

# Women Entrepreneurship in India: A Bibliometric Study

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## Abstract

In this study, we provide a comprehensive bibliometric analysis of the scholarly literature on women's entrepreneurship in India from 2020 to 2025 using Biblioshiny and advanced network visualization tools to map the evolving intellectual landscape and how various external factors have transformed entrepreneurial opportunities for women across sectors in India as it navigates rapid digital transformation, post-pandemic recovery efforts, and gender-inclusive policies such as Start-up India and MUDRA. We collected data from two major academic databases, Web of Science and Scopus, to capture a comprehensive review of the high-quality, peer-reviewed literature. The findings show key trends, emerging themes, and ongoing challenges, and collaborative networks and co-citation patterns highlight the interdisciplinary nature of the research, focusing on key authors, influential journals, and foundational studies that have continued to shape the discourse. This study identifies the key achievements and gaps in the current research to provide insights into existing knowledge frameworks and to offer strategic recommendations for future research and policy interventions to stakeholders, including academics, policymakers, and practitioners, on how digital innovations and supportive infrastructure can transform women-led necessity-driven ventures into opportunity-led enterprises and contribute to an inclusive and sustainable entrepreneurial ecosystem.

**Keywords:** Women Entrepreneurship; India; Digital Transformation; Bibliometric Analysis; Policy Initiatives; Socio-Cultural Barriers; Entrepreneurial ecosystem.

## 1. Introduction

Since 2020, women's entrepreneurship in India has increased, driven by digital transformation, post-pandemic recovery policies, and gender-inclusive initiatives such as Start-up India (Ministry of Commerce, 2021). This growth has reshaped the economic landscape and attracted scholarly attention, prompting an examination of recent trends in this domain (Raman et al., 2022). The digital revolution has advanced entrepreneurship among women. The widespread adoption of smartphones, Internet access, and digital platforms has created opportunities for women to start and expand their businesses. (Raman et al., 2022; Mehta & Sinha, 2022; Shukla et al., 2021). E-commerce platforms, social media marketing, and digital payment systems have lowered entry barriers, enabling female entrepreneurs to access broader markets and manage their operations efficiently. Digital empowerment bridges the urban-rural divide, allowing women in remote areas to participate in the entrepreneurial ecosystem. (Kromidha et al., 2023; Kumarasamy et al., 2023; Peter et al., 2024).

Despite the initial disruption, the COVID-19 pandemic has accelerated women's entrepreneurship in India. Economic challenges resulted in bringing indigenous solutions and robust strategies. (Chitra et al., 2022; Yadav et al., 2023; Srinivasu et al., 2024; Akula & Singh, 2021; Basu, 2023). Women confronting redundancy or reduced earnings have turned to entrepreneurship for economic survival and empowerment. The paradigm shift to remote work and digital commerce models has empowered women to balance entrepreneurial initiatives with domestic responsibilities. (Akula & Singh, 2021). The Indian government's post-pandemic recovery policies have inadvertently strengthened women's entrepreneurship. These policies consist of provisions for small and medium enterprises (SMEs) and numerous women. Monetary support, tax incentives, and simplified regulatory guidelines have created a favorable environment for women entrepreneurs. (Vigg & Vashisht, 2024; Aggrawal et al., 2022; Gupta & Mishra, 2023).

Gender-inclusive initiatives, such as the Start-up India Program by the Ministry of Commerce, have acted as a catalyst exclusively for women entrepreneurs. This program, with Stand-Up India and MUDRA (Micro Units Development and Refinance Agency), has provided support to women entrepreneurs through Mentoring, funding, and skill enhancement programs were facilitated. (Akula & Singh, 2021). These lucrative initiatives have offered monetary support and created a supportive ecosystem, addressing challenges faced by women entrepreneurs in India. The intersection of digital revolt, post-pandemic policies, and gender-inclusive initiatives has transformed a new environment for women's entrepreneurship. This progress is quantitative and qualitative, with women entrepreneurs entering into the era of technology, education, sustainable development, and healthcare sectors. Women-led start-ups in these areas have made a significant contribution to economic growth and have confronted social and environmental challenges. (Raman et al., 2022).

The rise of women-led enterprises has attracted significant scholarly interest. Academicians and Researchers in management, sociology, economics, and gender studies are increasingly exploring this phenomenon (Chakraborty & Chatterjee, 2021; Gupta & Etzkowitz, 2021).

