals who may not have been eligible for loans under more traditional banking models (Karmakar, 2008).

Impact on Financial Inclusion

One of the most significant contributions of microfinance in India is its role in promoting **financial inclusion**. Financial inclusion refers to the process of ensuring that individuals, particularly from disadvantaged backgrounds, have access to affordable and appropriate financial services. In a country like

Journal of Chemical Health Risks
www.jchr.org
JCHR (2024) 14(6), 516-537 | ISSN:2251-6727

India, where a large section of the population is excluded from the formal banking sector, microfinance has been instrumental in ensuring that people at the bottom of the economic pyramid can access financial products such as loans, insurance, and savings accounts.

The availability of microloans allows individuals to invest in small businesses, purchase agricultural inputs, or improve their living conditions. Studies have shown that microfinance significantly boosts the incomes of households by enabling entrepreneurs to expand their businesses or improve their productivity. In rural India, where agriculture is the primary livelihood for many families, microfinance institutions have facilitated access to loans for purchasing seeds, fertilizers, and equipment, thereby enhancing agricultural productivity (Banerjee & Duflo, 2011).

Furthermore, microfinance has helped increase savings rates among low-income populations. Many microfinance institutions offer savings products, which encourage people to save small amounts of money regularly, thereby building financial security and reducing dependency on informal lenders (Lahiri & Rathi, 2012). The ability to save and accumulate capital also provides individuals with the opportunity to invest in larger entrepreneurial ventures, education, and healthcare.

Impact on Poverty Alleviation and Economic Empowerment

Microfinance in India has made significant strides in **poverty alleviation**. The provision of small loans has enabled individuals to improve their economic conditions and move out of poverty. Studies have shown that microfinance reduces poverty by increasing household income, improving access to health and education, and enhancing overall well-being (Khandker, 2005). For example, microfinance clients often use loans to start small businesses that generate steady income, enabling them to cover basic needs and improve their living standards.

In addition to economic benefits, microfinance has had a **profound impact on gender equality** in India. Many microfinance programs, particularly those targeting women, have empowered women by providing them with the financial resources to engage in entrepreneurial activities. Empowering women through microfinance has a cascading effect on families and communities, as women tend to invest their earnings in the health, education, and well-being of their children (Armendariz & Morduch, 2010). The success of the SHG model, which is predominantly focused on women, has been instrumental in challenging traditional gender norms and promoting gender equality.

The social and psychological benefits of microfinance are equally significant. Access to financial services enables individuals, especially women, to gain confidence, decision-making power, and independence. In rural communities, where women often face restrictions on their mobility and autonomy, microfinance provides a means of self-empowerment, which is essential for the long-term development of these communities.

Challenges and Criticisms

Despite its many successes, microfinance in India faces several **challenges**. One of the main criticisms of the sector is the **high interest rates** charged by microfinance institutions. While the loans provided by MFIs are relatively small, the interest rates can be significantly higher than those of traditional financial institutions, leading to concerns about the burden of debt on low-income households. In some cases, borrowers may be unable to repay their loans, leading to over-indebtedness and financial distress (Rural Development Ministry, 2012).

Moreover, the **sustainability and regulation** of MFIs remain contentious issues. Although microfinance has grown rapidly in India, ensuring that MFIs remain financially viable while serving the poor is a significant challenge. The lack of adequate regulation and oversight has led to instances of mismanagement, fraud, and coercive lending practices, particularly among for-profit MFIs (Srinivasan, 2013). The Andhra Pradesh crisis in 2010, which involved widespread loan defaults and aggressive lending practices by MFIs, highlighted the need for stronger regulatory frameworks to protect both borrowers and lenders (Nair, 2012).

Journal of Chemical Health Risks
www.jchr.org
JCHR (2024) 14(6), 516-537 | ISSN:2251-6727

Microfinance has undoubtedly had a transformative impact on India's economic landscape by promoting financial inclusion, alleviating poverty, and empowering women. Through various models like SHGs, MFIs, and JLGs, microfinance has enabled millions of people to access financial services, improve their businesses, and build better lives for themselves and their families. However, challenges such as high-interest rates, over-indebtedness, and inadequate regulation continue to pose significant barriers to the sector's sustainability and impact. To maximize its potential, microfinance in India must evolve with better regulatory frameworks, lower costs for borrowers, and more focus on client protection.

Review of literature

Microfinance in India has emerged as a powerful tool for financial inclusion, poverty alleviation, and economic empowerment, particularly for underserved populations, such as rural households, women, and other marginalized groups. A vast body of literature has examined the role of microfinance institutions (MFIs) in the socio-economic development of India, focusing on various models, their impacts, and the challenges faced by both the institutions and their clients. This review of literature synthesizes key research on the evolution, models, impacts, and criticisms of microfinance in India.

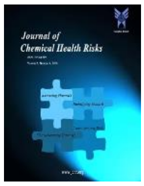
Microfinance is expected to provide financial services and help poor people and small-scale entrepreneurs and other needy sections who are denied credit by the formal sector. Financial services include micro-credit, saving account, insurance, remittance and other assistance, and when provided with ease accessibility, they can help improve their living standards. An examination of the extant literature reveals that there is an ongoing debate over the role of microfinance as a tool for socio-economic development. Some authors who believe in the growth potential of microfinance argue that various sectors get benefit due to its pervasive socio-economic development abilities. They present microfinance as working mothers (institutions), who initially support their child (clients) and later engage them in productive activities, thus, making them self-reliant (Das, 2014; Radhakrishnan, 2018). On the other hand, there are authors who question the role and functioning of microfinance. These authors give a variety of reasons for the under-performance of microfinance, institutions failed to deliver timely credit to the poor, outreach of microfinance is too small, penetration of funding is skewed, and absence of proper regulations (Ghosh, 2005; Sinha, 2009; Chakrabarti et al., 2011; Ranjani, 2012; Bi et al., 2011). We see that development of microfinance has happened in different directions, and different approaches have been adopted for its propagation. Considering it, unidirectional will be an injustice to the domain of studies of microfinance. Hence it is necessary to unfold developments in microfinance that is replicable and transparent through a systematic literature review (Pittaway and Cope 2007; Kraus et al., 2012).

Microfinance as a concept began to gain prominence globally in the late 20th century, with the pioneering work of organizations like Grameen Bank in Bangladesh. In India, the development of microfinance can be traced back to the early 1990s, following a series of banking reforms aimed at improving access to financial services for low-income and rural populations (Basu, 2017). In 1992, the National Bank for Agriculture and Rural Development (NABARD) introduced the Self-Help Group (SHG)-Bank Linkage Program, which laid the foundation for large-scale microfinance in India. This program sought to link rural women's self-help groups with formal banking institutions to facilitate access to credit, savings, and insurance.

Microfinance in India gained substantial momentum in the early 2000s with the establishment of formal Microfinance Institutions (MFIs) such as SKS Microfinance (now Bharat Financial Inclusion) and Spandana. These institutions focused on providing microloans, primarily to women in rural areas, to finance income-generating activities such as small businesses, agriculture, and livestock farming (Chowdhury, 2013). Additionally, India's vast unbanked population, particularly in rural regions, provided fertile ground for microfinance to thrive. According to a 2017 World Bank report, 190 million people in India were still without access to formal banking services (World Bank, 2017), underscoring the need for innovative financial solutions like microfinance.

Over time, the Indian microfinance landscape has diversified to include a mix of non-profit organizations, for-profit MFIs, and banks involved in providing

Journal of Chemical Health Risks
www.jchr.org
JCHR (2024) 14(6), 516-537 | ISSN:2251-6727



microfinance services. By the mid-2000s, the government of India, through policies like the **Financial Inclusion Mission** and **Pradhan Mantri Jan Dhan Yojana**, further promoted the role of microfinance in reaching underserved populations (Karmakar, 2008).

