

Impact of Rural Financial Inclusion and Entrepreneurship: A Case of Women Empowerment in Western Rajasthan

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Abstract

This study explores the impact of rural financial inclusion on entrepreneurial growth in tribal communities, focusing on the role of financial services access, government support programs, technology adoption, and social and cultural factors. Using a descriptive and analytical research design, the study examines how these factors influence entrepreneurial activities in two selected tribal districts. Data were collected from 160 rural entrepreneurs, small business owners, and beneficiaries of financial inclusion initiatives, using structured questionnaires and interviews. The findings indicate that access to financial services, government programs, technology adoption, and social-cultural factors significantly contribute to entrepreneurial growth, enhancing income generation, business expansion, and employment creation. The study provides important implications for policymakers, financial institutions, and entrepreneurs, emphasizing the need for tailored financial products, government support, and technology-driven solutions to foster sustainable growth in rural tribal areas.

Keywords: Technology Adoption, Social and Cultural Factors, Microfinance, Rural Entrepreneurship, Economic Development

1. Introduction

Rural financial inclusion has emerged as a cornerstone of economic development in marginalized areas, providing access to financial services that empower communities and foster sustainable growth. Financial inclusion encompasses the availability and accessibility of financial services to underserved populations, including credit, savings, insurance, and digital payment platforms. In rural contexts, where traditional banking infrastructure is often limited, introducing inclusive financial mechanisms is crucial in improving living standards, reducing poverty, and enabling entrepreneurial ventures. These mechanisms aim to bridge the gap between rural populations and mainstream financial systems, fostering socio-economic equity (Dadhich & Yadav Neetu, 2024).

Entrepreneurship is a vital driver of economic growth, particularly in rural areas where livelihoods are predominantly dependent on agriculture and informal sectors. Rural financial inclusion creates opportunities for self-employment, income diversification, and community-based enterprises by equipping individuals with financial tools and entrepreneurial skills. The synergy between financial

access and entrepreneurship is pivotal for economic resilience, enabling rural households to withstand financial shocks, invest in productive ventures, and contribute to local economies (Demirgüç-Kunt et al., 2018). Furthermore, entrepreneurial success in rural areas often translates into better educational and health outcomes for families, reinforcing its broader social impact (Anurag Shukla, Manish Dadhich, Dipesh Vaya, 2024).

Despite its transformative potential, rural financial inclusion faces significant barriers, including low financial literacy, lack of trust in formal institutions, and inadequate technological infrastructure. Studies highlight that many rural communities remain excluded due to systemic inefficiencies and social disparities, underscoring the need for targeted interventions (Allen et al., 2016). In this context, microfinance institutions (MFIs), self-help groups (SHGs), and digital financial services have emerged as critical enablers, fostering access to credit and entrepreneurial growth in remote areas (Karlan & Zinman, 2023). These initiatives are instrumental in creating an ecosystem where financial inclusion and entrepreneurship reinforce each other.

The role of government policies and private sector initiatives in advancing rural financial inclusion cannot be understated. Programs like India's Pradhan Mantri Jan Dhan Yojana (PMJDY) and Kenya's M-Pesa have demonstrated how inclusive financial ecosystems can empower rural populations and drive entrepreneurial activity (Agarwal et al., 2021). At the same time, collaborative efforts between policymakers, financial institutions, and NGOs are crucial for overcoming existing challenges and scaling successful models. These efforts highlight the importance of a holistic approach to financial inclusion, which integrates social, economic, and technological dimensions. This paper explores the interplay between rural financial inclusion and entrepreneurship, examining its impact on poverty alleviation, income generation, and economic development. The study aims to shed light on best practices and strategies for fostering inclusive rural economies by analyzing existing literature, case studies, and policy interventions. The findings underscore the need for continuous innovation and collaboration to ensure financial inclusion translates into tangible benefits for rural entrepreneurs and communities.

2. Review of Literature

(Demirgüç-Kunt et al., 2018) analyzed data from the Global Findex Database to study trends in financial inclusion, emphasizing the role of digital financial services. The study highlighted that access to digital payment systems has particularly benefited rural entrepreneurs by reducing costs and increasing efficiency. It also stressed that financial inclusion is critical for enabling entrepreneurship, especially in low-income and rural areas. The findings underscored the transformative power of mobile money systems in improving financial access and resilience. (Allen et al., 2016) explored how formal financial services, such as savings accounts and credit facilities, promote financial inclusion in underserved areas. Their study demonstrated that rural populations who owned and actively used financial accounts were likelier to engage in entrepreneurial activities. It further highlighted that regulatory and infrastructural barriers must be addressed to ensure that financial systems are accessible and inclusive.

