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THE MICROFINANCE REVIEW

Journal of the

Centre for Research on Financial Inclusion and Microfinance (CRFIM)

(formerly Centre for Microfinance Research)

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- ★ Does the Current Microfinance needs a relook?
- ★ Microfinance for Women-led Sustainable Enterprises: Innovations, Opportunities & Challenges

July - December 2024

BANKERS INSTITUTE OF RURAL DEVELOPMENT
(An Autonomous Society promoted by NABARD)
LUCKNOW, INDIA
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THE MICROFINANCE REVIEW

Aims and Objectives

The aim of the Journal is to promote studies on issues related to the financial inclusion and microfinance sectors in India and abroad in order to sensitise the policy makers, donors, researchers and others who are associated with the sectors. The journal proposes to identify key problems and encourage debate on financial inclusion and issues such as socio-economic empowerment, institutional arrangements and innovations in microfinance products with special focus on rural stakeholders.

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Addressing Fault-lines in MFIs: Issues, Concerns and the Roadmap Ahead

– Athar Imam Raza* and Manoranjan Sharma**

Abstract

In the last three decades, microfinance has created a silent revolution in rural India and significantly improved the lives of the people at the 'bottom of the pyramid', who are under-banked, but by no means un-bankable. This paper examines the rapid spread and outreach of microfinance, a diverse lending ecosystem, and the performance of the microfinance institutions (MFIs) in terms of the gross loan portfolio (GLP), unique borrowers, and loan accounts. The analysis revealed rapid growth in terms of loans disbursed by banks and financial institutions to MFIs stemmed from changing regulatory reforms, mass adoption of UPI based payments, developments in small finance banks, and synchronised initiatives by the government and regulatory authorities. There are, however, persisting challenges of lack of formal credit history, high outreach costs in remote areas, high indebtedness, low digital and financial literacy, customer data protection and data privacy, and strategic and credit risks. There are also real and worrisome concerns of over-leveraged borrowers and overlapping credit exposures leading to rising delinquencies.

Microfinance sector must harmonize its dual objectives of growth and stability. The sector must place primacy on borrower-centric approaches, fostering innovation, strengthening risk management, providing financial education, diversifying loan products, exploring alternative funding sources, developing internal capacity, and policy changes.

1. Introduction

Microfinance refers to providing financial services, including small-value loans, to households, small businesses, and entrepreneurs who lack access to formal banking services. Microfinance aims to help empower people who lack access to traditional banking services (Malik *et al.*, 2023) and to promote economic development at the grassroots level (Kitty, 2003; Sharma 2004). Microfinance goes well beyond micro-credit

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(micro loans); it also includes micro insurance, micro savings and micro pensions. In other words, these people at the bottom of the pyramid are under-banked, but by no means un-bankable (Sharma, 2000a, b and 2006b). It is thus an effective tool for financial inclusion, enabling a significant section of the population comprising the poor, the marginalised and the relatively unbanked to achieve social equity and empowerment.

Broadly, two different bank-led approaches, namely, the Self-Help Groups-Bank Linkage Programme (SHG-BLP) and the Microfinance Institution (MFI), are used in India for extending microfinance services (Nagayya and Rao, 2016). This approach fosters a sense of community and mutual support, particularly for women (Gupta, 2004; Sharma, 2000c), and it helps to reduce the risk for the lender.

The diversity of the microfinance sector in India is manifested in diverse firms, providing low-income people with financial services like lending, insurance and pensions. Five broad categories can be used to classify the various microfinance industry participants: cooperatives and credit unions, small finance banks (SFBs), non banking financial companies (NBFCs), banks and non-profit MFIs. These institutions, except non-profit MFIs, are under the regulation of the Reserve Bank of India (RBI). The majority of non-profit MFIs are registered as trusts or societies, and the corresponding acts regulate them.

Some of the distinguishing features of microfinance are low-income borrowers, small amount loans, short loan tenure, the absence of any collateral requirements, and the fact that it is usually repaid at higher frequencies. Most microfinance loans are aimed at generating income.

Contrary to popular perception, microfinance is helpful not only to the poor, the marginalised and the vulnerable section of society, but it is also greatly beneficial to banks and financial institutions because of the huge volume of business available in this segment and remarkably high repayment rate of the loans and advances sanctioned and disbursed to the target population. This kind of thought has strong theoretical underpinnings (Prahalad, 2004), and is validated by cross-country empirical evidences. Accordingly, it benefits both the lenders and borrowers (Sharma, 2004a, 2006c).

In India, the microfinance sector has expanded significantly with 168 MFIs operating across 29 states and 4 union territories, covering 563 districts. A study by the National Council of Applied Economic Research (NCAER, 2024) estimated that microfinance contributed about 130 lakh jobs and 2% of the gross value added (GVA). It has been instrumental in creating opportunities for low-income households by providing credit access to 64 million unique live borrowers, who were previously beyond the reach of traditional financial services with the potential to reach all the 6.3 crore unincorporated and non-agricultural enterprises. The RBI defined microfinance as collateral-free loans given to households having annual incomes up to ₹3 lakh (RBI, 2022).

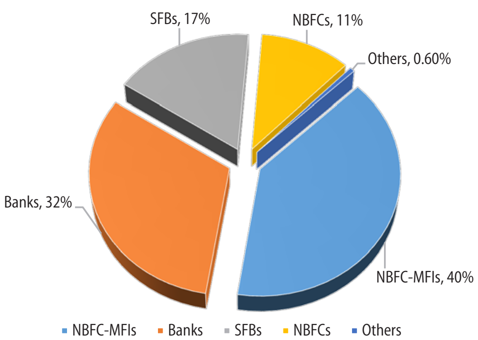
The Indian microfinance industry has emerged as the mainstay of financial inclusion, driving socio-economic transformation across underserved regions of the country by providing small-value loans, savings, insurance and other services to underserved populations. It plays a transformative role in poverty alleviation, women's empowerment, and in fostering entrepreneurship in developing economies (Malik *et al.*, 2023). Over the last decade, NBFC-MFIs, regulated by the RBI, have significantly expanded their operations, empowering over 8.1 crore unique borrowers as of September 2024, with an outstanding gross loan portfolio (GLP) of ₹4,08,049 crore and 14.6 crore loan accounts (Samudrala *et al.*, 2024). Microfinance uplifted low-income families and fostered rural development, women's empowerment, and poverty alleviation through small-value credit offerings and initiatives like SHGs by working in complementarity with the banking system. It thus promoted sustainable microfinance services to the underprivileged, thereby, providing more inclusive development and reducing economic disparities. Supported by favourable government policies, this sector continues to bridge the yawning chasm between marginalised communities and formal financial systems, making it a potent catalyst for inclusive economic growth.

Nearly 99% of microfinance loans in India are extended to women from low-income households, with 98% of these loans provided through the joint liability group (JLG) model. Under this model, a group of 5–10 borrowers collectively guarantee loan repayment, leveraging social collateral to mitigate default risks and reduce operational costs. These loans are collateral-free, and repayments are capped at 50% of the monthly household income to ensure affordability and repayment. The microfinance industry comprises a diverse range of 194 lenders, including banks, SFBs, NBFC-MFIs, and NBFCs. The geographic distribution of the loan portfolio shows a 76% rural and 24% urban split, with loans primarily used for income-generating activities and essential household needs like education, health and housing. The sector, which is regulated by the RBI, except for non-profit MFIs, has demonstrated resilience, maintaining non-performing assets below 1% even despite recent external shocks (MFIN, 2024).

Performance of the Microfinance Industry in India

As of September 30, 2024, India's microfinance sector reflects a diverse lending ecosystem, with NBFC-MFIs leading as the largest contributors with a portfolio of ₹1,61,470 crore, accounting for 40% of the total industry portfolio (Figure 1). Banks, the second-largest players, hold ₹1,31,432 crore, or 32.2%, leveraging their extensive networks for significant outreach. The SFBs account for ₹69,007 crore (16.9%), while NBFCs and other MFIs contribute ₹43,429 crore (10.7%) and ₹2,434 crore

Figure 1: Micro Credit Loan Outstanding Across Lenders as on 30th September 2024 (%)

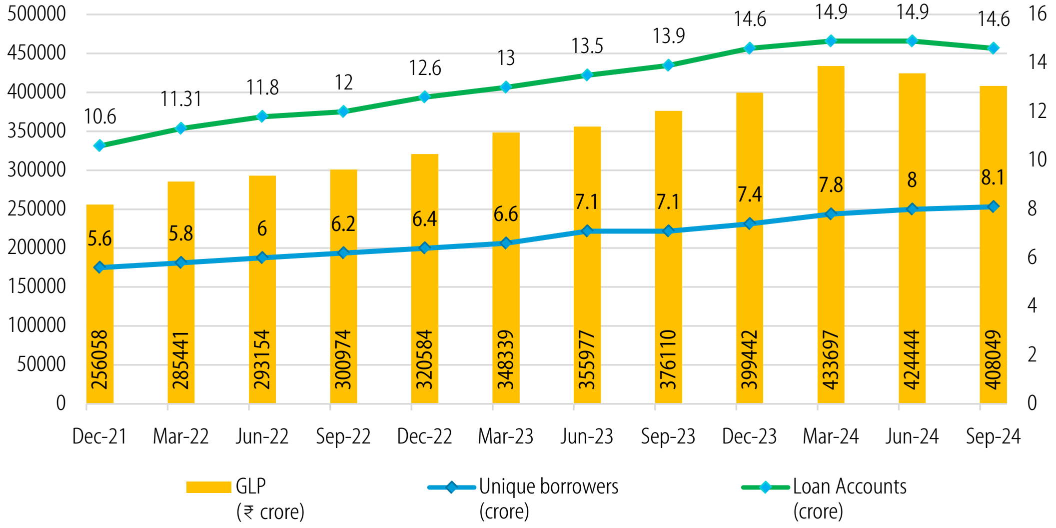


Source: Microfinance Institutions Network (MFIN).

(0.6%), respectively, catering to niche markets. The National Rural Livelihood Mission (NRLM) plays a crucial role through its SHG-BLP, supporting 87.3 lakh SHGs with an outstanding portfolio of ₹2,59,093 crore. The sector's GLP, including the SHG contributions, totals ₹6,67,142 crore, reflecting its extensive outreach and economic impact.

The MFI industry grew robustly from December 2021 to September 2024, with the GLP expanding from ₹2,56,058 crore to a peak of ₹4,33,697 crore in March 2024 before slightly declining to ₹4,08,049 crore in September 2024 (Figure 2). The number of unique borrowers surged from 5.6 crore to 8.1 crore over this period, reflecting significant progress in financial inclusion and outreach to underserved regions. Similarly, loan accounts grew from 10.6 crore to 14.9 crore between March and June quarters of 2024, stabilizing at 14.6 crore in the September quarter, suggesting a shift in focus towards deepening borrower relationships rather than merely expanding accounts.

Figure 2: Quarterly Performance of MFI Industry



Source: CRIF High Mark Credit Information Services.

The performance indicators for 2022-23 and 2023-24 highlight robust growth in the lending sector across all key metrics (Table 1). The number of loans increased by 6.02% (from 1329 lakh to 1409 lakh), while the GLP grew significantly by 16.21% (from ₹351,521 crore to ₹408,507 crore), reflecting increased credit penetration and lending activity. The number of loans disbursed rose modestly by 4.83% (from 766 lakh to 803 lakh), but the amount disbursed surged by 18.06% (from

Table 1: Highlights of MFI Operations in India

Performance Indicators	2022-23	2023-24
Number of loans (Lakh)	1,329	1,409
Gross loan portfolio (₹ crore)	3,51,521	4,08,507
Number of loans disbursed (lakh)	766	803
Amount disbursed (₹ crore)	3,17,111	3,74,345
Average loan per borrower	41,369	46,636

Source: NABARD, Status of Microfinance in India 2023-24.

₹317,111 crore to ₹374,345 crore), indicating a shift towards higher value loans. This can be further substantiated by the average loan per borrower, which grew by 12.74% (from ₹41,369 to ₹46,636), suggesting a focus on larger loan sizes and possibly higher value projects. These trends reflect sustained demand for credit, enhanced outreach, and the sector's ability to cater to this demand effectively.

According to the CRIF MicroLend report for the second quarter of 2024-25, the microfinance sector experienced a 4.3% quarter-on-quarter decline in its portfolio, thereby reducing it to ₹414,000 crore as of September 2024 (Goli and Pradhan *et al.*, 2024).

Loan Outstanding

The microfinance industry's agency-wise outstanding loans as of 2023-24 (Table 2) reveals a major share was accounted by NBFC-MFIs at 40% (₹1,63,275 crore), followed by banks with a 32.5% share (₹1,32,887 crore). The SFBs contributed 16.6% (₹67,871 crore), while NBFCs significantly increased their share from 8.4% in 2022-23 to 10.7% in 2023-24 (₹43,620 crore). Non-profit entities constitute a minimal share of 0.2% (₹854 crore). The industry's total outstanding loans as of March 31, 2024, grew from ₹3,51,521 crore in 2022-23 to ₹4,08,507 crore in 2023-24, with the average loan per borrower remaining steady at ₹41,369.

Table 2: Agency-wise Outstanding Loans, 2022-23 and 2023-24 (in ₹ crore)

Type of Lender	2022-23	% Share	2023-24	% Share
NBFC-MFIs	139632	40.0%	163275	40.0%
Banks	120016	34.1%	132887	32.5%
NBFCs	29664	8.4%	43620	10.7%
SFBs	58341	16.6%	67871	16.6%
Non-profit entities	3778	1.1%	854	0.2%
Total (industry)	351521		408507	
Average loan per borrower (₹)	41369		41369	

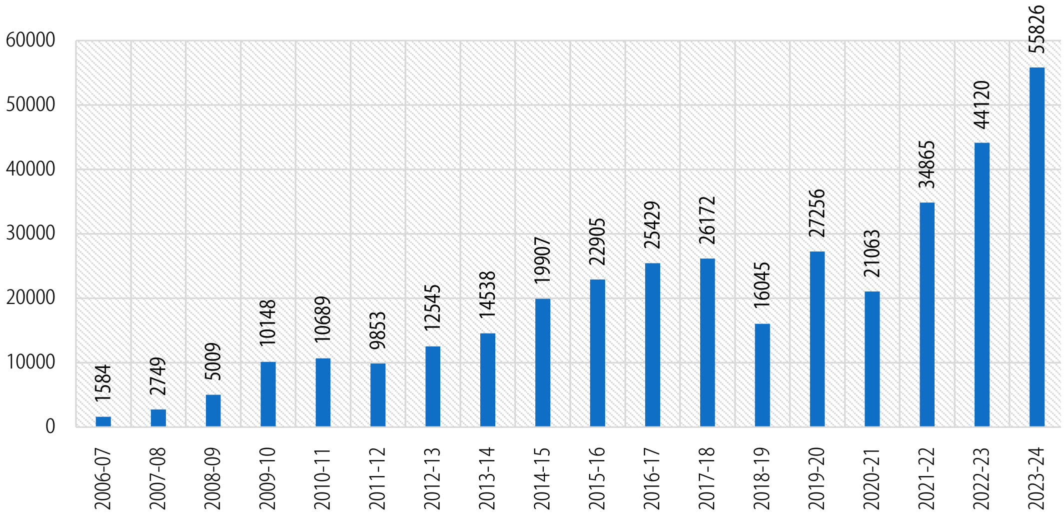
Note: Outstanding loans = Loans by various agencies to MFIs + SHGs + JLGs + others
Source: NABARD, Status of Microfinance in India 2023-24.

A notable trend from 2020-21 to 2023-24 is that banks losing their share in total loans outstanding, which declined from 34.1% to 32.53%, with NBFC-MFIs and SFBs gaining ground. In 2023-24, the share of NBFC-MFIs and SFBs remained unchanged from 2022-23 levels, signalling a stabilisation in their market share.

Bank Credit to MFIs

The bank credit to MFIs in India over the last five years has shown a consistent upward trend, indicating strong growth in lending (Figure 3). Starting at ₹27,256 crore in 2019-20, bank credit to MFIs rose to ₹34,865 crore in 2021-22, reflecting a growth of approximately 27.9% over two years. This upward trajectory continued significantly, with credit reaching ₹44,120 crore in 2022-23 and further increasing to ₹55,826 crore in 2023-24, marking a sharp growth of 26.5% in a single year. The data highlights the increasing reliance on MFIs to extend financial inclusion and to cater to underserved segments, with banks playing a crucial role in supporting the sector's expansion.

Figure 3: Bank Credit to MFIs (in ₹ crore)



Note: Bank credit to MFIs includes credit to SHGs, JLGs etc.
Source: CMIE | Infomerics Economic Research.

Among the bank group, the private sector has the largest share of the MFIs' bank loans followed by public sector banks and co-operative banks (Table 3).

Table 3: Outstanding Bank Loans of Micro Finance Institutions (MFIs) by Bank Group (in ₹ crore)

Year	Commercial Banks					RRBs	Co-operative Banks
	Total	Public Sector	Private Secor	SFBs	Foreign Banks		
2006-07	1584.28	450.8	971.45	0	162.03	0.2	0.01
2007-08	2745.24	895.45	1819.42	0	30.37	3.58	0.02
2008-09	4977.89	876.11	3309.68	0	792.1	31.2	0
2009-10	10095.32	5195.74	4202.25	0	697.33	52.22	0.01
2010-11	10646.84	5754.26	4458.92	0	433.66	42.01	0
2011-12	9810.98	6543.18	3078.21	0	189.59	37.51	4.75
2012-13	12467.72	8368.46	3968.19	0	131.07	70.66	6.83
2013-14	14307.57	9070.8	5049.69	0	187.08	222	7.97
2014-15	18720.62	11178.83	7276.95	0	264.84	1186.62	0
2015-16	22682.85	9944.93	12538	0	199.93	210.23	11.76
2016-17	25089.18	11689.36	13095.18	0	304.63	78.75	261.54
2017-18	26039.52	9367.17	16280.85	0	391.5	64.16	68.51
2018-19	15896.47	5828.38	9158.35	632.75	277	14.5	133.84
2019-20	26711.87	9556.73	16607.27	92.87	455	28.03	515.93
2020-21	19223.73	8107.11	12609.88	15.53	0	37.65	1831.61
2021-22	32960.71	14250.74	18623.77	86.21	0	80.32	1824.34
2022-23	42410.52	16992.74	25228.28	189.5	0	113.74	1595.53
2023-24	53301.97	23910.81	33158.32	0	0	132.81	2390.74

Source: CMIE | Infomerics Economic Research.

Loan Disbursement

Over the years, the total advances in India's banking sector have exhibited a pronounced upward trajectory, reflecting the sector's dynamic evolution. Public sector banks (PSBs) traditionally maintained the dominant share of advances, but since 2014-15, private sector banks have progressively strengthened their position, capturing an increasing portion of credit activity (Table 4). Concurrently, the contribution of regional rural banks (RRBs) has steadily expanded, peaking in 2022-23 at ₹18,262.25 crore, underscoring their growing role in financial inclusion. The emergence of SFBs in 2018-19 further diversified the landscape, with these banks steadily increasing their lending until 2022-23, though their activity diminished in 2023-24. Foreign banks, while exhibiting some volatility, saw a sharp rise in lending in 2020-21, maintaining a relatively higher level of disbursements thereafter. Cooperative banks, too, have experienced a robust growth phase, particularly after 2019-20.

Table 4: Loans Disbursed by Banks and Financial Institutions to Micro Finance Institutions (MFIs) by Bank Group (in ₹ crore)

Year	Total Banks	Commercial Banks					RRBs	Co-operative Banks
		Total	Public Sector	Private Sector	SFBs	Foreign Banks		
2006-07	1151.56	1151.34	330.74	739.33	0	81.26	0.23	0
2007-08	1970.15	1968.60	469.27	1480.98	0	18.35	1.51	0.04
2008-09	3732.33	3718.93	561.94	2709.16	0	447.83	13.40	0
2009-10	8062.74	8038.61	4276.60	3362.09	0	399.92	24.14	0
2010-11	7605.18	7601.02	3742.67	3842.86	0	15.50	4.16	0
2011-12	4965.87	4950.98	3723.92	1227.06	0	0	13.28	1.61
2012-13	7431.24	7422.66	4377.32	3045.34	0	0	4.58	4.00
2013-14	9636.48	9468.83	5713.80	3665.02	0	90.00	163.18	4.48
2014-15	13906.33	13858.64	6686.98	6991.66	0	180.00	47.69	0
2015-16	19382.56	19324.14	5795.49	11620.64	0	1908.00	52.42	6.00
2016-17	17336.48	17091.33	5141.13	11852.70	0	97.50	37.83	207.33
2017-18	22228.23	22133.60	9486.14	12421.71	0	225.75	55.93	38.70
2018-19	13720.95	13645.23	8928.09	3971.64	593.50	152.00	5.16	70.56
2019-20	19133.00	18626.91	8742.51	9675.40	69.00	140.00	13.07	493.02
2020-21	12120.34	10625.84	3556.75	7638.08	10.00	0	19.26	1515.24
2021-22	23173.45	21691.41	9564.92	12041.50	85.00	0	33.26	1448.78
2022-23	36756.99	35163.81	18262.25	16754.55	147.00	0	82.32	1510.86
2023-24	28152.12	26308.28	10126.55	19526.73	0	0	100.91	1742.93

Source: CMIE | Infomerics Economic Research.

This rapid growth in terms of loans disbursed by banks and financial institutions to MFIs stemmed from changing regulatory reforms, mass adoption of unified payments interface (UPI)based payments, developments in SFBs and several initiatives by the government and regulatory authorities. Accordingly, this sector emerged as a catalytic element for upscaling the unorganised sector, driving businesses, creating productive employment, and creating meaning and value in the lives of millions of beneficiaries.

Technology has been critical in slashing overall turnaround time (TAT), operational costs for lenders and credit access costs for the borrower. However, the much larger share of NBFC-MFIs and banks makes the sector susceptible to risks, such as rising delinquencies, borrower indebtedness, and regional disparities. While SFBs and SHGs diversify the ecosystem, their relatively smaller scale and resources pose challenges in navigating systemic risks. The sector must focus on effective risk management, financial literacy programmes, and robust policy support to sustain growth. A balance between scaling operations and maintaining asset quality is essential to ensure the resilience and long-term sustainability of India's microfinance industry.

Globally, the Indian microfinance sector is the second largest after China in terms of borrowing customers, exhibiting its remarkable scale and impact. With a customer base nearly three times that of Indonesia, India's microfinance sector has extensive coverage, reaching over 50% of households and 10% of the country's population through SHGs and JLGs. This impressive reach highlights its pivotal role in fostering financial inclusion and supporting economic empowerment on a global scale (Arunachalam, 2023).

Risks and Challenges

The Indian microfinance industry is confronted with significant challenges stemming from lack of formal credit history, high outreach costs in remote areas, and a high level of indebtedness because of improper assessment. There are issues of competitive disadvantage compared with mainstream banks; difficulty in acquiring reliable data for appraisals; limited reach to the urban poor; low digital and financial literacy; customer data protection and data privacy; and strategic and credit risks (Sharma, 2005). The sector has also to grapple with a lack of collateral; difficulty in accessing clients in remote areas due to poor infrastructure; limited operational flexibility and vulnerability to changes in banking policies; lack of financial principles and services; and limited product offerings, excluding low-wage workers from essential financial services.

There are major challenges arising from over-leveraged borrowers and overlapping credit exposures. While the proportion of borrowers with three or more active lender associations has declined, those with high credit exposure continue to show elevated delinquency rates. Borrowers with both microfinance and retail loans face a delinquency rate of 37% (CRIF, 2025), reflecting increased credit risk. This overlap deepens financial stress among borrowers, particularly in states like Uttar Pradesh and Odisha, where delinquency rates are alarmingly high.

Evidently, then, the MFI sector's headwinds arise from the overall setting and industry-level issues. At the macro level, there were issues of national elections, debt-waiver campaigns by states, scorching heat-wave, high field-staff attrition with frequent staff changes eroding the quality of loan disbursal and collection, surging defaults and delinquencies, particularly in the top 10 states (Bihar, Uttar Pradesh, Tamil Nadu, and Odisha accounted for 62% of the incremental delinquency), raising the credit cost for NBFC-MFIs (CRIF, 2025). At the industry level, overleveraging, excessive debt, rising delinquencies, and slowing borrower cash flows caused concern. Valuations of MFI companies plummeted to all-time lows, starkly reflected in banks with a 6% MFI loan book (example, IDFC First Bank), facing the stock market heat. The overleveraging of the MFIs on top of the decelerating macro economy constrains borrowers' cash flows and, consequently, shrinks their repayment capacity.

These factors individually and collectively led to a disconcerting situation of mounting portfolio at risk (PAR) (loans with an overdue of 31-180 days) of microfinance loans to low-income groups doubling from ₹14,617 crore to ₹28,154 crore by September 2024 in a year. The CRIF High Mark (Goli and Pradhan *et al.*, 2024) report revealed that the delinquencies in the 31-180 days overdue category worked out to 6.8% of the total portfolio of ₹4.14 lakh crore exposure of microfinance firms, including banks and NBFCs, as of September 2024 as against 3.8% of ₹3.84 crore portfolio in September 2023.

The incremental rise in the 31-180 days PAR category of microfinance institutions stood at ₹8,117 crore for the quarter ending September, taking the overall incremental rise in PAR to ₹13,468 crore for the 12 months ending September. PAR was 4.6% of advances in June 2024. MFIs also reduced their exposure from ₹4.32 lakh crore to ₹4.14 lakh crore during the quarter ending September 2024. This position contrasted the gross non-performing assets (GNPA) ratio of scheduled commercial banks (SCBs) falling to a 12-year low of 2.6% of advances in September 2024 (RBI, 2024). The distressing situation in the MFI sector was compounded by stringent regulatory action on some entities, including an embargo on disbursements amid concerns regarding loan pricing and an increase in risk-weighted assets for banks.

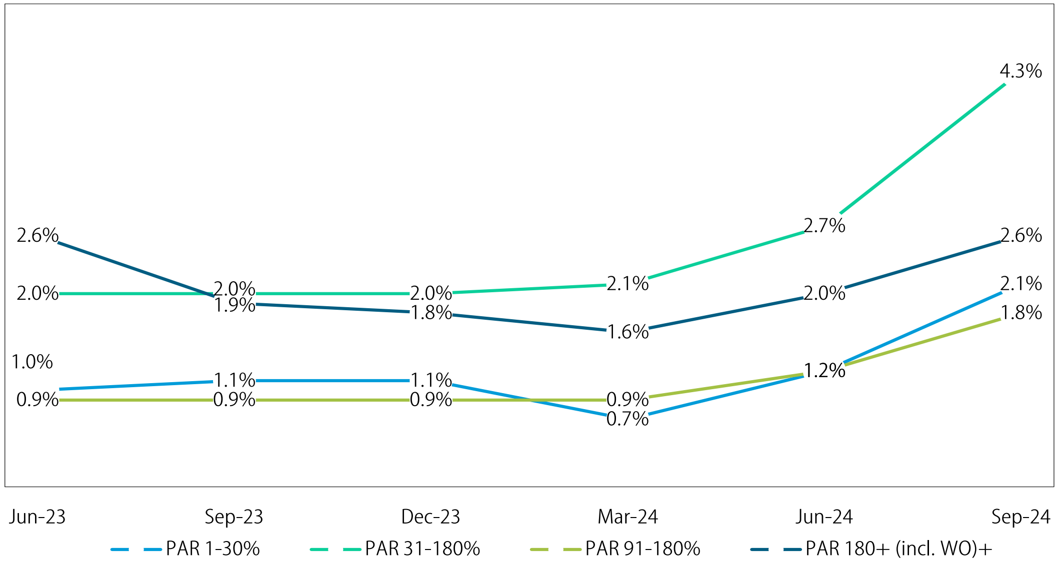
While the overleveraging of the MFIs being a function of a complex interplay of various forces and factors, some of the important issues could be isolated and identified as the RBI's uniform microfinance lending guidelines, removal of loan per borrower cap, removal of pricing caps, and an industry-wide decline in group discipline. Viewed thereof, the MFI self-regulatory body (SRO) announced the implementation of 7 'covenants' to address the emerging ground realities on November 2, 2024. Subsequently, the implementation of the covenant relating to capping of lenders per borrower to 3 was shelved till April 1, 2025. These are early days but there are emerging manifestations of stability and recovery, and there does not seem to be any reason for systemic concern.

The RBI's *Financial Stability Report* (December 2024) highlighted rising delinquencies in the microfinance (MFI) and personal loan segments as key risks to the banking sector's asset quality. Stricter regulatory scrutiny on unsecured loan growth and tightened underwriting standards limit credit disbursement in these segments. Further, subdued consumption demand exacerbates stress. These factors are expected to dampen credit growth over the next six months, with 40% of respondents anticipating a marginal decline in credit demand. Addressing these vulnerabilities will require balancing growth with prudent risk management to sustain asset quality and falling industry's group discipline.

Delinquency

Delinquency rates have risen across all delinquency bands during the second quarter of 2024-25 (Figure 4). PAR loans overdue by 1-30 days increased to 2.1% from 1.2% in

Figure 4: Quarter-on-Quarter Percentage Increase in MFI Delinquency across all DPD Bands



Note: Delinquency is inclusive of 180+ PAR 180+ (including written off); % is for loans disbursed in the last 24 Months.
Source: CRIF (2025).

June 2024, and those overdue by 31-180 days rose to 4.3% from 2.7% in June. The loans overdue by 31-180 days were higher for SFBs (5.4%) compared to other major lenders. However, NBFCs reported the lowest PAR 31-180 (2.3%) as of September 2024 (CRIF, 2025). There has been a reduction in borrowers with three or more active lender associations across various states, indicating a move towards more prudent lending practices.

Despite these challenges, NBFCs were resilient, emerging as the fastest growing segment with a 26.3% year-on-year growth and a modest 0.7% quarter-on-quarter increase. In contrast, other lender types declined. NBFCs have managed lower delinquency rates through focused borrower selection, geographic diversification, and flexible loan products tailored to borrower needs. Their use of advanced analytics, digital collections, and strong grassroots engagement further enhances repayment compliance. Also, their presence in low-delinquency states and proactive monitoring mitigate risks effectively.