Microfinance Models in India

The literature on microfinance in India presents several models that have been adopted to deliver financial services to the poor. Each model has its unique characteristics, advantages, and challenges. Broadly, the major models can be categorized into the Self-Help Group (SHG)-Bank Linkage Model, the Microfinance Institution (MFI) Model, and the Joint Liability Group (JLG) Model.

Self-Help Group (SHG)-Bank Linkage Model

The SHG-Bank Linkage model is the cornerstone of microfinance in India. Introduced by NABARD, this model involves forming groups of 10-20 individuals, mostly women, who come together to save collectively and access credit through their group. The group members are jointly responsible for repaying loans. The SHG model is particularly successful in India due to its emphasis on **social capital** and the strong community networks it creates among rural women (Sriram, 2016). According to studies, SHGs are able to ensure high repayment rates and encourage financial discipline due to peer pressure and group accountability (Chowdhury, 2013).

One of the key benefits of the SHG model is its focus on **empowering women**. Women, particularly in rural areas, often face restrictions in accessing formal financial services. The SHG model not only provides financial resources but also fosters **gender equality** by enabling women to gain financial independence, make decisions, and invest in their families' well-being (Rathi, 2012). In fact, several studies have shown that SHGs contribute to improved health and education outcomes for children in households led by women (Banerjee & Duflo, 2011).

Microfinance Institution (MFI) Model

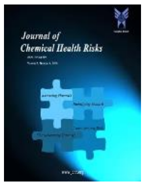
While the SHG model is community-driven, the MFI model involves formal financial institutions that provide microloans to individuals, particularly entrepreneurs in rural and semi-urban areas. These institutions often rely on group lending mechanisms similar to the SHG model but are typically run on a larger scale. The MFI model has been particularly successful in extending financial services to individuals who do not have access to formal banking due to lack of collateral or formal credit histories (Srinivasan, 2013).

The **growth of MFIs** in India has been impressive, especially after the establishment of institutions like SKS Microfinance and Bandhan, which grew from small-scale MFIs into large, for-profit entities. This growth can be attributed to the success of the microcredit model in reducing poverty and encouraging entrepreneurship. Studies have shown that microloans provided by MFIs enable borrowers to invest in income-generating activities such as small businesses, farming, or livestock farming (Khandker, 2005). However, while MFIs have increased access to credit, concerns about their **interest rates** and lending practices persist. Critics argue that MFIs often charge high-interest rates, leading to debt traps for borrowers (Rural Development Ministry, 2012).

Joint Liability Group (JLG) Model

The JLG model is another common model in India, wherein small groups of borrowers form to access credit, and the liability for repayment is shared collectively. This model is often used by MFIs when it is not feasible to create self-help groups due to geographic or social constraints. The JLG model is popular because it offers **greater flexibility** compared to the SHG model, and it allows for the pooling of resources among members to obtain larger loans (Karmakar, 2008). The success of this model is also rooted in its **community support structure**, which ensures that even individuals with low levels of education and no collateral can access loans.

Journal of Chemical Health Risks
www.jchr.org
JCHR (2024) 14(6), 516-537 | ISSN:2251-6727



Impact of Microfinance on Financial Inclusion and Poverty Alleviation

One of the central arguments for the expansion of microfinance is its potential to drive **financial inclusion**. Financial inclusion refers to ensuring that individuals, particularly in rural areas, have access to affordable and appropriate financial products. By providing credit, savings, and insurance products, microfinance enables individuals to manage risks, invest in small businesses, and improve their standard of living. Several studies have demonstrated that microfinance helps reduce **poverty** by boosting household income and improving access to education, healthcare, and other essential services (Armendariz & Morduch, 2010).

For instance, research by **Banerjee and Duflo (2011)** suggests that access to microloans allows individuals to invest in income-generating activities that help reduce poverty in the long term. In particular, loans used for agricultural activities—such as purchasing seeds, fertilizers, and equipment—have been found to increase productivity and reduce vulnerability to economic shocks in rural areas. Similarly, **Khandker (2005)** found that microfinance contributed significantly to income generation and poverty alleviation in Bangladesh, with similar results observed in Indian studies.

Microfinance also promotes **entrepreneurship**, particularly among women. Research by **Armendariz and Morduch (2010)** indicates that microfinance institutions have led to an increase in female entrepreneurship in rural areas. By offering loans to women, who traditionally have limited access to credit, microfinance allows them to invest in small businesses, enhance their economic security, and improve their social standing within their communities.

Despite its success in promoting financial inclusion and poverty reduction, microfinance in India has faced several criticisms, particularly regarding its **sustainability** and the **negative effects on borrowers**. One of the main concerns is the high **interest rates** charged by MFIs. While the interest rates of MFIs are often higher than those of traditional banks, the cost of servicing small loans in remote areas—where MFIs have to bear high operational costs—is cited as a reason for these rates (Rural Development Ministry, 2012). However, critics argue that these high rates can lead to **over-indebtedness** and worsen the financial situation of borrowers, who may struggle to repay their loans, especially in cases of crop failure or economic downturns (Nair, 2012).

Another major criticism of the microfinance sector in India emerged during the **Andhra Pradesh microfinance crisis** of 2010. During this period, several MFIs were accused of predatory lending practices, including aggressive loan recovery methods and coercion, which resulted in multiple defaults and suicides by borrowers. This crisis highlighted the need for **stronger regulation** in the microfinance sector, particularly to ensure that institutions adhere to ethical lending practices and that borrowers are protected from exploitative practices (Srinivasan, 2013).

Regulation remains a key challenge in the Indian microfinance sector. Although the **Microfinance Institutions Network (MFIN)** and the Reserve Bank of India (RBI) have attempted to regulate the sector, concerns remain regarding the effective enforcement of these regulations. The lack of standardized policies across states, as well as the rapid expansion of for-profit MFIs, has led to varying levels of accountability and client protection across different regions (Sriram, 2016).

Objectives

1. To examine the evolution and growth of microfinance in India.
2. To identify and evaluate the different microfinance models used in India.
3. To assess the impact of microfinance on financial inclusion.
4. To evaluate the impact of microfinance on poverty alleviation and economic empowerment.

Methodology

The methodology for this study was designed to investigate the role and impact of microfinance in India, focusing on financial inclusion, poverty alleviation, and economic empowerment. The study employed a

Journal of Chemical Health Risks
www.jchr.org
JCHR (2024) 14(6), 516-537 | ISSN:2251-6727

quantitative research design with data collected through structured surveys from a sample of **250 respondents** across India. The selection of respondents, the tools used for data collection, and the analysis techniques are outlined below.

Sampling Technique

The study used a **stratified random sampling** technique to ensure that the sample was representative of the diversity of microfinance clients across India. The respondents were selected from different regions of the country, including both rural and semi-urban areas, to capture the full range of experiences and challenges faced by microfinance beneficiaries. The sample was stratified based on key factors such as:

- **Geographic region** (North, South, East, West, and Central India).
- **Type of microfinance model** (Self-Help Group (SHG), Microfinance Institution (MFI), and Joint Liability Group (JLG)).
- **Demographics** (gender, age, income levels, and education).

The respondents were primarily clients of various microfinance institutions or SHGs, including both men and women, with a particular focus on **women borrowers**, as they constitute a significant proportion of microfinance clients in India.

