

## **SCALING UP THE WOMEN-LED MSMEs: INVESTIGATING THE ROLE OF FINTECH AS A CATALYST IN PROMOTING FINANCIAL INCLUSION FOR WOMEN-LED MSMEs**

Ms. Divya<sup>1</sup> and Dr. Swati Sharma<sup>2</sup>

<sup>1</sup>Department of Commerce, Chaudhary Charan Singh University, Meerut.

<sup>2</sup>Department of Management, Chaudhary Charan Singh University, Meerut.

DOI: 10.46609/IJSSER.2025.v10i08.001 URL: <https://doi.org/10.46609/IJSSER.2025.v10i08.001>

Received: 19 July 2025 / Accepted: 5 August 2025 / Published: 10 August 2025

### **ABSTRACT**

*The growth and sustainability of Micro, small & medium enterprises (MSMEs) are critical to economic development, particularly in emerging economies. Among these, women-led MSMEs face persistent challenges including limited access to finance, in adequate digital literacy and gender-based barriers. This study explores the transformative role of financial technology (Fintech) in addressing these constraints and catalyzing the scalability of women-led MSMEs. By leveraging digital platforms, mobile banking, peer to peer lending, and alternative credit scoring models, Fintech offers inclusive, accessible, and affordable financial solutions tailored to unique needs of women entrepreneurs. This paper investigates how Fintech innovations contribute to improved financial inclusion, operational efficiency, market expansion and resilience among women led MSMEs business. Drawing on recent case studies surveys and secondary data, the study highlights best practices and identifies policy recommendations to enhance the impact of Fintech on women-led MSMEs.*

**Keywords:** Fintech, Women entrepreneurs, MSMEs, Digital finance, Inclusive Growth.

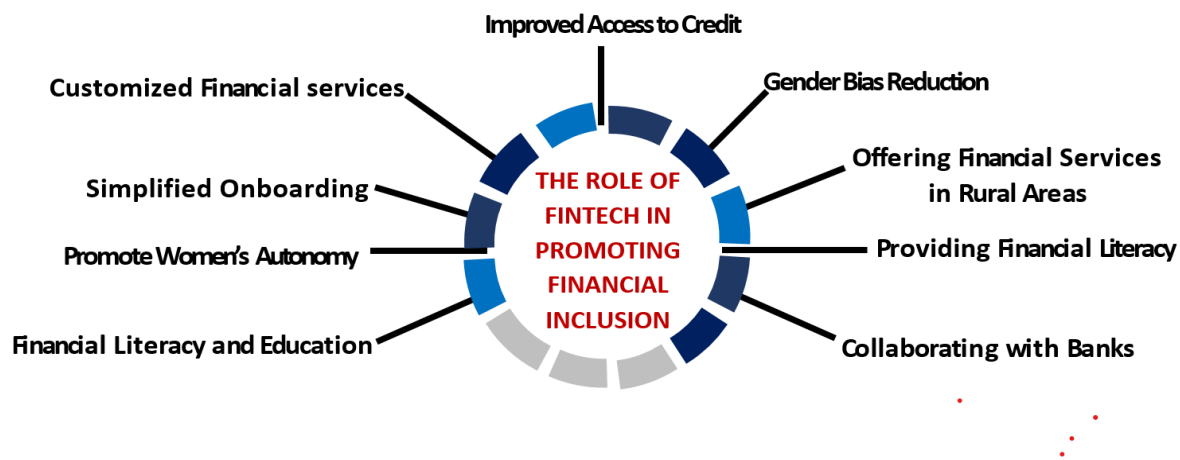
### **1. INTRODUCTION**

Micro, small and medium enterprises (MSMEs) play a pivotal role in economic development, job creation, and poverty alleviation women-led MSMEs are increasingly recognized as vital contributors to inclusive growth and gender equity. However these enterprises often face significant barriers to scalability, including limited access to formal credit, digital access to formal credit infrastructure, and market linkages.

