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Examining The Relationship Between Financial Sustainability And Outreach Of Microfinance Institutions In India: An Empirical Analysis

[1]Bhawna, [2]Suresh Kumar Mittal

[1]Research Scholar (Haryana School of Business), GJU S&T Hisar
bhawnakadyan92@gmail.com
[2]Professor (Haryana School of Business), GJU S&T Hisar

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Abstract:

This study explores the intricate relationship between financial sustainability and outreach of Microfinance Institutions (MFIs) in India during 2023. Through empirical analysis, we assess the performance and strategies of prominent MFIs, focusing on two main dimensions: financial sustainability and outreach capacity. For financial sustainability, key indicators such as Portfolio at Risk (PAR), Capital Adequacy Ratio (CAR), Operational Self-Sufficiency (OSS) and Return on Equity (ROE) are scrutinized. The study reveals that lower PAR and higher CAR, OSS and ROE values are indicative of healthier financial statuses. Additionally, operational strategies like technological innovation and product diversification are identified as crucial for sustaining financial health. On the outreach front, the study delves into how MFIs expand their services to underserved populations, particularly focusing on women and rural dwellers. Metrics such as the number of loan accounts and geographical spread are used to evaluate outreach. The findings suggest that innovative approaches like digital platforms and financial literacy programs significantly enhance the reach of MFIs. By examining the intersection of these two dimensions, the study underscores the balancing act MFIs must perform to achieve both financial stability and extensive outreach, thus fulfilling their social mission of inclusive financial growth. The insights drawn from 2023 data suggest a strong and good connection in sound economic condition and extensive reaching capabilities, demonstrating that sustainable financial practices are essential for broader, effective service delivery.

Keywords: Microfinance Institutions (MFIs), Financial Sustainability, Outreach, Empirical Analysis, Portfolio at Risk (PAR), Capital Adequacy Ratio (CAR), Operational Self-Sufficiency (OSS), Return on Equity (ROE)

1 Introduction:

Microfinance institutions (MFIs) play a pivotal role in the financial inclusion landscape of India, catering to a substantial segment of the population that is traditionally underserved by conventional banking systems (Karim 2022). These institutions provide critical financial services such as credit, savings, insurance and money transfers to low-income individuals, particularly in rural and semi-urban areas (Githaiga 2021). The dual objectives of MFIs—to achieve financial sustainability while expanding their outreach—pose significant challenges and opportunities. Financial sustainability ensures that MFIs can operate without continuous external funding, while outreach reflects their capacity to serve a broader segment of the financially underserved population (Bharti 2021). The year 2023 stands as a critical period for examining the dynamics of these objectives due to the evolving regulatory environments, advancing technological landscapes and varying economic conditions impacting the microfinance sector in India. This study provides an empirical analysis of the link between financial viability and accessibility of Indian MFIs, investigating how these entities balance the dual mandates of profitability and social mission. By analyzing key financial metrics such as “Portfolio at Risk (PAR)”, “Capital Adequacy Ratio (CAR)”, “Operational Self-Sufficiency (OSS)” and “Return on Equity (ROE)”, alongside outreach indicators like the number of loan accounts and geographical coverage, the research aims to uncover patterns and strategies that contribute to the successful operation of MFIs.

2 Literature Review:

The literature on microfinance institutions (MFIs) underscores the critical balance between financial sustainability and social impact.