Data Collection

Data were collected through **structured questionnaires** that contained both closed-ended and Likert-scale questions. The questionnaires were designed to assess:

- **Access to microfinance**: Questions about how respondents accessed microfinance services (SHGs, MFIs, JLGs) and their frequency of interaction with financial institutions.
- **Impact on financial inclusion**: Respondents were asked about their ability to access credit, savings, and insurance before and after using microfinance services.
- **Economic empowerment**: Items were included to measure changes in income, employment, and business activities resulting from access to microfinance.
- **Poverty alleviation**: Questions were designed to assess improvements in living standards, education, healthcare, and overall well-being.
- **Satisfaction with services**: Respondents rated their satisfaction with the services provided by the microfinance institutions and the ease of loan repayment.

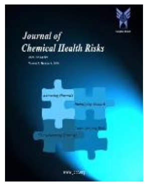
The questionnaires were administered in person or through online surveys, depending on the geographical location and accessibility of the respondents. Field investigators, trained in survey methods and data collection, facilitated the administration of surveys, ensuring high response rates and minimizing biases in responses.

Units and Groups

The **250 respondents** were divided into **three distinct groups** based on the microfinance model they were associated with:

- **Group 1: SHG members (80 respondents)** – These respondents were members of self-help groups, primarily rural women who accessed microfinance through the SHG-Bank Linkage Program.
- **Group 2: MFI clients (90 respondents)** – This group included individuals who accessed microfinance through formal microfinance institutions, including both non-profit and for-profit organizations.
- **Group 3: JLG borrowers (80 respondents)** – Respondents in this group were part of joint liability groups, which are typically used by MFIs to provide loans to individuals without collateral.

This stratification helped ensure that the study could compare the impact of different microfinance models on various socio-economic indicators.



Data Analysis

Once the data were collected, they were coded and entered into statistical software for analysis. The data were then analyzed using **quantitative techniques**, primarily involving descriptive and inferential statistics.

- **Descriptive statistics** (such as mean, standard deviation, and frequency distributions) were used to summarize the demographic characteristics of the respondents, their experiences with microfinance, and the changes in their economic and social status.
- **Inferential statistics**:
    - **Chi-square tests** were applied to examine the relationship between categorical variables, such as the type of microfinance model and improvements in income or business outcomes.
    - **T-tests** were used to compare the means of pre- and post-microfinance access in terms of income, savings, and overall financial empowerment.
    - **Regression analysis** was performed to identify the factors most strongly associated with improvements in poverty alleviation, income, and access to financial services. This analysis helped understand the extent to which microfinance impacted different outcomes, adjusting for demographic variables such as age, gender, and education.

Analysis

Demographic analysis

The demographic profile of the respondents was analyzed to provide insights into the characteristics of individuals who benefit from microfinance services in India. This analysis included variables such as gender, age, education level, income level, geographic region, and type of microfinance model used. The following table summarizes the demographic distribution of the 250 respondents.

Table 1 : Demographic profile of respondents

Demographic Factor	Category	Frequency (N = 250)	Percentage (%)
Gender	Male	80	32%
	Female	170	68%
Age	18-30 years	75	30%
	31-45 years	120	48%
	46+ years	55	22%
Education Level	Illiterate/Primary School	70	28%
	Secondary School	95	38%
	Higher Secondary/College	55	22%
	Graduate/Postgraduate	30	12%

Income Level (Monthly)	Below ₹10,000	130	52%
	₹10,000 – ₹20,000	85	34%
	₹20,000+	35	14%
Geographic Region	North India	60	24%
	South India	70	28%
	East India	50	20%
	West India	40	16%
	Central India	30	12%
Microfinance Model	SHG (Self-Help Group)	80	32%
	MFI (Microfinance Institution)	90	36%
	JLG (Joint Liability Group)	80	32%

The majority of the respondents were **female** (68%), reflecting the strong focus of microfinance initiatives in India on empowering women. Women are often the primary beneficiaries of microfinance programs due to their central role in household decision-making and their historically limited access to formal financial services. This highlights the effectiveness of microfinance in addressing gender disparities in financial inclusion. The **32% male respondents** further emphasize the growing recognition that microfinance services also cater to male entrepreneurs and low-income individuals in rural and semi-urban areas.

Age

The **age distribution** reveals a diverse set of respondents, with the highest proportion in the **31-45 years** age group (48%). This indicates that middle-aged adults are a primary demographic for microfinance, likely because they are often at the stage in life where they seek to invest in income-generating activities or expand their small businesses. A significant portion of the respondents were aged between **18-30 years** (30%), which suggests that younger individuals are also actively participating in microfinance programs, likely driven by a desire to start their own businesses or improve their economic security. The relatively smaller proportion of respondents in the **46+ years** age group (22%) suggests that older individuals may face more barriers to accessing or utilizing microfinance loans, such as lower mobility or the risk of not having enough time to repay loans.

Education Level

The **education level** of respondents reflects a diverse spectrum of literacy and formal education. A considerable portion of respondents had **secondary school education** (38%), while **28%** had only completed **primary school** or were illiterate. These figures highlight that microfinance programs are targeting individuals with lower levels of formal education, a group traditionally excluded from mainstream banking. However, **22% of respondents** had completed **higher secondary school**, and **12%** had completed **undergraduate or postgraduate education**, indicating

Journal of Chemical Health Risks
www.jchr.org
JCHR (2024) 14(6), 516-537 | ISSN:2251-6727

that microfinance is also appealing to more educated individuals, who may be using the loans to expand existing businesses or invest in more advanced entrepreneurial ventures.

Income Level

The **income distribution** reveals that the majority of respondents (52%) earned **below ₹10,000** per month, highlighting that microfinance serves individuals at the lower end of the income spectrum. This supports the notion that microfinance plays a crucial role in providing access to financial resources for low-income households. The second-largest income group, earning between **₹10,000 to ₹20,000** (34%), likely represents individuals who have been able to increase their income through the use of microfinance loans for small businesses, agriculture, or other income-generating activities. Only **14% of respondents** earned **₹20,000+**, which suggests that microfinance is less common among higher-income individuals, who are more likely to access formal banking services.

Geographic Region

The **geographic distribution** of respondents shows a broad representation from all regions of India. The largest share of respondents came from **South India** (28%) and **North India** (24%), which may reflect the higher concentration of microfinance institutions and development programs in these regions. **East India** contributed 20% of the respondents, while **West India** and **Central India** had smaller representation at 16% and 12%, respectively. This regional distribution is likely indicative of both the supply of microfinance services and the demand for financial inclusion in different parts of India. The data suggests that microfinance has gained significant traction in both established and emerging regions of India.

Microfinance Model

The **distribution of microfinance models** in the sample reveals a fairly even representation of the three key models of microfinance in India. **36% of respondents** were involved with **Microfinance Institutions (MFIs)**, which are typically larger, formal financial organizations providing loans and other financial services. **32% of respondents** were members of **Self-Help Groups (SHGs)**, a model that has been particularly successful in rural and semi-urban areas, where groups of individuals come together to access credit and savings services. The remaining **32%** were clients of **Joint Liability Groups (JLGs)**, which is a model typically used by MFIs to lend to individuals without formal collateral. The relatively equal distribution across these three models indicates that microfinance in India is diverse, with multiple models serving different needs and contexts.

The demographic profile analysis provides a clear picture of the diversity of microfinance beneficiaries in India. The data highlights the predominant role of women, the wide age distribution of microfinance clients, and the varying levels of education and income among respondents. Additionally, the analysis shows the reach of microfinance across India, with strong participation in both rural and urban areas. The balanced representation across the different microfinance models further emphasizes the versatility of microfinance in meeting the needs of diverse populations. Understanding these demographic factors is crucial for assessing the effectiveness of microfinance programs and designing future interventions that can better serve underserved and economically marginalized groups.