Women-led entrepreneurs in India are shaped by cultural, social, economic, and technological aspects is a rich area for academic exploration. Although earlier studies have reviewed long-term timelines, typically from 2005 to 2025, there is a lack of focused bibliometric assessments aiming at the period between 2020 to 2025 (Raman et al., 2022; Cardella et al., 2020). This time span is significant as it includes the socio-economic transformation that was accelerated by the Universal pandemic and recovery efforts. The absence of analysis for this period represents a substantial gap in the literature.

This study bridges the gap by navigating a comprehensive bibliometric analysis of India-specific research on women-led enterprises from 2020 to 2025 (Raman et al., 2022). Focusing on this timespan, the study objectives are to capture recent learnings, hurdles, and innovations in women-led entrepreneurs in India. This study used data from two comprehensive and esteemed academic databases, Scopus and Web of Science (WoS) (Chakraborty & Chatterjee, 2021; Gupta & Etzkowitz, 2021). Choosing Scopus and Web of Science ensures extensive coverage of high-quality, peer-reviewed research across disciplines. These databases are prominent for their rigorous selection criteria, ensuring the analysis is grounded in credible research output. This study blends data from these sources to provide a complete view of research on women-led entrepreneurs in India. From an economics and accounting perspective, women entrepreneurship plays a critical role in income generation, employment creation, productivity enhancement, and inclusive economic growth. Bibliometric evidence from recent Indian studies highlights strong linkages between women-led enterprises and access to finance, microcredit mechanisms, digital payments, and financial decision-making capabilities. These dimensions directly align with accounting and economic research concerns such as financial inclusion, capital allocation efficiency, and enterprise sustainability. By mapping intellectual and thematic trends, this study contributes to understanding how women entrepreneurship research intersects with economic development and financial systems in emerging economies like India.

## 2. Objectives of The Study

The objective of the study on examine women's entrepreneurship in India since 2020.

- 1) What are the primary themes and subthemes identified in research on women entrepreneurship in India?
- 2) Who are the most significant authors in the field of women entrepreneurship in India?
- 3) How has an interdisciplinary approach been applied in research on women entrepreneurship in India?
- 4) What are the current gaps in the research on women entrepreneurship in India?
- 5) What potential areas for future research in women entrepreneurship in India can be identified?
- 6) How have the most significant effects on women's entrepreneurship in India influenced the field?

This study provides a comprehensive overview of the research landscape and serves as a resource for academics, policymakers, and practitioners interested in women's entrepreneurship. It identifies emerging trends, highlights areas of consensus and debate, and suggests directions for future research and policy intervention. This analysis contributes to understanding how socio-economic changes, such as those during and after COVID-19, can influence entrepreneurial ecosystems and gender dynamics in emerging economies. These insights may have implications for other developing countries that face similar challenges in promoting women's entrepreneurship.

## 3. Methodology

In this study, a comprehensive bibliometric methodology was developed by integrating systematic literature searches from two leading academic databases to capture a holistic view of research on women's entrepreneurship in India from 2020 to 2025, as shown in Fig.1. Initially, a carefully constructed search query incorporating key terms like "women entrepreneurship," "India," and "Articles" was deployed. The Web of Science Core Collection returned 73 India-specific documents—spanning indices such as SCI, SSCI, ESCI, ISTP, and ISSHP—while an additional 104 Scopus-indexed articles were identified, bringing the dataset to 177, and after 44 duplicates were removed final articles were high-quality, peer-reviewed documents of 133. This dual-database approach not only ensured broad coverage across diverse disciplines but also enhanced the rigor and depth of the analysis. Subsequently, advanced bibliometric techniques were employed using the Bibliometric R-package. (Aria & Cuccurullo, 2017) With the Biblioshiny, Atlas. ti interface. This enabled the execution of detailed descriptive analyses, including annual growth rates, average citations per document, and the identification of leading authors, journals, and institutions. Network visualization tools were applied to map collaborative networks, conduct co-citation analyses, and explore keyword co-occurrences, revealing emerging thematic trends and intellectual clusters. By integrating both quantitative metrics and qualitative mapping, this multifaceted methodology charts the evolution of research trends in women's entrepreneurship and uncovers critical gaps and opportunities for future investigation and policy intervention.