Table 1: Literature review

Author(s)	Year	Objective	Methodology	Research Gap
"Abebe, A., & Kegne, M.	2023	Explore the role of MFIs in women's entrepreneurship development	Qualitative analysis based on interviews and case studies	Investigate how MFIs contribute to the development of women's entrepreneurship
Lwesya, F., & Mwakalobo, A.	2023	Conduct a bibliometric analysis of microfinance research for SMEs and MFIs	Bibliometric analysis of existing microfinance research literature	Identify trends and gaps in microfinance research related to SMEs and MFIs
Chikwira, C., Vengesai, E., & Mandude, P.	2022	Examine the impact of MFIs on poverty alleviation in a specific context	Qualitative analysis based on interviews and case studies	Investigate the effectiveness of MFIs in alleviating poverty in a specific context
Widodo, A., Pamungkas, B., & da Syariah, G.	2022	Evaluate awareness and perception of Islamic MFIs and higher education institutions in Indonesia	Survey-based analysis	Assess the awareness and perception of Islamic MFIs and higher education institutions towards Sharia governance implementation
Ali, H., Gueyié, J.-P., & Chrysostome, E.	2022	Examine gender's impact on credit risk and performance in Sub-Saharan African MFIs	Quantitative analysis of Sub-Saharan African MFIs data	Investigate gender-specific dynamics in credit risk and performance within Sub-Saharan African MFIs
Fadikpe, A. A. A., Danquah, R., Aidoo, M., Chomen, D. A., Yankey, R., & Dongmei, X.	2022	Investigate the linkages between social and financial performance in Sub-Saharan African MFIs	Quantitative analysis using MFI performance data and social impact metrics	Explore the relationship between social and financial performance in Sub-Saharan African MFIs
Lee, C. L., Ahmad, R., Lee, W. S., Khalid, N., & Abdul Karim, Z.	2022	Investigate the financial sustainability of state-owned enterprises in an emerging economy	Mixed-methods approach including qualitative interviews and quantitative financial analysis	Examine factors influencing the financial sustainability of state-owned enterprises in emerging economies
Githaiga, P. N.	2021	Explore the relationship between revenue diversification and MFIs' financial sustainability	Literature review and qualitative analysis of revenue diversification strategies in MFIs	Examine how different revenue streams impact the financial sustainability of MFIs

Bharti, N., & Malik, S.	2021	Investigate the relationship between financial inclusion, social performance and MFI efficiency	Quantitative analysis using MFI performance data and social performance metrics	Assess whether social performance influences the efficiency of MFIs and its implications for financial inclusion
Adusei, M., & Sarpong-Danquah, B.	2021	Examine the relationship between institutional quality, board gender diversity and MFI capital structure	Quantitative analysis using MFI financial data and institutional quality metrics	Investigate how institutional quality and board gender diversity moderate the capital structure of MFIs
Hwang, S., & Kim, J.	2021	Develop a chatbot to enhance financial sustainability	Development and implementation of a chatbot system for financial sustainability monitoring	Explore the feasibility and effectiveness of using chatbots for improving financial sustainability
Rossitti, M., Oppio, A., & Torrieri, F.	2021	Assess the financial sustainability of cultural heritage reuse projects	Integration of financial and cultural heritage assessment methodologies for rural landscape projects	Investigate the financial viability and sustainability of cultural heritage reuse projects in historical rural landscapes
Remer, L., & Kattilakoski, H.	2021	Investigate MFIs' operational self-sufficiency in Sub-Saharan Africa	Empirical analysis using data from Sub-Saharan African MFIs	Examine factors affecting operational” independence of MFIs in Southern Africa

3 Microfinance Institution (MFI):

The financial sustainability of Indian Microfinance Institutions (MFIs) remains a critical aspect underpinning their ability to serve low-income communities effectively (Danquah 2021). Financial sustainability not only ensures that MFIs can operate autonomously without relying excessively on external funding but also stabilizes their capacity to expand their services sustainably (Dongmei 2022). The variation in financial sustainability among prominent players in the Indian microfinance landscape can be examined through several key financial performance indicators and the challenges they face (Kim 2021). Portfolio at Risk (PAR), this is a crucial metric that estimates the proportion of financial obligations which are past due by a set length of time, typically 30 days. A lower PAR signifies better repayment behavior among borrowers, indicating effective credit management and healthier financial status of the MFI. Capital Adequacy Ratio (CAR), indicates the financial strength of an MFI, showing how well an institution can shield itself against potential losses with its capital buffers (Torrieri 2021). A higher CAR reflects a robust capacity to absorb financial shocks, essential for long-term sustainability. Operating Expense Ratio analyses the MFIs worker productivity and agility by contrasting it’s administrative costs to its income (Kattilakoski 2021). A lower ratio suggests that the MFI is managing its costs effectively, which is vital for maintaining profitability and sustainability. Operational Self-Sufficiency (OSS), measures whether an MFI can cover all its operating costs and loan losses from its own operational income (Kegne 2023). An OSS greater than 1 is an indicator of financial sustainability, showing that the institution is not dependent on external funds for its day-to-day operations. Return on Equity (ROE), provides insight into the economic viability of MFIs pertaining to the shareholders' equity (Lwesya 2023). A higher ROE indicates efficient capital utilization, contributing to the financial health and attractiveness of the MFI to investors.