Table 5: Delinquency by Value (in %)

	As on 30 June 2024				As on 31 March 2024			
	PAR 31-60	PAR 61-90	PAR 91-180	PAR 180+	PAR 31-60	PAR 61-90	PAR 91-180	PAR 180+
Banks	0.8%	0.7%	1.2%	9.1%	0.5%	0.8%	0.8%	11.7%
SFBs	1.3%	1.2%	1.6%	10.8%	0.7%	1.1%	1.1%	9.6%
NBFC-MFI	0.9%	0.7%	1.2%	7.2%	0.5%	0.5%	1.0%	6.7%
NBFCs	0.6%	0.4%	0.8%	12.0%	0.3%	0.3%	0.6%	12.1%
Others	1.2%	1.1%	2.6%	30.7%	1.1%	1.0%	2.1%	32.2%
Industry	0.9%	0.8%	1.2%	9.1%	0.5%	0.7%	0.9%	9.6%

Sources: CRIF High Mark, Sa-Dhan.

The CRIF Highmark highlighted that 14.3% of active microfinance borrowers hold an active retail loan as of September 2024 (Goli and Pradhan, 2024). Among these borrowers, 37% are delinquent on either microfinance or retail loans, or both, suggesting higher credit risk for borrowers with multiple loan exposures. Bihar, Tamil Nadu, Uttar Pradesh, and Odisha accounted for 62% of the incremental delinquencies. The top 5 states in terms of overall industry portfolio are Bihar, Tamil Nadu, Uttar Pradesh, Karnataka and West Bengal—these top 5 states account for approximately 58% of the total portfolio of the industry (Nandi and Koshy, 2024).

The Indian microfinance sector has been criticised for its high cost of borrowing. High interest rates, especially from NBFC-MFIs, remain a contentious issue despite regulatory action by the RBI in October 2024. Although these measures aim to curb exploitative practices, the yield on loans remains high, reflecting challenges in reducing operational costs. This double whammy of financial distress for borrowers and reputational risks for lenders underscores the need for rationalising interest rates while improving operational efficiency. Such measures would not only enhance borrower welfare, but also strengthen the sector's credibility.

The post-pandemic, initial surge in microfinance credit further compounds these challenges. With lending growing at a compound annual growth rate (CAGR) of 33.5% between June 2021 and March 2024, the sector showed some extent of resilience too (RBI, 2024). However, this rapid expansion led to over-leveraging and asset quality concerns, as evidenced by rising delinquency rates. Stakeholders must focus on prudent credit monitoring, borrower education, and calibrated growth strategies to ensure long-term sustainability. This balance between growth and stability is crucial to mitigating risks and preserving the sector's role in financial inclusion.

The RBI regulates MFIs in India through the NBFC-MFIs framework, issued on 1 July 2014. The guidelines cover aspects like eligibility for registration, client protection, prevention of borrower over-indebtedness, privacy, and pricing of credit. MFIs generally comply with these regulations, contributing to stakeholder confidence in the sector.

The sector faces heightened regulatory scrutiny due to governance challenges within certain NBFCs, particularly those operating at the margins of regulatory oversight. Supervisory actions by the RBI in late 2024 highlight the need for stronger governance frameworks. While tighter regulations may restrict credit availability for vulnerable borrowers in the short-term, collaboration between regulators and industry stakeholders can enhance transparency and efficiency without stifling access to credit.

Regional disparities in indebtedness levels further aggravate systemic risks. States exceeding the national average in borrower leverage face heightened vulnerability to localised economic shocks. Such imbalances demand region-specific interventions, including enhanced financial literacy programmes and localised credit assessment models. Policymakers must address these disparities to prevent regional financial stress from cascading into broader sectoral instability.

The operational challenges such as declining portfolio quality, reduced originations,[1] and the persistence of smaller-ticket loans constrains the sector. These issues, coupled with high funding costs for MFIs, necessitate innovative strategies, such as digital transformation to streamline operations. By addressing these structural inefficiencies and fostering a culture of responsible lending, the microfinance sector can achieve a more balanced, sustainable growth trajectory while continuing its mission of financial empowerment.

Institutional Initiatives

The RBI has launched a slew of initiatives, such as data localisation[2], a cap on multiple lending, a regulatory sandbox, and a public credit registry (PCR). Despite these and other well-conceived initiatives[3], the sector continues to be characterised by an absence of robust risk management frameworks.

The MFIN has introduced stricter norms effective January 1, 2025, to foster a sustainable microfinance ecosystem, protect borrowers, and mitigate default risks. These measures aim to promote responsible lending practices and reduce borrower indebtedness. Key changes include reducing the number of lenders per borrower from four to three, capping total loan exposure at ₹2 lakh, and identifying delinquent borrowers after 60 days of overdue payments instead of 90 days. Also, MFIN mandates a transparent fee structure to eliminate hidden charges and has set a target to link 50% of borrower accounts to PAN cards by March 2025 (Mishra, 2024).

Complementing these efforts, the government has launched initiatives to strengthen microfinance and support MSMEs. The SHG-BLP focuses on increasing loan volumes and shifting SHG lending patterns from non-income generating activities to production based initiatives. Under the Pradhan Mantri Mudra Yojana (PMMY), loans of up to ₹10 lakh are provided to non-corporate, non-farm small and micro enterprises through commercial banks, NBFCs, and other institutions. Loans under PMMY are categorized as Shishu (up to ₹50,000), Kishore (₹50,001 to ₹5 lakh), Tarun (₹5 lakh to ₹10 lakh) and Tarun Plus (₹10 lakh to ₹20 lakh) (PIB, 2024).

The *Union Budget 2024-25* also introduced a new credit guarantee scheme for micro, small and medium enterprises (MSMEs) in the manufacturing sector. This scheme enables MSMEs to purchase machinery and equipment without collateral, backed by a self-financing guarantee fund that provides coverage of up to ₹100 crore per applicant. Also, the Micro Units Development and Refinance Agency (MUDRA) loan limit was doubled to ₹20 lakh for entrepreneurs who have successfully repaid earlier loans, offering favorable loan terms to promote the growth of micro enterprises and small businesses.

The RBI has directed banks to cease from issuing new loans to borrowers with outstanding previous loans to address unfair practices in the microfinance sector, such as exorbitant interest rates and hidden fees. This measure aimed at preventing the 'evergreening' of loans, ensuring transparency and healthier lending practices. Furthermore, the government has authorised MFIs and NGOs to borrow funds to use as security deposits when applying for loans from the Small Industries Development Bank of India (SIDBI).

These entities can receive up to 75% assistance for the security deposit, facilitating easier access to funds for on-lending purposes.

The Road Ahead

An examination of development studies and cross-country evidences brings out that microfinance helps alleviate the financial problems faced by poor people (Chikwira *et al*., 2022). Microfinance significantly impacts poor people's confidence, courage, and skill development (Kochar, 2018).

Let us now turn to a medium- and long-term frame of reference. We are certainly conscious of Lord J M Keynes' famous comment about a century ago 'In the long run, we are all dead'! But we maintain that in issues of great criticality like the MFIs, sometimes it is necessary, and even desirable, to step back and look at things from a longer perspective. The Indian microfinance industry is poised for significant growth and transformation, as it navigates the challenges of rising delinquencies, operational inefficiencies, and regional disparities. Despite these structural and entrenched obstacles, the sector remains a basic element of financial inclusion, with immense potential to empower underserved communities through innovative and sustainable practices.

The inability of MFIs to get sufficient funds hampers the sector's growth. Hence, it becomes imperative for MFIs to explore alternative funding sources for steady growth. This is a tall order and requires coordinated and concerted measures with a sense of urgency to explore new investment channels to reduce the cost of funds for MFIs by partnerships with corporates, impact investing and other platforms, developing customer centric products by analyzing shifting consumer demand, enhancing fintech innovation through controlled testing in a regulatory sandbox, and developing analytics based underwriting and collection models. Streamlining governance and risk management through revised regulations and technology enabled solutions, and empowering and assisting women in business and skill development through new products and partnerships will also help to transform the ground realities.

The sector must leverage technology, partner with local businesses and optimise field force to boost technology driven solutions for growth and long-term resilience. Digital transformation can streamline operations, reduce costs, and enhance credit monitoring. Initiatives, such as data analytics, external validation and digital financial literacy programmes would further empower borrowers, fostering improved financial decision making and repayment discipline. This requires customised products and services, collaboration with urban local bodies as partners in progress, leveraging of digital channels, including effective use of mobile technology, partnership with local agents, and investment in infrastructure.

Addressing regional disparities is critical to sustaining growth. States with higher indebtedness levels require targeted interventions, such as localised credit assessment models and customised financial products. Strengthening community engagement and borrower education in these regions would help to mitigate systemic risks and enhance credit quality by broad spectrum measures such as micro insurance, savings products and digital payments.

Enhanced regulatory oversight and governance frameworks are essential to maintaining the sector's credibility and stability. Recent measures by the RBI to curb exploitative practices and promote transparency are steps in the right direction. Collaboration between regulators, lenders, and policymakers is the key to ensuring these reforms benefit both borrowers and the broader financial ecosystem.

Going forward, the form and substance of the MFI reforms must enhance their growth and resilience to meet the revolution of rising expectations. Accordingly, the sector must balance its dual objectives of growth and stability. By prioritising borrower centric approaches, fostering innovation, strengthening risk management, providing financial education, diversifying loan products, exploring alternative funding sources, building internal capacity, and policy changes, India's microfinance industry can continue to be a catalyst for socio economic transformation, driving inclusive growth and financial empowerment across the nation. There must also be a sharper focus on digital platforms, value added services, regulatory reforms, development of standardised valuation frameworks, enhanced credit risk assessment and promotion of financial literacy inter-alia by financial literacy campaigns, and partnership with schools and colleges to move to a new and a higher orbit.

NOTES

1. Reduced originations refer to a decline in the number or value of new microfinance loans disbursed by MFIs. This may result from tighter regulations, lower borrower demand, or increased risk aversion among lenders.
2. As per RBI's mandate, data localisation requires financial and payment related data generated in India to be stored and processed within the country. This ensures regulatory oversight, data security and compliance. Limited cross-border transfer is allowed under specific conditions.
3. For example, mandated priority sector lending, Micro Units Development and Refinance Agency Ltd., (MUDRA) Yojana, Pradhan Mantri Mahila Shakti Kendra, and SIDBI's Prayas scheme.

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The Effect of Capital Structure on the Financial Performance of Indian Microfinance Institutions

– Nitin Navin* and Pankaj Sinha**

Abstract

This paper examines the impact of capital structure of microfinance institutions (MFIs) on their performance. This study finds that the Indian microfinance sector is highly leveraged with low equity capitalisation. The findings of the study do not confirm the predictions of the agency cost theory on Indian MFIs. It indicates that no agency conflict arises due to diversion in owners' goals and managers' motives while managing MFI affairs. On testing the reverse causality, the study finds a positive relationship between profit efficiency and equity capital, confirming the prediction of the franchise-value hypothesis. Failure to accept the prediction of agency costs theory hints at the possibility of a dual role played by the owners of the MFIs, owning and managing the organisation.

The presence of the original promoters on the management board helps the Indian microfinance institutions (MFIs) to remain committed to its primary mission, but, at the same time, such a setup has to confront a different set of corporate governance challenges. There is a need for a prudent corporate governance structure for the Indian MFIs as per the changing environment.

1. Introduction

Modern microfinance has emerged from the action research of Professor Yunus conducted in a small village in Bangladesh on developing an effective and sustainable credit delivery mechanism for the rural poor in the early 1980s. Soon it became one of the primary tools against poverty. With the recognition and admiration of international developmental agencies backed by promises and hopes, microfinance transformed into a rapidly growing sector. Initially, microfinance operations were mainly performed by non-government organisations (NGOs) funded by donations and grants. Later, the emergence

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of microfinance as a lucrative investment opportunity converted microfinance institutions (MFIs) into hybrid institutions, which led them to move from the sole social return approach to the double bottom line approach of social and financial returns.

The commercialisation of the sector has brought a different set of threats along with opportunities. Now MFIs have a wide variety of funding sources, ranging from donations and grants to commercial loans, institutional investments, and equity capital from social as well as private investors (Christen and Drake, 2002; Tchuigoua, 2015). Globally, MFIs now manage microfinance services more business-like, and they are closer to the regulated financial system (Christen and Drake, 2002; Bogan, 2011).

The overriding shift in orientation from development to social entrepreneurship has brought changes in MFIs' legal forms, capital structure, sources of funds, growth strategies, and strategic alliances. It has empowered private investors and mainstream commercial entities to own and control the functioning of the MFIs. This has made the modern MFIs more prone to have mission drift. It is challenging to keep the actions of the MFIs driven by the motives chiefly related to the 'fight against poverty', a widely publicised and celebrated objective of modern microfinance. All these developments have rekindled debate over the social and commercial objectives of microfinance.

The present study reviews the transformation that happened in the funding sources of Indian MFIs. It investigates the capital structure of MFIs and their impact on financial performance considering the underlying nature of the sector. With the rise in funding sources available for MFIs, it is crucial to investigate the capital structure of modern-day MFIs and subsequent linkage with their performance, financial as well as social, for in microfinance, it is essential to differentiate between sustainability and profit orientation. The developmental goals provide MFIs only limited scope to practice commercial orientation to attain sustainability and remain attractive to investors. The impact of MFIs' capital structure and its composition on performance is largely missing in the literature.

2. The Transformation in Funding Sources of Indian MFIs

In the late 1990s, a new class of institutions, termed MFIs, emerged in India when several NGOs, who were previously involved in the self-help group (SHG) movement, initiated microfinance operations independently (Nair, 2005, 2011). The MFIs primarily focused on financial intermediation for providing micro-credit. In this regard, SIDBI[1] and national and international institutions supported them and provided financial assistance. However, such sources of funding had limitations. Firstly, the donors wanted MFIs reduce their dependence on grants and endeavour to become self-sustainable (de Aghion, I, 2004; Nair, 2011). Secondly, such funds were insufficient to fulfil the capital requirement of MFIs[2] (Ananth, 2005; Fernandes, 2011). Moreover, it was felt that the NGO modality was not suitable for handling the operations[3] (Wisniwski, 1999; Fernando, 2004).

While government agencies continued to provide financial assistance to MFIs under various schemes,[4] a significant development happened in 2002 when a leading private bank, the ICICI Bank, introduced the 'Partnership model' an innovative approach to directly provide loans to MFIs (Ananth, 2005). As the loans are not reflected in the balance sheet of MFI, there is no requirement to maintain additional regulatory capital. This off-balance sheet financing opened the gates for the MFIs to access funds beyond the traditional sources of funding[5] (Fernandes, 2011). Another remarkable advancement of Indian MFIs towards commercialisation happened in 2010 when SKS MFI (earlier Bharat Financial Inclusion) went for an initial public offering and got listed on the stock exchange.

Soon, many commercial banks started providing massive funds to the MFIs. These loans provided to MFIs also help banks meet the target of providing funds to meet priority sector lending (PSL) norms set by the RBI[6]. Among the commercial banks, the private sector banks are the largest contributors, providing about one-third of the total loans to the MFIs (Sa-dhan, 2018). Numerous NGO-MFIs evolved into non-banking financial companies (NBFI)-MFIs and became for-profit entities. These developments brought a massive transformation in the Indian microfinance sector.

Table 1 shows the major sources of finance of the Indian microfinance sector from 2012 to 2018. It reflects the significant rise in the funds available to the MFIs. During the period, though the equity capital of MFIs registered above 300% rise, borrowings remained the primary source of MFI funding. It constitutes 85% of the total debt funding[7]. In 2017-18, the MFIs received ₹3,25,790 million as debts and raised fresh equity of ₹17,780 million. Furthermore, 31 MFIs raised ₹65,570 million through securitisation deals during the same period.

Table 1: Financing Pattern of the Indian Microfinance Sector (in ₹ million)

Year	Outstanding Borrowing	Equity Outstanding
2012	169590	13250
2013	207240	20340
2014	276620	42330
2015	355730	41950
2016	448220	45090
2017	339230*	36150
2018	429220	39190

Source: Sa-Dhan[8] (2012 to 2018); *without data of 6 SFBs (Equitas, ESAF, Janalakshmi, Suryoday, Ujjivan and Utkarsh)

Table 2 depicts the debt-to-equity ratio of the Indian MFIs during 2005-18[9]. The table shows that Indian MFIs are highly leveraged. The overall dependence on debt shows a gradual reduction during the period. Furthermore, it is found that many MFIs lost their equity due to accumulated losses, raising their leverage ratio to an extremely high level. Among all the MFIs, larger MFIs remain ahead in terms of leverage. Moreover, larger MFIs manage to get loans at a relatively lower rate of interest than smaller MFIs (Sriram, 2016).

Table 2: Average Debt-to-equity Ratio of MFIs

Year	All MFIs	No. of MFIs	Ten largest MFIs	Ten smallest MFIs
2005	13.1	38	15.13	9.10
2007	6.93	64	7.48	2.83
2009	4.66	86	4.76	3.37
2011	3.20	105	2.84	3.25
2013	3.92	88	6.24	1.41
2015	5.33	95	5.45	1.53
2017	4.01	83	4.03	2.26
2018	4.25	67	4.22	1.25

Source: Author's calculation based on MIX database, World Development Indicators.

Table 3 shows the share of NBFI-MFIs and NGO-MFIs in total debt and equity. In 2005, NBFI-MFIs had a three-fourth share in total debts provided to microfinance. The NGOs and other MFIs managed to attract only one-fourth of the total debts. In total equity capital involved in the microfinance sector, NBFI-MFIs had about 82% in 2005. Since then, the share of NBFI-MFIs in the total debts and equity significantly increased, reaching above 97% in both sources of finance. On the other hand, the remaining type of MFIs lost their ability to attract equity capital and debts to fund their operations (M-CRIL, 2005).

Table 3: Share in Funding Sources

Year	Share in Total Debts (in %)		Share in Total Equity (in %)	
	NBFI-MFIs	NGO (& Other)-MFIs	NBFI-MFIs	NGO (& Other)-MFIs
2005	75.96	24.04	82.08	17.92
2007	75.74	24.26	80.83	19.17
2009	88.01	11.99	92.96	7.04
2011	82.22	17.78	93.38	6.62
2013	85.94	14.06	92.45	7.55
2015	96.80	3.20	95.03	4.97
2017	97.32	2.68	96.75	3.25
2018	97.93	2.07	97.54	2.46

Source: Author's calculation based on MIX database, World Development Indicators.

During 2015-18, NBFI-MFIs registered a strong growth of 115% and 69% in their equity and debt capital, respectively. During the same period, the NGO and other MFIs registered a growth of just 3.54% in their equity capital and 8% in debts. It shows that NBFI-MFIs increased their equity capital base, further improving their ability to leverage borrowings. On the other hand, smaller and non-profit MFIs failed to attract enough funds from the banking sector, and their legal statutes restricts access to other kinds of resources, leaving them to struggle for the funds (Nair and Tankha, 2013).

3. Literature Review

For any business, arranging the required funds is always a crucial task for survival and success. It involves an array of decisions while determining the sources of capital, each of which has its strengths and shortcomings. A change in capital structure conveys information to stakeholders (Myers, 1984), and therefore, it is crucial to track it. However, applying capital structure theories to financial institutions is less straightforward[10] (Bogan, 2012) and requires proper adjustments (Cohen, 2003). The complexity further increases while applying the theories to study the capital structure of MFIs. MFIs are distinctive financial institutions having different institutional objectives and unique operational methodology. The uniqueness lies in providing tiny and unsecured loans to financially excluded clients, who have no credit history and are very poor. This feature exposed MFIs to a different set of risks and returns. A brief review of the literature is presented here, focusing on the capital structure theories and available empirical studies conducted on the capital structure of MFIs.

3.1 Major Capital Structure Theories

Various theories are proposed to decode the pattern of the capital structure of a firm. Every theory focuses on a different set of factors that are decisive in capital structure choices. Still, it remains a puzzle about how firms choose their capital structures (Myers, 1984). Though all the proposed theories provide empirical evidence to support their idea, no single theory can entirely explain capital structure decisions (Frank and Goyal, 2009).

The foundation of the modern theory of a firm's capital structure rests upon the distinguished paper of Modigliani and Miller (1958), popularised as the M&M theory. According to the M&M theory, a firm's value rests upon the cash flows it generates and not how it distributes the cash flows between various mixes of debt and equity. The validity of the argument was fortified by making strong underlying assumptions, some of which are hard to apply in the real world. Later, in 1963, Modigliani and Miller revised their argument by including tax advantages in the determinants of capital structure and stated that capital structure affects firm value (Modigliani and Miller, 1963). Therefore, a firm's choice between equity and debt is a crucial financial decision.

Another important theory of capital structure is the trade-off theory, which emphasises the benefits and costs of debts a firm uses in place of equity. The benefits and costs of using debts can be attained in many ways (Frank and Goyal, 2009). Firms can balance the tax benefits of debts against financial risk, mainly bankruptcy risks due to debts (Kraus and Litzenberger, 1973; Rajan and Zingales, 1995). An alternative version of the trade-off theory focuses on agency costs[11] (Jensen and Meckling, 1976) to determine the optimal capital mix. The presence of debts directs managers to work to maximize the firm's value due to the pressure to generate cash flows to pay the fixed interests to creditors (Jensen, 1986) and avoid personal losses due to liquidation (Grossman and Hart, 1982; Williams, 1987; Myers, 2001).

In the early 1980s, theories based on a financing pecking order emerged as a competing argument to trade-off theory[12] (Myers, 1984). According to the pecking order theory, managers are better informed about the firm's asset values, risk profile and growth options than the investors (Myers, 1984; 2001). This information asymmetricity creates agency and transaction costs. Here, firms prioritise the sources of funding as per the associated cost of the funding, choosing less costly option(s) to get the required funds (Frank and Goyal, 2009; Tchuigoua, 2015).

Another crucial concept, market timing theory, very similar to the pecking order (Myers, 1984), has gained attention in recent times (Frank and Goyal, 2009). The main idea of the theory is that firms closely watch both the debts and the equity market, and in case of a need, they raise funds from the market, whichever is more favourable to them. Here, the market conditions influence the pecking order (Antoniou, *et al.*, 2008). Graham and Harvey (2001) argue that managers tend to issue equity when a stock rises. Baker and Wurgler (2002) argue that capital structure results from the collective effect of past efforts to time the market. Lucas and McDonald (1990) developed a dynamic adverse selection model by combining the pecking order elements with the market timing.

3.2 Empirical Studies on the Capital Structure of MFIs

The recent commercialisation of the global microfinance sector has attracted researchers worldwide to study the funding sources of MFIs and their impact on performance. Still, the empirical research on MFIs' capital structure is in its infancy. The earlier studies linked the capital structure of MFI to its institutional life cycle[13] (Bogan, 2012; Tchuigoua, 2015). Such studies include Farrington and Abrams (2002), Fehr and Hishigsuren (2006), Fernando (2004), de Sousa Shields (2004), Helms (2006) and Ledgerwood and White (2006). However, the life cycle theory does not explain the entire story concerning MFI financing (Bogan, 2012). Studies show that many economic, financial, regional, and legal factors shape the funding sources of MFIs (Jansson, 2003; Banerjee, *et al.*, 2003). Banerjee, *et al.* (2003) contend that the development of the capital market of a country affects the allocation of resources to a particular sector. While analysing the key factors for MFIs in raising funds, Hartarska and Nadolnyak (2008) find the rating agencies' role decisive. Caudill, *et al.* (2009) find efficient MFIs rely more on deposits over time and less on subsidies.

With the advent of commercial funding, the efficiency of MFI has become a vital aspect, along with the outreach (Bogan, 2012). For instance, though a donor-driven MFI can ignore the efficiency for social outreach, a commercially funded MFI cannot do so (de Aghion and Morduch, 2004). An efficient management can steer the commercialised MFI to achieve a double bottom (Littlefield, *et al.*, 2003; Hishigsuren, 2007; Mersland and Strøm, 2010; Quayes, 2012, 2015; Kulkarni, 2017). However, such MFIs are always vulnerable to a situation of mission drift (Conning, 1999; Paxton and Cuevas, 2002; Hoque, *et al.*, 2011).

Studies show that different capital sources have different performance preferences from a firm (Hudon and Traca, 2006; Hartarska and Mersland, 2012; Bogan, 2012; Kar, 2012; Annim, 2012; Khachatryan, *et al.*, 2017). Hudon and Traca (2006) argue that concessional loans to MFI ensure poorer clients are served. However, it reduces the financial sustainability of the MFI which further makes them starve for more funds. Hartarska and Mersland (2012) find that creditors' presence on the MFI boards increases MFI efficiency. Bogan (2012) argues that grants hurt MFI's financial sustainability by increasing the cost per borrower. Hartarska, Shen, and Mersland (2013) argue that the transformation of NGO-MFIs into large organisations would help them gain cost efficiency. Sekabira (2013) argues that MFIs must shift from debts and grants to equity for long-term sustainability.

On capital structure and social performance, the findings of the empirical studies differ. Kar (2012) finds a negative association between leverage and depth of outreach. On the other hand, Annim (2012) finds that equity-funded MFIs tend to focus more on well-off clients. Hoque, *et al.* (2011) find that the use of commercial sources of capital increases the cost of capital, which in turn increases the cost of borrowing and default risk.

They further argue that leverage reduces the depth of outreach of the MFIs. Mersland and Urgeghe (2013) find that profitability and professionalisation increase the chances of MFIs getting international commercial loans. On the other hand, subsidised international funding is determined mainly by the MFIs' social objectives. Tchuigoua (2015) finds that the profit status of an MFI does not provide any lead to raising funds and, therefore, questions the ongoing transformation of MFIs. Abrar and Javaid (2016) find that increased debt financing enhances the MFIs' profitability. Khachatryan *et al.* (2017) find that in comparison to equity, grants allow MFIs to improve the depth of outreach and gain efficiency. In their study on Indian MFIs for the period 2009-10 to 2014-15, Chauhan *et al.* (2020) find a positive effect of leverage on MFI's financial and social performance.

4. Research Methodology

The transformation of sources of capital has brought changes in MFIs' ownership and management structure, thereby, raising the agency costs associated with debt and equity capital. The current study tests the agency cost hypothesis on the Indian microfinance sector.

4.1 Theoretical Framework of the Agency Cost Theory

The agency cost theory rests upon agency costs[14], a crucial issue in corporate governance of firms, financial as well as non-financial (Berger and Bonaccorsi di Patti, 2006). The agency costs, that is, costs that arise due to conflict of interests, happen due to the separation of ownership and actual control of a professionally managed organization.

As per the agency costs theory, a rise in leverage (a decrease in equity capital) lowers the agency costs of outside equity of the MFIs, thereby, increasing the firm value. It reduces free cash (Jensen, 1986; Stulz, 1990) and directs managers to work in the interest of the organisation (Berger and Bonaccorsi di Patti, 2006). This reduces the chances of conflict between owners and management regarding investment choice (Myers, 1977; Stulz, 1990) and the firm's level of risk (Jensen and Meckling, 1976; Williams, 1987). However, the effect of leverage on total agency costs (and thereby on the value of the firm) is nonmonotonic (Jensen and Meckling, 1976). While debt alleviates conflicts between shareholders and managers, it intensifies the chances of conflicts between shareholders and debtholders (Stulz, 1990). When leverage becomes relatively high, any further rise in the level of debts may have an opposite effect on the value of the firm[15]. In such a situation, the agency costs of debt become more significant than those of outside equity, resulting in higher total agency costs.

The theory proposes that capital structure choice is decisive in mitigating agency costs. Jensen and Meckling (1976) contend that a firm can achieve optimum capital structure by settling the agency cost of debt against the advantage of using debt capital. Based on the above argument, the study expects higher leverage to reduce agency costs and improve MFI's efficiency which leads to the first testable hypothesis as follows:

H1: Leverage has a positive effect on MFI performance.

The empirical studies on the banking sector have mixed empirical findings on the agency costs hypothesis (Berger and de Patti, 2006; Berger, *et al.*, 2010). This might be due to the possibility of reverse causation, that is, the effect of firm performance on its choice of capital structure (Berger and Bonaccorsi di Patti, 2006; Margaritis and Psillaki, 2010; Kar, 2012). The probable two-way relationship between firm performance and capital structure requires a joint examination to understand the interrelationship. The study explains the reverse causality of MFI's performance to its capital structure with the help of two hypotheses, namely, the efficiency-risk hypothesis and the franchise-value hypothesis.

According to the efficiency-risk hypothesis, firms with better performance go for a higher level of leverage, as they find themselves more capable of fulfilling their debt obligations and so less vulnerable to financial distress (Berger and Di Patti, 2006; Margaritis and Psillaki, 2010). The higher profit generated by the gained efficiency provides better returns to the existing equity holders. Therefore, the relationship between profit efficiency and equity capital is expected to be negative under the efficient-risk hypothesis. Conversely, the franchise-value hypothesis suggests an opposite effect, a negative relationship between firm profit efficiency and leverage. Here, firms with higher performance avoid a higher proportion of debts in their capital structure to protect the franchise value from liquidation risk (Demsetz 1973; Berger and Di Patti 2006; Margaritis and Psillaki 2010). Hence, both hypotheses make conflicting predictions about the possible effects of MFI efficiency on its capital structure choice. The two hypotheses are:

H1a: More efficient MFIs prefer high leverage (or low equity capital) for their higher efficiency reduces the probability of financial distress and liquidation.

H1b: More efficient MFIs prefer low leverage (or high equity capital) to protect their future earnings from gained efficiency.

