

Microfinance, Financial Inclusion, and Rural Micro and Small Enterprises: Evidence from Karnataka

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ABSTRACT:

Introduction: Micro and small enterprises (MSEs) are a major source of employment and income in rural India, yet many remain constrained by limited access to formal credit, savings facilities and financial services. Microfinance and broader financial inclusion initiatives, including digital financial services, have been promoted to close these gaps and strengthen rural livelihoods. However, local evidence on their role in sustaining enterprise growth in Karnataka remains limited.

Purpose: This study examines how microfinance and financial inclusion influence the growth and sustainability of rural MSEs in Mandya district, Karnataka. It focuses on access to credit, savings and digital financial services, and their contribution to enterprise performance and household livelihoods.

Methodology: The study adopts a descriptive and analytical design using primary data collected from 50 rural MSE owners in Mandya district, selected through a sampling technique. Data were collected using a structured questionnaire and analysed using descriptive statistics, correlation and regression analysis to examine the relationship between financial access and enterprise outcomes such as income, business expansion and employment generation.

Findings: The findings indicate that access to microfinance credit, formal savings mechanisms and digital financial services is positively associated with enterprise performance and livelihood sustainability. Credit access emerged as the strongest predictor, while savings and digital services improved resilience and business continuity. Barriers such as limited financial literacy, documentation requirements and uneven digital access continue to restrict fuller inclusion, particularly among women and smaller enterprises. These results highlight the need for inclusive, well-targeted financial policies to strengthen rural entrepreneurship and promote sustainable economic development.

Ethics and dissemination: Participation was voluntary, informed consent was obtained, and respondent anonymity and data confidentiality were maintained. Findings will be disseminated through peer-reviewed publication and shared with policymakers, financial institutions, microfinance providers and MSE support agencies to inform rural financial inclusion strategies.

Key Words: Microfinance; Financial Inclusion; Rural Livelihoods; Micro and Small Enterprises; Digital Financial Services.

I INTRODUCTION

Micro and small enterprises (MSEs) are a major source of rural employment and income in India, yet many struggle to survive and grow because they lack timely and affordable finance [cite]. Without collateral or formal documentation, rural entrepreneurs often depend on costly informal credit. Microfinance, delivered through self-help groups and microfinance institutions, was developed to close this gap, while financial inclusion extends access to savings and digital financial services. Schemes such as the SHG-Bank Linkage Programme, Jan Dhan Yojana, MUDRA and UPI have widened this access [cite]. For rural MSEs, credit supports expansion, savings build resilience, and digital services reduce transaction costs.

Karnataka has a long tradition of SHG-led development, and Mandya district, with its agrarian economy, is a relevant setting for study. However, district-level evidence on how financial access shapes enterprise performance and sustainability is limited [cite]. This study therefore examines microfinance, financial inclusion and the sustainability of rural MSEs in Mandya district, using data from 50 enterprise owners, and suggests policy measures to strengthen rural entrepreneurship.