In recent years, the rise of financial technology (FINTECH) has offered a compelling opportunity to transform how MSMEs especially those led by women- interact with financial services. Fintech platforms provide accessible low cost and data-driver alternatives to traditional banking, including digital wallets, peer-to-peer lending, invoice financing, mobile banking and AI-based credit scoring.

For women-led-MSMEs, fintech is more than a technological solutions. It is a tool for empowerment. It enables access to capital without the need for collateral, facilitates business transactions in remote or rural areas, and enhances operational efficiencies through digital gender divide, socio-cultural constraints, and lack of tailored financial products continue to limit the full potential of Fintech adoption among women-led MSMEs.

**Figure-1: The role of Fintech in promoting financial inclusion.**



### 1.1 Problem Statement

Despite the significant role played by Micro, small and medium enterprises (MSMEs) in economic development, women-led MSMEs continue to face challenges that hinder their scalability and long-term sustainability limited access to formal credit, lack of financial literacy, inadequate collateral, and gender-based biases in financial systems restricts their growth potential, traditional banking mechanisms often fail to cater to the unique need of women entrepreneurs, further exacerbating the financial exclusion they experience.

Fintech with its innovative digital financial solutions has emerged as a potential game changer by offering inclusive, accessible, and tailored financial services. However, the impact of fintech on scalability of women-led MSMEs remain underexplored. There is need to understand how effectively fintech tools such as digital lending mobile payments, digital book keeping and AI-

driven credit scoring are being leveraged by women entrepreneurs to overcome scalability barriers.

This study seeks to investigate the extent to which fintech serves as a catalyst in enhancing the scalability of women-led MSMEs, Identifying existing gaps in fintech adoption, recommend strategic interventions to maximize its impact on gender-inclusive economic growth.

### **1.2 Objectives of the study**

- To examine the role of fintech in enhancing financial inclusion for women-led MSMEs
- To analyze barriers faced by women-led MSMEs in adopting fintech solutions.
- To assess the impact of fintech tools on the operational efficiency and growth potential of women entrepreneurs.
- To identify key fintech tools and platforms available for women-led MSMEs.

## **2. LITERATURE REVIEW**

Sunil Kumar (Feb,2023) aimed the role of fintech in India MSMEs, identified from the second decade of the 21<sup>st</sup> century highlight exponential growth in fintech interventions in the MSMEs. The Indian government has also established supportive infrastructure to strengthen fintech collaboration, particularly under the Digital India Initiative. This study based on secondary data sources follows a qualitative approach. However, the analysis is limited by the availability and scope of secondary data, as primary data was not utilized.

Shrivastava & Dey (2022) study women entrepreneurship and Fintech Adoption in India, aimed a positive relationship exists between digital literacy and fintech adoption among women-led MSMEs, especially in urban areas. The study focus primarily on urban areas. Rural and semi-urban women's fintech adoption remains under-researched.

Sahu, A., & Sharma, k. (2023).aimed Algorithmic Lending and Gender Bias: explores how digital credit scoring algorithms influence lending decisions for women-led MSMEs. Identified a reduction in subjective gender bias but also warns that algorithmic decisions can perpetuate bias if the data used is skewed. However study based on simulations and algorithmic audits, not real-world loan data, and no primary survey or qualitative data collected from fintech users.

Agarwal, N., & Jain, S. (2022). aimed Fintech for Women MSMEs: Empowerment through Mobile Finance in India, the study assesses the role of mobile banking and UPI-based payments in empowering women-MSMEs. It concludes that fintech has simplified transactions and improved business credibility, especially for small retailers. However study focused on limited

sample size of 120 respondents, does not account for business scalability or profitability metrics, digital literacy barriers not fully explored.

Singh, R., & BANSAL, T (2019). Aimed Bridging the Credit Gap: Can Fintech Solve the financing challenges of women-led enterprises. Study suggests that crowd funding, P2P lending, and invoice financing platforms are gradually gaining traction among women entrepreneurs due to their flexibility and accessibility. Study primarily focused on platforms than on user behavior or business impact, and on qualitative interviews with platform managers rather than women entrepreneurs.