4.2 Empirical Model

The pair of regression equations applied to test the agency cost hypothesis and the efficiency-risk and franchise-value hypotheses, respectively, for the MFIs are written as:

$$EFF_{it} = f(CA_{it}, Z_{1it}) + \varepsilon_{it} \quad \text{... (Equation 1)}$$

$$CA_{it} = f(EFF_{it}, Z_{2it}) + \varepsilon_{it} \quad \text{... (Equation 2)}$$

where EFF_{it} is the efficiency of the i_{th} MFI at time t. CA is the capital-asset ratio, the ratio of equity to total assets. It is an inverse measure of leverage and is widely used in banking research (Berger and Bonaccorsi di Patti, 2006). Z_{1it} and Z_{2it} contain the vector of MFI-specific variables that probably influence the MFI efficiency and capital-asset ratio, respectively. They also contain a time-varying institution invariant variable (Z_t) for regulatory reforms introduced in the sector. The term represents stochastic disturbance, and

$$\varepsilon_{it} = u_{it} + v_i \qquad \text{... (Equation 3)}$$

u_{it} consists of i_{th} institution-specific unobservable effect.
v_i includes the independently and identically distributed random error term.
The econometric specification of equation 1, the MFI performance model, with dependent variable return on assets (ROA) as a measure of MFI efficiency,[16] is as follows:

$$ROA_{it} = \alpha_0 + \lambda_1 CA_{it} + \lambda_2\, CA_{it}^2 + \alpha_1 PAR30_{it} + \alpha_2 OCPR_{it} + \alpha_3 lnALS_{it} + \alpha_4 ROWB_{it}$$
$$+\alpha_5 lnTA_{it} + \alpha_6 Age_{it} + \alpha_7 AGE_{it}^2 + \alpha_8 REFORM + \varepsilon_{it} \qquad \text{... (Equation 4)}$$

Where,

ROA	=	Return on assets
CA	=	Equity-to-Assets ratio
PAR30	=	Portfolio at Risk is the proportion of MFI's loan portfolio unpaid for more than 30 days.
OCPR	=	Operating cost per rupee lent
ALS	=	Average loan size
ROWB	=	Ratio of women borrowers
ln(TA)	=	log of total assets
AGE	=	Age of an MFI (in years).
REFORM	=	Dummy variable to reflect the effects of broad reforms introduced in 2011 after the sectoral crisis[17]. The pre-reform (before 2011) period is denoted by 0, and 1 represents the post-reform (after 2011).

The capital-asset (CA) ratio (that is, the ratio of equity-to-total assets)[18], is employed as an inverse measure of leverage, that is, the share of debts in the total capital of an MFI. The agency costs theory expects a negative relationship between CA and ROA. However, there is a possibility that excessive use of debt financing can adversely affect the MFI's performance. Hence, a quadratic expression for CA ratio, is added to the equation to let the relationship between agency costs and leverage be nonmonotonic. The square of the age, AGE^2, is added to the equations to allow for nonlinearities in the effect of MFI age on its performance and capital structure decisions. Earlier studies show that experience of the market improves the MFI performance (Cull, *et al.*, 2007; Ayayi and Sene, 2010; Singh and Padhi, 2019). However, newer MFIs may become more efficient by gaining from the knowledge created by the mature MFIs. Furthermore, the learning curve of MFIs may follow a pattern of first rising and then slowing down (Kar, 2012).

Keeping in mind the unique nature of microfinance, the study employs two measures to indicate the social performance of the MFIs, average loan size (ALS) and the ratio of women borrowers (ROWB), both indicating the depth of outreach while testing the hypotheses. A small ALS indicates that the MFI reaches out to poorer customers

(Schreiner, 2002). However, providing small loans to the poor is costly for MFIs (Hulme and Mosley, 1996). This might present a trade-off situation between financial performance and depth of outreach. However, studies have also shown that MFI can achieve double bottom[19] (Littlefield, *et al.*, 2003; Hishigsuren, 2007; Mersland and Strøm, 2010; Quayes, 2012, 2015; Kulkarni, 2017). Few studies have been conducted on how leverage and depth of outreach are associated.

The ratio of women borrowers (ROWB) is included in the control variables as lending to women is associated with the social objectives of MFIs[20] (Ledgerwood, 1998; De Bruyne, 2008; Mersland and Strøm, 2010; Kar, 2012; Khachatryan, *et al.*, 2017). Women in developing countries are often limited to only smaller businesses, often called the 'income generating' section (Holt and Ribe, 1991; Ledgerwood, 1998). This is mainly due to their social and economic restrictions. Such business activities are fit for smaller loans only (Frank, *et al.*, 2008). Furthermore, women clients may be risker borrowers considering their restricted repayment capacity, especially in developing regions (D'Espallier, *et al.*, 2011; Hermes, *et al.*, 2011). However, anecdotal evidence suggests that women generally have a high sense of responsibility, reflected by their higher repayment and saving rates than male clients[21] (Rhyne and Holt, 1994; Ledgerwood, 1998). Sufficient studies are not available on the effect of ROWB on MFI's capital structure. While subsidised loans value MFI's objective of targeting women, commercial funding is less driven by MFIs' focus on gender (Mersland and Urgeghe, 2013).

The econometric specification of equation 2, the leverage model with CA as a dependent variable, is given as:

$$CA_{it} = \alpha_0 + \lambda_1 ROA_{it} + \alpha_1 PAR30_{it} + \alpha_2 lnALS_{it} + \alpha_3 ROWB_{it} + \alpha_4 lnTA_{it} + \alpha_5 Age_{it} + \alpha_6 AGE_{it}^2 + \alpha_7 REFORM + \varepsilon_{it} \quad \text{... (Equation 5)}$$

The construction of equations 4 and 5 is such that an explanatory variable of an equation is determined simultaneously by the dependent variable of the equation. In such a situation, the problem of endogeneity via simultaneity bias creeps into the ordinary least square (OLS) estimation making the estimation inconsistent (Wooldridge, 2002; Abdallah, *et al.*, 2015; Kharabsheh *et al.*, 2017). This requires the construction of the simultaneous equation model (SEM) and the application of instrument variables[22] (IV). However, such a system requires external exogenous instruments which are not just difficult to find but also have their limitations (Jiang, 2017). Alternatively, the dynamic panel models[23] with the application of the generalised methods of moments (GMM) also provide the solution to the above problem (Abdallah, *et al.*, 2015; Leszczensky and Wolbring, 2019).

The inclusion of past values of dependent variables in the equation as one of the independent variables also captures the effect of persistence, that is, the immediate past performance influences present performance (Goddard and Wilson, 2009) and helps to study the dynamics of adjustments (Berger, *et al.*, 2010). The GMM model treats endogeneity due to simultaneity by transforming the data internally and by including the lagged values of the dependent variable as instruments. The dynamic versions of equations 4 and 5 are:

$$ROA_{it} = \alpha_0 + \beta_1 ROA_{i(t-1)} + \lambda_1 CA_{it} + \lambda_2 CA_{it}^2 + \alpha_1 PAR30_{it} + \alpha_2 OCPR_{it} + \alpha_3 lnALS_{it} + \alpha_4 ROWB_{it} + \alpha_5 lnTA_{it} + \alpha_6 Age_{it} + \alpha_7 AGE_{it}^2 + \alpha_8 REFORM + \varepsilon_{it} \quad \text{... (Equation 6)}$$

$$CA_{it} = \alpha_0 + \beta_1 CA_{i(t-1)} + \lambda_1 ROA_{it} + \alpha_1 PAR30_{it} + \alpha_2 lnALS_{it} + \alpha_3 ROWB_{it} + \alpha_4 lnTA_{it} + \alpha_5 Age_{it} + \alpha_6 AGE_{it}^2 + \alpha_7 REFORM + \varepsilon_{it} \quad \text{... (Equation 7)}$$

Where $ROA_{(t-1)}$ and $CA_{(t-1)}$ are the lagged values of ROA and CA, respectively.

The inclusion of a lagged dependent variable on the right side of the equation induces a correlation with the error term, thus, violating the strict exogeneity assumption and creating the problem of dynamic endogeneity[24]. The study applies the difference GMM estimation offered by Arellano and Bond (1991) in our estimation. The difference GMM tackles the endogeneity problems caused by reverse causality as well as by unobserved heterogeneity (Leszczensky and Wolbring, 2019). It takes the first differences to remove time-invariant heterogeneity and removes dynamic endogeneity.

5. Data and Variables

The analysis of the study is based on a sample of 139 Indian MFIs from 2005 to 2018 taken from the MIX Market database available on World Development Indicators[25] (WDI). The data contains an unbalanced panel of firm-level data of 1119 MFI-year observations. The summary statistics of the variables are presented in Table 4. The minimum and maximum values and the standard deviation of the explanatory variables indicate heterogeneity in the key characteristics of the MFIs. The correlation between the independent variables is below 0.8 or 80%. Therefore, there is no problem of multi-collinearity among the independent variables. On testing the stationarity of the variables, ALS and TA are found to be non-stationary. However, the log values of these variables are stationary.

Table 4: Descriptive Statistics

Variables	Mean	Median	Maximum	Minimum	Std. Dev.	Observations
ROA	0.01	0.02	0.30	-0.99	0.08	1119
CA	0.22	0.18	1.00	-1.09	0.20	1119
PAR30	0.05	0.01	1.00	0.00	0.14	1119
OCPR	0.12	0.09	7.20	0.01	0.29	1119
TA (in millions)	4750	496	301000	3.302	18100	1119
ALS	10357.22	8532.27	119311.10	410.53	8365.01	1119
ROWB	0.96	1.00	1.00	0.03	0.13	1119

Source: Author's calculation based on MIX database, World Development Indicators.

6. Empirical Results

The estimation results of the empirical model depicted by Equations 6 and 7 are presented in Tables 5 and 6, respectively. The coefficients of the lagged dependent variables are statistically significant in both equations. It is crucial to ensure that the model passes the two crucial tests to confirm the validity of the GMM estimation dynamic panel model. The first one is Sargan's test (or the J test) of over-identifying restrictions to confirm the validity of the instruments. The results of the J-test confirm that the over-identifying instruments are uncorrelated with the residuals. Second, the Arellano-Bond (AR) test to check the presence of second-order serial correlation in the residuals. The acceptance of the null hypothesis of the AR(2)[26] test for both equations indicates that second-order autocorrelation is insignificant and, therefore, there is no inconsistency in the results.

Table 5 contains the empirical results of equation (6). The equation tests the predictions of the agency costs theory regarding the effects of leverage on MFI efficiency. While the linear specification of CA is positive, the quadratic expression is negative, reflecting the nonmonotonic relationship between leverage (or equity capital) and MFI efficiency. Both the coefficients are statistically significant. As per the results, a decrease in leverage (or rise in equity capital) raises the efficiency of the MFIs. However, the rise in the MFI financial performance is limited to a particular level of equity capital; after that, any increase in equity capital infusion will impede the performance. Between the two levels of capital mix, equity, and debts, lies an ideal ratio of debt and equity for MFI capital which maximises the firm value.

Table 5: GMM Estimation Results with ROA as Dependent Variable

Dependent Variable	ROA
Variable/Period	2005-18
ROA(-1)	0.475*** (504.083)
CA	0.122*** (133.67)
CA2	-0.012*** (-9.358)
PAR30	-0.031*** (-24.293)
OCPR	-0.039*** (-18.444)
LN(ALS)	0.019*** (21.543)
ROWB	0.148*** (19.812)
LN(TA)	-0.002*** (-5.902)
AGE	0.002*** (4.924)
AGE2	-0.000*** (-3.018)
REFORM	0.009*** (16.516)
Prob(J-Statistic)	0.432
AR(1)	0.001
AR(2)	0.105
No. of MFIs	139
No. of Observations	824

Notes: t-ratios are given in parenthesis below the coefficient estimates.
*, **, *** denote significance at 10%, 5%, and 1%, respectively.
Source: Author's calculation based on MIX database, World Development Indicators.

The positive coefficient of the CA ratio does not confirm the prediction of the agency cost hypothesis on the Indian microfinance sector. It shows no agency problem due to the separation of ownership and actual management of an organisation, as predicted by the agency cost theory. In other words, there seems to be harmony between the two in deciding the future course of MFI operations to achieve the stated objectives. On the other hand, the results show that Indian MFIs are highly leveraged with relatively low equity capitalisation, and the agency costs of external debts are more significant than the agency costs of equity.

The results show a mixed relationship between social outreach and the profit efficiency of MFIs. While a rise in the number of women borrowers (ROWB) improves the earnings of the MFIs, a smaller loan size (indicating improvement in the depth of outreach) decreases the ROA. In other words, an increase in loan size improves the MFI earnings. However, a gradual rise in loan size cannot be termed as mission drift as it reflects the improved capacity of the clients in handling the larger loan amount. Both the coefficients are statistically significant. The finding of a positive association between ROWB and the financial performance of MFIs is consistent with the findings of Khachatryan *et al.* (2017).

As expected, PAR30, and the variable for operating cost efficiency, OCPR, have a statistically significant negative effect on MFI profit efficiency. Both the variables are very crucial in microfinance operations and indicate the financial condition of an MFI. The firm size, reflected by the total assets (TA), has a statistically significant negative effect on MFI efficiency. Nevertheless, the adverse effect of the rise in total assets on ROA is mild. It shows that the smaller MFIs are more efficient than, the bigger ones in generating earnings. The finding is in line with Kar (2012). The relationship between MFI age and profit efficiency is found to be nonmonotonic. The experience of microfinance operations initially improves the earnings of the MFIs. However, this does not last forever. The positive and statistically significant coefficient of the dummy variable in the equation confirms that these reforms positively affect MFIs' financial performance.

The empirical results of the possibility of reverse causality (equation 7), the effect of financial performance on MFI's capital structure, are presented in Table 6. The results show a strong positive association between MFI efficiency and equity capital. The coefficient of ROA is positive and statistically significant. It indicates that profit efficiency is the key to attract equity capital in the microfinance sector. The finding is consistent with the prediction of the franchise-value hypothesis. Therefore, as per the results, with an improvement in financial performance, MFIs prefer to raise the equity capital share in their capital structure to preserve the franchise value.

Table 6: GMM Estimations Results with CA as Dependent Variable

Dependent Variable	CA
Variable/Period	2005-18
CA (-1)	0.398*** (127.531)
ROA	0.650*** (98.687)
PAR30	-0.025*** (-14.467)
LN(ALS)	-0.008*** (-4.106)
ROWB	-0.223*** (-31.276)
LN(TA)	-0.076*** (-89.965)
AGE	.004*** (30.171)
AGE^2	-0.001*** (-12.656)
REFORM	-0.79*** (-79.099)
Prob(J-Statistic)	0.369
AR(1)	0.039
AR(2)	0.062
No. of MFIs	139
No. of Observations	824

Notes and Source: Same as Table 5.

As per the results, ALS and ROWB have statistically significant negative coefficients. This indicates that the fulfilment of social objectives has a mixed influence on the level of equity investment in MFIs. While a decrease in average loan size positively affects the level of equity capital investment in MFIs, ROWB has a significant adverse impact on equity capital. In other words, while lenders prefer MFIs that focus on women while providing micro-credit, it seems that equity investors do not wish to limit the growth of MFIs due to specific gender preferences[27]. The finding is consistent with Kar (2012).

The PAR30 is found negatively associated with the level of equity capital, indicating that riskier firms have lower equity capital. The finding is consistent with the franchise-value hypothesis; risker firms have lower franchise values (Demsetz, *et al.*, 1996; Berger *et al.*, 2006). The results show that the size of MFIs has significant negative impacts on the CA ratio. It reflects that as the operations of the MFI grow, their ability to handle the business improves, resulting in a better reputation in the sector. This makes it easy for them to get external loans. The result is consistent with Hartarska and Nadolnyak (2008) and Tchuigoua (2015). The result is also in line with the findings of Gropp and Heider (2010) and Degryse *et al.* (2012) works on large banks and SMEs.

As MFI age, initially, there is a statistically significant positive effect on equity capital level. However, as the MFI grow older, the effect gets reversed. The dummy variable of the reform variable is statistically significant with a high negative coefficient value, indicating that equity investors find the new compliance based regulations cumbersome and nonaligned with their objectives. However, the lenders find the newly introduced reforms beneficial and aligned with their objectives.

7. Discussion of the Results

The current study finds that the Indian microfinance sector is highly leveraged with low equity capitalisation. The finding is consistent with the other studies that have reported that Indian MFIs are over-leveraged (M-CRIL, 2005; MFIN, 2017). While testing the agency cost theory predictions proposed by Jensen and Meckling (1976), the findings of the study do not confirm the predictions of the agency cost theory on Indian MFIs. It indicates that no agency conflict arises due to diversion in owners' goals and managers' motives while managing MFI affairs. On testing the reverse causality, the study finds a positive relationship between profit efficiency and equity capital, confirming the prediction of the franchise-value hypothesis.

Failure to accept the prediction of agency costs theory hints at the possibility of a dual role played by the owners of the MFIs, owning and managing the organisation. Studies also show that the original promoters still have significant operational control in most of the Indian MFIs, even after the transformation of their legal status (MicroSave, 2015; Sriram, 2016).

The presence of initial promoters in the management when the MFI transformed from being an NGO to an NBFI/bank generally keeps the organisation committed to its core objectives and reduces the chances of mission drift with an increase in private investors' interests in the sector (Navin and Sinha, 2019). The owners' control is maintained and further strengthened by involving family members of the promoters in the management board. Family ownership of a company diminishes agency conflict due to the separation of ownership and operational control of the company. Furthermore, the organisation gets the advantage of the goodwill the family name has earned

(Bhaumik and Gregoriou, 2010). Such family firms often stonewall changes in business models and obstruct outsider entry into the management (Johanson and Vahlne, 1977; Tsang, 2001; Zhang and Ma, 2009). This way, the strategic simplicity anchors the organisation with its mission and makes firms reluctant to accept investments that are not aligned with the MFI's main objectives.

However, there are some severe downsides of family run management too. While the convergence of ownership and management reduces the chances of agency conflicts[28], it makes the organisation vulnerable to other serious corporate governance issues, like misuse of power by the majority stakeholders for their personal gains, which range from a unique but modest and visible financial gain to a hidden and severe act of siphoning the whole profit, termed as tunnelling (Shirur, 2011).

In most Indian MFIs, there is not much difference between ownership and governance, and the organisation lacks a system of governance (MicroSave, 2015). It indicates that only a handful of people have complete control over the organisation. Furthermore, there are apprehensions about management and corporate governance issues in the growing MFIs (Mersland and Strøm, 2010), especially those that underwent a major transformation. During the conversion of some large NGO MFI into NBFI, all the community members become equity owners of the newly formed NBFI via mutual benefits trust (MBT). Later, it was found that these initial equity owners disappeared, making the control of the transformed MFI more concentrated in a few hands (Sriram, 2010). Moreover, in some cases, promoters and their family's undue personal gains are visible from unusually high remunerations and other extraordinary financial benefits (Sriram, 2010). For microfinance, such incidents are not just governance issues but ethical and moral too.

8. Conclusions and Policy Implications

The findings of the study indicate the absence of agency costs due to conflict between owners and managers in the Indian microfinance sector. Furthermore, the results indicate that the depth of outreach makes the MFI attractive for equity investments and, equity investors prefer to open microfinance services to all, not just limited to women clients. It is found that in most of the Indian MFIs, the promoters have control over the management. Though the presence of the original promoters on the management board helps the organisation to remain committed to its primary mission, such a setup is exposed to a different set of corporate governance challenges.

The drastic changes in the organisational structure of MFIs are followed by changes in their capital structure and incentive frameworks. Though this requires MFIs to become commercially oriented, profit maximisation or profiteering would jeopardise the effort. As a policy implication, the study highlights the requirement of a prudent corporate governance structure for the MFIs as per the changing environment. A tiered regulatory framework keeping in mind the organisational structure and size of the MFI would be more effective where higher tiers of licensing and supervision are for bigger MFIs. Furthermore, the sector needs more transparency. The availability of MFI-level data on funding sources, capital structure, and the shareholding pattern is vital to evaluate the functioning and governance of MFIs.

NOTES

1 Small Industries Development Bank of India (SIDBI) is the national level institution to promote and finance micro, small and medium enterprises in India.

2 During that time, though the MFIs had arranged lenders to contribute implicit capital, there was a scarcity of explicit capital or seed money brought by the promoters. Promoters' capital is a natural provider of risk capital and is very crucial for capital adequacy and leveraging capacity of the MFIs.

3 One major limitation of NGOs was due to lack of ownership. When donations and subsidies dominate at the early stage of the MFIs, the ownership issue was unrealistic. However, as the sector gained maturity, MFIs became more vulnerable to 'the moral hazard' problem due to the lack of clear ownership. Lack of clear ownership distorts incentive structures and challenge the sustainability of the organisation (Wisniwski, 1999).

4 Among various initiatives to help the MFIs, SIDBI took an exceptional step of providing need-based financial help under Micro-Credit Scheme (MCS) to MFIs which mainly target economically disadvantaged and women clients. For details, visit http://old.sidbi.in/Developing_MFIs.php

5 New sources of capital comprise non-banking financial companies (NBFCs), bank treasuries, mutual funds, and private wealth (Fernandes, 2011). This was achieved by utilising a sophisticated process of securitisation (of the loan portfolio).

6 Furthermore, banks must open 25% of the incremental branches in unbanked rural areas. Again, MFIs prove very helpful to banks to fulfil the target.

7 Remaining 15% from subordinated debts, bonds, NCD, ECB, savings and deposits, and other sources (Sa-Dhan, 2018)

8 Sa-Dhan is a leading association of community development finance institutions in India. It received primary data from more than 200 MFIs in the year 2018. The data represent around 99% of the Indian microfinance sector. However, it does not provide firm level data.

9 The calculation does not include off-balance sheet portfolios that they managed on behalf of other banks. Addition of such items will increase the debt-equity ratio to astronomical levels.

10 Financial institutions, unlike other corporations, earn mainly from the lending operation. Therefore, the relationship between the levered and unlevered beta, and the nature of the regulations applicable on financial institutions differ from those of corporations (Bogan, 2012).

11 Jensen and Meckling (1976) initiated the research based on agency costs. It was based on the work of Fam and Miller (1972) (for detail discussion, see Harris & Raviv, 1991). According to the agency costs theory, the use of debts reduces the agency costs of outside equity and disciplines managers to put in more efforts to maximise firm value (Jensen & Meckling, 1976).

12 The pecking order hypothesis first emerged in the study of the financing practices of large companies conducted by Donaldson in 1961 (Donaldson, 1961).

13 According to the life cycle theory, the financing sources are linked to the organisational development of an MFI. In the initial stage, MFI started as an NGO with a social mission and solely depended on donations and grants. As the MFI expands its operations, it uses commercial debts. The theory associates the last stage of MFI evolution with the use of equity financing.

14 Jensen and Meckling (1976) define agency costs as the sum of all the expenditures made on monitoring by the principal, all the bonding expenditures by the agent, and the residual loss.

15 Highly leveraged firms must generate large funds to pay their creditors on time. This heightens the risk of bankruptcy, puts excessive pressure on the management and increases the chances of conflicts between external lenders and shareholders.

16 The study assumes that MFI with higher ROA is better managed and more efficient.

17 Wide rule based regulations were introduced in 2011 to safeguard the clients' interests and provide stability to the Indian microfinance sector (Shetty, 2012). Furthermore, Reserve Bank of India (RBI) introduced regulations that MFIs must follow to get banks' funds under priority sector lending (Navin and Sinha, 2019).

18 The regulatory capital ratios are generally calculated using risk weights for different types of assets. The risk weights are basically risk perception associated with a particular type of assets owned by a firm. In absence of a detail split of different asset class of MFIs' total assets, the study fails to incorporate the different level of risk associated with the MFI assets.

19 Smaller loans of uniform nature provided to many borrowers living in close proximity reduce the operating costs of the MFIs. Such loans diversify the credit risk, and MFIs earn a handsome return on the total loan portfolio.

20 Lending to women helps MFIs in their poverty eradication and empowerment objectives (Kar, 2012). Even the presence of women in top management of an MFI improves its outreach efficiency (Hartarska, *et al.*, 2014).

21 It is found that because women living in developing regions have minimal options for financial services, they try to maintain higher repayment rates to avail the services in future (Van Tassel 2004; Hartarska, *et al.*, 2012).

22 A regressor x is endogenous if it is correlated with the error term ε of the model. A variable z can be used as instrument in the model if it is associated with x but not with the error term ε. Moreover, the variable z should not a direct cause of the dependent variable y. This way the endogeneity can be removed.

23 In the dynamic panel models, the past (or lagged) value of the dependent variable is included as an explanatory variable.

24 As it is first shown by Nickell (1991), it is also known as Nickell bias.

25 Post 2018, the MIX Market database on WDI is not updated.

26 The null hypothesis of AR(2) is the absence of the second-order serial correlation in residuals and needs to be not rejected for the validity of the GMM results. This ensures that: $E[\Delta v_{it} \Delta v_{it-2}] = 0$.

27 It is worth mentioning here that even if an MFI does not explicitly focus on women, usually, half of its clients will, in any case, be women (D'Espallier, *et al.*, 2011).

28 However, such organizations often face a different type of agency conflict, that is between the controlling shareholders (family members) and the minority shareholders (Bhaumik and Gregoriou, 2010).

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Performance of Microfinance and Women-led Enterprises in Africa and India: A Comparative Review

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Abstract

Microfinance has played a pivotal role in advancing financial inclusion and fostering entrepreneurial growth, particularly for women in underserved regions. This study provides a comparative analysis of microfinance's impact on women entrepreneurs in India and Africa, focusing on its influence on household income, entrepreneurial activity, and socio-economic empowerment. While India's formalised and technology driven microfinance ecosystem has contributed to enhanced access to credit, financial literacy and enterprise expansion, Africa's microfinance initiatives often serve as vital tools for broader developmental objectives, particularly in rural and post-conflict areas. Despite its transformative potential, challenges such as high interest rates, over-indebtedness and limited outreach remain prevalent across both regions. By synthesising existing research, this paper highlights key similarities and differences in microfinance's effectiveness within these geographies.

In India, a more formalised and technology driven microfinance ecosystem has facilitated significant improvements in women's access to credit, financial literacy and enterprise activity. In Africa, microfinance serves as a significant tool in addressing joblessness through enhancing financial inclusion and supporting entrepreneurship.

1. Introduction

Microfinance is widely acknowledged as a potent tool for promoting financial inclusion and entrepreneurial development, particularly among women, in regions where the supply of formal financial services is inadequate. This paper examines the comparative impacts of microfinance initiatives on women entrepreneurs in India and sub-Saharan Africa, emphasizing its role in enhancing household income, fostering entrepreneurial

Key Words: Microfinance, Financial Inclusion

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ventures, and empowering women socially and economically over the past two decades. The African countries considered are South Sudan, Kenya, Nigeria, Tanzania, Ethiopia, Ghana and South Africa. By analysing a diverse body of literature, the study highlights similarities and differences in microfinance outcomes within these two geographies shaped by varying policy frameworks, cultural contexts and institutional capacities. By comparing these contexts, the paper offers insights into the factors contributing to successful outcomes and highlights areas for improvement. This analysis aims to inform policymakers, practitioners and researchers seeking to design more effective, context-sensitive microfinance programmes that balance financial sustainability with impact, particularly in empowering women entrepreneurs.

2. Methodology

This paper is based on a systematic review of existing literature examining the multi-faceted impacts of microfinance initiatives within Indian and African contexts. By synthesizing a wide array of scholarly research, the review highlights the heterogeneous outcomes of microfinance interventions, including the ways they influence household income, women's empowerment, entrepreneurial activities, and community level financial inclusion. Recognising the inherent diversity in regional economic conditions, cultural norms and policy frameworks across these two geographies, the paper draws attention to key similarities and differences in how microfinance affects borrower well-being and market dynamics.

3. Literature Review

Microfinance and its impact have been areas of significant interest for researchers. In the African context, several studies suggest that microfinance has played a significant role by fostering entrepreneurial growth, enhancing financial inclusion, and contributing to economic development. It has emerged as a crucial tool for empowering individuals, particularly in regions where access to traditional financial services is limited. The impact of microfinance in Africa appears to be multifaceted, influencing various aspects of economic and social life across the continent. Microfinance has been instrumental in supporting the establishment and growth of small and medium enterprises (SMEs) by providing necessary capital to entrepreneurs who lack collateral and credit history (Falaiye *et al.*, 2024). A study across several African countries found a long-term relationship between microfinance, financial inclusion and economic welfare, suggesting that microfinance contributes to economic growth and household consumption (Manasseh *et al.*, 2024).

Microfinance has been associated with poverty alleviation by improving household income and fostering entrepreneurship, with beneficiaries experiencing significant increase in income and improvements in health and education. In rural areas, microfinance has been seen as a tool for poverty reduction and reconciliation, especially in post-conflict regions (Musanganya *et al.*, 2017).

Despite these positive impacts, challenges such as high interest rates, limited outreach to marginalised groups and over indebtedness persist. In some regions, like Central Africa, the effects of microfinance on socio-economic conditions have been negligible, highlighting the need for tailored and accessible programmes to maximise its potential (Djoufouet, 2019).

In Africa, microfinance has also been criticised for mission drift. The social mission gives way to profit motives. The problem is exacerbated when such drift is observed in charitable organizations. In contexts such as South Sudan, there is a paucity of regulatory oversight. Even in more evolved sub-Saharan countries, the interest rates microfinance institutions (MFIs) charge and their collection practices may escape oversight of regulators. In this form, microfinance may add to borrower distress, and have a negative impact on their lives and businesses (M2i, 2024).

Studies and assessments aimed at evaluating the impact of microfinance on clients in India have been conducted since the initial phase when most MFIs operated as non-profit entities. One notable national level impact assessment was undertaken as part of the National Microfinance Support Programme (NMSP) implemented by Small Industries Development Bank of India (SIDBI). This study, carried out by an independent research institution between 2002 and 2007, was conducted in two stages. Stage I (2001-2004) included a baseline survey across a sample of 20 partner MFIs, while Stage II (2004-2007), the endline study, encompassed five additional MFIs. The findings indicated that microfinance services have generally contributed positively to poverty alleviation and the empowerment of women in India. Specifically, the study found strong evidence that microfinance improves access to and usage of MFI loans, enhances enterprise activity, supports improvements in income related aspects, and strengthens households' capacity to manage risks. It also partially supported the notion that microfinance extends financial services to underserved populations, contributes to women's empowerment, fosters overall socio-economic improvements for clients, and enhances the terms, conditions and accessibility of other financial services.

Another research focusing on the impact of the Portfolio Risk Fund (PRF), a Government of India (GoI) supported initiative managed by SIDBI to bolster microfinance lending, was conducted in 2013-14 with assistance from independent agencies. This research surveyed 26 MFIs and 5,720 clients nationwide. The results showed that 98% of respondents reported increased confidence levels after engaging with an MFI, and nearly 90% reported improved social standing both within their families and in the broader community. In addition, 90% of respondents stated that their economic and financial conditions had improved after engaging with the MFI. They also indicated an increase in income sources, higher business asset values, growth in real income and savings (adjusted for inflation at 8% annually), and improved household amenities such as toilets, mobile phones, televisions and refrigerators (PWC/M2i 2013). This study identified several factors contributing to positive outcomes for clients, including client relationship management by MFIs, access to patient risk capital, strong governance and management within MFIs, and sound risk management practices.