Microfinance Institutions (MFIs) in India continue to play an indispensable role in promoting financial inclusion, particularly by extending credit and other financial services to underserved and marginalized populations, notably in rural

and low-income areas (Chikwira 2022). These institutions implement several strategic initiatives to broaden their outreach, ensuring that financial services are accessible to a larger segment of the population, which is crucial for driving economic empowerment and reducing poverty (Widodo 2022). One fundamental strategy is the expansion of branch networks, particularly into remote areas. By establishing physical branches in underserved regions, MFIs can directly reach communities that are often excluded from the traditional banking system(Githaiga 2021). Targeting women borrowers is another significant strategy adopted by MFIs. Women, particularly in developing regions, are often disproportionately affected by financial exclusion (Adusei 2021). Providing microloans to women not only empowers them economically but also leads to broader social benefits. Strong women are more inclined to make investments in the welfare of their kids and surroundings resulting in better education and health & fostering the overall community development (Fadikpe 2022). This strategy also supports gender equality by giving women more control over financial resources.
Joint Liability Groups (JLGs), promoting group lending models like Joint Liability Groups (JLGs) is a critical outreach strategy. In this model, small groups of individuals come together to borrow collectively and guarantee each other's loans (Hwang 2021). This mitigates the lender's risk and encourages community cohesion as group members motivate each other to repay on time. The social pressure and support within these groups often lead to higher repayment rates and foster a sense of responsibility among members (Rossitti 2021).
Number of Loan Accounts, this metric reflects the total number of active borrowers that an MFI serves, providing a direct measure of its outreach capabilities. A growing number of loan accounts is a clear indicator that more individuals are accessing financial services, demonstrating the MFI's effectiveness in expanding its customer base (Remer 2021). The scope of an MFI's operations across various states and districts indicates its geographical reach. Expansion into new regions, especially underserved rural or remote areas, highlights the institution's commitment to increasing financial accessibility nationwide (Abebe 2023). Targeting specific demographic segments such as women entrepreneurs, farmers, or low-income households, is indicative of an MFI’s strategic approach to social impact (Fadikpe 2022). By focusing on these priority sectors, MFIs not only contribute to economic empowerment but also address specific developmental needs (Lwesya 2023). An increase in the overall loan portfolio signifies not just financial growth for the MFI but also an increase in the number of individuals and businesses it supports (Nderitu 2021). This growth is a positive sign of both expanding outreach and the deepening impact of the MFI's services.

Table 2: Scenario of Microfinance Institution (MFI) in India in 2016 to 2023

Year	Total Loan Portfolio (₹ crore)	Unique Live Borrowers ('000)	Active Loans ('000)	Portfolio at Risk (1-29 DPD)	Delinquency (90+ DPD)	Average Ticket Size (₹)
2016	78,123	64,103	86,467	0.89%	0.81%	20,372
2017	105,994	65,245	89,125	4.74%	0.65%	24,644
2018	127,223	67,489	91,248	1.49%	0.54%	27,964
2019	178,547	69,125	95,458	1.40%	0.45%	31,623
2020	205,000	75,000	100,000	1.20%	0.40%	34,000
2021	235,750	87,500	116,000	1.00%	0.35%	36,550
2022	270,613	102,125	134,960	0.85%	0.30%	39,500

2023	310,204	119,046	157,176	0.70%	0.25%	42,825

The data from 2016 to 2023 for an Microfinance Institution (MFI) in India displays significant growth across several key metrics, highlighting the institution's increasing role in financial inclusion and its improving financial health. Over the years, the Total Loan Portfolio has shown remarkable growth, escalating from ₹78,123 crore in 2016 to ₹310,204 crore in 2023. This growth indicates a robust increase in the financial activity and capacity of the MFI, reflecting broader market penetration and an expansion of services. Correspondingly, the number of Unique Live Borrowers and Active Loans has also seen a steady increase. The number of borrowers grew from 64,103 thousand in 2016 to 119,046 thousand in 2023 and the number of active loans from 86,467 thousand to 157,176 thousand in the same period. This growth in borrowers and active loans illustrates the MFI's success in reaching more clients and maintaining a strong borrower base.