Kapoor, R., & Mehta, P. (2021). Aimed Digital Lending and Financial Inclusion for women Entrepreneurs in India. The study examines how digital lending platforms have expanded credit access for women entrepreneurs. The research highlights that fintech solutions reduce dependency on traditional banking infrastructure and collateral requirements making it easier for women entrepreneurs to obtain working capital. However study lacks field-level validation through primary interviews or case studies.

International Finance Corporation (IFC), (2020). The global report includes case studies from India and other emerging markets to demonstrate how fintech is driving financial inclusion for women. It analyses that the digital wallets, savings apps, and alternative credit scoring tools are especially beneficial for women who lack formal banking histories. The study generalized global findings; limited India-specific quantitative data, does not segment data by enterprise sector.

### **3. RESEARCH METHODOLOGY**

Research methodology outlines the overall strategy used to integrate the different components of the research in coherent and logical way, ensuring that the research problem is effectively addressed. In this section, the researcher defines the techniques used in the study. This section also advocates the study's approach and describes the survey design, sample selection, and data analysis.

#### **3.1 Research design**

Designing a study provides the researcher a structured framework to ensure that the research problem is addressed effectively and that the evidence collected is relevant, reliable and valid. This study adopts a descriptive and analytical research approach to understand the role of FINTECH in facilitating financial inclusion and bridging the credit gap for the Women-led MSME sector in India.

The methodology includes both secondary data analysis and primary quantitative insights to evaluate the performance, challenges, and effectiveness of FINTECH in Women-led MSME financing. The research is based on a non-experimental, descriptive design that focuses on understanding current trends and relationships between FINTECH and Women-led MSME credit access.

Primary data for this study is conducted using online survey designed specifically for the research objectives. The survey was created using Google forms and included likert scale questions to ensure quantitative analysis. The survey was distributed via email, social media such as LinkedIn. A total 100 responses were received, and a non-probability convenience sampling method was used due to the exploratory nature of the study. Regression and correlational analysis was conducted on the primary data obtained from the survey to assess the impact of Fintech on Women-led MSMEs.

Correlational analysis is done to examine the strength and direction of relationships between two variables, techniques used Pearson's correlation coefficient ( $r$ ). **Regression Analysis done** to identify how multiple independent variables predict a dependent variable, **Model Used:** Multiple Linear Regression **Dependent Variable**-Intention to continue using Fintech, **Independent Variables**-Active use, Awareness, Ease of access, Reduced dependency on banks, Financial management, Customer base expansion, Business scale-up, Competitiveness.

### **3.2 Data Collection**

To achieve the goals of this research, this study uses secondary data and a descriptive research design to understand how Fintech impacts Women-led MSMEs. Data is gathered from various reputable publications, newspapers, working papers released by reputable organizations, and official government reports. The data is analyzed to identify the key trends, challenges, and gaps in MSME financing in India. Primary data using online survey designed specifically for the research objectives. The survey was created using Google forms and included likert scale questions to ensure quantitative analysis.

### **3.3 Data Analysis**

The data collected is subjected to statistical analysis, including techniques such as trend analysis, correlational analysis, regression analysis to identify the factors contributing to financial inclusion and credit gaps among Women-led MSMEs in India. In addition, content analysis is used to examine qualitative data and uncover recurring themes and patterns. The findings from both quantitative and qualitative analyses are interpreted to provide meaningful insights into the key challenges and barriers in Women-led MSME financing. The research paper presents these

findings with the aid of tables, charts, and other visual tools to support clear interpretation and effective presentation of the data.

#### 4. RESULTS AND DISCUSSIONS

This section presents the analyzed data regarding the contribution of fintech to women led MSMEs credit access and financial inclusion in India. It includes table and graphical representation of secondary data and primary data.

##### 4.1 Women’s entrepreneurship landscape in India:

India has 63million micro, small and medium enterprises (MSMEs) of which around 20percent are women owned, employing 22 to 27 million people. India ranked 57<sup>th</sup> among 65 countries in the master card index of women entrepreneurs (MIWE2021).