Prominent experts have noted that inadequate governance and regulatory oversight could lead to misuse of the microfinance model, such as charging excessively high interest rates to poor borrowers (Nair, 2011) and creating structures to generate disproportionate profits for MFI promoters and investors (Sriram, 2010). These observations underscore the need for effective regulation and robust governance (Nair, 2011). The government-imposed restrictions on MFIs in Andhra Pradesh in 2010 illustrate the severity of issues that could arise from inadequate oversight.

Following these events, the Reserve Bank of India (RBI) introduced a regulatory framework, defining the institutional and operational parameters of microfinance. This was accompanied by the recognition of Sa-Dhan and MFIN as self-regulatory organisations (SROs) and the introduction of a code of conduct compliance assessments (COCA) for MFIs. Over the following decade, although secular risk events such as demonetisation and the COVID-19 pandemic occurred, fewer concerns were raised about MFI governance related to systemic misuse. Governance issues, when identified, typically involved fraud rather than large scale manipulation of regulations for profit at the expense of poor clients.

Nobel laureates Abhijit Banerjee and Esther Duflo have also studied microfinance's impact. They examined outcomes through three endline surveys (2007, 2010 and 2012) within randomised control trials in Andhra Pradesh. Their research suggests that the primary benefits of credit access are experienced by existing entrepreneurs who can either overcome fixed cost barriers or scale up already productive businesses, thus, improving household business outcomes and consumption. For households starting new businesses or not venturing into entrepreneurship, the impact of microfinance was essentially neutral, neither particularly beneficial nor harmful. Over time, some clients showed substantial gains, and formal finance access reduced reliance on informal credit. This decreased borrowing cost appears to have limited overall credit demand for certain groups, but for proactive entrepreneurs, microfinance facilitated access to additional credit sources, enabling greater long-term benefits.

Between 2010 and 2020, the microfinance sector in India continued to evolve. It became more integrated into the formal economy, with commercial banks, along with small finance banks (SFBs) and non-banking financial companies (NBFCs), accounting for a majority of microfinance assets. Despite encountering significant risk events such as the 2016 demonetisation and the unprecedented COVID-19 pandemic, the sector has shown resilience. Survey based research by Sa-Dhan indicates that microfinance clients were severely affected by the pandemic, and a substantial segment of these clients has not yet fully recovered their livelihoods.

An interesting aspect that emerges from this review is that while India has seen evolution of microfinance over time, particularly in the last 25 years, different countries in the African continent have different levels of microfinance evolution. On the one hand microfinance is seen as an entry strategy for wider interventions in the social development sphere in countries such as South Sudan (Anand, 2022); on the other hand, there are commercial microfinance banks in countries such as Kenya (Kenya Central Bank, 2024).

Also, there appears to be a merit to greater formalisation of microfinance in case the institutional, political and legal frameworks are conducive. It brings the economically poor to the mainstream economy and particularly serves women. It makes government and monetary policies more effective. In India, the RBI has acted against MFIs when it believed that the benefits of low interest rates were not passed on to microfinance customers (*The Hindu Business Line*, October 2024). In contrast the proliferation of mobile agents (agents who give easy loans in cash to the needy) in Nigeria has undermined the country's monetary policies and its central bank's efforts to stabilise the Niara. The Central Bank of Nigeria's initial push for financial inclusion through the expansion of informal financial networks now faces unintended consequences. The regulatory authority is concerned that excessive cash circulating outside the formal banking system is limiting its ability to control inflation and stabilise the naira. The accumulation of liquidity outside regulated financial institutions has diminished the impact of key policy tools, such as the cash reserve ratio and lending rates (Bloomberg, 2024).

4. Specific Dimensions of Impact

The pathway to economic success generally and entrepreneurial success particularly increased because of improved access to institutional financial services that microfinance enables. The specific dimensions of impact have been explored below.

4.1 Impact on Access to Formal Financial Services

Africa: MFIs provide accessible financial services to those who are typically excluded from formal banking systems, thereby, reducing the need for informal moneylenders who often charge exorbitant interest rates (Mago and Hofisi, 2012). The MFIs reduce dependence on costly informal moneylenders in Africa (Abdulkadir *et al.*, 2024). In Nigeria, MFIs have been shown to support the informal sector significantly, enabling a shift from informal moneylenders to more structured financial services provided by MFIs (Osuagwu *et al.*, n.d.). Access to savings accounts and insurance products remains low in Africa, though some respondents utilised informal savings mechanisms. Still, MFIs effectively complement formal banking systems by addressing gaps in financial access, particularly within the informal credit market. They provide financial services to those who lack collateral and credit history, which are often prerequisites for traditional banking services (Olugbenga and Mashigo, 2017).

India: In older studies, microfinance was considered to be an effective means to deliver financial services to economically vulnerable and underserved populations who lack access to conventional financial institutions. These studies found that while there had been a notable improvement in both the availability and uptake of MFI loans, other offerings – such as savings, insurance, and non-financial services – had not shown the same level of progress (SIDBI 2004, 2007).

An impact study in 2022 has found that only 1% of microfinance customers (respondents in the study) in India relied on moneylenders after joining MFIs, compared to 14% before their association. This reduction highlights the effectiveness of MFIs in providing accessible credit (Sa-Dhan 2022). A study in 2013 found that microfinance leads to subscription to credit linked insurance. At the same time, it did not improve subscription to health insurance or pension schemes. Also, fewer than 25% of the respondents in the study had obtained loans from other formal sources such as banks or cooperatives (PWC, M2i 2013).

In a more recent study, microfinance customers in India have reported high access to savings accounts, with 22% using mobile applications supporting the unified payments interface (UPI) for making payments as a substitute for cash. However, uptake of voluntary insurance products remained low (Sa-Dhan 2022).

To sum up, both Africa and India show reduced reliance on moneylenders, with India exhibiting a more significant shift due to the formalised microfinance landscape. India shows greater integration with formal financial systems, partly due to technological advancements like UPI.

4.2 Impact on Economic and Financial Condition

Africa: Microfinance has emerged as a significant tool for improving income in Africa by providing financial services to those traditionally excluded from formal banking systems. It plays a crucial role in fostering microbusiness development, enhancing household welfare, and empowering marginalised groups, particularly women. The impact of microfinance on income improvement in Africa can be understood through several key aspects.

Microfinance has been shown to positively impact microbusiness growth in regions like northern Ghana, where businesses that received microfinance exhibited higher monthly sales, increased number of employees, and greater business assets compared to those that did not receive such support. By facilitating access to credit, MFIs contribute to economic growth and poverty reduction, enabling borrowers to invest in business development and improve their livelihoods.

In the Kassena-Nankana municipality, access to microfinance increased the monthly average income of SMEs and generated significant employment, thereby, enhancing household welfare (Ali, 2013). Microfinance enables poor individuals to diversify and increase their income sources, which is essential for poverty alleviation. This is particularly evident in rural areas where traditional financial services are inaccessible (Mago and Hofisi, 2012).

In Tanzania, microfinance has been effective in increasing individual income, although success is often contingent on factors like collateral and education (Kaseva, 2014).

Financial inclusion positively influences financial stability (Koudalo and Toure, 2023). This boosts employment by enabling marginalised groups to access essential financial services, which is crucial for job creation. Research indicates a negative relationship between micro-credit finance and unemployment in South Africa, suggesting that micro-credit can effectively reduce joblessness and stimulate economic growth. The study utilised data from 1994 to 2014, demonstrating both short-term and long-term benefits of micro-credit in addressing unemployment (Ncanywa and Getye, 2016).

In Nigeria, microfinancing showed no significant short-term impact on unemployment but indicated potential long-term benefits, emphasising the need for government partnerships with microfinance institutions to support entrepreneurs (Ihenetu and Wilson, 2021). Micro-credit has been particularly effective in promoting women's employment and enhancing business revenues in the informal sector, highlighting its role in gender-based employment creation.

Researchers have found that the effectiveness of microfinance in reducing female unemployment in sub-Saharan Africa is contingent upon reaching specific thresholds of microfinance institutions per capita (Asongu *et al.*, 2024). Savings increased as women diversified income sources through microfinance supported ventures. In Ethiopia, the Amhara Credit and Saving Institution (ACSI) has shown a positive impact on household savings (Menza, 2016). In Ghana, microfinance schemes have been effective in mobilising savings among rural households, particularly small scale cocoa farmers, by fostering a savings culture and providing access to credit (Asamoah *et al.*, 2015).

India: In older studies, microfinance has been found to increase enterprise activity and contribute to improvements in various income related areas, while also enhancing the capacity of vulnerable households to manage risks (SIDBI 2004, 2007). Its customers often report an increase in the number of income sources and the value of business assets within their households. There is also evidence of increased average income and savings, adjusted for an annual inflation rate of 8%. Additionally, respondents have reported improvements in amenities such as the presence of a toilet facility at home (rising from 48% before to 61% after association with a microfinance institution), cell phone ownership (67% to 87%), television ownership (57% to 72%), and refrigerator ownership (18% to 23%) (PWC 2013).

Research by Abhijit Banerjee and Esther Duflo shows that microfinance mainly benefits households already running established businesses prior to its introduction, enabling them to expand production, shift to more productive technologies, and increase both business activity and consumption. In contrast, households starting new enterprises or never initiating any business see little impact. Over time, microfinance could also reduce reliance on informal credit, though its overall effect depends on whether borrowers adjust their demand for credit. For 'gung-ho entrepreneurs', it encourages greater borrowing from multiple sources, which are long-term positive effects.

More recent studies have determined that jobless days for main earners experiencing more than 30 days decreased from 61% before joining MFIs to 50%. This decline was disrupted during the COVID-19 pandemic. At the same time, the share of households with savings rose from 54% before microfinance to 79% after joining MFIs, indicating a significant impact on financial stability (Sa-Dhan 2022). About 99% of respondents in India reported some improvement in economic conditions, with 32% attributing this to timely and lower-cost loans from MFIs (Sa-Dhan 2022).

According to Sa-dhan's 2022 impact study, the leading contributors to improved economic and financial conditions are having more earning members in the household (cited by 53% of respondents) and increased work or customers (43%). Additionally, 32% of respondents credit these improvements to receiving MFI loans either promptly, at lower interest rates, or both. Data presented in the Appendix of Sa-Dhan's impact study provides several interesting insights into the nature of income increases witnessed by microfinance customers, and the reasons they attribute to this increase.

It may be noted here that Abhijit Banerjee and Esther Duflo have suggested that beneficial impact is experienced by existing entrepreneurs on account of business skill sets they have acquired. It may still be possible that these skill sets can be passed on to more members of the family, and when one of them start a new business or expand an existing one, their likelihood of success improves if they have access to microfinance.

Sa-dhan's 2022 impact study provides several statistical tests comparing first time microfinance borrowers with those who have borrowed more than once from MFIs. These tests compare the proportions of respondents in each group who have stated that their income and savings has increased, attributing this increase to various parameters such as:

1. **More earning members in the family:** A significantly higher proportion of customers who have taken more than one loan from MFIs have attributed the increase in income and savings to more earning members in the family.
2. **More work or customers in the business:** A significantly higher proportion of customers who have taken more than one loans from MFIs have attributed the increase in income and savings to more work or customers in business, as compared to first time loan customers.
3. **Greater ability to stock:** A significantly higher proportion of customers who have taken more than one loan from MFIs have attributed the increase in income and savings to the ability to keep more stock in business, as compared to first time loan customers.

4. **Timely loans, lower cost of funds, investment in business expansion:** The differences in the proportions of respondents in each group are not significant for variables such as timely loans, lower cost of funds, and investment in business expansion or machinery. This might suggest that while these factors are essential, they are more uniformly experienced across borrower groups and are not as dependent on loan cycles.
5. **New business:** A significantly higher proportion of customers who are first time borrowers of MFIs have attributed the increase in income and savings to new business.

The findings suggest that repeat borrowing may facilitate progressive economic stability and growth, as borrowers leverage successive loans to build capacity and resilience. This also points to a shift in priorities across loan cycles, with initial loans driving entrepreneurial entry and subsequent loans enhancing operational efficiency and profitability.

4.3 Social Dimensions of Impact

Africa: Microfinance has significantly impacted women's autonomy in household decision making. The ability to engage in income generating activities fosters a sense of self-worth and community involvement among women, further enhancing their decision making roles (Gracy and Devi, 2024). Higher access to microfinance is associated with reduced gender asset gaps, suggesting that it may empower women, thereby, potentially enhancing their influence in household decision making within the context of Ghanaian households (Mannah-Blankson, 2018).

Access to microfinance has enhanced women's participation in decision making and increased their social respect within communities, as seen in Tanzania (Maghina *et al.*, 2023). In Ethiopia, microfinance has been linked to improvements in family relations and political empowerment, although the overall empowerment status remains low, with only 38.4% of women considered empowered (Asha and Senapathy, 2022).

India: Similar findings emerge in India, where about 80% of respondents stated that loan utilisation decisions were made jointly with their spouse or a close family member. Only 6% of women reported making such decisions independently, highlighting the interplay of traditional gender roles and evolving financial empowerment. Nearly 44% of Indian respondents reported a high improvement in their confidence when talking to outsiders, with an additional 55% noting moderate improvements. Similar trends were noted in their ability to interact with banking officials. In India, 46% of respondents noted a high increase in their participation in community affairs, with another 51% reporting moderate improvements. This impact is particularly pronounced in semi-urban areas. Around 45% of respondents felt their societal status improved significantly after joining microfinance groups. Another 54% noted moderate improvements, with variations across regions (Sa-Dhan 2022).

4.4 Comparison on Social Dimensions

The improvement in confidence levels is a shared outcome, with both regions showing significant progress. The formalised nature of Indian microfinance institutions may contribute to a slightly more measurable impact in structured interactions such as bank visits. Both regions exhibit enhanced community participation, although the structured group meeting formats may provide a more direct avenue for fostering such engagement. The societal status of women in both regions improves through microfinance. However, the cultural acknowledgment of this status change may vary, with more pronounced community-level recognition in Africa.

4.5 Effects of Microfinance

In India, the high concentration of MFIs in specific regions has resulted in multiple lending to the same set of borrowers. As a result, borrowers often take loans from multiple MFIs simultaneously, leading to excessive debt burdens. This resulted in the microfinance crisis of Andhra Pradesh in 2010. More recently, it has been the cause of discomfort among regulators. Since borrowers must repay existing loans, they frequently resort to fresh borrowing, creating a cycle of unsustainable debt.

Many clients, particularly women, become trapped in a vicious cycle where their entire income goes toward loan repayments, often forcing them to cut back on essential expenditures like food, healthcare, and education. Periodic regulatory oversight, such as the RBI interventions, has helped reduce the severity of these issues. However, profit driven expansion by some MFIs still threatens financial stability in vulnerable communities.

While microfinance in Africa has played a crucial role in financial inclusion, mission drift – where social objectives take a backseat to profitability – has become a growing concern. In several African countries, even non-profit and socially motivated microfinance entities have drifted toward aggressive profit seeking behaviour. In post-conflict regions like South Sudan, regulatory structures for microfinance institutions are weak or non-existent, allowing exploitative lending practices to thrive.

In more evolves Sub-Saharan economies, such as Nigeria and Kenya, interest rates charged by MFIs and their collection practices often escape the scrutiny of financial regulators. Exorbitant interest rates and aggressive loan recovery tactics have driven some borrowers into further financial distress. In extreme cases, microfinance can potentially have a net negative impact, deepening poverty rather than alleviating it.

5. Findings and Discussions

This multiregional comparison of the impact of microfinance offers some insights about the microfinance model. The relationship between microfinance interventions and borrower well-being sits at a complex intersection of philanthropic aims, commercial imperatives, and the realities of vulnerable populations navigating financial systems, as demonstrated by the experience in African countries as well as India. While both Africa and India show positive aspects of the impact of microfinance, the formalised lending structures in India may contribute to more consistent economic improvements. Two dominant approaches emerge, each with distinct implications for both the sustainability of lending operations and the socioeconomic outcomes for borrowers.

5.1 Microfinance as a Charitable Tool

Some non-governmental organisations (NGOs), social enterprises and impact-driven institutions use microfinance as a development tool. In this model, the priority often leans toward improving the livelihoods of the poor rather than ensuring full repayment. This approach is based on the idea that giving the poor access to capital – even if it involves a high degree of tolerance for defaults – will spur small scale entrepreneurship, improve household resilience, and potentially lift people out of poverty. Such a model is often characterised by:

- **Flexibility and compassion:** Lenders focus less on strict credit discipline and more on supporting borrowers' well-being. Repayment stress is minimised, reducing the possibility of borrower distress and creating a more nurturing environment.
- **Limited scale and financial fragility:** Because these operations do not demand high repayment discipline, they struggle to attract commercial or even large-scale philanthropic capital. This limits their ability to scale, often confining them to small pockets of influence. Over time, reliance on donor funds or small grants means that when these sources dry up, the growth and outreach remain constrained.

5.2 Microfinance Driven by Commercial Capital

On the other end of the spectrum, there is the commercially driven microfinance model that proliferated in countries like India. Fueled by for-profit or semi-commercial capital markets, these lenders must maintain strict repayment discipline to meet investor expectations and ensure financial sustainability. The characteristics of this model include:

- **Scale and outreach:** By providing financial products on a large scale, these institutions can reach millions of borrowers, enhancing overall access to credit. They contribute to financial inclusion by developing extensive networks, which can foster economic dynamism at the grassroots level.
- **Credit discipline and potential distress:** Commercial pressures demand that borrowers repay on time. While this ensures a sustainable flow of funds and the ability to reach more customers, it can also translate into aggressive collection practices and, in extreme cases, borrower distress. Without safeguards, some borrowers may become excessively indebted.
- **Potential for sustainable poverty alleviation (if well-regulated):** When well-regulated and anchored in sound credit principles – such as proper borrower selec-

tion, realistic loan sizing, adequate training, and fair interest rates – commercial microfinance can indeed help to improve household income and resilience. The sustainable flow of capital allows these institutions to offer a wide range of products (credit, savings and insurance) that can genuinely support long-term economic well-being.

Another contentious issue that concerns microfinance is the tricky question of price control. Regulating microfinance pricing, particularly interest rates, is inherently contentious because it sits at the intersection of two often conflicting objectives: protecting vulnerable borrowers and preserving a sustainable and market driven financial ecosystem. On one hand, microfinance borrowers tend to have limited financial literacy, low resilience to economic shocks, and few alternative credit options, leaving them vulnerable to high interest rates and potential exploitation. Regulating these rates can serve as a safeguard, preventing unscrupulous lending practices and helping to ensure that microfinance aligns with its social mission of poverty alleviation.

On the other hand, microfinance institutions operate in challenging contexts - rural areas, informal economies, and markets characterised by limited infrastructure and higher operational costs. These conditions naturally push up the cost of loan delivery. Without the flexibility to set interest rates that reflect these additional costs and risks, MFIs may struggle to remain financially viable. Overly stringent rate caps could discourage investment, reduce the availability of credit and curtail product innovation, effectively undermining the very financial inclusion goals microfinance is meant to advance.

This tension is compounded by the notion that unregulated interest rates, while potentially fostering innovation and competition, might lead to borrower distress if left unchecked. At the same time, strict regulation risks stifling the growth and scale needed for microfinance to serve large underserved populations sustainably. Hence, navigating this delicate balance—protecting borrowers without crippling the sector's capacity to reach them—renders interest rate regulation in microfinance a deeply nuanced and contentious policy challenge.

The evidence is that no single microfinance model offers a perfect solution. The philanthropic model sacrifices scale and sustainability in favor of a developmental ethos that reduces borrower stress. The commercial model scales rapidly and can potentially reach far more people, but it must constantly guard against practices that harm borrowers. The path forward involves integrating the strengths of both approaches – leveraging the growth and efficiency of commercial capital while embedding the social safeguards and client-centric philosophies of philanthropic efforts. By blending rigor with compassion, microfinance can better fulfill its promise as a tool for poverty alleviation and durable improvements in borrower well-being.

6. Conclusion

The Table 1 summarises the achievements from microfinance operations in the Indian and African contexts, and the potential for cross learnings.

Finally, microfinance appears to have positively influenced both Africa and India, enhancing social dimensions, financial services, and economic conditions. India's structured and technology driven microfinance ecosystem often delivers more measurable and widespread impacts. Africa, while showcasing notable progress, reflects a need for further institutionalisation and integration with government programmes to achieve similar levels of outreach and effectiveness. Both regions highlight the transformative potential of microfinance in empowering marginalised populations and fostering economic resilience. At the same time, there is also the need to exercise caution in the way microfinance operations are carried out. Particularly, regulators must ensure that borrowers do not come under duress from unsustainable debt.

Certain strategic implications for microfinance emerge from this study. For instance, new microfinance customers may benefit from starter loans that emphasize low risk entry into

Table 1: Lessons from Microfinance Model

What India Can Learn from Africa	What Africa Can Learn from India
Adapting to local needs: African MFIs often incorporate products beyond credit - like insurance (microinsurance for farmers), savings programmes, and remittance services. Indian MFIs can broaden their portfolios to meet diverse community needs, especially in agriculture dependent regions.	**Structured MFI regulation:** India has a more developed regulatory ecosystem for microfinance, with guidelines on interest rate caps, lending practices, and MFI classification. Adopting standardised policies may help African MFIs reduce predatory lending and improve consumer protection.
Village Saving and Loan Associations (VSLAs): VSLAs are widespread in Africa, leveraging community trust and social capital effectively. India's groups can learn new models of voluntary savings and more flexible loan structures from African VSLA practices.	**SHG-Bank Linkage Programme:** India's SHG-BLP model has proven successful in providing capital to women and rural groups. African MFIs can replicate or adapt these linkage models to formal financial institutions for higher volumes of credit.
Grassroots engagement: African microfinance programmes often involve comprehensive training for women entrepreneurs in tandem with financial services. India can adopt more skill building modules and leadership training beyond just credit provision.	**Scaling women focused initiatives:** India's microfinance sector has significantly scaled lending to women, often leveraging group liability. African MFIs can learn how to replicate this scalable women focused approach and build leadership capacity among women borrowers.
Diversification and risk sharing models: African institutions sometimes blend microfinance with impact investment and donor funding to buffer against shocks. Indian MFIs can explore these blended finance approaches to reduce dependency on commercial funding alone.	**Robust credit bureaus and data analytics:** India's establishment of credit bureaus for MFIs and the use of data analytics to assess borrower risk can help African MFIs manage defaults better and maintain sustainability over time.
Localised training and communication: African MFIs often tailor financial literacy programmes in local languages and use community trainers. India can learn from these context specific approaches to better engage rural populations.	**Tech-driven scale:** India's largescale digital infrastructure initiatives (e.g., Aadhaar, UPI) show how broad digital identity and payment systems can reduce operational costs and expand reach. Adapting these digital frameworks can help African MFIs to scale up quickly.

entrepreneurship and concomitant opportunities to build skills, while repeat borrowers may require larger or more flexible loans to support business expansion and diversification.

Programmes that integrate family members into the entrepreneurial ecosystem (example skill-building workshops) can amplify the impact of microfinance loans, aligning with the observation that more earning members drive economic improvement. Encouraging a transition from starting new businesses to scaling existing ventures ensures long-term sustainability and stability in income generation. Enhanced training and advisory services, alongside timely and affordable credit, could further improve outcomes by addressing gaps in operational management and financial literacy.

Finally, the capital discipline and scalability of the commercial model should be combined with the compassion and mission-driven ethos of the charitable approach. Such a blended model might feature:

- **Mission driven capital with market like rigor:** Utilising social investment funds, impact investors, or 'patient capital' that still expects returns—albeit more modest—can help to maintain credit discipline while avoiding the most exploitative repayment pressures.
- **Client protection measures:** Incorporating borrower protection standards, transparent interest rates and mechanisms to prevent over-indebtedness would allow commercially oriented microfinance to avoid borrower distress.
- **Capacity building:** Providing financial literacy training, business development support, and other non-financial services could enhance borrowers' ability to manage loans productively, reduce default rates and improve overall well-being.

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Collective Strength, Individual Dreams: Micropreneurship and SHGs Reshaping Kandhamal District – A Structural Modelling Approach

– Sadananda Sahoo* and Sachidananda Dash**

The Self-help Group (SHG) led micropreneurship aids in fostering rural economic transformation. The study reveals strong positive relationships between SHG support, micropreneurial impact, and rural development in Kandhamal district, Odisha.

Abstract

This study adopts an integrated research framework that combines structural, measurement, and analytical perspectives to explore the intricate relationships between micropreneurial impact (MI), rural development (RD), and self-help groups (SHGs) support. The structural dimension is addressed through a comprehensive structural equation modelling (SEM) approach, utilising a 5-point Likert scale to measure various constructs. Significant outer loadings reveal the distinct effects of MI, RD, and SHGs support items, with some items showing moderate to high variance inflation factors (VIF). However, the model's collinearity diagnostics suggest that the relationships between constructs remain stable. The path coefficient analysis highlights the positive and statistically significant influence of MI and SHGs support on RD, which is further substantiated by precise confidence intervals. On the measurement side, the study rigorously evaluates the psychometric properties of the measurement model, ensuring the constructs' reliability and validity. Analytically, the study calculates effect sizes, with F-square values underscoring the practical importance of MI and SHGs support as predictors of RD. The integration of these three dimensions offers a nuanced understanding of the relationships and provides actionable insights for policymakers and practitioners aiming to enhance sustainable rural development in the Kandhamal district.

Key Words: Micropreneurship, Self-Help Groups (SHGs), Rural Development

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1. Background and Context

Micropreneurship has emerged as a notable trend in recent years, marking a departure from traditional business ownership and management methods. This shift is a result of the rapidly evolving entrepreneurial landscape, influenced by technological advancements and the digital revolution. The rise of the internet and digital technologies has significantly reduced barriers to entry, allowing aspiring business owners to engage in small-scale enterprises. Digital platforms such as e-commerce and social media have empowered individuals to successfully create and run micro enterprises (Imjai *et al.*, 2023). Moreover, globalisation has opened avenues to niche markets, enabling businesses to meet the needs of specialised consumer segments both locally and internationally. Coupled with an increasing desire for work-life balance, these factors have motivated many to pursue small-scale entrepreneurship. Micropreneurship offers a route to independence and personal fulfilment, making it an attractive option for today's entrepreneurs.

Micropreneurship emphasizes small business initiatives typically operated by individuals or small teams. These enterprises are characterised by minimal investment, limited workforce, and a modest scale, requiring entrepreneurs to take on multiple business roles. Often referred to as 'nano entrepreneurs', these individuals play a significant role in driving job creation, particularly in rural communities. The primary focus of micropreneurs is to build sustainable and profitable businesses while minimising dependence on external financing or large staff. Their operations are defined by a conscious effort to maintain a small scale, enhance cost efficiency, and target specific market niches. Many micropreneurs utilise their personal skills and passions, frequently working from home or in shared spaces to keep costs low (Chaudhry and Paquibut, 2021). Their ventures span various sectors, including e-commerce, creative industries, consulting and online services. Innovation is a crucial aspect of their operations, as micropreneurs continuously introduce unique solutions, products, or services to the marketplace. Sustainability is also a key goal, with a focus on creating businesses that ensure long-term financial viability (Randerson *et al.*, 2020). The versatility and resilience of micropreneurship underline its importance as a driver of entrepreneurial innovation and sustainability in today's economic environment.

Kandhamal District in Odisha, India, is primarily rural, rich in tribal heritage, yet faces significant socio-economic challenges. Recognised for its varied landscape and limited infrastructure, the district grapples with ongoing developmental issues such as poverty, high unemployment rates, and inadequate access to essential services (Sahoo and Swain, 2020). Designated as an 'aspirational district' and affected by left-wing extremism (GOI, 2019), Kandhamal has struggled to promote entrepreneurship. The literacy rate in the district is recorded at 64.1%, with the majority of residents depending on agriculture and forest resources for their livelihoods.

In this environment, micropreneurship presents a suitable alternative to conventional entrepreneurial models. With minimal capital requirements and flexible operational structures, micro enterprises provide local residents with the opportunity to cultivate sustainable livelihoods. Kandhamal hosts over 11,000 self-help groups (SHGs) comprising more than 115,000 members actively participating in small-scale manufacturing and service endeavours (GOI, 2021). These SHGs play a vital role in empowering community members to launch micro enterprises, generating income and promoting economic self-sufficiency. The rise of micropreneurship in the district highlights the necessity for sustainable and localised strategies to tackle socio-economic issues and enhance rural development.

2. The Role of Self-Help Groups

The SHGs have emerged as a powerful instrument for rural development in India, particularly in the empowerment of women. These groups facilitate resource pooling, access to financial support, and participation in entrepreneurial ventures. SHGs are instrumental in fostering financial literacy, enhancing entrepreneurial capabilities, and achieving economic independence, especially among women, thus, advancing gender equality and promoting societal progress (Dokku *et al.*, 2023). Participation in SHGs enables individuals, particularly women, to become active contributors to the local economy while driving positive social changes (NABARD, 2017). The collective strength of these groups has led to significant improvements in the socio-economic conditions of rural communities.

3. Micropreneurship in Rural Regions

In rural India, micropreneurship offers a unique model of entrepreneurship designed for resource limited settings. These businesses, characterised by small-scale operations, are often independently managed or supported minimally, concentrating on niche markets that cater to local needs (Sharma, 2019). Micropreneurs play a vital role in rural development by fostering innovation, creating job opportunities, and addressing poverty. Despite their modest size, these enterprises have a substantial impact on economic growth and the development of self-reliant local economies by leveraging regional resources and skills. The micropreneurial approach aligns effectively with the socio-economic realities of rural areas, making it foundational to rural development strategies (Ukanwa, 2021).