(Karlan and Zinman, 2023) conducted a randomized evaluation of microcredit programs targeting rural entrepreneurs. The study concluded that access to microloans significantly improved rural households' business outcomes, such as income generation and scalability. However, it also noted that microcredit is most effective when coupled with training programs that enhance financial literacy and business management skills. (Agarwal et al., 2021) analyzed India's Pradhan Mantri Jan Dhan Yojana (PMJDY)

program, which aimed to provide financial services to the unbanked population. The study revealed that the initiative had a measurable impact on financial inclusion and entrepreneurial activities, particularly for women and small-scale farmers. By enabling access to formal banking and credit, PMJDY facilitated the growth of rural micro-enterprises and reduced dependence on informal lending sources.

(Suri and Jack, 2016) investigated the role of Kenya's M-Pesa platform in fostering financial inclusion. The study found that mobile money services significantly increased financial access among rural households, leading to improved savings and higher rates of entrepreneurship. Women entrepreneurs, in particular, benefited from the system, which offered secure and convenient ways to transact and save money. (Beck et al., 2020) examined the broader impact of financial inclusion on poverty alleviation and entrepreneurship. Their study suggested that inclusive financial systems allow rural communities to diversify income sources, reduce vulnerabilities to economic shocks, and create local employment opportunities. The research emphasized the importance of strengthening rural banking infrastructure and incorporating digital innovations.

(Bhanot and Bapat, 2019) explored the role of self-help groups (SHGs) in enhancing financial inclusion among rural women. Their findings revealed that SHGs improved savings behavior and gave women access to small loans, often used to start or expand micro-enterprises. Additionally, participation in SHGs was linked to improved financial literacy and greater confidence in handling financial transactions. (Ravi and Gaiha, 2022) assessed the challenges rural entrepreneurs face in accessing formal credit facilities. The study identified key barriers, such as low financial literacy, inadequate technological infrastructure, and the high cost of borrowing. It emphasized the need for targeted government interventions and the integration of financial education programs to address these challenges and foster entrepreneurship in rural areas.

3. Research Methodology

This study adopted a descriptive and analytical research design to examine the impact of rural financial inclusion and entrepreneurship in two selected tribal districts. The research aimed to assess the relationship between financial inclusion and entrepreneurial activities while identifying the factors that influenced their effectiveness. The research focused on two tribal districts selected for their distinct socio-economic and geographical characteristics. These districts were chosen based on their demographic representation of rural tribal communities, where financial inclusion programs had been implemented. A convenience sampling method was employed to select respondents from the two districts. This method ensured access to participants actively involved in entrepreneurial or financial activities while representing diverse economic backgrounds within the tribal community. The study included a total sample size of 260 respondents. The participants comprised rural entrepreneurs, small business owners, and beneficiaries of financial inclusion initiatives.

Dependent Variable: Entrepreneurial Growth (measured by income generation, business expansion, and employment creation).

Independent Variables: Access to financial services, Government support programs, Technology adoption in financial transactions, Social and cultural factors.

Data were collected through structured questionnaires and in-depth interviews with respondents. The questionnaire was designed to capture both quantitative and qualitative insights, focusing on financial inclusion practices, entrepreneurial activities, and challenges faced by rural tribal communities. The collected data were analyzed using statistical tools such as SEM in Smart-PLS and correlation

techniques to evaluate the relationship between the independent and dependent variables. Descriptive statistics were used to summarize demographic data and key findings.

4. Objectives and hypotheses of the study

The primary objective of this study was to examine the impact of rural financial inclusion on entrepreneurial growth in two selected tribal districts. The research aimed to evaluate how access to financial services, government support programs, technology adoption in financial transactions, and social and cultural factors influence entrepreneurial development. Additionally, the study sought to identify the challenges faced by rural entrepreneurs and assess the effectiveness of financial inclusion initiatives in fostering sustainable income generation, business expansion, and employment creation within tribal communities.

Hypotheses

H₁: Access to financial services positively and significantly impacts entrepreneurial growth in rural tribal districts.

H₂: Government support programs significantly enhance entrepreneurial activities in rural tribal communities.

H₃: Adoption of technology in financial transactions positively influences entrepreneurial growth among rural tribal populations.

H₄: Social and cultural factors significantly moderate the relationship between financial inclusion and entrepreneurial growth in tribal districts.

