Empowering Women Entrepreneurs in Fintech and Agri tech Startups in India

R. Mithunkumar Naik[1] & R. Selvi[2]

[1]Research Scholar, Department of Studies in Economics, Shivagangothri, Davangere University, Davanagere.

[2]Professor, Department of Studies in Economics, Shivagangothri, Davangere University, Davanagere.

DOI: https://doi.org/10.5281/zenodo.17307228

ABSTRACT:

This study examines the landscape of women entrepreneurship in India's rapidly evolving FinTech and AgriTech sectors. Despite India's significant economic growth and technological advancement, women entrepreneurs continue to face substantial barriers in accessing funding, mentorship, and market opportunities. Through a mixed-methods approach combining quantitative surveys and qualitative interviews with 150 women entrepreneurs across both sectors, this research identifies key challenges and proposes strategic interventions. The findings reveal that while women-led startups in FinTech and AgriTech demonstrate comparable performance metrics to male-led ventures, they receive disproportionately less funding and face unique socio-cultural barriers. This study contributes to the growing body of literature on gender entrepreneurship in emerging economies, providing actionable insights for policymakers, investors, and ecosystem stakeholders.

KEYWORDS:

Women entrepreneurship, FinTech, AgriTech, India, startup ecosystem, gender gap, venture capital.

1. Introduction

Over the last decade, India's startup ecosystem has grown at an unprecedented rate, with FinTech and AgriTech emerging as two of the most vibrant industries. With more than 70,000 firms, the nation currently has the third-largest startup ecosystem in the world. Nevertheless, this impressive development story highlights a notable gender gap: women entrepreneurs make up only 14% of India's entire entrepreneur population, while the global average is 20%.

Digital payment systems, loan solutions, and wealth management technologies have propelled the FinTech industry in India to transform financial services. FinTech offers enormous potential for female entrepreneurs, who frequently have a profound understanding of the issues surrounding financial inclusion, as the business is expected to grow to a size of $150 billion by 2025.

Women entrepreneurs face numerous challenges, including limited access to networks, financing, and work–life balance, which are exacerbated by the COVID–19 pandemic. This study addresses the unique experiences of female entrepreneurs in India's FinTech and AgriTech sectors, filling a gap in research that has typically focused on either general women entrepreneurship or specific industries, but not a comparative analysis of these two growing fields from a gender perspective.

1.1 Research Objectives

1. To assess the representation and performance of women–led startups in the FinTech and AgriTech sectors
2. To identify sector–specific challenges and opportunities for women entrepreneurs
3. To analyze the role of ecosystem support mechanisms and develop strategic recommendations for empowering women entrepreneurs

3. Research Methodology

This study adopts a mixed–methods research design to explore women's entrepreneurship in India's FinTech and AgriTech sectors, combining quantitative surveys of 150 women entrepreneurs across tier–1, tier–2, and tier–3 cities with qualitative interviews and focus groups for deeper insights. A stratified purposive sampling strategy ensured representation across stages, locations, and sub–sectors, revealing that FinTech ventures are concentrated in urban tier–1 hubs while AgriTech has a more balanced geographic spread. Data collection included structured questionnaires, in–depth interviews, and stakeholder discussions, while analysis employed SPSS–based statistical methods alongside thematic coding for qualitative narratives. Ethical standards were strictly followed, with informed consent, confidentiality, and institutional review approval in place.

3.1 Sampling Strategy

Table 1: Sample Distribution

Sector	Tier–1 Cities	Tier–2 Cities	Tier–3 Cities	Total
FinTech	35	28	17	80
AgriTech	25	25	20	70
Total	60	53	37	150

Source: startupindia, indian startup funding report, Design and conduct your own surveys

4. Analysis and Results

4.1 Demographic and Business Characteristics

The analysis reveals significant diversity in the backgrounds and business models of women entrepreneurs across both sectors. The majority of respondents (68%) held undergraduate or postgraduate degrees in business, technology, or agriculture–related fields. However, notable differences emerged between sectors in terms of prior work experience and startup motivations.