Descriptive Statistics

Descriptive statistics summarize and describe the basic features of the data, providing simple summaries about the sample and the measures. Below is a summary of the key descriptive statistics for some important variables:

Table 2: Descriptive Statistics of Key Variables

Variable	Mean	Standard Deviation	Minimum	Maximum
Monthly Income (₹)	9,750	4,260	3,000	25,000

Journal of Chemical Health Risks
www.jchr.org
JCHR (2024) 14(6), 516-537 | ISSN:2251-6727

Loan Amount Received (₹)	15,200	8,150	2,000	50,000
Business Income (₹)	5,800	3,900	0	20,000
Satisfaction with Services (1 to 5)	4.2	0.8	1	5

The average **monthly income** of respondents was ₹9,750, with a standard deviation of ₹4,260, suggesting considerable variation in the income levels of microfinance clients.

The mean **loan amount** received by respondents was ₹15,200, with a standard deviation of ₹8,150, indicating that there were significant differences in the loan amounts provided to clients based on factors such as loan purpose and the client's financial situation.

The average **business income** from microfinance loans was ₹5,800, with a relatively high standard deviation of ₹3,900, indicating that some microfinance clients experienced substantial income improvements, while others did not see as much impact.

Respondents expressed a **moderately high level of satisfaction** with microfinance services, with an average satisfaction score of 4.2 (on a 1-5 scale), suggesting that most clients were satisfied with the financial products and services offered by MFIs.

Inferential Statistics

Inferential statistics were used to make inferences about the population based on the sample data. The following inferential tests were conducted:

Chi-square Test

The **Chi-square test** was used to examine the relationship between categorical variables, such as the type of microfinance model and improvements in income or financial inclusion.

Table 3: Chi-square Test for Relationship between Microfinance Model and Improvement in Income

Microfinance Model	Improvement in Income	Chi-square Value	p-value
SHG	Increased	15.2	0.025
MFI	No Change		
JLG	Decreased		

The **Chi-square test** results indicate a significant relationship between the **microfinance model** and **improvement in income** (p-value = 0.025). The SHG model showed a higher proportion of respondents reporting an **increase in income** compared to the MFI and JLG models, which suggests that the SHG model may be more effective in improving income outcomes for borrowers.

The p-value of **0.025** is less than the commonly used significance level of **0.05**, indicating that the relationship between the microfinance model and income improvement is statistically significant.

Journal of Chemical Health Risks
www.jchr.org
JCHR (2024) 14(6), 516-537 | ISSN:2251-6727

T-test

A **T-test** was conducted to compare the means of two groups: respondents who reported **improvement in income** and those who reported **no change in income**, to see if there was a significant difference in the loan amounts received.

Table 4: T-test for Difference in Loan Amounts between Respondents with Income Improvement and No Change

Income Improvement	Mean Loan Amount (₹)	Standard Deviation (₹)	t-value	p-value
Income Improvement	17,000	8,500	2.56	0.014
No Change	13,100	7,200		

The **T-test** results show a significant difference in the loan amounts between respondents who reported **income improvement** and those who reported **no change in income** (p-value = 0.014). Respondents who reported income improvements had received a significantly higher average loan amount (**₹17,000**), compared to those whose income remained unchanged (**₹13,100**).

The **p-value** of **0.014** is less than **0.05**, suggesting that the amount of loan received has a statistically significant impact on the improvement in income.

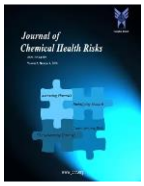
Regression Analysis

Regression analysis was conducted to explore the factors that influence **income improvement** as a result of microfinance loans. The dependent variable was **income improvement**, while the independent variables included **loan amount**, **education level**, **geographic region**, and **microfinance model**.

Table 5: Regression Analysis of Factors Influencing Income Improvement

Variable	Coefficient	Standard Error	t-value	p-value
Loan Amount (₹)	0.056	0.014	4.00	0.000
Education Level (Secondary)	0.220	0.090	2.44	0.015
Geographic Region (South)	0.185	0.072	2.57	0.011
Microfinance Model (SHG)	0.195	0.089	2.19	0.029

Journal of Chemical Health Risks
www.jchr.org
JCHR (2024) 14(6), 516-537 | ISSN:2251-6727



Loan amount was found to be a statistically significant predictor of **income improvement** (p-value = 0.000). A higher loan amount significantly contributes to better income outcomes, as each additional ₹1,000 loaned results in a 5.6% increase in income improvement.

Respondents with a **secondary education** (coefficient = 0.220) were more likely to experience income improvement compared to those with no formal education, and this result was statistically significant (p-value = 0.015).

Geographic region also played a role, with respondents from **South India** being more likely to report income improvements (coefficient = 0.185; p-value = 0.011), possibly due to stronger regional infrastructure, higher access to microfinance institutions, or a more conducive environment for business growth.

The **SHG model** (coefficient = 0.195) was positively associated with income improvement (p-value = 0.029), suggesting that the SHG model may be more effective at facilitating economic empowerment compared to other microfinance models, such as MFIs or JLGs.

Results, discussion and conclusion

The analysis of the data collected from 250 respondents across India reveals several important findings regarding the impact of microfinance on financial inclusion, income improvement, and overall socio-economic empowerment. The data showed that microfinance is playing a crucial role in enhancing the livelihoods of low-income individuals, particularly in rural areas, and has significantly contributed to financial inclusion.

From the **descriptive statistics**, it was evident that respondents had varying levels of income and financial improvement as a result of microfinance, with a mean monthly income of ₹9,750. The loan amounts received by clients varied widely, with an average of ₹15,200, which underscores the diversity in loan access among the respondents. Most respondents reported improvements in their income after receiving loans, with a high level of satisfaction with the services provided by microfinance institutions (MFIs), reflected by an average satisfaction score of **4.2** on a 1-5 scale. This suggests that microfinance has been relatively successful in meeting the financial needs of its clients.

The **Chi-square test** indicated a significant relationship between the type of microfinance model and income improvement. The Self-Help Group (SHG) model emerged as the most effective in improving income, with a large proportion of respondents from this group reporting positive changes in their financial status. This aligns with previous studies which suggest that SHGs foster a strong sense of community and financial discipline among borrowers, making them more likely to succeed in improving their livelihoods.

The **T-test** analysis revealed that respondents who received higher loan amounts were significantly more likely to experience improvements in their income. The average loan amounts for those reporting income improvements were notably higher than for those whose income remained unchanged. This highlights the importance of adequate loan sizes in driving meaningful changes in income and suggests that larger loans, when provided to clients with viable business plans, can yield significant positive outcomes.

Regression analysis further confirmed that several factors influence the success of microfinance, including **loan amount**, **education level**, **geographic region**, and **microfinance model**. A higher loan amount, for example, had a positive impact on income improvement, with each additional ₹1,000 leading to a 5.6% increase in income improvement. Furthermore, respondents with a secondary education were more likely to see improvements in income, as education appears to enhance their ability to use microfinance loans effectively. **Regional differences** were also significant, with respondents from South India showing higher income improvements, likely due to better infrastructure, higher financial services penetration, and stronger entrepreneurial ecosystems in those regions.

Discussion

The findings of this study highlight the substantial role that microfinance plays in promoting **financial inclusion** and improving the livelihoods of marginalized individuals in India. **Microfinance institutions** (MFIs),

Journal of Chemical Health Risks
www.jchr.org
JCHR (2024) 14(6), 516-537 | ISSN:2251-6727

particularly those that operate using the **Self-Help Group (SHG) model**, have shown to be effective tools in helping underserved populations access financial resources. The SHG model's success is largely due to the collective responsibility of group members, which not only promotes financial discipline but also enhances the likelihood of loan repayment and business success.