## Bibliometric Methodology for Women Entrepreneurship Research

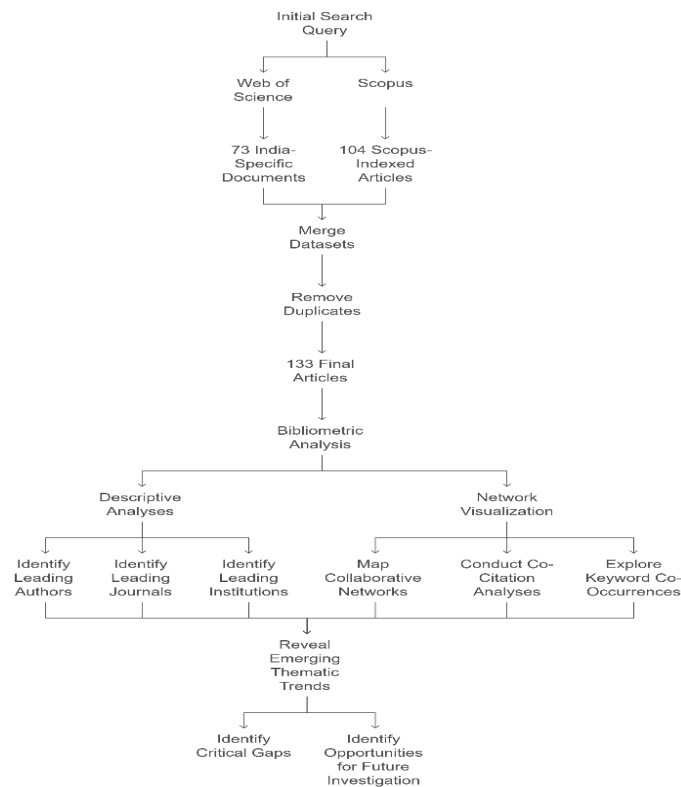


Fig. 1: Comprehensive Bibliometric Methodology.

## 4. Literature Review

### 4.1. Evolution of women entrepreneurship research in India

The research landscape of women's entrepreneurship in India has evolved from 2020 to 2025, highlighting gender-inclusive economic developments. This review synthesizes themes and trends from over 40 studies through a bibliometric analysis. Key themes included socio-cultural barriers and women's agency. Research has shown that patriarchal norms and limited mobility impede women's entrepreneurial participation. Studies by (Shastri et al., 2022; Chakraborty & Chatterjee, 2021) Reveal cultural norms confining women to informal home-based ventures. (Gupta & Etzkowitz, 2021) Illustrates how high-tech women entrepreneurs in academic incubators defy societal expectations.

Economic and institutional factors are the crucial determinants. Access to financial and institutional support enables entrepreneurship. (Rehman, 2024) and (Prasad & Choubey, 2024) Highlight self-help groups (SHGs) and bank linkages in promoting micro-entrepreneurship, while (Mahato & Jha, 2024) Links social capital to sustainable livelihoods. The systemic challenges noted by (Aggrawal et al., 2022) Constrain the scalability. Digital transformation is a key enabler. (Bedarkar et al., 2020) and (Peter et al., 2024) Show how social media and FinTech platforms enhance women-led enterprises. The pandemic has accelerated this trend, as documented by (Srinivasu et al., 2024) and (Basu, 2023).

Sustainability research has also gained prominence. (Potluri et al., 2024) introduced "women green entrepreneurship" (WGE), linking ecofeminism with SDGs, while (Mahajan & Bandyopadhyay, 2021) Examined renewable energy ventures. Khattar (2023) demonstrated how women entrepreneurs blend traditional knowledge with eco-friendly practices. Studies by (Basu, 2023; Yadav et al., 2023) Revealed how women artisans used community networks during crises. Methodologically, qualitative case studies dominate (Rastogi et al., 2022; Agarwal et al., 2020), while quantitative approaches, such as structural equation modeling (Nayak et al., 2025) and mixed-method designs (Prasad & Choubey, 2024), are increasing.

Gaps persist in the research coverage. Studies have concentrated on Tamil Nadu, Rajasthan, and Uttarakhand, while the Northeastern regions remain underrepresented. Intersectionality across caste, religion, and rural-urban divides requires exploration. The policy-practice divide is concerning; while (Balasundaram et al., 2024) Advocates for generational-status-specific policies, implementation frameworks are scarce. Limited longitudinal studies have restricted our understanding of entrepreneurial sustainability. 2020-2025 marks a shift from descriptive to interdisciplinary research. Digital transformation, sustainability, and crisis resilience align with global narratives while maintaining contextual relevance. Fragmentation requires bibliometric analysis to map intellectual networks, help systematize knowledge, and inform policies for opportunity-led women's entrepreneurship.

### 4.2. Opportunities for women entrepreneurship research in India

A key gap is the policy-practice divide. Although Balasundaram et al. (2024) call for generational-status-specific policies, implementation frameworks remain unrealized. (Mahato & Jha, 2024) links social capital to sustainable livelihoods but lacks execution insights. Therefore, longitudinal research on women's entrepreneurial journeys is required. (Gupta & Etzkowitz, 2021) note that studies often focus on isolated instances without exploring business sustainability. High-tech, green entrepreneurship, and STEM ventures remain underexplored, with only (Gupta & Etzkowitz, 2021) and (Potluri et al., 2024) addressing these issues.