4. Review of Literature and Hypothesis Justification

The contribution of SHGs to entrepreneurship, particularly in rural settings, has been extensively explored in the literature. Numerous studies emphasize their potential to foster economic empowerment and social development within local communities

(Banerjee *et al.*, 2015). SHGs operate not only as financial intermediaries but also as social networks that facilitate the exchange of resources, information, and knowledge. These networks help aspiring entrepreneurs overcome various barriers and enhance their chances of success (Cheston and Kuhn, 2002). The role of SHGs in micropreneurship is particularly relevant in the context of Kandhamal District, where grassroots initiatives are essential for sustainable rural development. However, while studies highlight the importance of SHGs, there remains a critical gap in understanding the mediation role of micropreneurs in translating SHG support into tangible rural development outcomes.

5. Hypotheses

SHG Support and Rural Development (H1)

Research has established that SHGs significantly contribute to rural development by fostering local entrepreneurship, enhancing financial inclusion, and providing necessary skill development programmes (Pradhan *et al.*, 2022). The structural support offered by SHGs plays a crucial role in uplifting rural populations through micro enterprise development (Chandran *et al.*, 2016). SHGs provide access to microfinance, enabling small business formation and expansion, ultimately leading to enhanced rural livelihoods (Morduch, 1999). Recent studies underscore the importance of community driven initiatives in sustainable development (Sen *et al.*, 2018) and the role of digital SHG platforms in expanding entrepreneurship opportunities (Rao *et al.*, 2023; Prabhala, 2019) Given the foundational role of SHGs in rural economies, it is essential to investigate their direct impact on rural development.

Hypothesis 1 (H1): A significant and positive relationship exists between SHG support and rural development (RD).

SHG Support and Micropreneurial Impact (H2)

SHGs provide essential resources, including financial assistance, skill development, and networking opportunities, increasing the success rate of micro businesses (Pradhan *et al.*, 2022). Micropreneurs, defined as small-scale entrepreneurs operating within localised markets, benefit significantly from SHG support structures (Welter, 2011). Studies indicate that SHGs contribute to entrepreneurial capabilities by offering structured training programmes, capacity building initiatives, and business mentoring (Oosthuizen *et al.*, 2020). These interventions help micropreneurs navigate market challenges, gain access to credit, and sustain their businesses, reinforcing their impact on rural economies (Davidsson, 2015). The rise of women-led SHG entrepreneurship has further expanded opportunities in marginalised communities (Rawat, 2021).

Hypothesis 2 (H2): SHG support is positively associated with micropreneurial impact (MI).

Micropreneurial Impact and Rural Development (H3)

Micropreneurship is a transformative force in rural economies, contributing to job creation, income generation, and poverty alleviation (O'Donnell, 2023). The relationship between micropreneurship and rural development is multidimensional, encompassing economic, social, and infrastructural growth (Barnes, 2016). Micropreneurs fulfil niche market demands within rural communities, addressing economic gaps (Welter, 2011). The success of micro enterprises often translates into increased employment opportunities and overall economic revitalisation (Sen *et al.*, 2018). The adoption of digital transformation in micro business operations has further expanded rural entrepreneurs' market access (Eze *et al.*, 2023).

Hypothesis 3 (H3): A positive and statistically significant relationship is observed between micropreneurial impact (MI) and rural development (RD).

Mediation of Micropreneurial Impact Between SHG Support and Rural Development (H4)

The mediation effect of micropreneurial impact in the relationship between SHG support and rural development is an emerging research area. Studies indicate that while SHGs provide foundational support, and their ultimate impact on rural development is mediated through the success of micropreneurs (Cheston and Kuhn, 2002). The facilitative role of SHGs in enabling micropreneurial activities serves as a crucial link between institutional support and economic progress (Banerjee *et al.*, 2015). Theoretical frameworks such as institutional theory suggest that SHGs act as enablers of micropreneurs, who then drive rural economic growth through increased economic activity. Empirical findings suggest that SHGs enhance business sustainability by fostering a culture of collective entrepreneurship and accelerating rural economic transformation (Pradhan *et al.*, 2022). Furthermore, government policies and public-private partnerships are increasingly seen as enablers of SHG-based micropreneurship (Gupta and Bansal, 2022).

Hypothesis 4 (H4): Micropreneurial impact (MI) significantly mediates the relationship between SHG support and rural development (RD).

6. Addressing Challenges Faced by Micropreneurs

Despite micropreneurs' contributions to rural development, several challenges persist. Limited access to financial resources, inadequate market linkages, and regulatory barriers remain critical impediments (Davidsson, 2015). The lack of infrastructural support, coupled with an absence of advanced technological integration, exacerbates difficulties faced by rural micropreneurs (Chandran *et al.*, 2016). Research highlights the necessity of targeted policy interventions to bridge these gaps and ensure the sustainability of micro businesses (O'Donnell, 2023). The incorporation of digital platforms and fintech solutions has been proposed as a viable strategy to enhance financial accessibility

(Morduch, 1999). A recent study by Dubhashi (2022) suggests that integrating block chain technology in SHG led microfinancing could enhance transparency and efficiency in fund distribution.

7. Research Methodology

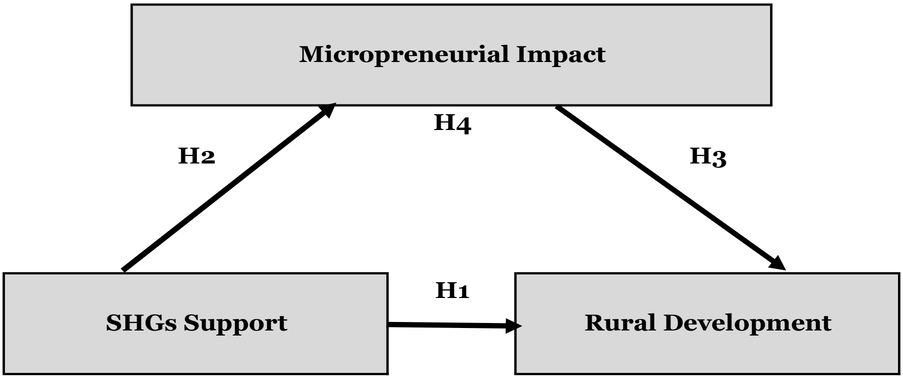
In this study, a quantitative research methodology has been used to understand the relationship between the SHGs, micropreneurs and rural development in Kandhamal district in Odisha. The selected district presents a unique case for socio-economic transformation. Predominantly rural, the district faces socio-economic challenges such as high poverty rates, inadequate infrastructure and limited access to essential services. While existing research has established that SHGs contribute to micro enterprise growth and rural development, there is limited empirical evidence examining the mediating role of micropreneurs in this process, particularly in the Kandhamal context. Respondents' perceptions regarding the key variables were assessed through 18 structured survey items using a 5-point Likert scale. The sampling technique used is stratified random sampling to obtain a sample size of 326 respondents that reflects a cross section of the target population. Specifically, the study aims to address two key research questions, which will be analysed by using a 5-point Likert scale:

RQ1: To what extent do SHGs contribute to micropreneurial success and rural development in Kandhamal district?

RQ2: How does micropreneurial impact (MI) mediate the relationship between SHG support and rural development (RD) in Kandhamal district?

Based on the review of literature and hypothesis justification, a corresponding research model is developed to illustrate the conceptual framework, depicting the relationships among the key variables—SHG support, micropreneurial impact, and rural development—along with the mediating role of micropreneurial impact in linking SHG support to rural development (Figure 1).

Figure 1: Hypothesized Research Model



8. Survey Period and Data Collection

This study was conducted between February 2024 and April 2024. The target population includes diversity of socio-economics in Kandhamal district, SHG members and micropreneurs, including rural development stakeholders. For this purpose, a stratified random and multi-stage sampling technique was used to ensure representative cross section of the target population. The primary data were collected through face-to-face interviews, structured questionnaires, and online survey forms; therefore, the survey form was easily accessible and the response was accurate and precise. The field surveys were carried out on SHG members undertaking entrepreneurial activities and micropreneurs supported through SHG led support structures. Particular efforts were made to ensure representation by gender, a diversity of sectors, and inclusion of economic variance within the sample. Data analysis was performed using SMART-PLS 4.0, employing structural equation modelling (SEM) to test the hypothesised relationships between SHG support, micropreneurial impact, and rural development. Reliability and validity tests were conducted to ensure robustness and generalisability.

9. Measurement Instruments

The study employs a well-defined 18-item scale, developed to capture three key dimensions of entrepreneurship. The measurement scale includes six items assessing SHG support, five items measuring micropreneurial impact, and seven items evaluating rural development. The items are selected based on existing literature to ensure their relevance and reliability in measuring the study variables.

SHGs Support

The SHG support scale consists of six items, each measured on a 5-point Likert scale ranging from '1: strongly disagree' to '5: strongly agree'. Higher scores represent stronger perceptions of SHG support, while lower scores indicate weaker support. The scale assesses aspects such as financial assistance, capacity-building efforts, job creation, adaptability and market access for entrepreneurs in the district. Sample items include:

'To what extent do SHGs in Kandhamal provide financial support to local entrepreneurs?', 'How often do SHGs conduct skill building programmes for their members?', and so on.

The scale has been validated in previous studies with a Cronbach's alpha ranging from 0.6 to 0.8, and this study reports a Cronbach's alpha value of 0.889, indicating strong internal consistency.

Micropreneurial Impact

The micropreneurial impact scale is composed of six items that measure the effects of micro enterprise activities on local communities, including economic sustainability social empowerment, and innovation. This scale also employs a 5-point Likert scale for responses, with a Cronbach's alpha of 0.932, demonstrating excellent internal consistency. Sample items include: 'How has SHG support influenced the profitability and long-term viability of micro businesses in Kandhamal?', 'To what extent have micropreneurial activities improved access to essential services such as healthcare and education in rural areas?', and so on.

Rural Development

The rural development scale comprises seven items, again measured on a 5-point Likert scale. It evaluates the impact of micropreneurial activities on the broader goals of rural development in Kandhamal, including infrastructure, cultural heritage, sustainability, and social cohesion. The Cronbach's alpha for this scale is 0.904, indicating excellent reliability. Example items include like, 'To what extent does the success of micropreneurial activities contribute to the overall rural development objectives in the district?', 'How does SHG support influence the effectiveness of rural development efforts in Kandhamal?', 'How do micropreneurs contribute to local agricultural sustainability and food security?', and so on.

10. Results and Discussion

The data collected through the surveys were analysed using Smart PLS4 software, ensuring that all construct values exceed the satisfactory threshold of 0.7, as recommended by Nunnally (1978). The Cronbach's alpha values for the three constructs—rural development (RD), SHG support (SS) and micropreneurial impact (MI)—are found to be 0.889, 0.899, and 0.932, respectively, indicating good internal consistency.

The primary objective of the research is to predict the dependent variable, rural development (RD), using structural equation modelling (SEM), as widely practiced in related studies (Hussain and Li, 2022). A two-stage SEM approach, as outlined by Hair *et al.* (2013) was applied. The first stage involves assessing the measurement model, ensuring construct validity and model fit. In the second stage, SEM was used to examine the structural relationships between the constructs.

11. Exploratory Factor Analysis

To assess the adequacy of the sample for factor analysis, the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's test of sphericity were conducted. The KMO statistic yielded a value of 0.901, surpassing the minimum threshold of 0.50, confirming

Table 1: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.901
Bartlett's Test of Sphericity	Approx. Chi-Square	4510.288
	Df	153
	Sig.	0

Source: Author's estimates

the sample's suitability for factor analysis (Hair *et al.*, 2013). In addition to, the Bartlett's test resulted in a significant chi-square value (4510.288, df = 153, $p < 0.05$), supporting the appropriateness of factor analysis for the dataset as presented in Table 1.

12. Evaluation of the Measurement Model

The measurement model assesses the relationships between constructs and their respective indicators, incorporating key validity and reliability measures. Specifically, composite reliability (CR) is used to evaluate internal consistency, while average variance extracted (AVE) is employed to assess convergent validity (Sarstedt *et al.*, 2014). These tests ensure that the measurement model is reliable and valid.

As per Gaskin and Lim (2016), model quality is deemed excellent when the AVE exceeds 0.5 and CR surpasses 0.7. From Table 2, it is clear that both CR and AVE criteria are met, confirming the model's reliability and convergent validity. AVE serves to verify the convergent validity of the constructs, while CR tests the internal consistency.

Table 2: Convergent Validity Test of Measurement Mode-Cronbach's Alpha, Composite Reliability (rho_c), and Average Variance Extracted (AVE)

Constructs	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Micropreneurial impact	0.932	0.933	0.948	0.786
Rural development	0.889	0.895	0.913	0.601
SHGs support	0.899	0.905	0.922	0.664

Source: Authors' estimates

Further, individual item reliability is assessed through outer loadings, ensuring that each loading exceeds 0.70, following the guidelines of Sarstedt *et al.* (2014). Table 3 presents the outer loading values, showcasing a robust connection between the items and their corresponding latent constructs—micropreneurial impact, rural development, and SHGs support.

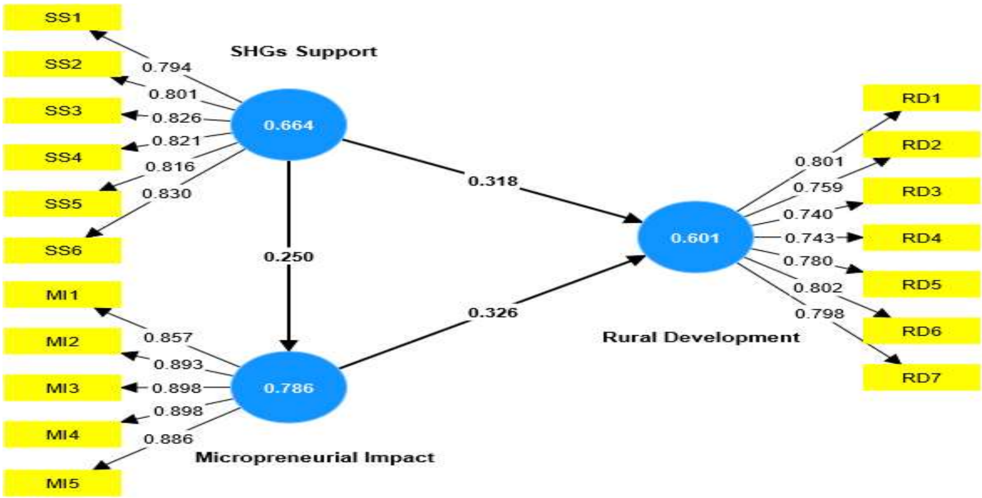
Table 3: Items Outer Loading

Items	Micropreneurial Impact	Rural Development	SHGs Support
MI1	0.857		
MI2	0.893		
MI3	0.898		
MI4	0.898		
MI5	0.886		
RD1		0.801	
RD2		0.759	
RD3		0.74	
RD4		0.743	
RD5		0.780	
RD6		0.802	
RD7		0.798	
SS1			0.794
SS2			0.801
SS3			0.826
SS4			0.821
SS5			0.816
SS6			0.830

Source: Author's estimates

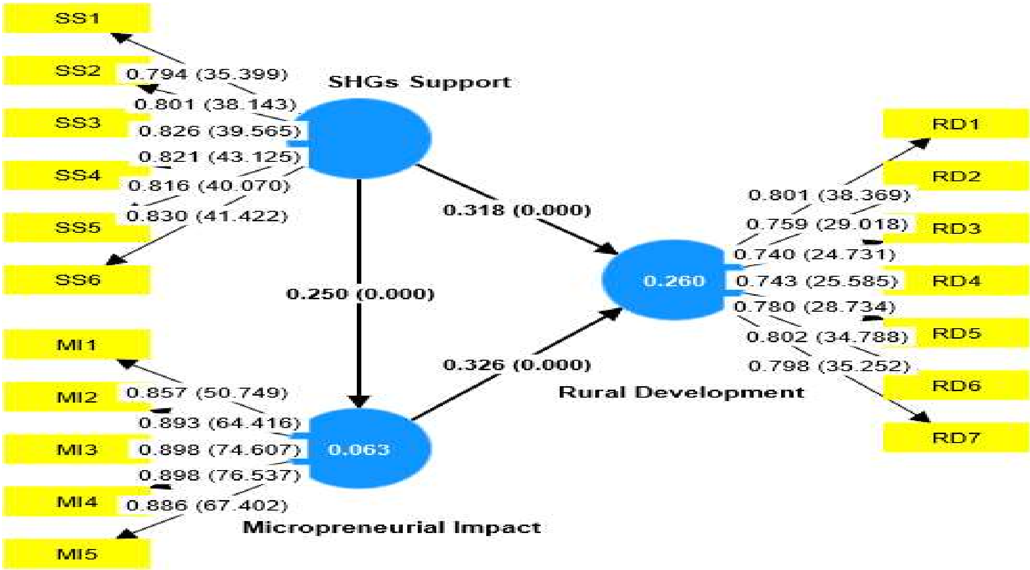
For instance, in the case of micropreneurial impact (MI), items MI1 to MI5 show substantial outer loadings between 0.857 and 0.898, reflecting a strong association with the construct. Similarly, rural development (RD) items RD1 to RD7 exhibit outer loading values ranging from 0.740 to 0.802, indicating their significant link to the rural development construct. For SHGs support

Figure 2: Three Factor Measurement Model with AVE and Outer Loading



Source: Author's estimation

Figure 3: Three Factor Structural Model with R2



Source: Author's estimates

(SS), items SS1 to SS6 demonstrate outer loadings from 0.794 to 0.830, indicating their strong contribution to the SHGs support construct.

The three-factor measurement model and structural model are depicted in Figure 2 and Figure 3, respectively.

13. Discriminant Validity

To assess discriminant validity, the Heterotrait-Monotrait (HTMT) ratio, as proposed by Fornell and Larcker (1981), was applied. The HTMT ratio evaluates the inter-correlation between constructs, with values below 0.85 signalling good discriminant validity (Kline, 2015). The HTMT coefficients for this study, ranging from 0.271 to 0.438, all fall below the threshold of 0.85, confirming that discriminant validity is achieved among the study constructs. This indicates that the constructs are distinct from each other and measure different underlying concepts, as shown in Table 4.

Table 4: HTMT Ratio-Coefficients

The latent variables	Coefficients of Heterotrait-monotrait Ratio (HTMT)
Rural Development <-> Micropreneurial Impact	0.438
SHGs Support <-> Micropreneurial Impact	0.271
SHGs Support <-> Rural Development	0.436

Source: Author's estimates.

14. Structural Model Evaluation

In the structural model, we examine the relationships between endogenous and exogenous variables in the proposed conceptual model. To assess multicollinearity, variance inflation factor (VIF) values were computed, with values above 5 indicating problematic collinearity (Hair *et al.*, 2013). Table 5 for the constructs in this model, VIF values for micropreneurial impact (MI) items (MI1 to MI5) range from 2.63 to 3.608, and for rural development (RD) items (RD1 to RD7), the values range from 1.906 to 2.394. These VIF values indicate a moderate degree of multicollinearity, which is not a cause for concern in this case.

Table 5: Collinearity Matrix of Items of the Outer Model

	VIF
MI1	2.63
MI2	3.343
MI3	3.317
MI4	3.608
MI5	3.334
RD1	2.322
RD2	2.145
RD3	1.906
RD4	1.922
RD5	2.329
RD6	2.394
RD7	1.982
SS1	1.892
SS2	2.06
SS3	2.31
SS4	2.486
SS5	2.645
SS6	2.709

Source: Author's estimates.

Similarly, SHGs support (SS) items (SS1 to SS6) yield VIF values between 1.892 and 2.709, showing a moderate correlation but within acceptable limits. Table 6 provides the collinearity statistics of the constructs in the inner model, where VIF values close to 1 suggest minimal multicollinearity, confirming the independent validity of the relationships between the constructs.

The structural relationships in the model are robust, as indicated by the significant path coefficients between the constructs. Micropreneurial impact has a positive and significant relationship with rural development (0.326), while SHGs support significantly influences micropreneurial impact (0.250) and rural development (0.318), as illustrated in Figures 2 and 3. These relationships are further validated by t-values of 6.537, 4.802, and 6.663, all of which are highly significant (p-value = 0), underscoring the strength and statistical significance of these associations.

Table 6: Collinearity Statistics of Constructs of the Inner Model

	VIF
Micropreneurial Impact -> Rural Development	1.067
SHGs Support -> Micropreneurial Impact	1.000
SHGs Support -> Rural Development	1.067

Source: Author's estimates

Table 7: Structural Model Fit Indices

	Saturated Model	Estimated Model
SRMR	0.058	0.058
d_ULS	0.575	0.575
d_G	0.25	0.25
Chi-square	580.539	580.539
NFI	0.874	0.874

Source: Author's estimates

A standard bootstrapping technique is used to determine the implication of path coefficients, p-values, t-values, and value of R^2. The approach involved employing 5,000 bootstrap samples methodologies (Reinartz *et al.*, 2009; Hair *et al.*, 2014). The SRMR value of 0.058 indicates a good fit, as values below 0.08 are considered acceptable (Henseler *et al.*, 2016; Hair *et al.*, 2014). The identical values for d_ULS, d_G, and NFI further support the model's excellent fit. The NFI value of 0.874 confirms a reasonable fit, though higher values are generally preferred for optimal model performance as shown in Table 7.

15. Model Comparison with Bayesian Information Criterion (BIC)

The Bayesian Information Criterion (BIC) is a model selection criterion that penalises the complexity of the model while rewarding goodness of fit. A lower BIC suggests a better fit. Table 8 depicts that the BIC for micropreneurial impact is (-)14.026, and for rural development, it is -99.300, with the latter indicating a better model fit. Lower BIC values are considered more favourable, indicating that the rural development model fits the data better than the micropreneurial impact model.

Table 8: Bayesian Information Criterion of Goodness of fit

Constructs	BIC
Micropreneurial impact	-14.026
Rural development	-99.3

Source: Author's estimates

16. Hypothesis Testing

To test the hypotheses in the structural model, we compared the t-values against critical t-values at a 0.05 significance level, as shown in Table 9. However, bias-corrected confidence intervals were used to ensure the precision of the estimated path coefficients. These intervals provide a more accurate range for the true population parameters, addressing potential biases in the estimates. The results from Table 10 further confirm the significance and robustness of the relationships in the model.

Hypothesis 1 (H1): There is a direct and substantial positive relationship between SHG support and rural development (RD).

Table 9: Path Coefficients-Mean, STDEV, t-Values, P-values

Hypotheses	Hypothesis	Original sample (O)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
SHGs Support -> Rural Development	H3	0.318	0.048	6.663	0
SHGs Support -> Micropreneurial Impact	H2	0.25	0.052	4.802	0
Micropreneurial Impact -> Rural Development	H1	0.326	0.05	6.537	0
SHGs Support -> Micropreneurial Impact -> Rural Development	H4	0.082	0.023	3.535	0

Source: Author's estimates

The analysis of the relationship between SHG support and rural development (RD) reveals a robust and positive connection. Specifically, the path coefficient for the relationship 'SHG support ->rural development' is estimated at 0.318. This finding suggests that an enhancement in SHG support directly contributes to notable improvements in rural development outcomes. The t-statistic associated with this relationship is 6.663, which is well beyond the critical threshold, with a p-value of 0.000, signifying that the result is statistically significant. The positive coefficient indicates that greater SHG support is strongly linked to substantial increases in rural development metrics.

Further analysis using a bias-corrected confidence interval reveals that with 95% confidence, the actual population parameter for this relationship likely falls between 0.224 and 0.408 (Table 10). This confidence interval strengthens the validity of the path coefficient, demonstrating the consistency of the relationship across different samples.

Hypothesis 2 (H2): There is a significant positive relationship between SHG support and micropreneurial impact (MI).

The hypothesis 2 explores the potential influence of SHG support on micropreneurial impact (MI). The path coefficient of 0.250 supports the hypothesis, indicating that an increase in SHG support results in a considerable positive impact on micropreneurial activities. The statistical significance of this relationship is confirmed by a t-value of 4.802, which is substantial (p-value = 0). This implies that the impact of SHG support on micropreneurial endeavours is not only positive but also reliable and statistically sound.

The bias-corrected confidence interval for this path coefficient, ranging from 0.141 to 0.345, further substantiates the findings with a 95% confidence level (Table 10). These results suggest that, as SHG support intensifies, there is a corresponding uplift in micropreneurial ventures, thus, driving positive entrepreneurial outcomes within rural communities.

Table 10: Path Coefficients - Confidence Intervals Bias Corrected

	Original Sample (O)	Sample Mean (M)	Bias	2.50%	97.50%
SHGs Support -> Rural Development	0.318	0.321	0.002	0.224	0.408
SHGs Support -> Micropreneurial Impact	0.25	0.255	0.005	0.141	0.345
Micropreneurial Impact -> Rural Development	0.326	0.328	0.001	0.223	0.42
SHGs Support -> Micropreneurial Impact -> Rural Development (Mediating)	0.082	0.084	0.002	0.041	0.13

Source: Author's estimation

Hypothesis 3 (H3): There is a positive and statistically significant relationship between micropreneurial impact (MI) and rural development (RD).

The third hypothesis investigates whether micropreneurial impact (MI) has a meaningful effect on rural development (RD). The path coefficient for 'Micropreneurial Impact -> Rural Development' is 0.326, which indicates a direct and substantial influence of MI on RD. With a t-value of 6.537, this relationship is highly significant (p-value = 0), further confirming that micropreneurial activities substantially drive improvements in rural development outcomes.

Furthermore, the bias-corrected confidence interval for this path suggests that the true value of this relationship, with 95% confidence, lies between 0.223 and 0.420 (Table 10). These results demonstrate that increased micropreneurial activity is positively correlated with rural development, reinforcing the importance of entrepreneurship in fostering sustainable growth within rural areas.

Mediating Effect: A Deep Dive into Micropreneurial Impact as a Mediator

In this section, the study explores the mediating role of micropreneurial impact (MI) in the relationship between SHG support and rural development (RD). To assess the significance of this mediation, we employ the mediation analysis technique developed by Baron and Kenny (1986), which involves examining the direct and indirect associations between the independent variable (SHG support), the mediator (micropreneurial impact), and the dependent variable (rural development).

Hypothesis 4 (H4): Micropreneurial impact (MI) mediates the relationship between SHG support and rural development (RD) significantly.

The hypothesis 4 posits that micropreneurial impact significantly mediates the relationship between SHG support and rural development. The findings strongly support this hypothesis. The path analysis for 'SHG Support -> Micropreneurial Impact -> Rural Development' yields a highly significant result (p-value = 0), providing compelling evidence to reject the null hypothesis. This suggests that the relationship between SHG support and rural development is indeed partially mediated by micropreneurial impact.

The indirect effect of SHG support on rural development, through micropreneurial impact, is quantified by a path coefficient of 0.082. This positive estimate indicates that micropreneurial impact plays a facilitating role in translating SHG support into tangible outcomes in rural development. The t-statistic associated with this indirect effect is 3.535, further confirming the statistical significance of the mediation effect.

Moreover, the bias-corrected confidence interval for this indirect effect, ranging from 0.041 to 0.130, reflects the precision of this estimate and enhances our confidence in the reliability of the results. With 95% certainty, we can assert that the true indirect effect lies within this range, which further solidifies the positive mediation effect observed. This suggests that an increase in SHG support leads to higher micropreneurial impact, which in turn drives improvements in rural development.

The results underscore that while SHG support directly impacts rural development, the presence of micropreneurial impact as a mediator amplifies this relationship, emphasizing the importance of fostering entrepreneurship within rural communities. Thus, strengthening SHG support not only promotes direct improvements in rural development, but also indirectly boosts development outcomes through the enhanced impact of micro entrepreneurs.

17. Evaluation of R^2 and f^2 Effect Sizes

To assess the explanatory power of the model, the study calculates the coefficient of determination (R^2), which indicates the proportion of variance in the dependent variables that is explained by the independent variables. R^2 values are an important metric for evaluating model fit and determining the extent to which the independent variables can predict changes in the dependent variable (Fassott *et al.*, 2016). According to Falk and Miller (1992), an R^2 value greater than 0.10 is considered acceptable, and Chin *et al.* (2003) further classify R^2 values as follows: 0.60 indicates a strong explanatory power, 0.33 indicates a moderate explanatory power, and 0.19 represents a weak explanatory power (Table 11).

Table 11: R-square and R-square adjusted

	R-square	R-square adjusted
Micropreneurial impact	0.063	0.06
Rural development	0.26	0.256

Source: Author's estimates

In this study, the R^2 values reveal that the model has a moderate explanatory capacity, with micropreneurial impact (MI) exhibiting an R^2 of 0.063, signifying that only 6.3% of the variability in MI can be explained by the model. The adjusted R^2 of 0.06 accounts for the complexity of the model, highlighting the role of other unmeasured factors in explaining MI's variance. For rural development (RD), the R^2 value is 0.26, suggesting that the model accounts for 26% of the variance in RD, with the adjusted R^2 of 0.256, further supporting the notion that additional external factors contribute to the variance in rural development. These findings indicate that while the model captures a significant portion of the variability in rural development, there are other unmeasured elements influencing these outcomes.

The study also calculates the f^2 effect sizes, which measure the contribution of each predictor to the variance in the dependent variables. These effect sizes provide insights into the practical significance of the relationships identified in the model. Table 12 presents the results of the f^2 effect sizes for the key relationships:

Table 12: F-Square and Effect Size

	f-square	Effect
Micropreneurial Impact -> Rural Development	0.135	Moderate impact
SHGs Support -> Micropreneurial Impact	0.067	Moderate impact
SHGs Support -> Rural Development	0.128	Moderate impact

Source: Author's estimates

- Micropreneurial Impact → Rural Development: The f^2 value of 0.135 indicates that micropreneurial impact explains 13.5% of the variance in rural development. This effect size is considered moderate, suggesting that micropreneurial impact is a meaningful predictor of rural development.

- SHGs Support → Micropreneurial Impact: With an f^2 value of 0.067, SHGs support accounts for 6.7% of the variance in micropreneurial impact, indicating a moderate effect. This highlights the importance of SHGs support in fostering micro entrepreneurship.
- SHGs Support → Rural Development: An f^2 of 0.128 suggests that SHGs support explains 12.8% of the variance in rural development. This also reflects a moderate impact, emphasizing the role of SHGs in driving rural economic growth.

The calculated f^2 values reinforce the importance of micropreneurial impact and SHGs support as significant predictors, offering practical implications for understanding and influencing rural development and micropreneurial impact in rural settings.