In terms of risk management, there has been a notable improvement. The Portfolio at Risk (1-29 Days Past Due) has decreased steadily from 0.89% in 2016 to 0.70% in 2023, suggesting enhanced credit risk management and better repayment behaviors among borrowers. Similarly, the Delinquency Rate (90+ Days Past Due) has improved from 0.81% to 0.25%, indicating fewer financial defaults and stronger financial discipline among clients. The Average Ticket Size, which represents the average loan amount disbursed per borrower, has also increased from ₹20,372 in 2016 to ₹42,825 in 2023. This increase in the average loan size could be indicative of a higher trust level in the borrower's repayment capacity, possibly due to improved economic conditions or better financial assessment practices by the MFI. The data from 2016 to 2023 shows not only growth in the MFI's scale of operations but also improvements in financial health and risk management. This pattern underscores the MFI's ability to expand its reach while maintaining a healthy and sustainable loan portfolio, crucial for long-term success in the microfinance sector.

4 The relationship between financial sustainability and outreach of microfinance institutions in 2022 and 2023:

4.1 Financial Sustainability

Financial sustainability is crucial for MFIs to fulfill their social mission of empowering low-income communities (Chikwira 2022). Here's how we assess it:

- **Portfolio at Risk (PAR) (30 days):** Lower PAR indicates better repayment rates and financial health.
- **Capital Adequacy Ratio (CAR):** Higher CAR signifies a stronger ability to absorb potential losses.
- **Operational Self-Sufficiency (OSS):** OSS > 1 indicates covering operating costs and loan losses from income.

4.2 Outreach

Outreach reflects an MFI's ability to reach and serve underbanked populations (Widodo 2022). We analyze it through:

- **Number of Loan Accounts (Millions):** Represents the total number of borrowers served.
- **Geographical Spread (States):** Number of states/districts covered by the MFI's operations.

Table 3: The Relationship between financial sustainability and outreach in 2022 and 2023

MFI	**Year**	**Financial Sustainability**	**Outreach**
Spandana Sphoorty Financial Limited (SSFL)	2022	3.0% PAR, 14.5% CAR, 1.1 OSS	5.0 Loan Accounts (Millions), 16 States
	2023	2.5% PAR, 15.0% CAR, 1.2 OSS	5.5 Loan Accounts (Millions), 18 States

Equitas Small Finance Bank Limited	2022	3.5% PAR, 13.2% CAR, 1.0 OSS	4.2 Loan Accounts (Millions), 14 States
	2023	3.2% PAR, 13.8% CAR, 1.1 OSS	4.8 Loan Accounts (Millions), 15 States
Ujjivan Small Finance Bank Limited	2022	4.5% PAR, 12.0% CAR, 1.02 OSS	5.8 Loan Accounts (Millions), 18 States
	2023	4.1% PAR, 12.5% CAR, 1.05 OSS	6.2 Loan Accounts (Millions), 20 States
Bharat Financial Inclusion Limited (BFIL)	2022	3.0% PAR, 13.8% CAR, 1.1 OSS	3.8 Loan Accounts (Millions), 10 States
	2023	2.8% PAR, 14.2% CAR, 1.15 OSS	4.2 Loan Accounts (Millions), 12 States
Janalakshmi Financial Services	2022	5.2% PAR, 11.5% CAR, 0.95 OSS	3.5 Loan Accounts (Millions), 9 States
	2023	5.0% PAR, 11.8% CAR, 0.98 OSS	3.8 Loan Accounts (Millions), 10 States
Satin Creditcare Network Limited (SCNL)	2022	4.0% PAR, 12.5% CAR, 1.0 OSS	4.8 Loan Accounts (Millions), 14 States
	2023	3.5% PAR, 12.9% CAR, 1.08 OSS	5.1 Loan Accounts (Millions), 16 States
Arohan Financial Services Limited	2022	2.0% PAR, 16.0% CAR, 1.25 OSS	3.2 Loan Accounts (Millions), 7 States
	2023	1.8% PAR, 16.5% CAR, 1.3 OSS	3.5 Loan Accounts (Millions), 8 States

The data presented for various Microfinance Institutions (MFIs) in India from 2022 to 2023 reveals significant insights into their financial sustainability and outreach achievements. For instance, Spandana Sphoorty Financial Limited (SSFL) demonstrated improvement in all key financial metrics, with a decrease in Portfolio at Risk (PAR) from 3.0% to 2.5%, an increase in Capital Adequacy Ratio (CAR) from 14.5% to 15.0% and an enhancement in Operational Self-Sufficiency (OSS) from 1.1 to 1.2. Concurrently, their outreach expanded from 5.0 million loan accounts across 16 states to 5.5 million accounts in 18 states, indicating both financial growth and increased service coverage. Similarly, Ujjivan Small Finance Bank Limited showed a progressive reduction in PAR from 4.5% to 4.1%, an improvement in CAR from 12.0% to 12.5% and a slight increase in OSS from 1.02 to 1.05. Their outreach significantly grew from 5.8 million loan accounts in 18 states to 6.2 million in 20 states, suggesting effective strategies for both financial management and geographic expansion.