Digital transformation provides many opportunities. (Srinivasu et al., 2024; Peter et al., 2024) Highlight digital platforms' role in empowering women entrepreneurs through visibility and financial decision-making. Social media and fintech platforms have become vital to entrepreneurial resilience. Sustainability is a promising avenue of research. (Potluri et al., 2024) links women's green entrepreneurship with the SDGs, while (Mahajan & Bandyopadhyay, 2021) and (Khattar & Agarwal, 2023) Show women's integration of traditional knowledge with sustainable practices.

Community networks and social capital remain opportunities. (Rehman, 2024) and (Mahato & Jha, 2024) Emphasize the impact of self-help groups on fostering financial inclusion among women entrepreneurs. These models can be scaled across regions. Education and skill development have potential. (Ayer et al., 2024) highlighted the role of entrepreneurial education in fostering opportunity-driven entrepreneurship, while (Lingappa et al., 2024) Emphasized addressing competency gaps through training programs. Such initiatives can bridge skill gaps and transform necessity-driven ventures into opportunity-led ones.

Examining intersectionality through targeted studies may reveal how social identity influences entrepreneurial outcomes. As advocated by (Shastri et al., 2022) This methodology can inform an inclusive policy framework. The COVID-19 pandemic has revealed both the vulnerability and resilience of women entrepreneurs. (Basu, 2023) and (Yadav et al., 2023) Documented how digital tools and community support helped women artisans mitigate economic shocks. These strategies offer a model of crisis preparedness. The period from 2020 to 2025 reveals gaps in research on women's entrepreneurship in India. Addressing these issues through bibliometric analysis would systematize knowledge and guide policy-making to transition women entrepreneurship from necessity-driven to opportunity-led pathways. The research cited here, including contributions from Chakraborty, Gupta, and Potluri, provides the foundation for this approach.

### 4.3. Emerging gaps and opportunities in regional

However, there are several gaps in the literature. Regional disparities persist, with northeastern states being underrepresented. (Rehman, 2024; Prasad & Choubey, 2024). Intersectionality remains under-explored, particularly regarding caste, religion, and urban-rural divides in entrepreneurial outcomes. (Chakraborty & Chatterjee, 2021; Shastri et al., 2022). Although (Balasundaram et al., 2024) Advocates generational-status-specific policies, implementation frameworks are scarce, and digital transformation presents opportunities; (Peter et al., 2024) and (Srinivasu et al., 2024) Highlight their role in empowering women entrepreneurs.

Sustainability shows promise, with (Potluri et al., 2024) Calling for exploring women's green entrepreneurship. Addressing intersectionality and regional disparities can provide insights into entrepreneurial experiences. However, longitudinal research is needed for intervention sustainability. The 2020-2025 period marks a transition in women entrepreneurship research in India, reflecting global digitalization, sustainability, and resilience. Fragmentation requires bibliometric analysis to systematize knowledge and identify underexplored niches. A Biblioshiny-based analysis reveals thematic clusters informing policies to transform women's entrepreneurship from necessity-driven to opportunity-led growth.

### 4.4. Key trends in women entrepreneurship research in India

The research landscape on women's entrepreneurship in India from 2020 to 2025 reveals significant trends in shaping the field, as seen in Fig. This literature review explores these trends by highlighting socio-cultural challenges, economic enablers, digital transformation, sustainability, and methodological innovations, drawing insights from various authors.