Figure 2: Share of MSMEs in India

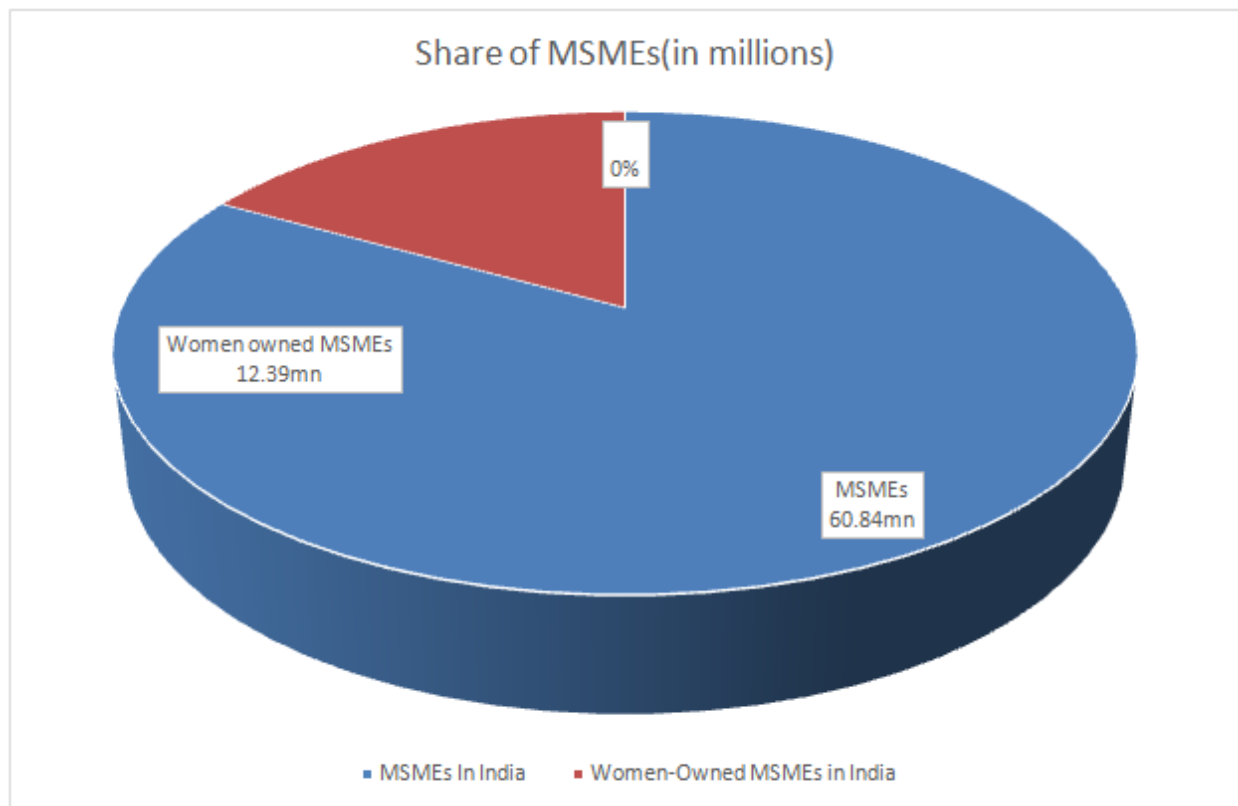


Figure 3: Top 10 states in share of wMSMEs.