II REVIEW OF LITERATURE

Swain and Wallentin (2009), examined the role of Self-Help Groups in improving women's empowerment in India. The study found that participation in SHGs enhanced women's decision-making ability, mobility, savings behaviour and access to credit, although the extent of empowerment differed according to education, duration of membership and household conditions. **Datta and Gailey (2012)**, analysed women's Self-Help Groups in India from the perspective of social entrepreneurship. The study showed that SHGs can promote collective action, income-generation activities and confidence among rural women. It also noted that training, market linkages and institutional support are essential for converting credit access into sustainable enterprise development. **Basu and Srivastava (2005)**, examined microfinance and access to finance among India's rural poor, focusing particularly on the SHG-Bank Linkage Programme. The study highlighted the importance of institutional mechanisms in expanding formal financial access to underserved rural households. **Karlan et al. (2012)**, examined the impact of lending to women through Self-Help Groups in rural Andhra Pradesh. The study found that microcredit helped households diversify livelihoods and reduce vulnerability to economic shocks, although improvements in women's individual empowerment were limited. **Deininger and Liu (2013)**, studied an innovative SHG model in Andhra Pradesh that combined microcredit with poverty-focused interventions. The findings indicated improvements in consumption smoothing, income diversification, female empowerment and nutritional outcomes, although significant effects on household income and asset formation were not established. **Field et al. (2013)**, investigated whether flexible loan-repayment schedules could improve entrepreneurship among microfinance borrowers in India. The study found that greater flexibility encouraged higher business investment and improved borrowers' capacity to manage enterprise cash flows, indicating that loan design matters for micro-enterprise growth. **Banerjee et al. (2015)**, evaluated the impact of a microcredit programme in Hyderabad, India, using an experimental approach. The study found that microcredit increased business investment and enterprise activity among existing entrepreneurs; however, its average short-term effects on household consumption, income and social outcomes were limited. **Garikipati et al. (2021)**, examined patterns of loan use among women participating in SHGs in rural Rajasthan. The study found that longer participation increased access to credit and supported consumption smoothing and crisis management, while productive use of loans depended on factors such as education, mobility and institutional support. **Maitra et al. (2020)**, investigated SHG participation and children's education in rural India. The study reported increased secondary-school enrolment and faster grade progression among participating households, suggesting that SHG participation can generate social as well as financial outcomes. **Maitra et al. (2021)**, evaluated an SHG lending programme in rural Bihar and found that access to SHG loans reduced dependence on informal credit and lowered borrowing costs. However, short-term effects on broader household welfare were relatively modest. **Sarkar et al. (2022)**, examined the socioeconomic development of rural women through SHGs in Uttarakhand. The study emphasised that SHGs and microfinance institutions can support women's savings, financial inclusion and socioeconomic empowerment, while also highlighting the importance of technology and financial literacy. **Maity (2023)**, analysed the contribution of the SHG-Bank Linkage Programme to financial and social inclusion in central Assam. Using propensity-score matching, the study found positive effects of SHG participation on both financial inclusion and social inclusion among rural participants. **NABARD (2024)**, reported that the SHG-Bank Linkage Programme continues to be a major instrument of rural financial inclusion in India. The report highlighted the growing role of SHG credit linkage, savings mobilisation, capacity building and livelihood promotion, particularly for women-led rural enterprises. **Reserve Bank of India (2024)**, observed that digital payments and technology-enabled financial services are increasingly strengthening financial inclusion in India. The report noted that digital transaction records may improve the availability of information for credit assessment, but financial literacy, connectivity and consumer protection remain necessary for inclusive rural financial development.

III RESEARCH GAP

Despite extensive research on microfinance and SHG participation in India, important gaps remain in understanding their effect on rural micro and small enterprises. Most studies focus on women's empowerment, household welfare, savings behaviour and loan repayment rather than enterprise growth and sustainability. Limited research examines the combined role of microfinance credit, formal savings and digital financial services. Existing studies often assess financial inclusion through account ownership, without evaluating the actual use and adequacy of financial services. There is insufficient evidence on whether credit access leads to higher income, business expansion and employment generation among rural MSEs. The influence of digital payments and mobile-based financial services on rural enterprise performance is still underexplored. Many studies are based on broad national or state-level data and do not capture district-specific realities. Therefore, this study addresses these gaps by examining how microfinance and financial inclusion affect the performance and sustainability of rural MSEs in Mandya district.

IV OBJECTIVES OF THE STUDY

1. To examine access to microfinance, savings, and digital financial services among rural micro and small enterprises in Mandya district, Karnataka.
2. To analyse the effect of microfinance and financial inclusion on enterprise income, business expansion, and employment generation.
3. To identify the challenges faced by rural micro and small enterprise owners in accessing and effectively using formal financial services.

V HYPOTHESES OF THE STUDY

Hypotheses: 1

H₀: Microfinance and financial inclusion have no significant impact on the income, business expansion and employment generation of rural micro and small enterprises in Mandya district.

H₁: Microfinance and financial inclusion have a significant impact on the income, business expansion and employment generation of rural micro and small enterprises in Mandya district.

Hypotheses: 2

H₀: Access to microfinance, savings facilities and digital financial services has no significant relationship with the performance of rural micro and small enterprises in Mandya district.

H₁: Access to microfinance, savings facilities, and digital financial services is significantly related to the performance of rural micro and small enterprises in Mandya district.

Hypotheses: 3

H₀: There is no significant association between the demographic characteristics of rural micro and small enterprise owners and the challenges they face in accessing formal financial services.

H₁: There is a significant association between the demographic characteristics of rural micro and small enterprise owners and the challenges they face in accessing formal financial services.