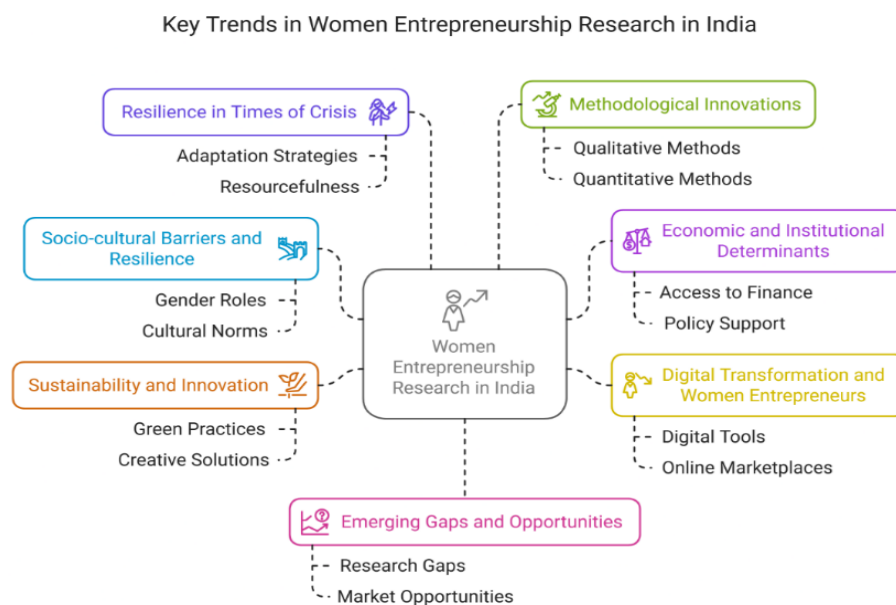


Fig. 2: Key Trends in Women Entrepreneurship.

### 4.5. Socio-cultural barriers and resilience

A dominant theme in recent studies is the persistence of socio-cultural constraints on women entrepreneurs in patriarchal settings. (Shastri et al., 2022) explored the socio-cultural dynamics in Rajasthan, highlighting intrinsic motivations such as creativity and autonomy that drive women entrepreneurs to challenge gender stereotypes. (Singh, 2020) emphasized the necessity-driven nature of women's entrepreneurship because of cultural norms and limited mobility, relegating women to informal, home-based ventures. However, resilience is a recurring theme; Gupta & Etzkowitz (2021) illustrate how women in high-tech academic incubators renegotiate societal expectations to establish entrepreneurial identities. These findings show the dual narrative of struggle and innovation that characterizes women's entrepreneurship in India.

#### 4.6. Economic and institutional determinants

Access to finance and institutional support is crucial for women's entrepreneurship. (Rehman, 2024) Highlights disparities in microcredit accessibility across regions, noting that the Northeast States receive less financial support than others. (Prasad & Choubey, 2024) Investigated micro-entrepreneurship among women in Sikkim and found that livelihood training programs are pivotal in fostering small enterprises. (Mahato & Jha, 2024) Links social capital to sustainable livelihoods, signifying how self-help groups (SHGs) contribute to financial independence and economic empowerment. Conversely, (Aggrawal et al., 2022) Classifying systemic gaps, such as a lack of statutory registrations and urban poverty, which will hamper the scalability of women-led enterprises. These studies underscore the need for tailored policies to address the regional and structural disparities. Several studies within this cluster emphasize accounting-related mechanisms such as access to formal credit, financial record maintenance, microfinance reporting structures, and digital transaction adoption. These accounting practices influence creditworthiness, transparency, and sustainability of women-led enterprises, particularly within SHG-linked and microenterprise models. Strengthening financial literacy and accounting capabilities, therefore, emerges as a critical institutional lever for improving women entrepreneurship outcomes

#### 4.7. Digital transformation and women entrepreneurs

The digital platforms act as a catalyst for women-led enterprises that are prominent in the post-pandemic era. (Bedarkar et al., 2020) Documents the benefits of social media platforms, such as PULA, a closed Facebook group, in enhancing the prominence and networking among women entrepreneurs. (Peter et al., 2024) Explores financial behavior traits and incorporates FinTech solutions, highlighting their impact on financial decision-making and enterprise performance. (Srinivasu et al., 2024) and (Basu, 2023) Highlighted the resilience of women entrepreneurs during the COVID-19 pandemic as they pivoted to digital platforms to sustain businesses in the handicraft and textile sectors. These studies highlight digital literacy as a key trend in empowering women-led enterprises.

#### 4.8. Sustainability and innovation

Sustainable entrepreneurship has emerged as a significant area of interest, with researchers focusing on how women-led enterprises integrate sustainable practices. (Potluri et al., 2024) Acquainted with the concept of "women's green entrepreneurship," connecting ecofeminism with sustainable development goals. (Mahajan & Bandyopadhyay, 2021) Presented case studies of women-led renewable energy ventures, emphasizing their role in advancing sustainable development. (Khatter & Agarwal, 2023) Adopted a life-story approach to study the incorporation of traditional data with innovative procedures among women-led enterprises. These outcomes spotlight the juncture of innovation and sustainability as an emerging domain in the research on women-led enterprises.

#### 4.9. Resilience in times of crisis

The pandemic has exposed vulnerabilities while highlighting adaptive strategies among female entrepreneurs. (Basu, 2023) Investigated entrepreneurial resilience among female artisans in West Bengal, authenticating their capacity to pivot trade strategies and fortify community networks to withstand economic turbulences. (Yadav et al., 2023) Examined women entrepreneurs in the handicraft industry, revealing that their innovative marketing strategies and reliance on community support were crucial in overcoming challenges during the pandemic. These studies highlight a significant trend in collective resilience and adaptation in response to crises.