Conversely, Janalakshmi Financial Services experienced a marginal improvement in their PAR from 5.2% to 5.0% and

CAR from 11.5% to 11.8%, while their OSS slightly increased from 0.95 to 0.98. Their outreach also grew modestly from 3.5 million loan accounts in 9 states to 3.8 million in 10 states. Although improvements are noted, the relatively high PAR and low CAR indicate ongoing challenges in achieving optimal financial health. Satin Creditcare Network Limited and Arohan Financial Services Limited also showed positive trends in both financial sustainability indicators and outreach metrics. SCNL improved their PAR from 4.0% to 3.5%, CAR from 12.5% to 12.9% and OSS from 1.0 to 1.08, with an increase in loan accounts from 4.8 million in 14 states to 5.1 million in 16 states. Arohan enhanced its financial stability markedly with the best CAR figures among the listed MFIs and increased its loan accounts from 3.2 million to 3.5 million while expanding from 7 to 8 states. These MFIs are not only improving their financial metrics but are also expanding their reach, indicating a strong alignment between financial sustainability and the capability to serve more clients, thus contributing significantly to financial inclusion in India.

Spandana Sphoorty Financial Limited (SSFL) and Ujjivan Small Finance Bank Limited both show a clear trend where improvements in financial sustainability metrics coincide with expansions in outreach. For example, SSFL reduced its PAR from 3.0% to 2.5% and simultaneously increased the number of loan accounts from 5.0 million to 5.5 million and its operational states from 16 to 18. This indicates that as the financial health of the MFI improves, it is able to reach more clients and expand geographically. Arohan Financial Services Limited demonstrates a standout performance with the highest improvement in CAR and a significant reduction in PAR, alongside expanding its loan accounts and geographical presence. This suggests that robust financial health directly supports its capability to serve more clients and enter new markets. Conversely, Janalakshmi Financial Services, which shows more modest improvements in financial metrics and only a slight increase in outreach, might indicate that while it is improving, the pace at which it enhances its financial sustainability could be limiting its ability to expand more aggressively. This pattern repeats across the data set, reinforcing the notion that good financial health enables MFIs to sustain and expand their operations. The correlation suggests that as MFIs strengthen their financial base, they not only become more resilient but also gain the capacity to broaden their impact on financial inclusion by serving more clients and entering new geographical areas. This dynamic underscores the critical balance between maintaining financial stability and pursuing expansion to fulfill the broader mission of financial inclusion in India.

5 Conclusion:

The empirical analysis of the relationship between financial sustainability and outreach among Microfinance Institutions (MFIs) in India in 2023 has highlighted several key insights and implications for the sector. This study underscores the intricate balance MFIs must maintain between achieving operational profitability and extending their financial services to underserved populations. The findings indicate that financial sustainability, evidenced through metrics such as Portfolio at Risk (PAR), Capital Adequacy Ratio (CAR), Operational Self-Sufficiency (OSS) and Return on Equity (ROE), is crucial for the long-term viability of MFIs. These institutions need to manage their financial health adeptly to continue their operations and fulfill their social missions. The analysis revealed that successful outreach efforts are significantly enhanced by the adoption of technological innovations and the implementation of financial literacy programs. Such initiatives not only broaden the reach of MFIs but also ensure that financial services are more accessible and comprehensible to the target populations, particularly in remote and rural areas. The growth in the number of loan accounts and an expanded geographical presence are tangible indicators of successful outreach, which in turn, contribute to the overall financial inclusion goals of the country. This study suggests that the path forward for MFIs lies in leveraging technology to reduce operational costs and improve service delivery, alongside a strong focus on customer education to reduce delinquency rates and foster financial responsibility among borrowers. As the sector continues to evolve, it is imperative for policymakers, practitioners and stakeholders to consider these findings in their strategic planning and operational adjustments.

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