5. Analysis and Discussion

Table 1 presents the demographic profile of the 160 respondents, showcasing a diverse representation across gender, age, education, and occupation. The majority of respondents were male (62.5%), with females making up 37.5%. In terms of age, most participants were in the 36–45 years group (37.5%), followed by the 26–35 years group (31.25%). Educationally, the largest portion had secondary education (37.5%), while 31.25% had primary education, and smaller percentages had no formal education or higher education (15.63% each). Occupation-wise, 43.75% were small business owners, 31.25% were farmers, 18.75% were wage laborers, and 6.25% had other occupations. This demographic breakdown reveals a predominance of middle-aged male small business owners with a reasonable educational background, indicating the socio-economic diversity within the rural tribal community.

Table 1: Demographic Profile of Respondents

Demographic Variable	Categories	Freq.	(%)
Gender	Male	100	62.5
	Female	60	37.5
Age Group	18–25 years	20	12.5
	26–35 years	50	31.25
	36–45 years	60	37.5
	46 years and above	30	18.75
Education Level	No formal education	25	15.63
	Primary	50	31.25

	Secondary	60	37.5
	Higher education	25	15.63
Occupation	Small business owner	70	43.75
	Farmer	50	31.25
	Wage laborer	30	18.75
	Other	10	6.25

Table 2 presents the reliability statistics for the constructs used in the study, including Cronbach's Alpha, Composite Reliability (CR), and Average Variance Extracted (AVE). The results show strong internal consistency across all constructs, with Cronbach's Alpha values ranging from 0.80 to 0.88, indicating good reliability. The Composite Reliability values ranged from 0.85 to 0.91, further confirming the constructs' reliability, and the Average Variance Extracted (AVE) values ranged from 0.64 to 0.71, demonstrating that the constructs explain a significant portion of the variance in their indicators. These findings indicate that the measurement model is robust, and the constructs are suitable for further analysis in the study.

Table 2: Cronbach's Alpha and Composite Reliability

Construct	Cronbach's Alpha	Composite Reliability	Average Variance Extracted
Access to Financial Services	0.85	0.89	0.68
Government Support Programs	0.82	0.88	0.71
Technology Adoption	0.80	0.85	0.64
Social and Cultural Factors	0.83	0.87	0.65
Entrepreneurial Growth	0.88	0.91	0.70

Values of Cronbach's Alpha > 0.7, CR > 0.7, and AVE > 0.5 indicate good reliability

The hypothesis that access to financial services positively influences entrepreneurial growth was supported with a significant path coefficient of 0.45 (t-value = 5.12, p-value = 0.000). This result aligns with previous studies emphasizing financial inclusion's importance in stimulating entrepreneurial activities. Access to credit, savings, insurance, and other financial services allows entrepreneurs to invest in new ventures, expand existing businesses, and manage risks effectively (Demirgüç-Kunt et al., 2018). In rural areas, where traditional banking infrastructure is often limited, alternative financial services like microfinance, mobile banking, and digital payment systems have played a key role in bridging the financial gap (Karlan & Zinman, 2023). Therefore, the availability of financial services in rural tribal communities is crucial for fostering entrepreneurial growth, enabling individuals to engage in self-employment and small business ventures.

Table 3: Hypothesis Testing (Smart-PLS Results)

SN	Relationship	β	t-Val.	p-Val.	Result
H ₁	Access to Financial Services → Entrepreneurial Growth	0.45	5.12	0.000	Supported
H ₂	Government Support Programs → Entrepreneurial Growth	0.32	3.85	0.000	Supported
H ₃	Technology Adoption → Entrepreneurial Growth	0.28	3.20	0.002	Supported
H ₄	Social and Cultural Factors → Entrepreneurial Growth	0.19	2.75	0.006	Supported

Significance is determined at $p < 0.05$

The hypothesis that government support programs positively impact entrepreneurial growth was also supported with a path coefficient of 0.32 (t-value = 3.85, p-value = 0.000). This result is consistent with research showing that government policies, such as subsidies, grants, and training programs, can significantly enhance the entrepreneurial ecosystem in rural areas (Agarwal et al., 2021). Programs like India's Pradhan Mantri Jan Dhan Yojana (PMJDY) and Kenya's M-Pesa have demonstrated the role of governmental initiatives in promoting financial inclusion, thereby supporting entrepreneurship in rural communities (Agarwal et al., 2021). By providing financial resources, mentorship, and skill-building opportunities, these programs help overcome barriers entrepreneurs face, such as lack of capital, training, and market access, ultimately leading to business growth and sustainability.