#### 4.10. Methodological innovations

Modern research has experienced methodological diversification, which has boosted the robustness of the findings. Qualitative case studies, such as those by (Rastogi et al., 2022) and (Rajan & Panicker, 2020) (2020), continue to predominate, and contribute rich insights into the lived experiences of women entrepreneurs. Quantitative approaches, as well as structural equation modeling (Nayak et al., 2025) and logit regressions (Rehman, 2024), have gained traction, providing empirical authentication of theoretical constructs. (Tripathi, 2023) designs, such as (Prasad & Choubey, 2024) Propensity score matching, bridge contextual depth, and statistical rigor mark a methodological shift toward a more comprehensive analysis.

### 5. Social Structure: Collaboration Networks, Geographic Collaboration

Collaboration networks are crucial in scientific research. They shape knowledge production and dissemination. Geographic aspects are particularly significant. They influence how researchers connect and collaborate. Analyzing these patterns is essential for effective policy and resource allocation. Tables 1 and 2 explore the relationship between geography and scientific collaboration. We used bibliometric analysis and network science. Our goal was to see how geographic factors impact research partnerships and outcomes. We aimed to identify key geographic collaboration patterns. We also assessed the influence of distance on research productivity. Finally, we evaluated the role of regional hubs in scientific cooperation. Understanding these dynamics can enhance research efficiency. It can also promote more inclusive and diverse collaborations globally.

**Table 1:** Social Structure Collaboration

State/Region	Key Focus/Study Context	References
Odisha	Indigenous women entrepreneurship, social capital, and livelihood. Role of kinship networks in microenterprises, caste dynamics sustainability.	(Mahato & Jha, 2024)
Haryana	Push-pull factors and challenges in patriarchal societies.	(Sekhri et al., 2022; Rekha et al., 2023; Chhabra et al., 2020)
Kerala	Self-help groups (SHGs) and coastal community development: Exploring the experience of rural women entrepreneurs in Kerala	(Minimol, 2020; Iqbal et al., 2024; Thomas & Jose, 2020)
Telangana	Microfinance, economic security, and job experience linkages.	(Akula & Singh, 2021)
North India	Family support and unorganized entrepreneurship in microenterprises.	(Harpriya et al., 2024; Garg et al., 2024)
Rural Uttarakhand	Motivational factors and rural challenges (e.g., work-life balance).	(Panday & Sharma, 2022)

Karnataka	Social, psychological, and financial drivers of entrepreneurial performance.	(Lingappa et al., 2024; Anandharaman & Rangaswamy, 2024)
South India	Post-pandemic empowerment, technology adoption, and internal/external success factors.	(Chitra et al., 2022)
Rajasthan	Motivational aspects, societal barriers, and policy interventions.	(Shastri et al., 2022; Tripathi, 2023; Rekha et al., 2023)
Northern India	PESTLE (political, economic, social, technological, legal, environmental) constraints.	(Tripathi, 2023)
Tamil Nadu	Married women entrepreneurs: spousal support as a success driver.	(Rastogi et al., 2022; Anandharaman & Rangaswamy, 2024)
Uttar Pradesh	Livelihood transformation through urban microfinance.	(Rajan & Panicker, 2020; Tripathi, 2023; Hasan et al., 2022; Garg et al., 2024),
Uttarakhand	Competency development frameworks for women social entrepreneurs.	(Srinivasu et al., 2024; Panday & Sharma, 2022; Pal & Gupta, 2023)
Rural India	Credit access, social capital, and empowerment at the "bottom of the pyramid."	(Kumarasamy et al., 2023; Tripathi, 2023; Pal & Gupta, 2023; Garg et al., 2024)
Sikkim	Socio-economic factors and SHG-led micro-entrepreneurship.	(Prasad & Choubey, 2024)
Andhra Pradesh	SHGs' role in shaping entrepreneurial behavior.	(Siddeswari & Gopal, 2021)
Assam	Crime against women as a barrier to entrepreneurship.	(Gogoi, 2022)
Western Uttar Pradesh	Urban microfinance's impact on poverty reduction and social well-being.	(Hasan et al., 2022)