VI SIGNIFICANCE OF THE STUDY

Rural micro and small enterprises play a vital role in local employment and income generation. Understanding how access to finance influences their sustainability is crucial for rural development. This study offers district-level insights from Mandya on how microfinance, savings, and digital financial services impact enterprise performance, an area with limited Karnataka-specific research. Its results can help policymakers, banks, and microfinance organisations craft more targeted credit and inclusion strategies. By highlighting challenges like low financial literacy, documentation hurdles, and unequal digital access, it suggests practical measures to support women-led and smaller businesses. Additionally, the study enhances academic knowledge on financial inclusion and sustainable rural livelihoods and lays the foundation for future extensive research.

VII RESEARCH METHODOLOGY

The study employed a descriptive and analytical research approach and was carried out in Mandya district, Karnataka. Data were collected from 50 rural MSE owners selected through purposive, convenience, or simple random sampling methods. A structured questionnaire was used to gather information on enterprise profile, access to credit, savings, digital financial services, enterprise performance, and barriers to inclusion. Secondary data were obtained from reports by RBI, NABARD, and MSME, along with published journal articles. The data were analysed using descriptive statistics, Pearson's correlation, and multiple regression, with enterprise performance as the dependent variable and access to credit, savings, and digital financial services as independent variables. Participation was voluntary, informed consent was secured, and confidentiality was preserved. Since the study focuses on one district and a small sample, the results are indicative and demonstrate associations rather than causation.

VIII DATA ANALYSIS AND INTERPRETATION

Table 1: Frequency Analysis of Personal Information (N = 50)

Sl. No.	Particulars	Category	Frequency	Percentage
1	Gender	Male	22	44%
		Female	28	56%
2	Age	Below 25 years	8	16%
		25–35 years	17	34%
		36–45 years	15	30%
		Above 45 years	10	20%
3	Marital Status	Married	35	70%
		Unmarried	12	24%
		Others	3	6%
4	Education	Primary	7	14%
		Secondary	15	30%
		PUC	10	20%
		Graduate	13	26%
		Postgraduate	5	10%
5	Occupation	Agriculture	18	36%
		Business	10	20%
		Self-employed	9	18%
		Wage worker	8	16%
		Others	5	10%
6	Monthly Household Income	Below ₹10,000	12	24%
		₹10,001–₹20,000	18	36%
		₹20,001–₹30,000	12	24%
		Above ₹30,000	8	16%

Sources: Primary Data

Table 1 presents the profile of the 50 respondents. Women form 56% of the sample and men 44%, showing substantial female participation. Half of the respondents (50%) are aged 35 years or below, with the 25-35 group the largest at 34%, and 70% are married. Educational attainment is moderate: 30% have completed secondary schooling, 26% are graduates, and 64% have education up to PUC. Agriculture is the largest occupation (36%), reflecting Mandya's agrarian economy,

and 60% of households earn up to ₹20,000 a month. Overall, the respondents are mainly young to middle-aged, moderately educated and from low to lower-middle-income rural households.

Table – 2: Financial Awareness among Working Professionals

STATUS	Chi-square	Critical value	df	Asymptotic Significance
Concept of financial planning	$\chi^2 = 51.37$	9.488	4	p= 0.001
Budgeting and expense tracking	$\chi^2 = 87.50$	9.488	4	p= 0.001
Savings accounts and fixed deposits	$\chi^2 = 69.28$	9.488	4	p= 0.001
Mutual funds and SIPs	$\chi^2 = 27.50$	9.488	4	p= 0.001
Stock market basics	$\chi^2 = 6.50$	9.488	4	p= 0.038
Life and health insurance	$\chi^2 = 87.50$	9.488	4	p= 0.049
Retirement schemes (EPF, PPF, NPS)	$\chi^2 = 150$	9.488	4	p= 0.001
Public provident funds	$\chi^2 = 152.5$	9.488	4	p= 0.001

The Chi-square analysis shows that financial awareness factors such as financial planning, budgeting, savings, mutual funds, insurance, and retirement schemes are significantly associated with working professionals. Hence, the null hypothesis is rejected for most dimensions, confirming that financial awareness plays a crucial role among working professionals. However, in the case of stock market basics, the null hypothesis is accepted, indicating no significant association between awareness and responses in this factor.