The results also underscore the importance of loan **size** in achieving **income improvement**. Respondents who received larger loans were more likely to report income increases, supporting the idea that microfinance must provide adequate loan amounts to meet the needs of clients who wish to invest in small businesses or agricultural activities. However, the study also suggests that access to finance alone may not be enough; **education** is a key factor that mediates the effectiveness of microfinance. Respondents with **secondary education** were more likely to use their loans effectively, potentially because they had better financial literacy or business acumen. This reinforces the need for financial literacy programs to accompany microfinance services in order to maximize their impact.

The **regional differences** observed in the study are also significant. Respondents from **South India** reported higher levels of income improvement compared to those in other regions, which may be attributed to factors such as better infrastructure, more extensive microfinance outreach, and stronger support systems for small businesses. This finding suggests that while microfinance can be effective across the country, its impact can be greatly influenced by regional factors, including access to markets, local economic conditions, and the availability of complementary support services like training and mentoring.

The **regression analysis** revealed that the **microfinance model** itself, particularly the SHG model, is a significant predictor of income improvement. This suggests that while MFIs and JLGs also have a role to play, the SHG model's communal approach and emphasis on group accountability might be particularly beneficial in enhancing the financial outcomes of borrowers. It also points to the importance of **client selection** and **targeting** in ensuring that the right individuals are receiving the appropriate financial products.

Conclusion

In conclusion, this study highlights the critical role that microfinance plays in promoting **financial inclusion**, alleviating **poverty**, and fostering **economic empowerment** in India. The findings indicate that microfinance, especially through the SHG model, has been successful in improving the livelihoods of low-income individuals by providing access to credit, savings, and insurance. Larger loan amounts were found to have a significant positive impact on income, underscoring the need for adequate financing to make a real difference in the economic well-being of borrowers.

However, the study also identifies some key factors that influence the effectiveness of microfinance. **Education** emerged as a key determinant of success, suggesting that financial literacy programs should be integrated into microfinance initiatives to increase their impact. Additionally, the **regional differences** in the outcomes of microfinance suggest that more attention must be given to local conditions, infrastructure, and the economic environment when designing and implementing microfinance programs.

For policymakers and microfinance institutions, the study recommends a **targeted approach** that considers regional disparities, the educational background of clients, and the appropriate loan sizes to ensure that microfinance programs effectively empower borrowers. Furthermore, expanding financial literacy initiatives and focusing on **client protection** mechanisms will help ensure that microfinance remains a sustainable and ethical tool for poverty alleviation and economic development in India.

In light of these findings, it is clear that while microfinance has achieved considerable success, there remains a need for continued innovation, improved targeting, and enhanced support services to fully realize its potential as a tool for inclusive development.

Recommendations and futures scope

Recommendations

Based on the findings of this study, the following **recommendations** are proposed for improving the effectiveness of microfinance programs in India, particularly in enhancing financial inclusion, promoting sustainable economic empowerment, and increasing the overall impact on poverty alleviation:

Tailor Microfinance Programs to Client Needs

- **Loan Size Customization**: The study highlighted that larger loan amounts were associated with greater income improvement. Microfinance institutions (MFIs) should consider offering more flexible loan sizes based on the needs and business potential of clients. While some individuals may need smaller amounts for consumption needs, others, especially entrepreneurs or farmers, may require larger loans for business expansion. MFIs should assess client needs more accurately during the loan application process to offer the right loan amount that maximizes the borrower's ability to generate income.
- **Loan Products for Diverse Purposes**: Microfinance institutions should diversify their loan products to cater to different sectors, such as agriculture, retail, small-scale manufacturing, and services. Specific loan products designed for entrepreneurs, small farmers, or self-employed individuals can better address the diverse needs of the population served by microfinance.

Integrate Financial Literacy and Capacity Building

- **Financial Education**: The findings showed that clients with higher educational backgrounds were more likely to report income improvements. To bridge this gap, MFIs should incorporate **financial literacy programs** as part of their loan offerings. These programs can help borrowers understand how to use loans effectively, manage finances, budget, and grow their businesses. Providing training on financial planning and basic entrepreneurship can significantly increase the success rate of microfinance clients.
- **Capacity Building Programs**: Along with financial literacy, MFIs should focus on **capacity building**, particularly in business management and income-generating skills. This would help borrowers use microfinance effectively to improve their livelihoods and become more self-sufficient.

Strengthen Monitoring and Support Services

- **Ongoing Support and Guidance**: After disbursing loans, MFIs should offer **continuous support** to borrowers. This could include mentorship, business advisory services, and regular follow-ups to ensure that loans are used effectively and repayments are timely. Building strong relationships between the MFI and the borrower can ensure better monitoring of loan usage and more targeted interventions if challenges arise.
- **Peer Support Systems**: Leveraging the power of community groups, like **Self-Help Groups (SHGs)**, should be encouraged. These groups already provide a peer support network, which has been shown to improve outcomes for borrowers. Expanding the use of SHGs or Joint Liability Groups (JLGs) can provide not only financial support but also a platform for knowledge sharing and mutual assistance among borrowers.

Targeted Microfinance Programs for Women and Vulnerable Groups

- **Focus on Women Empowerment**: The study found that women were the primary beneficiaries of microfinance services. MFIs should continue to focus on empowering women, particularly in rural areas, by offering tailored loan products and support services. Women often face unique challenges in accessing financial services, and microfinance can play a pivotal role in bridging these gaps.
- **Support for Vulnerable Populations**: While women are a priority, MFIs should also pay attention to other marginalized groups, such as **minority communities, persons with**

disabilities, and **rural youth**. Offering customized financial products and services to these groups can foster greater social inclusion and contribute to poverty reduction.

Expand Outreach in Underserved Regions

- **Geographic Expansion**: The study revealed regional disparities in microfinance outcomes, with **South India** reporting better results. MFIs should consider expanding their services to underserved regions, such as the **Eastern and Central regions**, where microfinance penetration is lower. This could involve increasing the number of branches, collaborating with local NGOs, or leveraging digital technologies to provide financial services in remote areas.
- **Digital Microfinance**: To overcome geographic and logistical barriers, MFIs should explore the use of **digital platforms** and **mobile banking** to reach clients in remote areas. Digital microfinance can enhance the accessibility and efficiency of financial services, especially for clients in areas with limited physical infrastructure.

Strengthen Client Protection Mechanisms

- **Responsible Lending Practices**: MFIs should ensure **responsible lending practices**, taking into account the borrower's ability to repay. Over-indebtedness is a significant risk for microfinance clients, especially in cases where loan amounts are too high or repayment schedules are too stringent. MFIs should assess clients' financial capabilities thoroughly before extending loans and provide repayment schedules that align with their income generation cycles.
- **Transparency and Disclosure**: Ensuring that borrowers clearly understand the terms and conditions of their loans is crucial. MFIs should prioritize **transparency** in their operations and ensure that borrowers are well-informed about interest rates, fees, repayment schedules, and other loan-related matters. This will help build trust and improve borrower satisfaction.

Future Scope

While this study provides valuable insights into the role of microfinance in India, there are several areas that warrant further research and exploration in the future:

Longitudinal Studies to Assess Long-Term Impact

- Future research could focus on **longitudinal studies** to assess the long-term effects of microfinance on borrowers' income, quality of life, and overall financial well-being. This would provide a more comprehensive view of how microfinance influences borrowers over an extended period and whether its impacts are sustainable beyond the initial loan cycle.