18. Implications of Findings

The study's findings reveal strong positive relationships between micropreneurial impact (MI), SHGs support, and rural development (RD). Despite the modest R^2 values, the results underline the practical importance of these variables. The calculated f^2 effect sizes demonstrate that both micropreneurial impact and SHGs support contribute significantly to explaining the variance in rural development and micropreneurial impact, underscoring their importance as key drivers of rural economic growth.

Economic Implications: The study highlights the vital role of micropreneurship and SHG support in promoting rural development. The observed positive relationship between micropreneurial impact and rural development suggests that micropreneurship fosters economic growth, job creation, and income generation in rural areas. These findings emphasize the importance of empowering SHGs and micropreneurs as a catalyst for local economic prosperity.

Managerial Implications: From a managerial perspective, the results advocate for strategic initiatives aimed at strengthening micropreneurial impact and SHG support mechanisms. Policymakers and development managers are encouraged to invest in micro entrepreneurship and provide enhanced support to SHGs to boost rural development efforts.

Entrepreneurial Implications: The study underscores the potential of micro enterprises in contributing to rural development. Entrepreneurs operating in rural areas can benefit from targeted initiatives that enhance their impact on the community, especially when supported through SHGs. Encouraging entrepreneurship in rural areas emerges as a critical factor for long-term sustainable growth.

Societal Implications: Societally, the study reveals the interconnectedness between rural community well-being and the success of micropreneurs and SHG-supported ventures. The positive relationships found in the research suggest that rural development does not solely rely on large-scale interventions but also depends heavily on grassroots level entrepreneurial efforts and community collaboration.

19. Recommendations

To ensure sustainable and impactful rural development, the following strategies have been articulated, prioritising inclusivity, collaboration and technological integration. These recommendations aim to address the multifaceted challenges faced by micropreneurs and rural communities while fostering resilience and long-term growth.

Firstly, technological advancements can be employed to empower micropreneurs by introducing digital tools for skill enhancement, facilitating online market access through e-commerce platforms, and utilising data-driven analytics for strategic planning and operations.

Secondly, fostering an integrated ecosystem is critical. This involves partnerships among government agencies, non-governmental organisations (NGOs), private enterprises, and local communities to create a comprehensive support framework for rural entrepreneurship and development.

Thirdly, implementing robust mechanisms for impact evaluation is essential. This includes developing frameworks to consistently measure the outcomes of economic, managerial, entrepreneurial and social initiatives to ensure they align with the desired objectives.

Fourthly, it is important to design policies with inclusivity at their core. Ensuring equal access to resources and opportunities for underrepresented and marginalised groups in rural areas will promote fairness and sustainable progress.

And, finally, continual investment in capacity building programmes is necessary. These programmes should address the specific needs of rural micropreneurs, equipping them to navigate and thrive in dynamic economic conditions.

20. Conclusions

In conclusion, this study uncovers crucial insights into the role of micropreneurial impact, SHGs support, and their contribution to rural development. Although the model explains a modest portion of the variance, the findings emphasise the substantial economic, managerial, entrepreneurial and societal relevance of fostering micropreneurship and supporting SHGs in rural settings. The recommendations provided offer actionable steps to enhance rural development through strategic investment, technology adoption and policy reforms. Implementing these measures can drive sustainable, inclusive development and empower rural communities to achieve long-term resilience and prosperity.

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Revisiting Banker's Perspectives on Microfinancing Services: An Exploratory Study

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Abstract

Microfinance is the term for financial services offered to low-income people or groups who are generally excluded from traditional banking. Also termed micro-credit or microloans, it gives women and underserved communities access to formal financial services to empower them. The programme, which was initiated in 1992 by the National Bank for Agriculture and Rural Development (NABARD), encourages banks to work with self-help groups (SHGs) to offer microfinance without requiring collateral. The SHGs, which typically have 10–20 members, pool their savings and create a single fund that can be used for internal loans and cash flow. The initiative encourages financial inclusion, self-reliance and social growth, which enhances the quality of life, giving them the confidence to start their small businesses. The paper aims to study the outreach and perception of commercial banks in the public and private sectors across the Tricity area, which means 'three cities', Chandigarh, Panchkula and Mohali, in providing microfinance.

Microfinance has become an effective instrument for reducing poverty and upgrading rural communities. Both public and private sector banks have effectively implemented this initiative. While public sector banks are more socially conscious and provide a wide range of services to meet the many demands of microfinance recipients, private sector banks continue to be helpful even while being relatively selective.

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1. Introduction

From the perspective of Tricity (Chandigarh, Panchkula and Mohali), microfinance plays an important role in providing financial inclusion and promoting social and economic advancement. The region, with a mix of rural, urban and semi-urban areas, displays distinctive prospects and difficulties in implementing these programmes effectively (Ravi, 2018). The members of self-help groups (SHGs), both men and women,

Key Words: Microfinance, Self-help groups, Commercial Banks, Public Banks

can obtain loans for income-generating activities and save collectively which links them with banks. In these cities, this programme has played a significant role in empowering women in rural and peri-urban regions, including the villages of Panchkula and Mohali. By encouraging saving, fostering entrepreneurship, and developing financial discipline, microfinance promotes community-based development (Muthu, 2021).

2. Objectives of the Study

The objective of the study is to assess the outreach of microfinancing services provided by public and private sector banks, and to analyse the perception of bankers about microfinance services.

3. Sample Profile

The sample area of the study is the rural/backward areas within or around the vicinity of three big cities of Chandigarh, Panchkula and Mohali – which together popularly known as the Tricity (Table 1).

These three cities attract migrant communities from various parts of the country who seek to earn a livelihood from the marginalised sector of economy, as labourers, house helps, street vendors, rickshaw pullers and so on, who are often in need of small finances to support their economic and non-economic activities.

Further a total of 60 bank branches from top five public and four private sector banks operating in the sample areas was taken to gather their responses to the said objectives (Table 2).

Table 1: Sample Size by Sample Area

State/UT	District	City	Total Resondents
Punjab	Sahibzada Ajis Singh Nagar	Mohali	23
Haryana	Panchkula	Panchkula	21
Chandigarh	Chandigarh	Chandigarh	16
Total			60

Source: Compiled by the authors

Table 2: Number of Sample Bank Branches

Type of Bank	No. of Branches
Public Sector Commercial Banks	36
State Bank of India	
Bank of Baroda	
Canara Bank	
Union Bank	
Indian Bank	
Private Sector Commercial Banks	24
HDFC	
ICICI	
IDBI	
Karnataka Bank	

Source: Compiled by the authors

4. Scope and Methodology

The branches selected for the study are based on convenience sampling. The primary data for this study was gathered using a meticulously designed questionnaire. To achieve the desired objectives, a total of nine commercial banks were studied, comprising five public sector banks and four private sector banks. The responses were collected and assessed on a point Likert scale ranging from 5 to 1.

Further statistical analysis was done to draw the meaningful inferences from the study using descriptive statistics and factor analysis.

5. Literature Review

Under SHG-Bank Linkage Programme (SHG-BLP), financial assistance is given for production, processing, and marketing of crafts. This scheme is basically supported by National Bank for Agriculture and Rural Development (NABARD) and is carried out by local regional rural banks (RRBs) and commercial banks so as to ensure that members have access to enough money to run their businesses smoothly (Chakraborty and Kumar 2023). When there is a need to connect underprivileged areas with financial institutions, bankers are essential. Because microfinance lacks collateral and credit history, studies show that bankers view it as a high-risk and low-return endeavour (Das, 2018).

The RRBs have made significant strides in rural outreach and sustainable rural livelihood, particularly compared to other financial institutions. They provide financial support to agriculture and related activities, and also to the weakest segments of society, which helps to generate rural livelihood and sustainable growth (Pandey, 2022).

The microfinance industry has a name for itself in the financial business, making access to financial products and solutions easier for people, particularly those at the bottom of the pyramid. The ability of the weaker sections of the population to finance their economic endeavours has been strengthened by microfinance sector. They can obtain more credit from the banks by having a good credit history with the financial institutions (Mammen, 2023).

Microfinance has a positive social impact, particularly in empowering women and encouraging entrepreneurship for people living in marginalised communities and with low income (Kumar and Reddy, 2020).

Banker perceptions of microfinance have changed because of online platforms and mobile banking. Technology makes microfinance more feasible by lowering operating expenses and improving repayment tracking. The greater degree of digital literacy when compared to remote regions is a major benefit of using technology to grow microfinance (Gupta and Mehra, 2020). Banks in northern Indian cities have used SHG networks to finance semi-urban areas, with varying degrees of success (Kaur, 2022).

6. Microfinancing in India: A Way Forward

Introduced in 1992, the SHG-BLP is a ground-breaking strategy for financial inclusion in India. It started as a joint venture between the Reserve Bank of India (RBI) and NABARD to integrate informal SHGs into the regulated banking system (Tripathi, 2013). It has expanded to become one of the world's biggest microfinance initiatives. The programme began as a pilot project with only 500 SHGs connected to banks, but as of 2023, it has connected over 13.9 million SHGs to official financial institutions, affecting the lives of almost 100 million households. Over ₹6.1 lakh crore in loans have been disbursed overall, greatly advancing financial participation and economic growth in India (Singh, 2016).

Women's engagement in the programme has increased significantly; more than 85% of SHG members are female. With a combined savings of almost ₹47,000 crore, these groups exhibit sound financial management and faith in the established banking system. Additionally, many regions have repayment rates above 95%, demonstrating the value of shared responsibility in credit management (Kumar and Reddy, 2020). The programme, which now connects millions of SHGs with financial institutions, has evolved into an important socioeconomic movement over time. It has given women the ability to make decisions in their homes and communities, which has improved lives and encouraged entrepreneurship. It has expanded beyond credit availability to encompass digital banking services, financial literacy instruction, and assistance for long-term revenue generating ventures (Kumar and Singh, 2014).

The SHG-BLP has been remarkably resilient in the face of obstacles such as uneven regional implementation, payback delays, and sustainability concerns (Elayaraja, 2021). Through more private sector involvement, improved government funding and technological integration, the programme keeps innovating and overcoming the gap between the formal economy and the underserved. Its journey demonstrates that empowering grassroots groups could propel national achievement and encourage a larger shift towards inclusive growth. It serves as evidence of the possibilities of community-driven growth and the part that shared accountability plays in attaining financial emancipation (Ghosh, 2012).

7. Outreach of Microfinancing by Banks

Outreach is a key indicator of a programme's popularity. Considering that microfinance is acknowledged as the most widely used programme globally, it is vital to understand the programme's present state and scope. The microfinance industry has grown quickly during the last few decades. The country's microfinance sector has a paid route due to the issue of access to formal banking system. It has now become a thriving sector with a wide range of organisational formats. (Singh, 2017). Since banks provide microfinance organisations with loans at low interest rates, SHG members choose to borrow money from them to launch micro businesses. Moreover, SHGs strive to encourage women to participate in decision making. Members of SHGs educate one another on government programmes, including how to sign up for or get benefits from them. This type of conversation generates information about the nation's social, political, and economic challenges (Goel and Aggarwal, 2020). Microfinance is a desirable alternative, since governments frequently provide banks with incentives in the form of subsidies and advantageous policies.

Banks must focus on enhancing their overall operations, and provide swift and high quality financial services so as to draw in new clients. They should strive to retain their current clientele in the face of increasing competition. The younger generation is aspirational and tech-savvy, and demands prompt problem solving. (Pandey, 2022). Because they increase the operational burden, regulatory complexity and requirements for compliance can also be impediments. Additionally, target communities' low levels of trust and financial knowledge may make it more difficult for them to use banking services. (Catherine, 2021).

The main objectives of microfinance services provided by various public and private sector banks are presented in Table 3.

Table 3: Objectives/Reasons of Microfinance Services Provided by Banks

Objectives/Reasons	Public Sector Banks Frequency (%)	Private Sector Banks Frequency (%)
Supporting small businesses and individuals in need	25 (83%)	11 (79%)
Mandatory Govt. schemes	26 (87%)	09 (64%)
Promoting equality in society	24 (80%)	10 (71%)
Including low-income individuals	19 (63%)	08 (57%)
Providing loans with low interest rates	18 (60%)	06 (43%)
As a part of corporate social responsibility	16 (53%)	05 (36%)
Maximizing profits for the bank	06 (20%)	04 (29%)

Source: Authors' estimates based on data from field survey.

Public Sector Banks

Public sector banks show a strong commitment to microfinance, with high percentages of loans and services across various categories. They provide significant support for agricultural loans (84%), loans for small monetary activities (88%), and zero minimum balance savings bank accounts (92%). Public sector banks also actively participate in government schemes like Pradhan Mantri Mudra Yojna (100%) and Pradhan Mantri Awas Yojana (92%). Additionally, they offer a range of microinsurance products, including life insurance (76%) and crop insurance (76%), and provide facilities such as advisory services to NGOs/SHGs (88%) and training programmes for entrepreneurs (84%).

Private Sector Banks

Private sector banks, while also engaged in microfinance, generally show lower percentages compared to public sector banks. They provide agricultural loans (73%), loans for small monetary activities (64%) and zero minimum balance saving bank accounts (73%). Private sector banks participate in government schemes like Pradhan Mantri Mudra Yojna (91%) and Pradhan Mantri Awas Yojana (64%). They offer microinsurance products such as life insurance (64%) and crop insurance (55%), and provide facilities like payment/collection services (64%) and debit/credit cards (64%). However, their involvement in advisory services to NGOs/SHGs (55%) and training programmes for entrepreneurs (45%) is less pronounced compared to public sector banks.

8. Microfinance Services Provided by Banks

Public and private sector banks are helping to achieve various microfinance objectives through their involvement in different services (Table 4).

Micro-Credit

Public sector banks play a crucial role in supporting agriculture, small businesses, and micro-entrepreneurs. They lead in providing agricultural loans, loans for machinery/equipment, auto/stall/cart loans, and loans for small monetary activities. This indicates a strong commitment to these sectors. On the other hand, private sector banks show significant involvement in education loans and small monetary activities, highlighting their focus on supporting education and micro entrepreneurship.

Micro Saving

Public sector banks are more involved in promoting financial inclusion and regular savings. They lead in offering zero minimum balance saving accounts, recurring accounts, and SHGs saving accounts. Private sector banks, however, have comparable involvement in fixed deposit accounts and saving accounts, providing secure and accessible saving options for their customers.

Micro Insurance

In the realm of microinsurance, public sector banks lead in health insurance and crop insurance, providing financial security for health and agriculture. Private sector banks, meanwhile, are more involved in life insurance, livestock insurance, and endowment/asset insurance, offering comprehensive insurance coverage to their clients.

Housing Microfinance

Public sector banks show strong involvement in housing loans for construction/purchase and the Pradhan Mantri Awas Yojana, supporting affordable housing initiatives. Private sector banks, on the other hand, have significant involvement in housing loans for repair and renewal, aiding in maintaining housing quality.

Government Schemes for Microfinance

Public sector banks lead in various government schemes such as the Pradhan Mantri Mudra Yojna, Pradhan Mantri Jan Dhan Yojna, and Mahila Samriddhi Yojana. These schemes promote financial inclusion and support for women entrepreneurs. Private sector banks also participate in these schemes, supporting skill development and agricultural development.

Facilities Provided by Banks to Microfinance Beneficiaries

Public sector banks are more involved in providing advisory services, training programmes, and differential interest rate schemes, supporting non-government organisa-

Table 4: Microfinance Services Provided by Banks

Objective/Purpose and Service Type	Public Sector Banks Frequency (%)	Private Sector Banks Frequency (%)
Micro-Credit		
Agricultural loan	21 (84%)	08 (73%)
Consumption loan	12 (48%)	04 (36%)
Education loan	16 (64%)	06 (55%)
Loan to buy any Machinery/Equipment	19 (76%)	06 (55%)
Auto/Stall/Cart loans	18 (72%)	07 (64%)
Medical loan	06 (24%)	02 (18%)
Loan for small monetary activities	22 (88%)	07 (64%)
Micro Saving		
Fixed deposit account	14 (56%)	06 (55%)
Current account	10 (40%)	03 (27%)
Saving account	17 (68%)	06 (55%)
Recurring Account	18 (72%)	06 (55%)
Zero minimum balance saving bank account	23 (92%)	08 (73%)
SHGs saving bank account	15 (60%)	06 (55%)
Micro Insurance		
Life insurance	19 (76%)	07 (64%)
Health insurance	15 (60%)	06 (55%)
Crop insurance	19 (76%)	06 (55%)
Livestock insurance	16 (64%)	05 (45%)
Endowment/Asset Insurance	16 (64%)	05 (45%)
Disability Income Insurance	11 (44%)	03 (27%)
Property Insurance	12 (48%)	04 (36%)
Housing Microfinance		
For construction/purchase of a house	21 (84%)	07 (64%)
For repair and renewal of house	19 (76%)	06 (55%)
Pradhan Mantri Awas Yojana	23 (92%)	07 (64%)
Government Schemes for Microfinance		
Pradhan Mantri Mudra Yojna	25 (100%)	10 (91%)
Pradhan Mantri Jan Dhan Yojna	19 (76%)	07 (64%)
Swarnima Yojna	14 (56%)	04 (36%)
Saksham Yojana	12 (48%)	05 (45%)
Shilp Sampada Yojna	11 (44%)	03 (27%)
Krishi Sampada Yojna	15 (60%)	04 (36%)
Mahila Samriddhi Yojana	17 (68%)	05 (45%)
Facilities as Provided by Banks to the Microfinance Beneficiary		
Differential Interest Rate (DIR) Scheme	16 (64%)	06 (55%)
Money Transfer Facility	14 (56%)	05 (45%)
Payment/Collection Services	13 (52%)	07 (64%)
Debit/Credit Cards	19 (76%)	07 (64%)
Advisory Services to NGOs/SHGs	22 (88%)	06 (55%)
Training Programmes for NGOs/SHGs/Entrepreneurs	21 (84%)	05 (45%)

Source: Authors' estimates based on data from field survey.

tions (NGOs), SHGs and microfinance beneficiaries. Private sector banks, however, show significant involvement in payment/collection services and debit/credit cards, facilitating business operations and promoting cashless transactions.

Overall, public sector banks focus more on financial inclusion, and support for agriculture, and small businesses, while private sector banks emphasise education, comprehensive insurance coverage and efficient financial services. Both sectors play crucial roles in achieving microfinance objectives.

9. Perception of Bankers

Bankers' perceptions about microfinance have changed dramatically. In the past, microfinance was frequently perceived as a low-profit, high-risk industry primarily focusing on meeting financial inclusion requirements and social commitments. Because borrowers had little credit history and engaged in informal economic activity, many bankers had doubts about their creditability. These days, microfinance is becoming more and more acknowledged as a practical and significant financial instrument. Bankers see it as a chance to reach under-represented regions, increase financial inclusion, and grow their clientele. Technological developments like data analytics and digital payments have enhanced operational effectiveness and risk assessment, increasing trust in microfinance as a viable and lucrative business.

Table 5: List of Statement Aimed at Capturing Bankers Perception Towards Microfinance

Sr. No	Statements
V1	Microfinance boosts financial inclusion
V2	Microfinance fosters community development
V3	Microfinance focuses on women's empowerment
V4	Microfinance helps in poverty alleviation.
V5	Microfinance helps in social and economic development.
V6	Microfinance is a tool for market expansion and increased customer base for banks
V7	Microfinance helps increase revenue for banks
V8	Microfinance enhances a bank's reputation
V9	Microfinance helps in building customer loyalty
V10	Provides banks with valuable data regarding the needs of low-income groups
V11	The repayment rate is quite satisfactory
V12	Creates self-confidence and self-respect in marginalised people
V13	Raised the status of women in society
V14	Skilled staff requirement
V15	Additional workload
V16	Tough competition from the unorganised sector
V17	The target customer base is very little
V18	Not very profitable for banks
V19	High Transaction cost
V20	Families are served rather than individuals.
V21	Loans are used for the intended purpose
V22	Non–repayment risk is high
V23	Direct financing is not as beneficial as financing through intermediaries such as NGOs, SHGs, or MFIs
V24	Better than priority lending
V25	Lessens the use of Informal finance

Source: Authors' construction.

The perception of bankers has been studied using a field survey in which managers of 60 of the banks involved were asked to record their opinions on 25 statements made while providing microfinance. They answered in terms of 'strongly disagree', 'disagree', 'neutral', 'agree' and 'strongly agree'. Those 25 statements are presented in Table 5.

10. Factor Analysis of Statements Asked to Bank Managers

To make 25 statements more understandable, factor analysis is applied, and they are placed under specific dimensions. Factor analysis was performed on the replies of 60 managers to 25 statements, and findings are presented in Table 6.

Table 6: KMO and Bartlett's Test

Kaiser-Meyer-Olkin of Sampling Adequacy	0.511	
Bartlett's Test of Sphericity	Approx. Chi-Square	232.05**
	Df	105
	Significance	.000

Source: Authors' estimates based on data from field survey.

Table 6 demonstrates that the data was suitable for factor analysis, with the overall Kaiser-Meyer-Olkin measure of sampling adequacy being 0.511 and the Bartlett's Test of Sphericity being significant (Approx. Chi-Square = 232.05, Df = 105, significance=.000).

Table 7 presents the findings of principal component analysis with varimax rotation. This includes the loading of statements on each of the factors, their communalities, factor labels, Eigen values, and the percentage of variance that each factor explains. Table 8 reports dimension-wise list of variables.

The following five factors have been the focus of the factor analysis to examine the perception of bankers while dealing with microfinance.

1. **Financial Sustainability:** The capacity of microfinance banks to strike a balance between the potential for long-term profitability and the significant expenses and risks involved in serving low-income people is what determines their financial sustainability. Especially when working with modest loan amounts, operational expenses including those for loan disbursement, monitoring and recovery in distant regions are substantial.
2. **Social Impact:** As microfinance greatly promotes financial inclusion and socioeconomic development in marginalised groups, banks have a huge social influence. Through the provision of savings accounts, modest loans, and other financial services, banks enable low-income people – especially women and small business owners – to launch or grow enterprises, enhance their standard of living, and become more financially independent. This loan availability encourages entrepreneurship, improves revenue generation, and generates employment opportunities – all of which contribute to the decline of poverty and the stimulation of local economies. To help customers in making wise financial decisions and develop long-term financial resilience, banks play an important role in advancing financial literacy.
3. **Risk Factors:** The viability of banks' operations in the microfinance industry may be threatened by several risk concerns. Since microfinance clients sometimes lack

Table 7: Factor Analysis with Varimax Rotation

Variables	1	2	3	4	5	Communalities
V1 Financial Inclusion	0.715	0.222	0.187	–0.023	0.085	0.75
V2 Community Development	0	0.862	0.05	0.031	0.085	0.79
V3 Women's Empowerment	0.205	0.675	0.092	0.036	0.359	0.85
V4 Poverty Alleviation	0.246	0.514	0.059	0.133	0.263	0.68
V5 Social and Economic Development	0.222	0.837	0.141	0.146	0.222	0.76
V6 Market Expansion and Increased Customer Base	–0.028	0.177	0.142	0.525	0.051	0.79
V7 Increased Revenue for Banks	0.542	0.025	0.136	0.235	0.065	0.76
V8 Enhances Bank's Reputation	0.282	0.782	0.117	0.53	0.072	0.64
V9 Building Customer Loyalty	0.017	0.377	0.247	0.583	–0.043	0.76
V10 Providing banks with valuable data	0.021	0.127	0.045	0.829	0.095	0.75
V11 Repayment Rate	0.633	0.442	0.051	0.169	–0.052	0.57
V12 Boost self-confidence in low-income people	0.237	0.523	0.344	0.164	–0.134	0.75
V13 Raise the status of women in society	0.279	0.507	0.361	0.343	0.039	0.78
V14 Skilled staff requirement	–0.184	0.671	0.004	0.066	0.576	0.7
V15 Additional Workload	0.357	0.105	0.342	0.235	0.582	0.75
V16 Tough competition from the unorganised sector	0.294	0.126	0.098	0.013	0.796	0.78
V17 Little Target Customer Base	0.008	0.686	0.505	–0.008	0.116	0.64
V18 Non-Profitable for Banks	–0.029	0.268	0.824	0.115	0.188	0.57
V19 High Transition Cost	0.556	0.453	0.226	0.312	0.175	0.85
V20 Families are served more than individuals	–0.02	0.133	0.192	–0.169	0.692	0.75
V21 Loans are not misused	0.14	0.287	–0.117	0.162	0.674	0.76
V22 Non – Payment risk is high	0.157	0.302	0.575	0.083	0.256	0.79
V23 Direct financing is not beneficial	0.056	0.126	0.195	0.294	0.513	0.68
V24 Better than Priority Lending	0.283	0.103	0.273	0.493	0.826	0.85
V25 Less use of Informal Finance	0.373	0.653	0.484	0.273	0.383	0.75
Eigen Value	4.57	3.23	2.78	2.23	2.17	
Variance percentage (%)	23.77	18.43	15.67	13.6	11.56	
Cumulative Variance percentage (%)	23.77	45.12	58.23	60.54	69.56	

Source: Authors' estimates based on data from field survey.

Table 8: Factors Occurred out of 25 Variables

Factor Number	Name of Variable	Variable No.	Variable Statement
Factor 1	Financial Sustainability	V1	Boosts Financial Inclusion.
		V7	Helps in Increased Revenue for Banks.
		V19	High Transition Cost.
		V11	The repayment rate is satisfactory.
		V2	Fosters community development.
Factor 2	Social Impact	V3	Focuses on women's empowerment.
		V4	Helps in poverty alleviation.
		V5	Helps in social and economic development.
		V12	Boost self-confidence and self-respect in low-income people.
		V13	Raises the status of women in society.
		V25	Lessens the use of Informal Finance.
Factor 3	Risk Factors	V17	The Target Customer Base is very Little.
		V18	Non-Profitable for Banks.
		V22	Non – Payment risk is high
Factor 4	Reputation/Brand	V6	It is a tool for market expansion and increased customer Base.
		V8	Enhances the Bank's Reputation.
		V9	Helps in building customer loyalty.
Factor 5	Operational Complexity and Scalability	V14	Skilled staff requirement.
		V15	Additional Workload
		V16	Tough competition from the unorganised sector
		V20	Families are served rather than individuals.
		V21	Loans are used for the intended purpose.
		V23	Direct financing is not as beneficial as financing through intermediaries such as NGOs, SHGs or MFIs.
		V24	Better than Priority Lending.

Source: Authors' estimates based on data from field survey.

formal credit records and collateral, credit risk is one of the main concerns, which raises the possibility of loan defaults. Due to the high transaction costs associated with servicing small, scattered loans, particularly in remote or rural regions, risks related to operation are also substantial. Clients' lack of knowledge about finance could result in inappropriate loan use, which would distress repayment rates. Additionally, certain factors can damage the bank's reputation, such as excessive debt among borrowers or opposition from the community.

4. **Reputation/Brand:** A microfinance bank's approach and procedures for helping underprivileged areas have a big influence on its reputation. The bank is frequently seen as socially conscious and dedicated to promoting financial inclusion because it provides banking services to low-income individuals and small companies. Retaining a good reputation requires openness, equitable procedures, and significant results. If a bank maintains moral principles and puts the needs of its clients first, its participation in microfinance can enhance its reputation as a community focused and socially responsible organisation.

5. **Operational Complexity and Scalability:** A microfinance bank's operational complexity and scalability pose serious problems. It can take a lot of resources to manage small-scale loans because it calls for individualised services, credit evaluations and loan monitoring. The complexity is heightened when working with underprivileged, frequently rural people who have little access to technology and financial literacy. Effective procedures, technology for loan administration and increased outreach without sacrificing service quality are necessary for successful growth. Growing should not result in unsustainable lending practices that hampers the goal of serving the underserved.

11. Results and Recommendations

Over 50,000 micro-entrepreneurs and low-income households now have easier access to credit thanks to banks in the Tricity, which have disbursed loans ranging from ₹10,000 to ₹5,00,000. The region's microfinance firms often record repayment rates between 92% and 95%, which highlights both the opportunities and difficulties in reaching marginalised communities. Banks should use a multipronged strategy to improve microfinance services in the Tricity area. Repayment rates could increase by 10% by reducing default risks and expediting loan approvals using sophisticated credit assessment models customised for microloans. The SHGs can be used to increase group-based lending, which can improve loan recovery efforts and encourage peer accountability. Economic inclusion could be promoted by giving women entrepreneurs 60% of the microfinance portfolio and providing them with incentives like reduced interest rates. Additional protection could be offered by introducing microinsurance products for risks related to health and crop loss. By constructing specialised regional banking hubs and kiosks, 10,000 more borrowers could be added each year, increasing accessibility for isolated communities.

1. **Impact Evaluation**: Banks can better understand the positive effects of their loans on borrowers' lives by regularly conducting surveys and impact studies. These observations can show social responsibility and direct service enhancements.
2. **Community Engagement Events:** Organising quarterly community engagement events can reach 20,000 people annually, raising awareness of microfinance services. These events can onboard 5,000 new borrowers each year, enhancing trust and visibility for the bank.
3. **Programmes for the Development of Skills:** Giving 10,000 debtors yearly skill development training can increase their earning potential by 20%. In addition to improving borrowers' general financial well-being and repayment capacity, this can guarantee sustainable microfinance practices.
4. **Extended Models for Credit Scoring**: Creating borrower specific credit rating systems can cut default rates by 10% and speed up loan acceptance by 40%.

Through quicker processing, this enhancement can draw in more borrowers and increase the quality of the portfolio.

5. **Finance for Renewable Energy:** Over three years, 5,000 homes can be financed by loans for renewable energy projects like solar panels and biogas plants. These loans, which range from ₹20,000 to ₹1,00,000, can help borrowers to save 20% – 30% on their energy bills while encouraging sustainability.

12. Concluding Remarks

Public and private sector banks have different priorities when it comes to microfinance. Public sector banks seem more dedicated to helping persons in need, small enterprises and carrying out government mandated programmes. They also provide a lot of attention to advancing financial inclusion and social equality for those with low incomes. Additionally, public sector banks are more likely to incorporate microfinance into their corporate social responsibility (CSR) programmes and offer loans with lower interest rates. With a focus on loans for small-scale financial operations, government housing and microfinance programmes, public sector banks exhibit a more extensive and resilient presence in all categories. Additionally, they show greater interest in micro savings products such as recurring deposits and savings accounts with zero minimum balances.