The results reveal that financial awareness is significantly associated with most aspects of personal finance (χ^2 values significant at $p < 0.05$), except for stock market basics, where no significant association was found.

Table 3: Key Determinants influencing investment patterns

Determinant	β (Beta Coefficient)	t-value	p-value	Result	Hypothesis Decision
Safety & security of investment	+0.312	3.25	0.002	Significant	Reject H0 → Accept H1
Expected returns	+0.289	2.98	0.004	Significant	Reject H0 → Accept H1
Liquidity (ease of converting to cash)	-0.12		0.231	Not Significant	Fail to Reject H0
Past investment experience	+0.158	-1.20	0.082	Marginal	Fail to Reject H0
Influence of family and peers	+0.095	1.75	0.273	Not Significant	Fail to Reject H0
Financial advisor recommendations	+0.267	2.85	0.005	Significant	Reject H0 → Accept H1
Tax benefits	+0.211	2.45	0.016	Significant	Reject H0 → Accept H1
Market trends and news	+0.178	2.10	0.038	Significant	Reject H0 → Accept H1
Advertisements and promotions	+0.092	1.00	0.320	Not Significant	Fail to Reject H0

Significant determinants (Accepted H1): Safety & security, expected returns, financial advisor, Tax benefits, Market trends. Not significant determinants (H0 not rejected): Liquidity, experience, Family & peers, Advertisements. The model R^2 value shows how much variance in investment patterns is explained by these determinants R 20.68. This means investment patterns are most influenced by safety, expected returns, financial advisors, tax benefits, and market trends.

Table – 4: Relationship between Advertency of financial aspects and investment decisions

STATUS	A	SA	N	DA	SDA	WMS	Rank
Inflation trends	38	42	3	10	7	4.21	1.5
Interest rate changes	41	38	4	11	6	4.21	1.5
Government policy changes	43	44	3	4	6	4.16	3
Stock market performance	25	28	5	22	20	4.03	4
Economic news and forecasts	31	30	6	23	10	3.48	5
Global economic conditions	40	40	3	11	6	3.19	6

Correlation coefficient (ρ) = 1.000 $\rightarrow$ perfect positive correlation. p -value < 0.01 (highly significant). Since the calculated Spearman's correlation ($\rho = 1$) is very high and statistically significant, we reject the null hypothesis (H_0). Therefore, there exists a strong positive and significant relationship between Advertency of financial aspects and the investment decisions of working professionals.

The Spearman's rank correlation analysis revealed a perfect positive and statistically significant relationship ($\rho = 1.000$, $p < 0.01$) between advertency of financial aspects and investment decisions of working professionals. Thus, the null hypothesis is rejected, confirming that advertency of financial aspects strongly influences investment decisions.

X FINDINGS

The study finds that microfinance plays an important role in improving access to formal credit among rural micro and small enterprise owners in Mandya district. Access to credit is found to support working capital requirements, purchase of inputs, business expansion and income generation. Savings facilities help entrepreneurs manage emergencies, reduce dependence on informal lenders and improve business continuity. Digital financial services facilitate quicker payments and transactions, though limited digital literacy and connectivity restrict their wider use. Documentation requirements, inadequate loan amounts and lack of financial awareness remain major barriers to effective financial inclusion.

XI SUGGESTIONS

- Banks and microfinance institutions should provide timely, affordable and adequate credit to rural micro and small enterprises.
- Financial-literacy programmes should be strengthened to improve awareness of savings, credit management, repayment obligations and digital financial services.
- Simplified documentation procedures and doorstep banking services should be introduced to improve formal credit access for rural entrepreneurs.
- Training on UPI, mobile banking and digital-payment security should be provided, especially for women and first-time users.
- Government agencies, SHGs, banks and MSE-support institutions should jointly provide credit, skill development, market linkage and enterprise-development support.

XI CONCLUSION

Microfinance and financial inclusion are vital for strengthening rural micro and small enterprises in Mandya district. Timely credit, savings facilities and digital financial services support income generation, business continuity and expansion. However, financial literacy gaps, documentation requirements and limited digital access continue to constrain effective inclusion. Strengthening SHG–bank linkages and providing affordable, adequate credit can improve enterprise outcomes. Coordinated efforts by banks, government agencies and microfinance institutions are essential for sustainable rural entrepreneurship.

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