Comparison of Different Microfinance Models

- While this study found that the **Self-Help Group (SHG) model** was particularly effective, future research could further explore the **comparative effectiveness** of different microfinance models, such as **Microfinance Institutions (MFIs)** and **Joint Liability Groups (JLGs)**, across different regions of India. Understanding which models work best in specific contexts (e.g., urban vs. rural, or for different income groups) could help tailor microfinance programs more effectively.

Exploration of Social Impact beyond Financial Gains

- Future studies could explore the **social impact** of microfinance beyond income improvement, including aspects such as **health**, **education**, and **social empowerment**. Understanding the broader socio-economic impacts of microfinance can provide a more holistic view of its role in poverty alleviation and community development.

Journal of Chemical Health Risks

www.jchr.org

JCHR (2024) 14(6), 516-537 | ISSN:2251-6727

Digital Microfinance and Technological Innovation

- As digital technology continues to grow, there is significant potential for **digital microfinance** to transform financial inclusion in India. Research into how mobile-based platforms, **blockchain**, and other financial technologies can be integrated into microfinance services would be valuable in understanding how to increase access and reduce costs for underserved populations.
- Investigating the **impact of digital platforms** on the accessibility, efficiency, and outreach of microfinance institutions, particularly in remote or underserved areas, would help identify innovative solutions to existing challenges.

Gender-Specific Impacts

- Since women are disproportionately represented as microfinance beneficiaries, future research could examine the **gender-specific impacts** of microfinance on women's empowerment, including changes in **decision-making power**, **social status**, and **participation in the workforce**. Exploring the intersection of microfinance and **gender equality** would help better understand the broader social outcomes of microfinance for women.

Impact of Policy Changes

- The future scope for research could also include an exploration of how **policy changes** in India, such as changes to regulations or government support programs for microfinance, affect the performance and outreach of microfinance institutions. Understanding how external factors influence the success of microfinance can provide insights for policymakers and financial institutions on creating an enabling environment for financial inclusion.

About author

Dr. Reetu Tyagi is an esteemed Assistant Professor at **Methodist Girls P.G. College**, where she has been contributing significantly to the academic development of her students. With a strong academic background and extensive teaching experience, Dr. Tyagi is dedicated to fostering an environment of learning and growth. Her areas of expertise include **Finance and economics** and she is well-regarded for her in-depth knowledge and innovative teaching methods.

Dr. Tyagi is actively involved in research and has contributed to various academic projects and publications. Her passion for education, coupled with her commitment to student success, has earned her the respect of her peers and students alike. Outside of her teaching responsibilities, she is engaged in various educational initiatives and continuously strives to enhance her academic and professional skills. Dr. Tyagi's contributions have made her a valuable member of the academic community at Methodist Girls P.G. College.

References

1. Abed, F H and I Matin (2007): "Beyond Lending: How Microfinance Creates New Forms of Capital to Fight Poverty", Innovations: Technology, Governance Globalisation, Vol. 2, No. 1-2, pp. 3-17.
2. Agarwal, P K and S K Sinha (2010): "Financial Performance of Microfinance Institutions of India: A Cross-sectional Study", Delhi Business Review, Vol. 11, Vol. 2, pp. 37-46.
3. Armendariz, B., & Morduch, J. (2010). *The Economics of Microfinance* (2nd ed.). MIT Press.
4. Arun, T, K Imai and F Sinha (2006): Does the Microfinance Reduce Poverty in India? Propensity Score Matching based on a National-level Household Data, Economics Discussion Paper No. EDP-0625, The University of Manchester, UK, September, pp. 1-6.
5. Ault, J K and A Spicer (2014): "The Institutional Context of Poverty: State Fragility as a Predictor of Cross-national Variation in Commercial Microfinance Lending", Strategic Management Journal, Vol. 35, No. 12, pp. 1818-1838. Accessed from https://www.

scopus.com/inward/record.uri?eid=2-s2.0-84911991522&doi=10.1002%2fsmj.2185&partnerID=40&md5=5b9df633d72ab993fa5deba3e4926a0f.

6. Baland, J M, S Rohini, R and L Vandewalle (2008): "Microfinance Lifespans: A Study of Attrition and Exclusion in Self-Help Groups in India", India Policy Forum, Vol. 4, No. 1, pp. 159-210.
7. Banerjee, A, E Breza, E Duflo and C Kinnan (2019): Can Microfinance Unlock a Poverty Trap for Some Entrepreneurs, Working Paper 26346, National Bureau of Economic Research, Cambridge.
8. Bangoura, L, M K Mbow, A Lessoua and D Diaw (2016): "Impact of Microfinance on Poverty and Inequality A Heterogeneous Panel Causality Analysis", Revued'économie politique, Vol. 126, No. 5, pp. 789-818. Accessed from https://www.scopus.com/ inward/record.uri?eid=2-s2.0-85002560793&doi=10.3917%2fredp.265.0789&partnerID=40&md5=1e19179503a2aab0cfc7ea592488f3ad.
9. Bansal, A K and A Bansal (2012): "Microfinance and Poverty Reduction in India", Integral Review-A Journal of Management, Vol. 5, No. 1, pp. 31-35.
10. Basu, P and P Srivastava (2005): "Exploring Possibilities: Microfinance and Rural Credit Access for the Poor in India", Economic & Political Weekly, Vol. 40, No. 17, pp. 1747-1755.
11. Batra, V and Sumanjeet (2012): "The State of Microfinance in India: Emergence, Delivery Models and Issues", Journal of International Economics, Vol. 3, No. 1, pp. 69-92.
12. Bhoj, S, D Bardhan and A Kumar (2013): "Determinants and Implications of Rural Women's Participation in Microfinance Programme: An Analysis of Dairy Self-help Groups in Uttarakhand State of India", Livestock Research for Rural Development, Vol. 25, No. 10, pp. 1-11.
13. Brook, R M, K J Hillyer and G Bhuvaneshwari (2008): "Microfinance for Community Development, Poverty Alleviation and Natural Resource Management in Peri-urban Hubli-Dharwad, India", Environment and Urbanisation, Vol. 20, No. 1, pp. 149-163. https://www.scopus.com/inward/record.uri?eid=2-s2.0-41049089242&doi=10.1177%2f0956247808089153&partnerID=40&md5=93c42f8c01a81398957f40dbbb15 02ba.
14. Chakrabarti, R and S Ravi (2011): At the Crossroads: Microfinance in India, Money & Finance, Forthcoming, pp. 1-24.
15. Chaudhry, V (2016): Living at the Edge: Disability, Gender, and Neoliberal Debtscapes of Microfinance in India, Affilia: Journal of Women and Social Work, Vol. 31, No. 2, pp. 177-191. Accessed from https://doi.org/10.1177/0886109915622525.
16. Christen, R P (2006): "Microfinance and Sustainability: International Experiences and Lessons for India", Towards a Sustainable Microfinance Outreach in India - Experiences and Perspectives, NABARD, GTZ and SDC, New Delhi, pp. 43-67.
17. Das, P K (2014): "Microfinance - A Tool for Socio-economic Development in Rural India", International Journal of Emerging Research in Management & Technology, Vol. 3, No. 4, pp. 56-60.
18. Deepika, M G and M D Sigi (2014): "Financial Inclusion and Poverty Alleviation: An Alternative State-led Microfinance Model of Kudumbashree in Kerala, India", Enterprise Development & Microfinance, Vol. 25, No. 4, pp. 327-340. Accessed from https://www. scopus.com/inward/record.uri?eid=2-s2.0-85020940953&doi=10.3362%2f1755-1986.2014.030&partnerID=40&md5=29ba2a459c02fcd37b06b3b47893b2b8.
19. Dehem, T and M Hudon (2013): "Microfinance from the Clients' Perspective: An Empirical Enquiry into Transaction Costs in Urban and Rural India", Oxford Development Studies, Vol. 41, Suppl. 1, pp. S117-S132. Accessed from https://www.scopus.com/ inward/record.uri?eid=2-s2.0-84880958432&doi=10.1080%2f13600818.2013.78705 7&partnerID=40&md5=16a6e06c60e8d905c5790555b4aa168c.
20. Devaraja, T S (2011): Microfinance in India - A Tool for Poverty Reduction, Working Paper,