Table 2: Geographic Collaboration

Region/State	Sub-Regions/Key Areas	References
India (general)	National-level trends in credit access, policy frameworks, and socio-cultural barriers.	(Pal & Gupta, 2023)
Odisha	Koraput, Sundargarh (indigenous entrepreneurship).	(Mahato & Jha, 2024)
Haryana	Patriarchal norms and urban-rural entrepreneurial disparities.	(Shastri et al., 2022)
Kerala	Coastal regions; SHG-driven community sustainability.	(Minimol, 2020),
Telangana	Microfinance institutions and women-led businesses.	(Akula & Singh, 2021)
North India	Cross-state challenges (e.g., family support, infrastructure gaps).	(Harpriya et al., 2024)
Uttarakhand	Rural Uttarakhand (motivational drivers vs. location-based challenges).	(Panday & Sharma, 2022)
Karnataka	Urban hubs (e.g., Bengaluru) vs. rural entrepreneurial ecosystems.	(Lingappa et al., 2024)
South India	Post-pandemic resilience and digital entrepreneurship.	(Chitra et al., 2022)
Rajasthan	Societal barriers (gender stereotypes) and intrinsic motivation.	(Shastri et al., 2022)
Northern India	PESTLE constraints in diverse districts.	(Tripathi, 2023)
Tamil Nadu	Urban microenterprises and married women's entrepreneurial success.	(Rastogi et al., 2022)
Uttar Pradesh	Western Uttar Pradesh (urban microfinance impact studies).	(Hasan et al., 2022)
Sikkim	SHG-based entrepreneurship in hilly terrains.	(Prasad & Choubey, 2024)
Andhra Pradesh	Rural SHGs and entrepreneurial behavior analysis.	(Siddeswari & Gopal, 2021)
Assam	Crime rates and women's safety as entrepreneurial deterrents.	(Gogoi, 2022)
New Delhi	Ghazipur landfill study (Waste Management and IoT-based Innovation Project for Women entrepreneurship).	(Sakya et al., 2023)

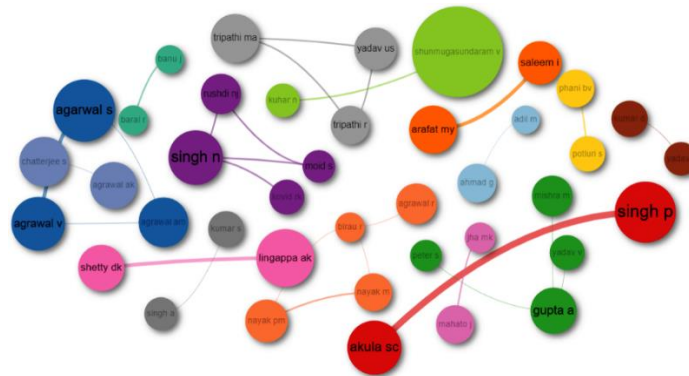


Fig. 3: Citations and Co-Citations.

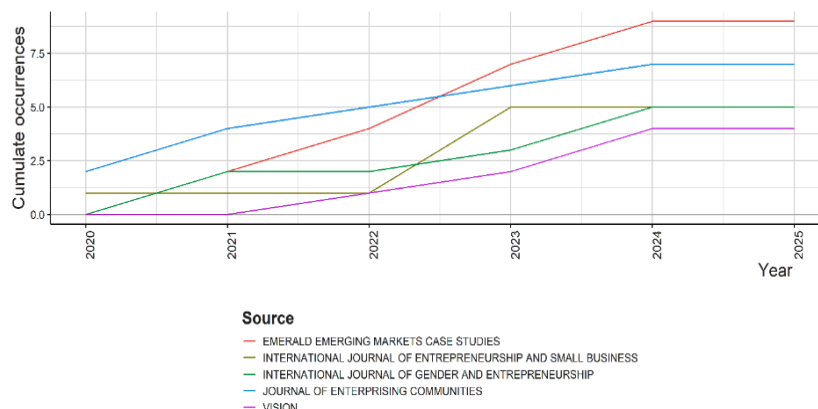


Fig. 4: Top Source Journals.



The intellectual structure of the domain is illustrated through cumulative journal occurrences (Figure 4) and co-citation networks (Figure 3). These patterns identify foundational journals and influential authors shaping women entrepreneurship research. Unlike earlier bibliometric reviews that adopt broader global or long-term perspectives, this study uniquely focuses on India-specific women entrepreneurship research during the critical 2020–2025 period. By integrating post-pandemic recovery, digital transformation, and gender-inclusive policy contexts, this analysis extends prior bibliometric work by offering a temporally focused and policy-relevant synthesis. The study thus complements existing reviews while addressing a distinct contextual and methodological gap.