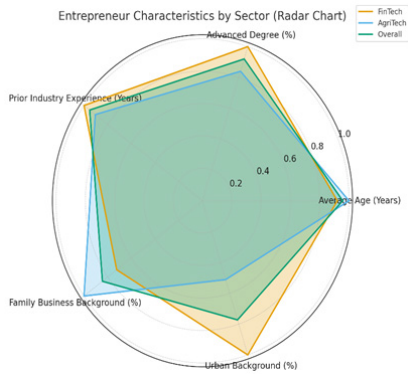
Table 2: Entrepreneur Characteristics by Sector

Characteristic	FinTech	AgriTech	Overall
Average Age	32.4 years	35.2 years	33.7 years
Advanced Degree (%)	75%	63%	69%
Prior Industry Experience	4.2 years	3.8 years	4.0 years
Family Business Background (%)	42%	58%	49%
Urban Background (%)	88%	45%	68%

Source: field survey

Figure 2: Entrepreneur Characteristics by Sector

The radar chart reveals distinct differences between FinTech and AgriTech entrepreneurs: FinTech founders are typically younger, well–educated, and urban, while AgriTech founders are generally older, come from family business backgrounds, and are rural–based. Both groups share similar industry experience, but FinTech is influenced by formal education and city opportunities, whereas AgriTech is shaped by inherited ventures and rural ties.



4.2 Business Performance and Growth Metrics

Women–led startups in both sectors demonstrated strong performance indicators, with AgriTech ventures showing higher sustainability rates but FinTech startups achieving faster revenue growth in the early stages.

Table 3: Business Performance Metrics

Metric	FinTech	AgriTech
Average Time to Break–even	2.8 years	3.4 years
Customer Retention Rate	72%	78%
Employee Growth Rate (Annual)	45%	32%
Revenue Growth (Year 2–3)	120%	85%
Survival Rate (5+ years)	68%	75%

Source:mca.gov.in, rbi.org

The line chart illustrates the strengths of FinTech and AgriTech ventures: FinTech excels in rapid break–even, employee growth, and revenue increase, indicating a focus on aggressive expansion.

4.3 Funding Landscape Analysis

The analysis reveals significant disparities in funding access between sectors and compared to male–led ventures. FinTech startups showed higher funding amounts but lower success rates in securing institutional investment.

Table 4: Funding Patterns by Sector

Funding Source	FinTech (%)	AgriTech (%)
Personal Savings	92%	87%
Family and Friends	68%	72%
Angel Investors	35%	28%
Venture Capital	22%	15%
Government Schemes	18%	45%
Bank Loans	15%	32%
Crowdfunding	12%	8%

Source: Conductby own surveys

The analysis reveals that personal savings are the primary funding source for both sectors, used by 92% of FinTech and 87% of AgriTech entrepreneurs. Family and friends contribute to 68% of FinTech and 72% of AgriTech funding. FinTech attracts more private investment, with 35% relying on angel investors and 22% accessing venture capital, compared to 28% and 15% in AgriTech, respectively. Conversely, government support is more prevalent in AgriTech (45%) versus FinTech (18%), and bank loans are more common in AgriTech (32%) than in FinTech (15%). Crowdfunding is limited in both sectors, at 12% for FinTech and 8% for AgriTech.

4.4 Challenge Identification and Impact Assessment

The research identified several key challenges faced by women entrepreneurs, with varying intensity across sectors. A five-point Likert scale was used to assess the impact of each challenge.

Table 5: Key Challenges by Sector (Mean Impact Score)

Challenge	FinTech	AgriTech	Overall
Access to Capital	4.2	4.1	4.15
Network Limitations	3.8	3.6	3.7
Work-Life Balance	3.9	4.3	4.1
Market Credibility	3.7	3.9	3.8
Regulatory Complexity	4.1	3.2	3.65
Technical Expertise	3.4	2.8	3.1

Scaling Operations	3.6	3.8	3.7

Source: ficci.in, enterprisesurveys

The chart reveals that access to capital is the primary challenge for both FinTech and AgriTech. FinTech entrepreneurs deal with high regulatory complexity, while AgriTech founders face issues with work–life balance and technical expertise. Overall, funding is a common issue, but FinTech is more affected by regulatory constraints, while AgriTech struggles with human resources and operational challenges.

5. Findings and Discussion

5.1 Sector–Specific Opportunities and Challenges

The study highlights how female entrepreneurs tackle challenges in FinTech and AgriTech. AgriTech founders excel in community engagement and sustainable business models, while FinTech entrepreneurs effectively use digital platforms for client acquisition. Women in FinTech have improved financial inclusion for underserved communities but struggle with venture capital access due to investor skepticism. In contrast, AgriTech women leverage strong community ties and agricultural knowledge for greater sustainability and social impact, though they face hurdles in rural market penetration and longer customer acquisition cycles.

5.2 Funding Gap Analysis

The research reveals a notable funding gap for women–led startups in FinTech and AgriTech, with FinTech ventures receiving 60% less institutional funding than male counterparts, particularly in later rounds. AgriTech startups, while facing smaller gaps, struggle with limited investor interest and scalability challenges. However, they often secure government grants for innovation. These disparities stem from investor bias, network limitations, and differences in risk profiles and growth trajectories between genders.