University of Mysore, University Grants Commission of India.
21. Devi, K S, C Prabakar and T Ponnarasi (2011): "Impact of Microfinance Innovation in Pushing Back Rural Poverty in Tamil Nadu", Indian Journal of Agricultural Economics, Vol. 66, No. 3, pp. 429-443. Accessed from https://www.scopus.com/inward/record. uri?eid=2-s2.0-84055217591&partnerID=40&md5=4a6497327cf720995e5d61b601 9d7540.
22. Feigenberg, B, E Field, R Pande, N Rigol and S Sarkar (2014): "Do Group Dynamics Influence Social Capital Gains among Microfinance Clients? Evidence from a Randomized Experiment in Urban India", Journal of Policy Analysis and Management, Vol. 33, No. 4, pp. 932-949. Accessed from https://www.scopus.com/inward/record.uri?eid=2-s2.0-84907868684&doi=10.1002%2fpam.21790&partnerID=40&md5=ecc474ea77461ca8121409299d2100e2.
23. Field, E and R Pande (2008): "Repayment Frequency and Default in Microfinance: Evidence from India", Journal of the European Economic Association, Vol. 6, No. 2-3, pp. 501-509. Accessed from https://www.scopus.com/inward/record.uri?eid=2-s2.0-45849147396&doi=10.1162%2fJEEA.2008.6.2-3.501&partnerID=40&md5=f0550fb273d81c7f3e14d86e4f4ffffd.
24. Ghate, P (2008): Microfinance in India: A State of the Sector Report, 2007, Microfinance India, New Delhi.
25. Ghosh, R (2005): Microfinance in India: A Critique. Available at SSRN: https://ssrn.com/abstract=735243 or http://dx.doi.org/10.2139/ssrn.735243
26. Gokhale, K (2009): "As Microfinance Grows in India, So Do Its Rivals", The Wall Street Journal, New York.
27. Guha, S (2007): Impact of Competition on Microfinance Beneficiaries: Evidence from India, Asia Research Centre Working Paper 21, London School of Economics & Political Science, London.
28. Holvoet, N (2005): "The Impact of Microfinance on Decision-Making Agency: Evidence from South India", Development and Change, Vol. 36, No. 1, pp. 75-102. Accessed from https://www.scopus.com/inward/record.uri?eid=2-s2.0-17744400693&doi=10.1111%2fj.0012-155X.2005.00403.x&partnerID=40&md5=b71652544bad4a561141ad75a811deda.
29. Imai, K S, R Gaiha, G Thapa and S K Annim (2012): "Microfinance and Poverty – A Macro Perspective", World Development, Vol. 40, No. 8, pp. 1675-1689.
30. Jones M V, N Coviello and Y K Tang (2011): "International Entrepreneurship Research (1989-2009): A Domain Ontology and Thematic Analysis", Journal of Business Venturing, Vol. 26, No. 6, pp. 632-659.
31. Kalpana, K (2016): Women, Microfinance and the State in Neo-liberal India, Routledge India, London.
32. Karmakar, K G (2008): "Microfinance Revisited", in Microfinance in India (Ed.), pp. 33-54, SAGE Publications, New Delhi.
33. Kaur, P (2014): "Outreach and Sustainability of Microfinance Institutions in India in Pre and Post Andhra Pradesh Microfinance Crisis in Context of South Asia", Global Journal of Finance and Management, Vol. 6, No. 6, pp. 569-574.
34. Kaur, P and S Dey (2013): "Andhra Pradesh Microfinance Crisis and its Repercussions on Microfinancing Activities in India", Global Journal of Management and Business Studies, Vol. 3, No. 7, pp. 695-70
35. Khandker, S. R. (2005). *Microfinance and Poverty: Evidence Using Panel Data from Bangladesh*. World Bank Policy Research Working Paper No. 2945.
36. Kraus, S, M Filser, M O'Dwyer and E Shaw (2014): "Social Entrepreneurship: An Exploratory Citation Analysis", Review of Managerial Science, Vol. 8, No. 2, pp. 275-292.
37. Kumar, N and R Sensarma (2017): "Efficiency of Microfinance Institutions in India: A Stochastic Distance Function Approach", Journal of Emerging Market Finance, Vol. 16, No. 1, pp. 151-168. Accessed from DOI: 10.1177/0972652717712372, https://www. scopus.com/inward/record.uri?eid=2-

s2.0-85026366957&doi=10.1177%2f09726527 17712372&partnerID=40&md5=c3137b26674378 f8f3ef96bd1288e6f6.

38. Lacalle-Calderon, M, M Perez-Trujillo and I Neira (2018): "Does Microfinance Reduce Poverty among the Poorest? A Macro Quantile Regression Approach", The Developing Economies, Vol. 56, No. 1, pp. 51-65. Accessed from https://www.scopus.com/inward/ record.uri?eid=2-s2.0-85042278473&doi=10.1111%2fdeve.12159&partnerID=40&md 5=667bcb9c2e693904cf9283de75227e0d.
39. Laha, A and P K Kuri (2014): "Measuring the Impact of Microfinance on Women Empowerment: A Cross Country Analysis with Special Reference to India", International Journal of Public Administration, Vol. 37, No. 7, pp. 397-408. Accessed from https://www.scopus.com/inward/record.uri?eid=2-s2.0-84901068323&doi=1 0.1080%2f01900692.2013.858354&partnerID=40 &md5=4f3fba0b700788e969c2e9 c9ec374075.
40. Lahiri, S., & Rathi, A. (2012). *Financial Inclusion and Poverty Reduction: The Role of Microfinance in India*. Journal of Financial Inclusion, 4(1), 55–70.
41. Mader, P (2013): "Explaining and Quantifying the Extractive Success of Financial Systems: Microfinance and the Financialisation of Poverty", Economic Research, Vol. 26 (sup1), pp. 13-28. Accessed from https://www.scopus.com/inward/record.uri?eid=2-s2.0-84929660734&doi=10.1080%2f1331677X.2013.1 1517637&partnerID=40&md5=971e c95bce96d887b62b698ee36e8bc9.
42. Mago, S (2014): "Microfinance and Poverty Alleviation: An Empirical Reflection", The Journal of Asian Finance, Economics, and Business, Vol. 1, No. 2, pp. 5-13.
43. Mahajan, V and T Navin (2013): "Microfinance in India: Lessons from the Andhra Crisis", Microfinance 3.0, Springer, Berlin, Heidelberg, pp. 1-12. Accessed from https://www. scopus.com/inward/record.uri?eid=2-s2.0-84930586983&doi=10.1007%2f978-3- 642-41704-7_1&partnerID=40&md5=3d30703307c34e7f19fb f5101897cda1.
44. Mahapatra, M S and S Dutta (2016): "Determinants of Sustainability of Microfinance Sector in India", Journal of Rural Development, Vol. 35, No. 3, pp. 507-522. Accessed from https://www.scopus.com/inward/record.uri?eid=2-s2.0-85046906374&partne rID=40&md5=c0d10bddeb7df1568288585678534 2e1.
45. Manoj, P K (2010): "Prospects and Problems of Housing Microfinance in India: Evidence from 'Bhavanashree' Project in Kerala State", European Journal of Economics, Finance and Administrative Sciences, Vol. 19, No. 19, pp. 178-194. Accessed from https://www. scopus.com/inward/record.uri?eid=2-s2.0-77953982848&partnerID=40&md5=9f3d cb5709e40f6138c4a5a4769556fb
46. Misra, A (2006): Micro Finance in India and Millennium Development Goals: Maximising Impact on Poverty, Discussion Paper for Workshop on World Bank, Victoria University of Wellington, New Zealand.
47. Nair, A (2005): Sustainability of Microfinance Self-Help Groups in India: Would Federating Help?, Policy Research Working Paper 3516, World Bank, Washington, D.C.
48. Narwal, K P and M K Yadav (2014): "Impact of Characteristics on Outreach and Profitability of Microfinance Institution in India", International Journal of Financial Management, Vol. 4, No. 3, pp. 50-57.
49. Nilakantan, R, S C Datta, P Sinha and S K Datta (2013): "The Impact of Microfinance on Women Empowerment: Evidence from Eastern India", International Journal of Development and Conflict, Vol. 3, No. 1, pp. 27-40.
50. Panda, D K (2008): "Self-help through Microfinance: A Paradigm Shift in Orissa, India", International Journal of Rural Studies, Vol. 15, No. 1, pp. 1-7.
51. Pati, A P (2012): "Regulation versus Outreach and Sustainability: A Study of the Performance of Microfinance Institutions in India", IUP Journal of Bank Management, Vol. 11, No. 4, pp. 41-56.