The hypothesis that technology adoption positively influences entrepreneurial growth was supported, with a path coefficient of 0.28 (t-value = 3.20, p-value = 0.002). Technology integration into financial transactions and business operations has proven to be a powerful driver of entrepreneurial growth in rural areas. Studies have shown that adopting digital tools, such as mobile payments and e-commerce platforms, enhances business efficiency, reduces operational costs, and expands market reach for rural entrepreneurs (Sahay & Bhatnagar, 2022). Furthermore, technology facilitates easier access to financial services, enabling rural entrepreneurs to overcome geographical and infrastructural challenges (Ndiaye et al., 2020). As rural areas embrace digital solutions, the entrepreneurial landscape becomes more dynamic and competitive, fostering growth and innovation.

The hypothesis that social and cultural factors influence entrepreneurial growth was supported with a path coefficient of 0.19 (t-value = 2.75, p-value = 0.006). This result highlights the significant role that socio-cultural dynamics play in shaping entrepreneurial activities in rural tribal communities. Social networks, cultural attitudes towards entrepreneurship, and community support systems are crucial in determining the success of entrepreneurial ventures. In rural and tribal settings, where traditional values and communal relationships are strong, social norms and familial expectations may influence the willingness to engage in entrepreneurship (Sahoo & Sahoo, 2019). Additionally, support from local communities and tribal networks can provide entrepreneurs with essential resources, mentorship, and market access, facilitating business growth (Kapoor & Sharma, 2021). Therefore, social and cultural factors act as both enablers and constraints, influencing entrepreneurial behaviors and outcomes in these communities.

6. Managerial Implications of the Study

The findings of this study have several key implications for policymakers, financial institutions, technology providers, and rural entrepreneurs. Policymakers should strengthen financial inclusion initiatives, such as microfinance, mobile banking, and entrepreneurship training, to improve access to capital and skills. Financial institutions are encouraged to tailor products and services to meet the needs of rural entrepreneurs, particularly through digital platforms and microloans. Technology providers can support rural economic development by offering affordable tools that enhance financial transactions and business management. Finally, rural entrepreneurs should leverage these financial and technological resources while understanding the social and cultural factors influencing business success in their communities. This study highlights the need for a collaborative approach to foster sustainable entrepreneurship and economic growth in rural tribal areas.

7. Limitations and Future Scope

While this study provides valuable insights into the relationship between rural financial inclusion and entrepreneurship, several limitations should be considered. First, the study focused on two specific tribal districts, which may limit the generalizability of the findings to other rural or tribal areas with different socio-economic or cultural contexts. The sample size, although sufficient for the scope of the study, may not fully represent the diversity within rural tribal populations. Additionally, the study primarily relied on self-reported data from respondents, which could be subject to biases such as social desirability or misreporting. Furthermore, the study examined only a limited set of independent factors influencing entrepreneurial growth, such as access to financial services, government support, technology adoption, and social and cultural factors. Other factors, such as infrastructure, education, or political stability, could also play significant roles and warrant further exploration in future research.

Future research could expand the geographical scope to include a broader range of tribal districts or even other rural communities, providing a more comprehensive understanding of the dynamics at play. Additionally, longitudinal studies could be valuable in tracking the long-term impacts of financial inclusion and entrepreneurship on rural communities. Exploring other factors like gender, education level, or local governance could further enrich our understanding of rural entrepreneurship and guide more effective policy interventions. Finally, qualitative research, including case studies or interviews, could offer deeper insights into rural entrepreneurs' personal experiences and challenges, contributing to more nuanced findings.

8. Conclusion

The findings highlight that access to financial services, government support programs, technology adoption, and social and cultural factors all positively influence entrepreneurial activities. These factors contribute to creating a conducive environment where entrepreneurs can thrive, leading to increased income generation, business expansion, and employment opportunities. Financial inclusion programs, particularly those that provide access to credit, savings, and insurance, are crucial for empowering rural entrepreneurs and enabling them to overcome financial barriers and achieve sustainable growth. Moreover, the study demonstrates the importance of government support and technology adoption in rural entrepreneurial development. Government initiatives, such as subsidies, grants, and entrepreneurship training, play a critical role in providing entrepreneurs the necessary resources and skills. Moreover, adopting technology, such as mobile banking and e-commerce, enables entrepreneurs

to streamline their operations, reduce costs, and expand their market reach. As rural areas increasingly embrace digital tools, the opportunities for entrepreneurial growth are expected to grow exponentially, bridging gaps in financial services and business management.

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