However, private sector banks appear to retain a more balanced focus by giving profitability a little more thought, even while they also support these social goals. This contrast demonstrates how public sector banks have a stronger social focus than private sector banks, which have a more economically orientated strategy in the microfinance sector. Even though they are active in these sectors, private sector banks typically take a more focused and selective approach, with somewhat lesser participation in some categories. With a discernible focus on offering services like payment and collection facilities and debit and credit cards, their involvement is more calibrated between social benefit and business viability.

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Women Empowerment and Employment Creation through Microfinance: Assessing the Mediating Role of Social Capital

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Social capital mediates between microfinance and women empowerment, as it improvises the effectiveness of women capabilities and reduce the impact of vulnerability through proper management and knowledge.

Abstract

With a view to combat rising discrimination and atrocities against vulnerable groups, various government and non-government bodies have introduced microfinance programmes that provide financial literacy and assistance to these groups without any collateral securities. Microfinance bodies provide rural women with employment opportunities, financial support, and improved living standards through employment opportunities. Social capital, which binds women with similar values, interests and trust, helps them to bond together and access loans, thereby, empowering them in terms of income generation. Though studies related to the role of microfinance and women empowerment, and of social capital in empowerment have enriched the literature from time to time, the mediating role of social capital in the process is not considered much. This paper studies the role of microfinance in women empowerment and employment creation, while assessing the mediating role of social capital through structural equation modelling by collecting responses from 228 beneficiaries through interviews and a semi-systematic review of literature.

1. Introduction

The late A P J Abdul Kalam once rightly said, 'Empowering women is a prerequisite for creating a good nation; when women are empowered, society with stability is assured. Empowerment of women is essential as their value system leads to the

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development of a good family, society and ultimately a good nation.' Whether it is for a revolutionary movement or a very deliberate choice made for a domestic activity, women and their beliefs have always been seen as extremely educational and valuable. For the development of a nation, it is important that the rights and opportunities of both men and women are equally prioritised, and that there is no scope for injustice and conflict of interests (Brana, 2011). However, in a patriarchal society like India, the role and importance of women have always been questioned, and their opinions are neglected for decision making (Khan *et al.*, 2022). They are excluded from taking economic decisions in their family, especially the ones who are illiterate or uneducated, as they are expected to be less knowledgeable and deficient in expertise in such fields. It is regarded that women, especially in rural India, are the most economically disadvantaged group in today's scenario who are treated as ignorant and are deprived of the basic rights in the society (Garikipati, 2008). Therefore, it is essential to end their sufferings and lighten them up by empowering them economically through employment opportunities and encouraging them to contribute to the socio-economic development of the country. Significantly, government bodies and financial institutions are focusing on rendering credit services to the poor by providing access to financial resources, and support systems that can help break the cycle of poverty and dependency, enabling individuals, especially women, to become self-reliant and active participants in the economy. Against this backdrop microfinance has emerged as a powerful tool for elevating the status of women and empowering them in the society.

2. Conceptual Framework

The origin of microfinance has its roots in Bangladesh with the beginning of Grameen banking approach in the year 1976 (Mia *et al.*, 2017). The model, originally recommended by Muhammad Yunus, Bangladesh's renowned social entrepreneur, has been considered one of the essential tools to eradicate poverty by providing employment opportunities to the poor. Microfinance institutions (MFIs) are banks, cooperative, credit union, government and non-government organisations, or a non-bank financial intermediary that lend money and, in some cases, render banking services. It not only aims at lending money, but also provides deposit, insurance and financial advisory services to low income individuals in areas lacking mainstream banking (Akram and Routray, 2013). The mechanism of micro-credit loans includes people who are in need of money who make a group and approaches the MFIs to borrow money. Usually, these groups consist of 5 to 25 members in the age group of 18 to 55 years who mostly belong to the same locality (Reddy and Malik, 2011). These groups are formally termed as self-help groups (SHGs), where members usually have a similar socio-economic background. Loans are provided to them in order to work for various development activities. The National Bank for Agriculture and Rural Development (NABARD) promote SHG-Bank Linkage Programme (SHG-

BLP), with structured positions like secretary, joint secretary and treasurer. Banks open joint accounts, and after stability, sanctions loan up to four times the amount saved. Another approach is joint liability groups (JLGs) for lending loans to SHG members, allowing them to access funds for business expansion. These groups, typically 5-10 members, can be financed by banks according to the NABARD guidelines, adding to the SHG's existing loan or credit limit (NABARD, 2018).

3. Microfinance and Women Empowerment

The MFIs target the marginalised communities especially poor women and, thus, play a vital role in promoting gender equality. The SHGs model has proven to be an effective way in promoting entrepreneurship, improving the lifestyle of the members and their families, and empowering women by giving them greater control over their household finances (Aruna and Jyothirmayi, 2011). They are now not only confined to domestic activities, but are also engaged in economic activities. Empowerment, however, is a gradual process. Women who have been of empowered need to sense their self-worth first. They need to know their rights and independently make choices for their own benefit, for their opportunities and resources. These come with the power of financial and economic stability where microfinance bodies play a very vital role (Hashemi *et al.*, 1996). Women empowerment can be defined as a process where women improve their well-being and status by defying existing norms and cultural values in the society where they live in. Earlier women, who were being discriminated because of gender inequality, are now in a position to participate in household decision making, which is a crucial part of the society due to the intervention of microfinance (Brana, 2011). With improvised skill and development, women are now in a better situation to influence the society and stand for their rights (Gressel, *et al.*, 2020). There are various types of empowerments that enhances social well-being and status of the women in the society. Social empowerment is the term used to describe the motivating factor that improves women's social connections and social standing. According to Antony (2006), 'Empowerment of women is a multi-dimensional process, which should enable the individuals or a group of individuals to realise their full identity and powers in all spheres of life.' Economic empowerment empowers women by providing access to finance and income-generating activities, enabling them to free themselves from deprivation and oppression, benefit from market and household opportunities, manage food, and meet basic needs (Mandal, 2013). Women all over the world have been fighting to free themselves from the chains of slavery, oppression, subordination, and other forms of mistreatment, both inside and outside of their families. The survival of women is very challenging without putting them into the corridor of power (Mandal, 2013). Without active participation in the political field, women cannot be empowered. Thus, political empowerment serves as a rung on the social mobility ladder. Without educated women, a nation cannot prosper. Education is therefore a crucial strategy for empowering women. It increases a woman's awareness of her rights, duties and the need for realising their self-worth. Positive psychological thinking empowers women to break societal norms, change identities, and achieve psychological well-being, encompassing self-acceptance, positive relationships, autonomy, purposeful living, personal progress and environmental management skills (Dush *et al.*, 2008). To empower oneself, it is important to understand the management of money in a way that affects our well-being. Financial literacy is crucial, and should never be undervalued because it not only improves people's wellness but also helps them to gain financial independence (Haque and Zulfiqar, 2015). Thus, there is always a positive relationship between financial literacy and women empowerment.

Social Capital

During the last two decades, the concept of social capital has been widely used in the field of education and research. Studies claim that the term social capital was first introduced by Lyda Judson Hanifan in the year 1916 who dealt with the role of rural community schools. He defined social capital as tangible assets that count for most of the daily lives such as goodwill, fellowship, sympathy and social intercourse among the individuals and families that make up a social unit (Hanifan, 1916). However, the term gained popularity with the work of Loury (1977) who argued that the minority communities lack resources because of the injustice prevailing in the society which hampers their development. In a similar perspective, Bourdieu (1986) defined social capital as 'the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalised relationships of mutual acquaintance or recognition' (Nugroho, 2008). He emphasised social networking, which is a gradual process that includes construction of investment oriented strategies that can be used and relied upon by all the group members for their own benefit. Putnam (1993) referred social capital as 'features of social organisations, such as networks, norms and trust that facilitate action and cooperation for mutual benefit'. He argues that social capital is important for effective functioning of a democracy where a higher level of social capital leads to stable government, public services and the overall development of the society. His definition of social capital include trust, which is the main characteristic of a politically and socially developed country and emphasised group collaboration rather than individualism. Fukuyama (1995) defined social capital as the network and trust existing in a society that acts as a glue holding society together to achieve collective goals. According to him, a society having higher social trust among individuals results in higher social capital, which in turn acts as a tool for the overall economic development of the nation. Social trust plays a critical role in shaping the society that results in well-being and social harmony which is a creation in itself rather than inheritance. Social capital is being regarded as an essential tool to bring social harmony and collaboration towards achievement of certain goals that are pre requisite for both human and economic capital development.

4. Literature Review

Microfinance has proven to be a successful tool in reducing poverty through employment creation, and loans obtained by the women in the microfinance industry have been recognized as being more advanced and legitimate (Aruna and Jyothirmayi, 2011; Hashemi *et al.*, 1996; Khan and Noreen, 2011). It has been found out that the socio-economic conditions of the loanees have improved substantially, compared to the ones who did not take any financial assistance from the MFIs, that improves their self-efficacy and self-perception resulting in both social and economic growth (Ahmad and Ahmad, 2017; Adhikari and Shrestha, 2013; Kato and Kratzer, 2013). The group lending in microfinance enables building of social capital that plays a crucial role in uplifting the standard of women to stand against any atrocities in the society through microfinance loans (Hossain and Hosen, 2018; Jaafar *et al.*, 2018; Jetti, 2006). Group based microfinance schemes, trust, norms, networks, bonding, bridging and linking social capital have significant influences on empowerment (Islam, 2020; Jorgensen and Ngaichan, 2009; Yusuff *et al.*, 2016). With the help of such bonds and networks, individuals who are connected can support and inform one another, thus, enhance group cooperation. Through capital development and income, their ability to make decisions has increased in the areas of family planning, reproduction, healthcare, mobility and savings, which were earlier not prominently visible in a male dominated society. Women feel more confident in their ability to make decisions about domestic issues (Khan *et al.*, 2022; Mitra and Kundu, 2012). However there are studies that reveal that social capital bonding and trust do not necessarily influence financial behaviours and the overall financial inclusion of the women. It is because of the fact that sometimes rigorous surveillance and public shaming due to non-payment of loan installments result in a gradual loss of trust and social cohesion (Banerjee and Jackson, 2017; Karim, 2008) In fact, women are vulnerable to various factors that have significant impact on their socio-economic development. Although women take loans in their name, the money in often misused by their husbands in non-income generating activities like gambling, alcohol consumption, etc. There are studies which reveal that vulnerability factors like social, political, economic and environment decrease the positive impact of microfinance, and so it is important to find out the root causes of vulnerability through conceptual method to mitigate the same, ensuring transparency, accountability and new innovative strategies (Asad *et al.*, 2020; Gressel *et al.*, 2020).

Empowerment is multifaceted and subjective, and because of its inherent challenges, its measurement is naturally difficult. Others (Hashemi *et al.*, 1996) used empowerment indicators to measure credit programme's influence on women empowerment, and it is quite possible that the study's indicators did not fully capture all facets of empowerment or may be influenced by cultural norms and respondents' perceptions. The study conducted by Dowla (2005) indicates that microfinance is a helpful tool to alleviate poverty as it helps in the growth of credit market, and social capital plays a vital role in the entire process. However, the study did not incorporate the negative aspects of social capital, which is a result of non-compliance of the loan repayment schedule, as long-term borrowers have lower repayment rates, and banks fail to create trust, norms and networks among the members. According to Jorgensen and Ngaichan (2009), group based microfinance schemes, trust, norms, networks, bonding, bridging and linking social capital have significant influences on empowerment. It is seen that in most cases microfinance has helped creating and sustaining positive social capital, where women have benefitted by enhancing their level of consciousness, awareness, decision making abilities and improvement in well-being through collective action and, thus, there is a positive relationship between social capital and social empowerment. However, various ways of measuring the impact of social capital apart from the perceptions of the participants have not been explored much (Basargekar, 2010). Social capital formation through trust, norms and network have significant impact on livelihood and empowerment of women. However, it is suggested that the way women's networks assist resource access and, eventually, economic development is not necessarily reflected in the way microfinance organisations leverage social capital to support sustainable financial institutions and income generation (Maclean, 2010). The study conducted by Onodugo *et al.* (2021) reveals that social capital bonding and trust do not necessarily moderate financial behaviours, instead social capital bridging and collective actions significantly moderate financial behaviour improvising financial inclusion. According to Kuzilwa (2005), while lending facilities, training, education and comprehensive guidance might help businesses enhance their output, institutional and macroeconomic variables like the legal system and economic policy are primarily to blame for the capital shortage issue. Additionally, the analysis ignored the group of people who did not obtain the same loan facilities and only included firms that received them from microfinance organisations.

A study by Aruna and Jyothirmayi (2011) found a positive relationship between microfinance and women empowerment, considering microfinance as a financial mediator where it has a positive influence on the economic status, decision making power, knowledge and self-worthiness of women participants of SHG-BLP. However, the study excludes group savings and internal lending, which are some of the key aspects of microfinance mechanism, and also lacks in a comparative study between beneficiaries and non-beneficiaries of microfinance loans. Although microfinance has proven to be an effective tool for empowerment, there are studies that contradict the same. Findings of Banerjee and Jackson (2017) indicate that rather than to create empowerment for most borrowers, microfinance has aggravated poverty in the villages. However, the study's emphasis on rural Bangladesh may restrict how broadly the conclusions may be applied to other areas or nations. The distinct cultural and socioeconomic backdrop of rural Bangladesh may not be representative of the other contexts in which microfinance is practiced.

5. Methodology

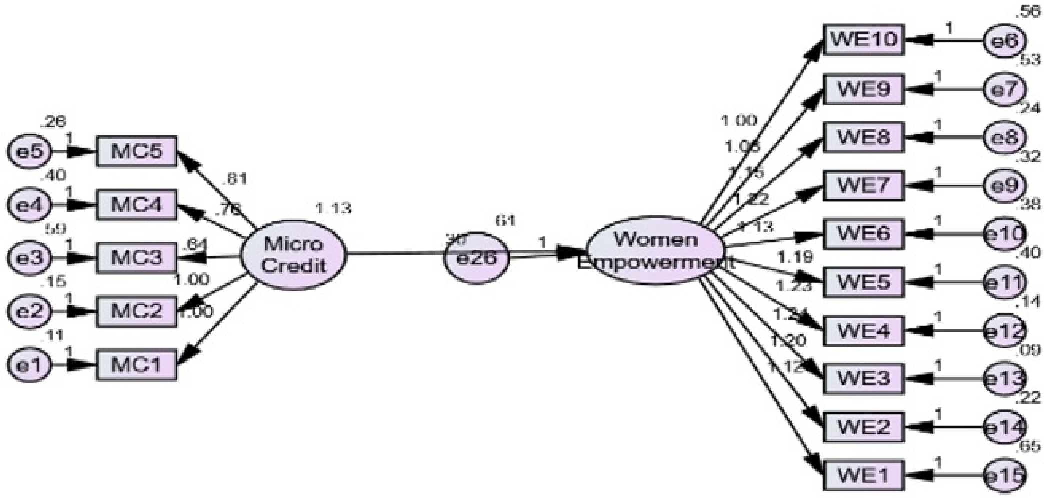
The data used in this paper has been collected from 228 female beneficiaries of MFIs and commercial banks in Cachar District of Assam over a period of three months from June 2024 to August 2024. Since the majority of the respondents lacked formal education, interviews were conducted in person. A five-point likert scale has been developed, ranking between 'Strongly Disagree' (1) to 'Strongly Agree' (5).

The study includes three main constructs which are social capital, microfinance and women empowerment. Nine factors that are associated with bonding, social network and trust are used to measure social capital, and they are denoted as SC1, SC2,....SC9. In a similar way, five factors—micro-credit, loan interest rates, repayment duration, and amount—are used to assess microfinance, and denoted by MC1,... MC5. Finally, 10 items pertaining to social, physical, economic, psychological and digital empowerment are used to quantify women's empowerment, and they are denoted by WE1, WE2,...WE10.

6. Mediating Effect of Social Capital on Women Empowerment

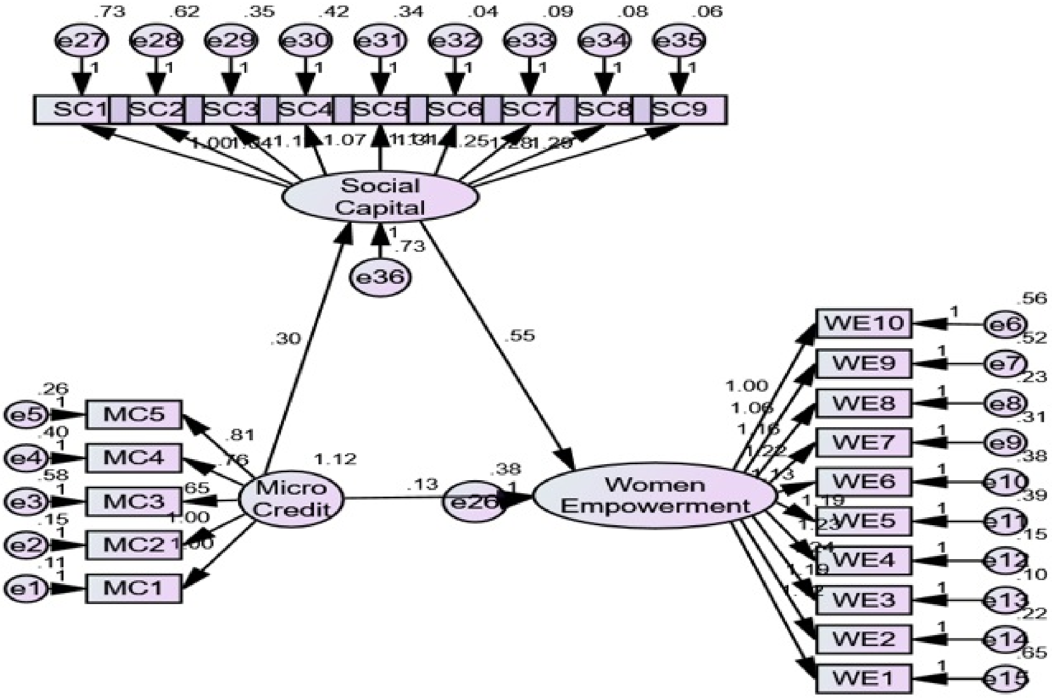
Using AMOS (analysis of moment structures), the mediating effect of social capital between microfinance and women empowerment is being calculated. At first, the direct effect of microfinance on women empowerment in the absence of social capital is being estimated, which is found to be 0.30 and significant. For the purpose of analysing the direct effect, five items of microfinance (MC1, MC2,...MC5) and 10 items of women

Figure 1: Direct Effect



Source: Author's Computation.

Figure 2: Mediating Effect



Source: Source: Author's Computation.

empowerment (WE1, WE2,….WE10) have been used. After that, in presence of social capital, the model was run and the results indicated that social capital mediates between microfinance and women empowerment where the impact had been reduced to 0.13, which is the recommended value. For analysing the same, nine items of social capital (SC1, SC2,…SC9) have been used. For this purpose, estimates were calculated after performing bootstrap with number of bootstrap samples up to 5,000 at 95% confidence level. Considering the results obtained, it is concluded that social capital mediates between microfinance and women empowerment. The estimates and p-values are shown in Table 1, and the direct and mediating effect in Figures 1 and 2, respectively.

Table 1: Results of Total, Direct and Indirect Effect

	Standardized Estimation	P-Value	Result
Total Effect	0.30	0.000	Significant Impact
Direct Effect	0.13	0.014	Significant Impact
Indirect Effect	0.17	0.000	Significant Impact

Source: Author's Computation.

Group lending is a vital tool to empower women economically. Social capital is one such aspect that is directly related to women empowerment in microfinance. Since loans are disbursed in groups, it is important for the members to have mutual understanding, faith, trust, bonding and a strong network. Researchers have found that social capital acts as a catalyst in social dependency of the members on each other. The peer pressure from the group members helps in reducing the default in loan instalments through the sense of responsibility which is possible only when members know each other well (Garikipati, 2008). Social capital has a significant role to play in economic and social empowerment of the women. Social capital moderates financial behaviour and improvises financial inclusion (Onodugo *et al.*, 2021). Sharing ideas and knowledge effectively among the group members help them to boost themselves financially by proper management of funds. It mediates between knowledge management and firm performance that enhances empowerment through entrepreneurial activities (Daud and Yusoff, 2010). It is important to understand all dimensions of social capital and their effective management, failure of which may lead to negative or no impact on development of women. Thus, to alleviate poverty, the mechanism of social capital needs to be properly executed in order to uplift the social status of the women through employment opportunities.

7. Experiences of Countries

For the purpose of research, countries where microfinance is effective in poverty alleviation is included. In these countries, positive, negative and no impact of microfinance is observed as a tool for strengthening its economy. The countries included are: India, Bangladesh, Pakistan, Sri Lanka, Nepal, Nigeria, China, Thailand, Singapore, Tanzania, Cambodia, United Kingdom, Bolivia, Malaysia, France, Chicago, Kenya, Uganda, Netherlands, Indonesia, Qatar and Cameroon.

7.1 Search Strategy and Planning of the Review Process-Peer Reviewed Literature

For the purpose of the literature review, electronic databases such as Google Scholar, Sci-hub, jstor.org, ResearchGate, acadamia.edu, wiley.com, semanticscholar.org, springer.com, econstor.eu, ijdc.org.in, core.ac.uk, psu.edu, dergipark.org, ijcms.in and academicjournals.org have been used for identifying related journals and articles which are peer reviewed. Each database has been utilised to find out in depth research articles related to the field of study such as microfinance, employment creation, poverty alleviation through micro-credit, women empowerment, social capital, role of microfinance in women empowerment, etc.

7.2 Criteria for Selection of Articles/Journals/Research Papers

The articles and journals which are already published in different time ranges are used for the purpose of review. Along with that, books, thesis papers and reports published by the government are also analyzed for review and citation purpose. The entire text articles published that meets the eligibility criteria is used for extensive search and understanding.

7.3 Final Inclusion

After extensive and systematically going through the articles, journals, books and reports and proper understanding of the terminologies used, full texted articles that met initial criteria are assessed. Relevant data has been extracted that included their methodology, time period of the study, country of the study, author, title, research design, data collection methods and their key findings.

Flowchart of the Process

Peer-reviewed articles retrieved from databases - 170

Articles identified after removing duplicate articles - 110

Full texted potential articles studied after meeting the eligibility criteria- 85

Articles included in the review - 60

8. Results and Discussion

8.1 Microfinance and Employment Creation

The given literature reviews suggest mixed results related to functioning and usefulness of microfinance. Some studies indicate that employment and micro-credit have a good association. It suggests that microfinance positively affects participants' ability to generate revenue. It has been discovered that, in comparison to those who did not receive any financial aid from the MFIs, the socioeconomic circumstances of the loanees have significantly improved (Adhikari and Shrestha, 2013; Atiase *et al.*, 2019; Banu, 2021). It is worth mentioning that, although micro-credit is an effective tool to eradicate poverty and changing the lives of the people by opening up better income opportunities, there are various shortcomings that needs to be highlighted and dealt with (Ahlawat, 2016; Kuzilwa, 2005) Training, education, better accessibility of credit and its proper usage accelerate the utilisation of the funds and result in financial independence of the people. However, there are certain factors both at the micro and macro level that obstruct the effective usage of the money. One such is the uneven distribution of the income, especially in an agrarian economy where most the earnings of the marginalised group is dependent on agricultural occupation (Ahlawat, 2016; Pokhriyal and Ghildiyal, 2011). The funds provided by these institutions is minimal per head, leading to lesser financial stability among the masses. Lack of proper financial knowledge leads to misuse of funds making the lives of the poor miserable. Also, they are vulnerable to numerous factors that vary from one country to another. Thus, it can be concluded that microfinance is having positive, negative, or no effect on the employment creation.

8.2 Microfinance and Women Employment

Microfinance when narrowed down to gender specific, leads to empowerment of women and, thereby, reducing the gender inequalities prevailing in the society. Through access to credit, women are given a platform to become financially independent leading to upliftment of their socio-economic status (Ahmad and Ahmad, 2017). Their decision making power, knowledge, self-worthiness, self-esteem, confidence and, more importantly, their eagerness and motivation to earn has substantially increased when offered financial support and assistance (Aruna and Jyothirmayi, 2011). However, women are vulnerable to various factors that act as obstacles in the process of being financially sound and independent, the societal norms being one of the biggest players. Dominance from their spouses and other male members of their family obstruct them from utilising their funds independently. The money is often misused in non-productive activities leading to deacceleration of their growth. Women having no assets and savings in their names even after being financially assisted can face serious uncertainties. Thus, for their entrepreneurial empowerment, it is important for the women to first be more vocal about right and wrong practices, and stand against the odds to fulfil their financial, economic and social needs.

9. Key Findings

The present study conducted tries to assess how microfinance is an effective tool to empower women, and if social capital mediates their relationship. Findings suggests that social capital mediates between microfinance and women empowerment, as it improvises the effectiveness of women capabilities and reduce the impact of vulnerability through proper management and knowledge.

The aforementioned literature evaluations indicate conflicting findings regarding the operation and utility of microfinance. Numerous factors influence how effective microfinance is at creating jobs for the economically disadvantaged sections of society. It is important to note that although micro-credit is a powerful tool for alleviating poverty and improving people's lives by creating new earning prospects, there are still a number of drawbacks that must be addressed (Khan and Noreen, 2011). There are various factors that affect women empowerment among developing countries. However, the most important are vulnerability factors such as women's health vulnerability, environment vulnerability, economic/social and political vulnerability that needs to be managed to empower women (Ul- Hameed, 2019). Through group lending, MFIs and borrowers play a crucial role in reducing default risks following proper screening, monitoring and enforcing strict repayment schedule (Dixon *et al.*, 2007). Poverty alleviation is one of most crucial social issues that almost all the economies suffer. Not only government but also non-government institutions should take mitigation steps to reduce poverty, but the poor needs to address their issues voluntarily in order to minimise the same. SHG as a strategy focuses on raising the voices of the masses against discrimination and obstacles, and it is a breakthrough to overcome social and economic problems.

9. Conclusions

The major contribution of the study is evaluating the role played by microfinance on women empowerment through employment creation and social capital is regarded as an important factor in creating a sense of self-worthiness, self-efficacy, self-sustainability and confidence through mutual understanding and bonding among the members of the group. Enhanced skill training and management of the borrowers lead to effective and productive income generation in order to become financially sound (Tria *et al.*, 2022). The paper critically reviews the existing studies of the role of microfinance on employment creation and women empowerment. Gender inequality is a major concern in the global context even today, and women are deprived of basic amenities in life. In such a situation, microfinance acts as a reinforcing tool to overcome such complexities and provide financial assistance to empower them through income generating activities and new startups (Brana, 2011). Women are prone to various factors that obstruct the efficient utilisation of their skills and knowledge. Thus, exposure of women to an environment where trust, assurance, mental support and eagerness to overcome the hurdles becomes extremely essential. Also, peer pressure and motivation to develop their well-being play a catalytic role for their empowerment. Conducting training sessions to improve the decision making, communication, problem solving, social and life skills of female heads of households, and raising levels of political awareness by highlighting their significant contribution to the advancement and excellence of society can be effective (Ebrahimi *et al.*, 2022). To conclude, microfinance has successfully participated in poverty alleviation and uplifting the role of women in the society, however, there are certain loopholes and drawbacks in the system that needs attention, and through government and policymakers' intervention, the same can be dealt with.

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Microfinance Operations: Does the Model Need a Relook?

– Jiji Mammen*

Abstract

Financial inclusion in India has recorded significant growth in the recent past. More than 80% of the male and female adult population now have a bank account. Also, the access, usage and quality of financial services have improved, showing significant increase in the Financial Inclusion Index. Despite these, credit to poor continues to remain an issue. It is here where the Indian microfinance is playing a role. India has two models of microfinance institutions: SHG bank linkage programme and microfinance institutions, reaching the borrowers mostly through joint liability groups. Both these models depend on group concept for the delivery of credit. Of late, the group dynamics are showing some weakening. Also, the external environment is causing some kind of overleverage of credit leading to higher delinquency. The question in this context: is it time for change in the model of microfinance? It is felt that, keeping the group as a base, the lenders should do a better underwriting of individual borrowers before sanctioning of a loan. Also, the use of technology for better underwriting and improved efficiency would be the way forward.

Microfinance sector has become a key player in the Indian financial landscape. The sector has been providing credit support to millions of poor households, who are otherwise find themselves out of the formal banking system.

1. Status of Financial Inclusion in India

Traditionally, one of the major challenges faced by the planners and governments in India was the financial exclusion of the large number of people, which affected the plight of the poor and the development of the country. Realising this, the Reserve Bank of India (RBI) announced in 2005 that financial inclusion was to become its focused programme. As per the financial inclusion data, the number of persons with bank ac-

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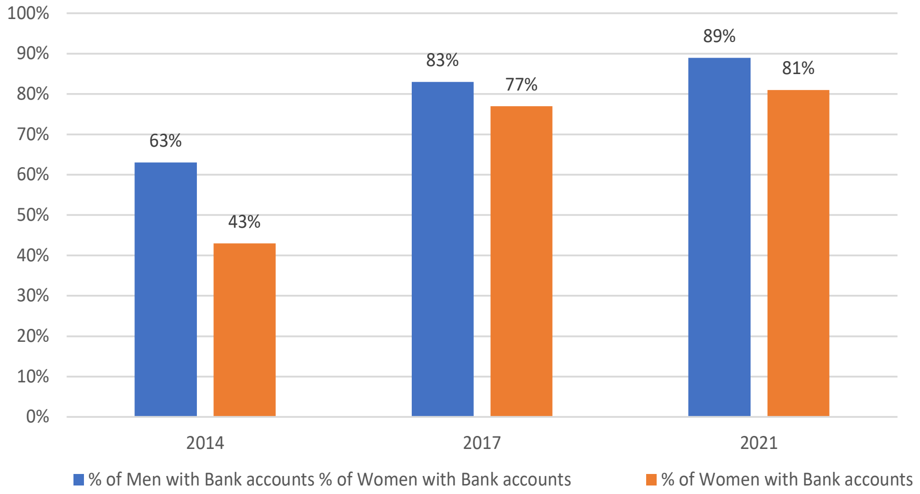
Key Words: Microfinance, Financial Inclusion

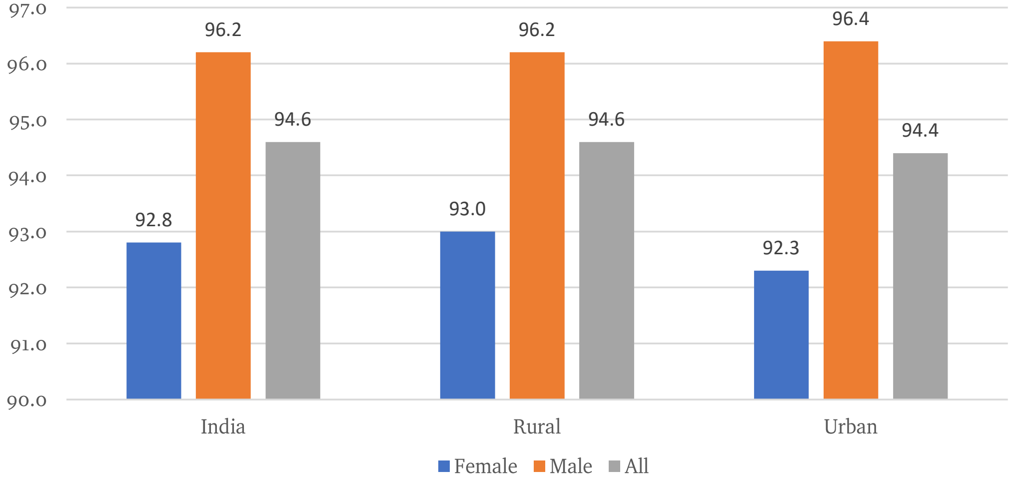
counts had been paltry in the early 1990s. In 2014, only around 63% of men and 43% of the women had bank accounts. With the focused initiative of RBI and the Government of India, more so after 2014 with Pradhan Mantri Jan Dhan Yojana (PMJDY), more than 80% of both women and men now have banks accounts (Figure 1).