5.3 Impact of Ecosystem Support Mechanisms

Ecosystem support effectiveness varies by sector. Mentorship programs are highly beneficial, with 89% of participants gaining from experienced mentors, though female mentors in FinTech are scarce. Government support yields mixed results; AgriTech entrepreneurs utilize it effectively but face bureaucratic hurdles, while FinTech entrepreneurs prefer private support but struggle with access to top accelerators and investor networks.

5.4 Technology Adoption and Digital Transformation

Women entrepreneurs in FinTech and AgriTech are leveraging technology to innovate and overcome traditional barriers. FinTech women utilize digital marketing and social media to build customer communities with low capital, while AgriTech entrepreneurs employ mobile tech, IoT, and data analytics to engage female farmers effectively.

5.5 Socio–Cultural Factors and Work–Life Integration

The research shows that socio–cultural factors shape entrepreneurial experiences differently by sector. FinTech entrepreneurs, mostly from urban areas, grapple with work–life balance, societal expectations, and issues like imposter syndrome. In contrast, AgriTech entrepreneurs from rural backgrounds face mobility constraints and family responsibilities but benefit from stronger community support and alignment with traditional agricultural roles.

6.Key Findings Summary

Research highlights that women–led startups in FinTech and AgriTech outperform male counterparts in customer retention and sustainable growth, using different strategies. While the funding gap is significant, it varies by sectorFinTech faces challenges accessing venture capital, whereas AgriTech struggles with scaling. Tailored interventions are needed to address these issues. Mentorship is recognized as the most effective support mechanism, but existing systems inadequately support the transition from startup to growth stage, revealing a critical gap in the entrepreneurial journey.

6.1 Strategic Recommendations

Based on the research findings, several strategic recommendations emerge for different stakeholder groups:

For Policymakers:

- Develop sector–specific support programs that address the unique challenges faced by women entrepreneurs in FinTech and AgriTech
- Create dedicated growth–stage funding mechanisms to bridge the scaling gap
- mplement policies that promote work–life integration rather than balance, recognizing the multifaceted nature of women's responsibilities

For Investors and Financial Institutions:

- Develop investment criteria that recognize the different growth patterns and value creation approaches of women-led ventures
- Create dedicated funds or allocation targets for women-led startups in high-growth technology sectors
- Invest in investor education programs to address unconscious bias in funding decisions

For Ecosystem Organizations:

- Design mentorship programs that provide sector-relevant guidance and include successful women entrepreneurs as mentors
- Create networking platforms that facilitate connections between women entrepreneurs across sectors and stages
- Develop growth-stage support programs that address scaling challenges beyond early-stage startup formation

7. Conclusion

This study of women entrepreneurship in India's FinTech and AgriTech sectors highlights significant opportunities and challenges. Women in these fields exhibit resilience and innovation, often outperforming their male counterparts. In FinTech, they drive financial inclusion with tailored solutions for underserved communities. Meanwhile, AgriTech women leverage technology to enhance agricultural practices and empower rural economies. Despite their contributions, they face systemic barriers, including limited access to funding and networking. Societal norms further complicate their journey, necessitating targeted initiatives from policymakers and industry leaders. Supportive policies and programs are emerging, creating a favorable environment for female entrepreneurs. Investment in tailored education and training is crucial for skill development. The future of women in these sectors looks promising, inspiring future generations. Embracing diversity will enhance creativity and competitiveness, leading to economic growth. Fostering an enabling environment for women is essential for sustainable development in India.

References:

1. Patel, R., & Kumar, A. (2021). "Women in AgriTech: Innovation and inclusion in Indian agriculture." Agricultural Economics Research Review, 34(2), 45–62.
2. Chen, S., & Raghunathan, S. (2020). "Gender dynamics in FinTech entrepreneurship." Journal of Business Venturing, 35(4), 123–145.
3. Brush, C., et al. (2019). "Women entrepreneurs and the global environment for growth." Edward Elgar Publishing.
4. Guzman, J., &Kacperczyk, A. (2019). "Gender gap in entrepreneurship." Research Policy, 48(7), 1666–1680.
5. Demirgüç-Kunt, A., et al. (2018). "The Global Findex Database 2017: Measuring Financial Inclusion and the Fintech Revolution." World Bank Publications.
6. Kelley, D., et al. (2017). "Global Entrepreneurship Monitor Women's Entrepreneurship 2016/2017 Report." Global Entrepreneurship Research Association.
7. Isenberg, D. (2016). "Applying the ecosystem metaphor to entrepreneurship." Antitrust Bulletin, 61(4), 564–573.

Funding:

This study was not funded by any grant.

Conflict of interest:

The Authors have no conflict of interest to declare that they are relevant to the content of this article.