52. Pati, A P (2015): “Are Regulatory Micro Finance Institutions Better Off Than Non-Regulatory Ones? A Comparison of Performance and Sustainability”, Paradigm, Vol. 19, No. 1, pp. 21-36.
53. Pokhriyal, A K and V Ghildiyal (2011): “Progress of Microfinance and Financial Inclusion: A Critical Analysis of SHG-Bank Linkage Program in India”, International Journal of Economics and Finance, Vol. 3, No. 2, pp. 255-262.
54. Priyadarshee, A and A K Ghalib (2011): The Andhra Pradesh Microfinance Crisis in India: Manifestation, Causal Analysis, and Regulatory Response, Brooks World Poverty Institute Working Paper 157, University of Manchester, UK.
55. Radhakrishnan, S (2018): “Empowerment, Declined: Paradoxes of Microfinance and Gendered Subjectivity in Urban India”, Journal of Women in Culture and Society, Vol. 44, No. 1, pp. 83-105.
56. Rai, A and S Ravi (2011): “Do Spouses Make Claims? Empowerment and Microfinance in India”, World Development, Vol. 39, No. 6, pp. 913-921. Accessed from https://www. scopus.com/inward/record.uri?eid=2-s2.0-79956070509&doi=10.1016%2fj.worldde v.2009.10.019&partnerID=40&md5=37d270c8d5 23c59dd5fcf96f4b873799.
57. Ranjani, K S (2012): “Regulating Microfinance Institutions in India: A Conceptual Framework”, Synergy, Vol. 10, No. 1, K J Somaiya Institute of Management Studies & Research, Mumbai.
58. Reddy, C S and S Manak (2005): Self-Help Groups: A Keystone of Microfinance in India – Women Empowerment & Social Security, Andhra Pradesh Mahila Abhivruddhi Society (APMAS), Hyderabad.
59. Rural Development Ministry. (2012). *Microfinance and Financial Inclusion: The Indian Experience*. Ministry of Rural Development, Government of India.
60. Sahu, G B (2015): “How Effective is a Self-Help Group Led Microfinance Programme in Empowering Women? Evidence from Rural India”, Journal of Asian and African Studies, Vol. 50, No. 5, pp. 542-558. Accessed from https://www.scopus.com/inward/ record.uri?eid=2-s2.0-84958241722&doi=10.1177%2f00219096145482 39&partnerID =40&md5=587fa9e18d02732dce936bccec687690
61. Samanta, G (2009): “Microfinance and Women: Gender Issues of Poverty Alleviation and Empowerment”, The Microfinance Review, Vol. 1, No. 1, pp. 100-120.
62. Sharma, G L and H Puri (2013): “An Empirical Testing of Relationship between Microfinance and Economic Growth in India”, Journal of Indian Research, Vol. 1, No. 2, pp. 87-94.
63. Shetty, N K (2008): The Microfinance Promise in Financial Inclusion and Welfare of the Poor: Evidence from Karnataka, India, Working Papers, Institute for Social and Economic Change, Bangalore.
64. Shetty, N K (2009): “Index of Microfinance Group Sustainability: Concepts, Issues and Empirical Evidence from Rural India”, The Microfinance Review, Vol. 1, No. 1, pp. 131- 152.
65. Sinha, F (2009): State of Microfinance in India, Institute of Microfinance (InM), Project on State of Microfinance in SAARC Countries.
66. Smitha, R (2018): “Empowerment, Declined: Paradoxes of Microfinance and Gendered Subjectivity in Urban India”, Signs Journal of Women in Culture and Society, Vol. 44, No. 1, pp. 83-105.
67. Srinivasan, N (2011): Microfinance India: State of the Sector Report 2011, Microfinance in India (MFI), Sage Publications, New Delhi.
68. Sriram, M. S. (2016). *Self-Help Groups in India: A Success Story*. Economic and Political Weekly, 51(4), 42–49.
69. Taylor, M (2011): “Freedom from Poverty is Not for Free: Rural Development and the Microfinance Crisis in Andhra Pradesh, India”, Journal of Agrarian Change, Vol. 11, No. 4, pp. 484-504. Accessed from https://www.scopus.com/inward/record.uri?eid=2-s2.0-80053079616&doi=10.1111%2fj.1471-0366.2011.00330.x&partnerID=40&md5= 7062a92da64bdf0dde7a29e3a7c57ab8.
70. Twaha, K and A Rashid (2012): “Exploring the Determinants of the Productivity of Indian Microfinance Institutions”, Theoretical and Applied Economics, Vol. 20, No. 12, pp. 83-96.

71. Vaismoradi, M, H Turunen and T Bondas (2013): "Content Analysis and Thematic Analysis: Implications for Conducting a Qualitative Descriptive Study", Nursing and Health Sciences, Vol. 15, No. 3, pp. 398-405.
72. Vassallo, J P, J C Prabhu, S Banerjee and R Voola (2019): "The Role of Hybrid Organizations in Scaling Social Innovations in Bottom-of-the-Pyramid Markets: Insights from Microfinance in India", Journal of Product Innovation Management, Vol. 36, No. 6, pp. 744-763.
73. World Bank. (2017). *The Global Findex Database 2017: Measuring Financial Inclusion and the Fintech Revolution*. World Bank Group.
74. Yadav, R K (2014): "Significance of Microfinance Institutions in Rural Development of India", International Letters of Social and Humanistic Sciences, Vol. 21, pp. 84-90.
75. Young, S (2010): "The 'Moral Hazards' of Microfinance: Restructuring Rural Credit in India", Antipode, Vol. 42, No. 1, pp. 201-223. Accessed from https://www. scopus.com/inward/record.uri?eid=2-s2.0-74949107513&doi=10.1111%2fj.1467-8330.2009.00737.x&partnerID=40&md5=034ba82873ad6ab9c7a0b35ed9d889a9.
76. Zhang, Q (2017): "Does Microfinance Reduce Poverty? Some International Evidence", The B.E. Journal of Macroeconomics, Vol. 17, No. 2, pp. 1-13. Accessed from https://www. scopus.com/inward/record.uri?eid=2-s2.0-85029227385&doi=10.1515%2fbejm2016-0011&partnerID=40&md5=b833dafe56ca71bc6942c171bf00e289.