Figure 1: Percentage of Male and Female Adult Population with Bank Accounts



Source: RBIH Whitepaper - Gender and Finance in India (2022)

Figure 2: Percentage of persons (age ≥ 18 years) who have an account individually or jointly in any bank/ other financial institution/mobile money service provider

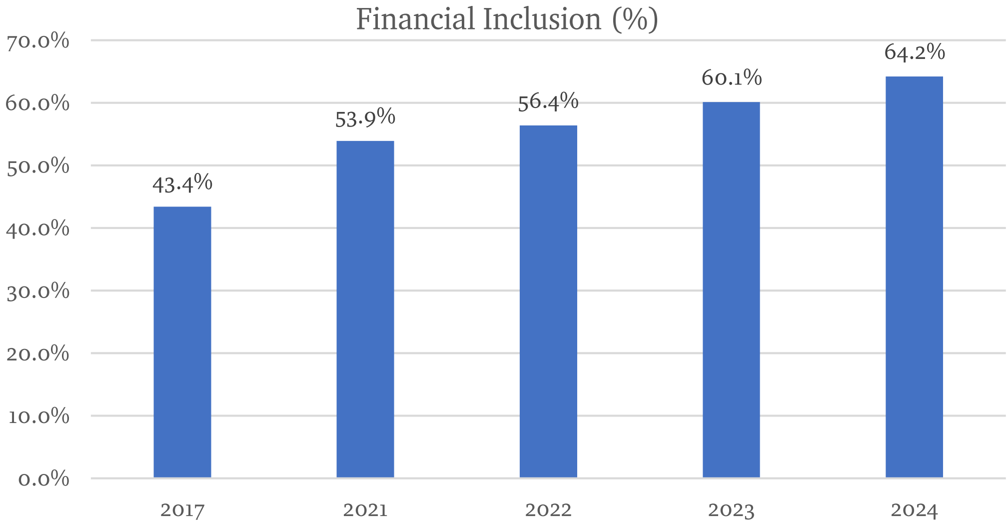


Source: NSS 79th Round – CAMS Report 2022-23

The position has further improved as per the data published by the 79th round of NSS-Comprehensive Annual Modular Survey 2022-23 (Figure 2). The data shows that 94.6% persons had accounts with banks or other financial institutions or mobile wallets. Of this 92.8% were women.

All these contributed to a definite improvement in the financial inclusion index (FII) published by the RBI, which indicates changes in the access, usage and quality of financial products. In fact, there has been a steep growth in the last few years (Figure 3). The FII climbed steeply from around 43% in 2017 to 64% in 2024 on the backdrop of increased availability of bank accounts and other financial products.

Figure 3: Financial Inclusion Index in India



Source: Reserve Bank of India

Though there has been a remarkable rise in the percentage of adult population with at least one bank account, the situation with regard to access and usage of financial products like credit, insurance, pension, etc., continues to be much below the desired level.

2. Credit Exclusion

Amongst various financial products such as savings, credit, insurance, pension, payment, remittance and so on, credit is the most important one for the financial upliftment of the people. The credit availability to the people, especially to the poor, has always been a concern. Several steps have been taken by the government from time to time like nationalisation of banks, introduction of district credit planning and setting up of regional rural banks, to make credit available to the poor and needy. But none of these could substantially improve the availability of credit to the poor. This is when National Bank for Agriculture and Rural Development (NABARD), after an action research project with MYRADA, a non-government organisation (NGO), came up with an innovative product of self-help group-bank linkage programme (SHG-BLP) in 1992. The new product was launched after obtaining approval from the RBI for opening accounts by informal groups like SHG and also for availing of bank credit through the same. It revolutionised the financial inclusion process and credit linkage to the poor, and became a major movement. Today there are more than 1.40 crore SHGs savings accounts linked to the banks, and nearly 50% of them have been credit linked with an outstanding of ₹2.60 lakh crore.

The credit needs of the poor were partially addressed by the SHG-BLP. But it was not sufficient in a country like India where the population is inching towards 1.5 billion. During the mid-1990s, prominent NGOs came up with an idea of specialised financial intermediaries, later called as Microfinance Institutions (MFIs), which also made use of the group mode to deliver credit to the poor. These groups were mostly smaller in size, known as joint liability groups (JLGs), formed for the purpose of borrowing. The loans disbursed to the individuals were mutually guaranteed by the members of the groups, which usually have 4 to 8 members. Soon, the MFI concept gained traction and became a major financial intermediation institution for the poor households.

3. Credit Off Take Through Microfinance

3.1 Self-Help Group-Bank Linkage Programme

The SHG-BLP, initiated by NABARD as a pilot project in 1992, was initially driven by NGOs. It was a comprehensive programme involving savings, credit and other empowerment activities. Being a women centric programme, it has helped in women empowerment, collective actions and collective enterprise activities. But the major contribution remained to be a source for meeting smaller credit needs of the poor. The Government of India has adopted this model in their poverty alleviation and employment generation initiatives, and launched a massive programme called National Rural Livelihood Mission (NRLM) in 2013. This was later christened as DAY NRLM in 2016, and is implemented across the country through Ministry of Rural Development, Government of India. Presently, Government of India is also developing it into an employment generation activity by promoting individual enterprises of significant size and revenue, and has launched an ambitious programme called Lakhpati Didi scheme. The achievements of SHG programmes is presented in Table 1.

3.2 Microfinance Institutions

The MFIs formed since 1995 as specialised institutions remained to be a source of providing micro-credit to the poor. Initially, MFIs were promoted by NGOs as part of

Table 1: Key Statistics under SHG-Programmes

SN	Indicators	2024	2023	Change
1	Total number of SHGs saving-linked with banks (in Lakh)	144.21	134.03	10.18
	Percentage of NRLM/NULM Groups	64%	67%	-3%
2	Total saving amount of SHGs linked with banks (₹ in Cr)	65,089	58,893	6,196
	Percentage of women groups linked	97%	96%	1%
	Percentage of NRLM/ NULM groups	87%	86%	1%
3	Total number of SHGs with loan outstanding (in Lakh)	77.42	69.57	7.85
4	Total loan amount outstanding (₹ in Cr)	2,59,664	1,88,079	71,585
5	Total number of SHGs credit linked during 2023-24 (in Lakh)	54.82	42.96	11.86
6	Total amount disbursed during 2023-24 (₹in Cr)	2,09,286	1,45,200	64,086
7	Number of households covered	17.75	16.2	1.55
8	Non-performing asset (NPA)	2.79%	2.05%	0.74%

Source: *Status of Microfinance in India 2024*

their social outreach activities. The RBI also gave its nod for the banks to lend to MFIs for lending to the poor without collateral in 1998, and later categorised lending to such institutions by banks as a part of priority sector lending. This gave a traction to the MFI movement that soon became a major financial intermediation activity. Many NGOs registered themselves as companies and also non-banking financial companies (NBFCs) later. This also attracted investors' funding which further contributed to the MFI movement. The RBI brought a separate category of NBFCs called NBFC-MFI for such institutions, whose major lending activities involved microfinance.

Today, all types of institutions like banks, small finance banks (SFBs), NBFCs, NBFC-MFIs and 'not for profit' organisations like societies, trusts, section 8 companies, etc., are involved in lending under microfinance. As a result, the credit outstanding through JLG mode of financing has also increased significantly (Table 2).

The share of microfinance in the country shows that the specialised institutions formed for microfinance funding have only about a 40% share. The rest is by other main stream lenders like banks and NBFCs.

4. Market Share of Micro-Lenders in Loans Accounts (in %)

The micro-credit is now delivered by all types of institutions. Although, MFI initiated microfinance programme in India, other institutions like banks and NBFCs also joined the bandwagon, and have taken lead over the MFIs. The share of NBFC MFI is at around 40%, whereas banks and the SFBs together hold around a 50% share. NBFC have become a major player in the microfinance lending segment (Figure 4). There are also some institutions, not regulated by RBI or unregulated ones like digital lenders, which too engage in lending in the microfinance space.

5. Periodical Turmoil in Microfinance Sector

The microfinance sector has faced several challenges during the last 30 years of existence. Starting with overleverage and related issues in Andhra Pradesh in the first dec-

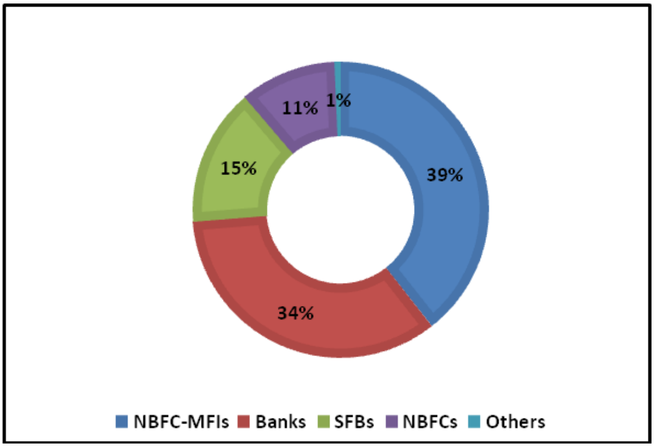
Table 2: Size of Business of Different Category of Institutions in Microfinance Industry (As on 31 March 2024)

Indicators	Micro-Lender[1]	As on 31 March 2024#	Micro-Lender Share (in %)
Number of loan accounts (in lakhs)	NBFC-MFIs	636	39%
	Banks	554	34%
	SFBs	244	15%
	NBFCs	170	11%
	Others	11	1%
	Industry	1,613	
Loan outstanding (₹ in crore)	NBFC-MFIs	1,73,504	39%
	Banks	1,46,909	33%
	SFBs	74,712	17%
	NBFCs	45,236	10%
	Others	2,338	1%
	Industry	4,42,700	
Amount disbursed (₹ in crore)	NBFC-MFIs	1,45,827	38%
	Banks	1,45,249	37%
	SFBs	58,944	15%
	NBFCs	36,375	9%
	Others	1,479	0.40%
	Industry	3,87,874	

Source: CRIF Highmark

ade of this century, it has faced many such problems. During 2007-08, there had been such instances in a couple of districts of Andhra Pradesh and Karnataka states. This became widespread by 2010, which forced the erstwhile Government of Andhra Pradesh to put restrictions on the activities of the MFIs in the state, causing a major disruption of this sector. A similar situation has again come up in the recent times, causing a major concern in the microfinance sector, increasing the delinquency across the geographies.

Figure 4: Share of Different Institutions in Microfinance Portfolio (As on 31 March 2024)



Source: *Bharat Microfinance Report 2024*

The current crisis is linked to overleverage and lack of adequate income to back up such loans. The overleveraging is also on account of increased credit taken by the borrowers and the over enthusiasm to lend by some institutions.

The data from the Credit Information Bureau indicate the phenomenal growth in the lending activities of MFIs from 1 April 2022 (Table 3). There has been a huge growth in credit offtake, which might have resulted in the present problems.

Table 3: Growth in Loan Portfolio, 2022 to 2024

Category of Institutions	Outstanding as on 31 March 2022 (₹ in crore) #	Outstanding as on 31 March 2024 (₹ in crore) $	Growth over two years (in %)
NBFC MFIs	94,096	1,73,504	84%
Banks	1,02,527	1,46,909	43%
SFBs	44,154	74,712	69%
NBFCs	19,076	45,236	137%
Others	3,907	2,338	-40%
Total	2,63,760	4,42,700	68%

Notes: # data from Equifax; $ data from CRIF Highmark
Source: Credit Information Bureau

6. New Regulatory Norms

Coinciding with Covid pandemic, RBI also came up with a new regulatory framework for microfinance operations. The new norms harmonised the regulatory environment across various institutions. Earlier, the first regulatory framework introduced by RBI in 2012, in the aftermath of Andhra crisis and based on Malegam Committee recommendations, was applicable to only NBFC-MFIs, which formed just 30% by 2022. So, the new norms were basically to harmonise the operations across the board and also give some freedom of operations within the reasonable limits.

The new regulatory framework gave a lot of freedom to the regulated entities to determine their policies on lending, including household income assessment and pricing, based on a sound principle. The policies have to be approved by their respective boards and reviewed regularly.

The new regulatory framework rests on two pillars: assessment of household income and assessment of existing loan liability of a household. There are challenges in assessment of both income and liability as the primary source of the household income is mainly from informal sector for which documentary evidence of income is not available, and a proper judgement has to be done before the loan is sanctioned. Also, all the loans availed of by a household need not get captured in Credit Information Bureau, as some of the entities and loans issued are outside the purview of CICRA Act. This may also have led to the overleveraging and the stress in recovery.

7. Is A New Approach Needed?

The microfinance concept in India, in both forms SHG and JLG, is based on the group mechanism where the peer pressure is the major assurance for repayment. The social collateral created through groups, both SHGs and JLGs, have started to fade away over a period of time. This is more so when the individual loan ticket size has also increased. Currently, the MFIs have an average loan ticket size of nearly ₹50,000.

Further, the group concept itself has become weaker in many cases, especially since the covid pandemic, as members had to operate without formal meeting during the lockdown period. This practice continues even now in some areas. Also, the digital payment through unified payments interface (UPI) helps in payment of dues, which make the group participation an optional exercise.

In such a scenario, it is time to look for innovation and newer approach for ensuring better repayment.

7.1 What Could be the Best Possible Options?

Once it is found that the existent mechanism of loan repayment assurance is not working, a new way is required to be put into place to ensure the recovery through proper appraisal mechanism. Probably, it is time to adopt a more rigorous underwriting process on an individual level, especially in those groups where the average loan ticket size has increased. The old practice of depending only on group mechanism and social collateral can be supplemented with more rigorous appraisal of the borrowers and their businesses. The group can be maintained for social needs as well as bringing some peer pressure. But the group alone may not be sufficient.

Leveraging technology is another way to go forward. Most of the people today use smart phones and also access applications like Whatsapp with ease. Even in rural areas, women folk use these technologies. There are virtual meetings with the group members with more flexibilities. Such virtual meetings can connect with the clients and ensure that they continue to perform. Also, UPI mode can be used to do the collections. This would help in reducing the operational costs and ensuring better efficiencies in MFI operations.

7.2 Sub-K Experience

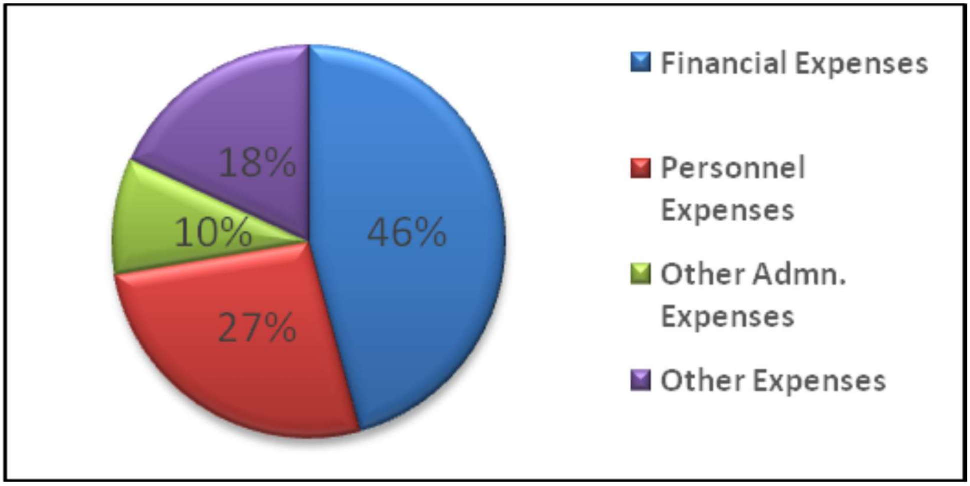
Sub-K is a digital financial intermediary based at Hyderabad, that offers affordable, accessible and scalable financial and payment services to the bottom of pyramid segment. Sub-K seeks to bridge the digital divide, and create a 'financially included' society, through a robust and widespread retail distribution network and in-house Fintech solutions.

The company has effectively utilised the technology in servicing the microfinance segment. They had run a pilot of categorising the borrowers and groups based on their digital interface. The group which is regular in making payments digitally met virtually through Whatsapp call initiated at a time convenient to the borrowers. These meetings were also used as financial literacy sessions and also to communicate other important messages. This was found to be an effective process. But they did not scale up, as their lenders, for whom they worked as a business correspondent, were more comfortable with traditional system. But this experiment promises a newer approach which enables underwriting and monitoring using technology.

7.3 The Possible Benefits

The operational cost is a major component of pricing, and so it is imperative to bring more efficiency and reduce the operational cost. Microfinance is still a 'feet on street' model, and major expenses are towards the manpower cost including their travel (Figure 5). It can be seen that around 54% of the expenses are due to expenses other than financial costs, of which almost 37% is on account of manpower related costs. Introduction of technology can bring down the costs as has been done by Sub-K. Also, the manpower can be used for better appraisal and follow up.

Figure 5: The Share of Average Expenses in Microfinance Sector



Source: *Bharat Microfinance Report 2024*

7.4 Steps to be Taken for the Change

With the need for a detailed appraisal and also deploying technology as a means to enhance efficiency and reduction of operational costs, there is a need to have more quality staff in the field. The training of the staff needs to be more professional and detailed. Also, regular updating of the skills and knowledge of the staff is a must, so that they become tuned to the new mechanism.

8. Way Forward for Microfinance Industry

The microfinance industry in India continues to play a crucial role in fostering the agenda of financial inclusion. An industry supporting almost 12-14 crore households, which is almost half the households of the country, needs to be protected and supported. In the past, the industry was badly affected by disruptions like the Andhra crisis, demonetization and the COVID pandemic, but it was quick to come back to its normal with enhanced vigor and vitality. The resilience power of the industry is laudable.

However, it is time for the sector to start looking for newer ways of reaching the poor and servicing them efficiently. With the technological advances and, more so, with technologies like artificial intelligence (AI) and machine learning (ML), it will be possible for the sector to be more efficient and cost effective keeping the quality of the assets in tact. The challenge of assessing household income can also be addressed through such technological advancement.

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Sub-K IMPACT Solutions Ltd.: www.subk.co.in, Sub-K, Hyderabad.

Does the Current Microfinance Model in India Needs A Relook? A Commentary

– V Rengarajan*

There should be a paradigm shift that ensures the principal focus of any type of microfinance model for the purpose of 'social mission' is an imperatively intentional one towards graduation of the poor. There should be 'no first use of micro-credit' alone in the battle against poverty.

1. Introduction

There are many microfinance (MF) models in India. Many of the models are, indeed, formalised version of informal financial system with the participation of non-government organisations (NGOs) and self-help groups (SHGs) on the demand side, and commercial banks on the supply front, providing micro-credit to the poor for income generation activities. By and large, the nascent microfinance model in India, crowded with mushroom growth of new entrants like microfinance institutions (MFI), non-banking financial companies – MFI (NBFC-MFI), small finance banks (SFBs), etc., remain competitive players in the market, more as money lenders with the intentional focus on profitability rather than playing the role of a savior of the poor. However, among the microfinance models, SHG-Bank Linkage Programme (SHG-BLP), patronised by National Bank for Agriculture and Rural Development (NABARD), remains the largest microfinance initiative in the world, as it touches 17.8 crore households through savings linked SHGs with the loan off take of more than ₹2,09,286 crore in 2023-24 (NABARD, 2024).

The microfinance model in India, be it recent or earlier one, involves the organic linkages with SHG system with the principal focus on social mission towards alleviating poverty in the demand side, regardless of the institutional structure in the supply side. Notwithstanding the widely acknowledged fact that the Indian SHG linked microfinance model has facilitated a commendable financial deepening and outreach of hitherto excluded poor, there are some persistent concerns about the intended impact of the models. Three major concerns that merit deliberations include: a) mission drift; b) 'one size fits for

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all' product; and c) unsustainable inclusivity. This commentary examines performance of microfinance from their committed social mission point of view.

2. Mission Drift

The first comment is whether the model has lost its morale when its social mission has allegedly drifted away. The historical fact on the above allegation reminds us that ever since the micro-credit has emerged, the social mission on the graduation of the poor has been globally recognised. However, this noble mission has been shifted subsequently in the global and Indian microfinance market as well, defeating the very social purpose of microfinance conceived. Consequently, the sustainability of expected outcome of microfinance in terms of poverty alleviation at household level has become debatable.

To probe further in this regard, the Independent Evaluation Group (IEG) of World Bank critically observes the performance of microfinance as 'moderate but not transformative effects of micro-credit with effect of being conditional and individual characteristics' (World Bank, 2015). David and Maitrot (2014) raise an important question 'Has microfinance in South Asia, the mainstream finance in North America and Europe lost its moral compass?' Further they argue 'our particular concern is with microloans to vulnerable clients. MFIs have increasingly focused on financial performance and hence neglected the declared social mission of poverty reduction and employment' (David and Maitrot 2014). Their conclusion emphasises the urgent need for intervention from the leaders of microfinance industry to refocus their organisations and workforce for achieving both financial and social performance. On a similar vein, another study in the Indian context finds no relevance of trade-off between efficiency and outreach objectives. The author of the study asserts 'this character calls for reconsidering the system cost of various subsidies and concessional finance, given to these institutions on a blanket basis' (Kulkarni, 2017).

Having made an incisive analysis on the principles and approaches, followed in microfinance market, Rengarajan concludes '…evidently if the present trend in the functioning of microfinance practices with social mission is of any indication, there is a vast gap between the concept and practice. Ironically the gulf is widening unchecked. Despite the lessons learned from the global microfinance crisis in 2011 in many places in this industry, the situation continues ignorantly or innocently damaging the social values of MF' (Rengarajan, 2013: 74).

Another critical review on Indian micro-credit management observes as 'the possibility of microfinance is overwhelmed by SHG-BLP. The principle point of microfinance is to give a savvy instrument of credit. This exploration paper features the progression of microfinance organisation, conveyance models and significant difficulties like provincial differences, the high interest rate, lopsided development of credit plan, and absence of protection administration and so on' (Kothari, 2016).

This kind of reported 'mission drift' phenomenon, focusing more on scaling up of MFIs, happens irrationally in Bangladesh also where microfinance has emerged. A study in Bangladesh based on circumstantial evidence reveals that financial inclusion is positively associated with MFI efficiency. The relationship between deepening and efficiency turned out to be negative providing partial evidence in support of mission drift in Bangladesh microfinance industry (Md Alam Mia *et al.,* 2019).

Among the prevailing comments on the mission drift syndrome in microfinance market, the sordid anguish of the father of microfinance Mohamed Yunus against the growing trend of commercial microfinance towards profiteering goal merits a mention here (Yunus, 2008).

3. One Size Fits for All Product

The second concern that drives the need for relooking the Indian microfinance model is the presence of sequestered micro-credit for poverty cure. Looking from Amartya Sen's capability perspectives, prevailing plurality in the demographics of the poor in different segments of the pyramid demand an integrated microfinance services linked with nonfinancial services (capacity building) beyond micro-credit for their sustainable graduation. Further the outcome of isolated micro-credit remains insensitive to environmental degradation and climate resilience which affect the wellbeing of the poor clients and sustainability of the livelihood enterprises as well. The COVID19 epidemic lends credence to the above fact. With regard to the capability differentials among the microfinance clients in the pyramid, Rengarajan contends, '...successful functioning of micro-credit depends on not mere acceptability or provision of micro-credit to the poor in the name of 'financial inclusion, but on their ability to utilise it for their graduation progressively along with their counterparts in the pyramid.' Further he claims that due to circumstantial differences in the geography, their socio-cultural environment and personal capability among the poor, vary invariably. Therefore, the functioning of micro-credit differs sometimes with no expected outcome except making the poor clients permanent debtors burdened with more financial stress at household level.

At the microfinance industry level, regardless of the type of microfinance model, practices like multiple lending or multiple borrowing have overheated the household economy resulting in over indebtedness and loan delinquency, escalating the level of the non-performing assets in the microfinance market. The microfinance crisis in 2011, as experienced globally and in major states like Andra Pradesh and Karnataka with the reported suicides of SHG members, bears testimony to this (Rengarajan, 2013: 50).

Moreover, redesigning of microfinance product should align with the needs of climate finance from sustainable development goals (SDG). Much closure to this view, NABARD observes, '…in almost all SDGs microfinance can play a major role in generating funds for development and render community orientation to the intervention. MFI – SHG system provides a clear way to SDGs in the form of financial inclusion and social engineering' (NABARD 2022-23).

Both the above arguments emphasize that the microfinance model in India needs to eschew the 'one size fits for all' approach replacing with the one locally potential integrated microfinance products with green orientation towards sustainable inclusion and poverty alleviation.

4. Inclusivity Concerns

The SHG-BLP model is impacted by the occurrence of exclusion after inclusion and the existence of poor digital literacy as well in the last mile. In this regard, limited but worrying empirical evidences from evaluation of SHG programme in India reveal the flip side with the phenomenon like member's dropout and pushout, mortality of groups, defunct groups, dormant accounts, autocracy of women group leaders, etc. (Rengarajan, 2023).

On a similar vein, the Indian microfinance sector report indicates, 'the incidence of dropout was as high as 43% in the SHG. The dropout rate was 8.2% of the members.' (Srinivasan, 2008). Another empirical study by Andhra Pradesh Mahila Abhivruddhi Society reveals that the percentage of SHG reporting 'no dropout was only 43% implying that of 57% of SHG has lost at least one member' (Puhazhendhi, 2012).

In the recent past, the digitalisation drive in the microfinance sector appears to be too fast to adopt and to reciprocate effectively by the microfinance clients, given the poor level of digital literacy and of connectivity infrastructure in rural areas. This situation causes exclusion and dormancy in the much touted financial inclusion in the SHG system. To quote, 'in the case of India with second largest number of internet users in the world, its internet penetration rate only is only 13.5%' (Dutta, 2020). Regarding the gender digital gap, 'Indian woman are 15% less likely to own a mobile phone and 33% less likely to use mobile internet services than men' (Nikore and Uppadhayay, 2021).

The inclusivity concern has not been transparently monitored in the Indian microfinance model, thereby, subjecting sustainable financial inclusion a disputable one.

5. The Way Forward

To conclude, the above narratives on the current Indian microfinance model highlights the significance of considering the following three strategies for a prudential revitalisation of the vision of the model.

First, there should be a paradigm shift that ensures the principal focus of any type of microfinance model for the purpose of 'social mission' is an imperatively intentional one towards graduation of the poor.

Second, there should be 'no first use of micro-credit' alone in the battle against poverty. Instead, on the lines of the Bangladesh Rural Development Committee (BRAC) model, integrated microfinance products (micro-credit plus for the same cohort of poor clients) with green flavor as 'one stop shopping' need to be considered for SDG orientation.

Third, digital inclusion and digital infra including functional digital literacy need to traverse together at the same pace and speed in microfinance arena for sustaining the inclusion of the poor.

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Bankers Institute of Rural Development (BIRD), established in 1983 by NABARD, is a premier training, research and consulting organisation, working in the field of agriculture, rural development, microfinance and development banking. It conducts international, national, region-focused, issue-specific and research-based training courses and seminars, as also feasibility /diagnostic studies, exposure visits, etc. for rural financial institutions. Training Programmes at BIRD include areas like Finance, Microfinance, Financial Inclusion, HR, IT, Rural Development Projects etc. for Banks, Government Departments / Corporations, Development Organisations, NBFCs, MFIs and NGOs. Collaborative training and consultancy programmes have been taken up by BIRD in association with international organisations like SDC, GIZ, KfW, APRACA, SAARC, IFAD, UNDP, DFID, ILO and the World Bank apart from various Ministries of Government of India. BIRD also conducts various e-learning courses. Website: https://birdlucknow.nabard.org/

Centre for Research on Financial Inclusion and Microfinance (CRFIM)

Centre for Research on Financial Inclusion and Microfinance (CRFIM), formerly known as Centre for Microfinance Research (CMR) was set up within BIRD to take up research activities in the fields of financial inclusion and microfinance for facilitating policy initiatives and improvements in design and delivery system of financial inclusion and microfinance services. The vision and mission are to emerge as a centre of reference for information, knowledge and valued opinion related to the financial inclusion and microfinance sectors, strengthen the sectors through research inputs that facilitate policy initiatives as also improvement in design and delivery systems that provide poor with sustainable access to quality financial services. Besides publishing half yearly journals, the centre has published 32 studies on issues related to financial inclusion and microfinance. The Centre is publishing an Annual Trend Report on Financial Inclusion in India since 2019. The journals, study reports and trend reports are available at https://birdlucknow. nabard.org/center-of-excellence/cmr/