## 6. Discussion

### 6.1. Policy and economic implications

The study findings suggest targeted policy interventions focusing on financial inclusion, digital literacy, and region-specific entrepreneurship ecosystems. Strengthening accounting literacy, access to formal credit, and digital financial infrastructure can enhance enterprise sustainability and scalability. Policymakers may leverage these insights to design data-driven programs aligned with regional and sectoral entrepreneurship needs.

### 6.2. Dynamic landscape of women's entrepreneurship

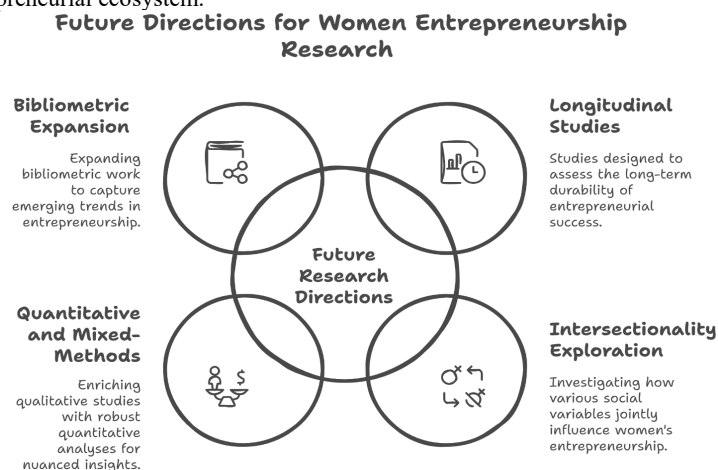
Findings highlight the impact of digital technologies, government initiatives, and post-pandemic recovery strategies on women-led enterprises. Digital empowerment has emerged as a dominant theme, reducing barriers and bridging the rural-urban divide through social media, e-commerce platforms, and Fintech innovations. These digital tools have opened new market opportunities and facilitated adaptive business models during crises. Research shows that the COVID-19 pandemic acted as a catalyst for innovative entrepreneurial responses. Combined quantitative and qualitative case studies have provided statistical validation and insight into socio-cultural challenges. Collaborative networks among authors, institutions, and regional clusters highlight the interdisciplinary nature of this field, enriching scholarly discourse and informing policy-making. However, gaps in the literature remain. Underexplored regions and limited attention to intersectional dimensions, including caste, religion, and rural-urban disparities, require further investigation. Although sustainability and green entrepreneurship are emerging, high-tech ventures and scalable models require further exploration. This study maps the research terrain and suggests avenues for policy intervention and future inquiries to transform necessity-driven ventures into opportunity-led enterprises for inclusive economic growth. These insights provide a foundation for future research and inspire targeted policy initiatives across various sectors.

## 7. Conclusion

This study shows a significant increase in women's entrepreneurship in India from 2020 to 2025, fuelled by digital transformation, adaptive post-pandemic strategies, and proactive government interventions. This study emphasizes how digital platforms and policy initiatives, such as Start-up India and MUDRA, have reduced entry barriers and expanded market access, particularly for those bridging rural and urban gaps. Diverse contributions from fields such as economics and gender studies have highlighted this area's dynamic and interdisciplinary nature. Despite these advancements, the analysis identifies ongoing challenges: socio-cultural norms continue to hinder growth, and research on intersectional issues such as caste, regional disparities, and long-term sustainability remains limited.

## 8. Future Directions

As Figure 5 Building on these insights, future research should prioritize longitudinal studies to evaluate the sustainability of entrepreneurial success and the evolution of digital and policy impacts. Scholars are encouraged to delve deeper into intersectionality and examine how factors such as caste, religion, and geographical location collectively influence women's entrepreneurial journeys. There is a need to complement the existing predominantly qualitative case studies with robust quantitative analyses and mixed-method approaches, providing a more nuanced understanding of the factors driving success or hindering growth. Future bibliometric work could also broaden its scope by integrating alternative databases and adopting real-time data analysis techniques to capture emerging trends in high technology and green entrepreneurship, as shown fig;5. These efforts would help shift the paradigm from necessity-driven to opportunity-led ventures and guide policymakers in crafting targeted, effective support mechanisms across diverse socio-economic contexts. These strategic research avenues promise to deepen our understanding of the dynamic landscape of women's entrepreneurship in India and contribute to building a more inclusive and sustainable entrepreneurial ecosystem.



**Fig. 5:** Future Research Directions in Women Entrepreneurship.

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## Author Contributions

All authors made an equal contribution.

## Conflict of Interest

There is no conflict of interest with the content of this article.

## Ethics Approval

Not applicable.

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