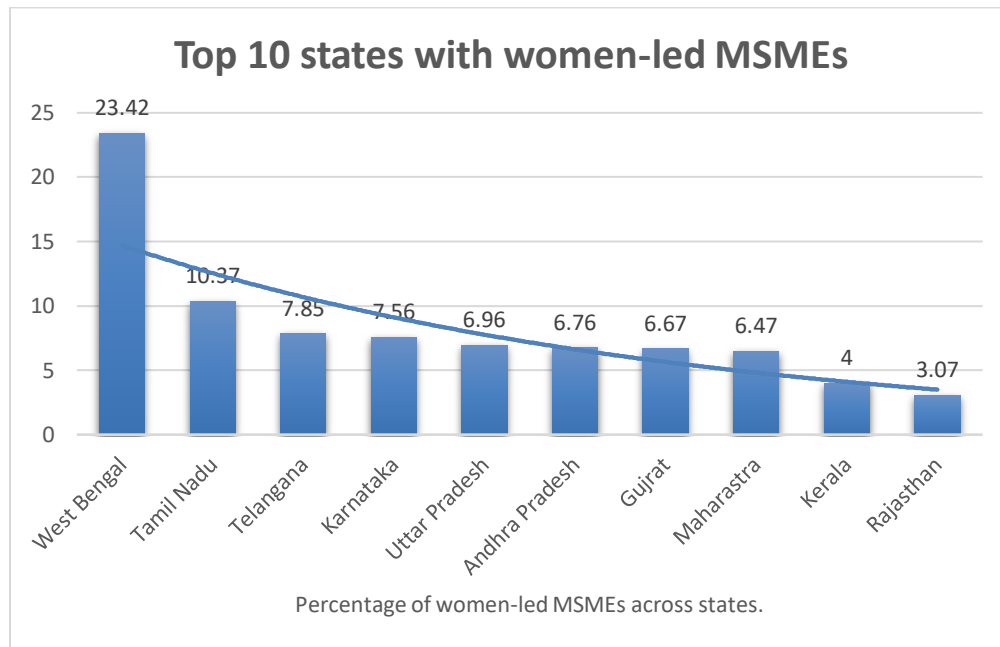
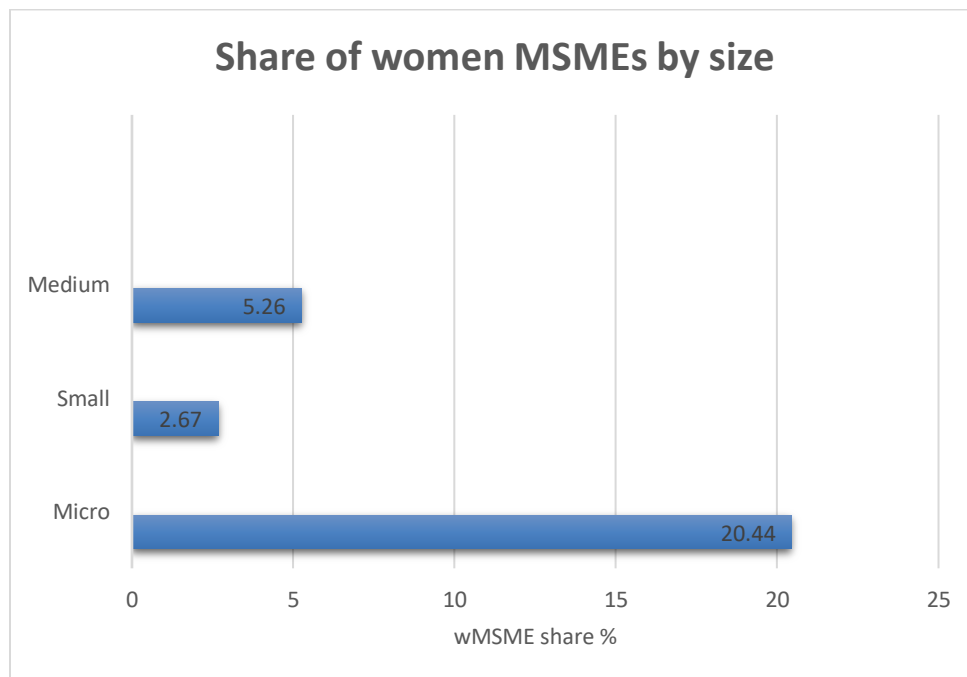


Figure 4: Share of wMSMEs by size



Source: MoMSME annual report

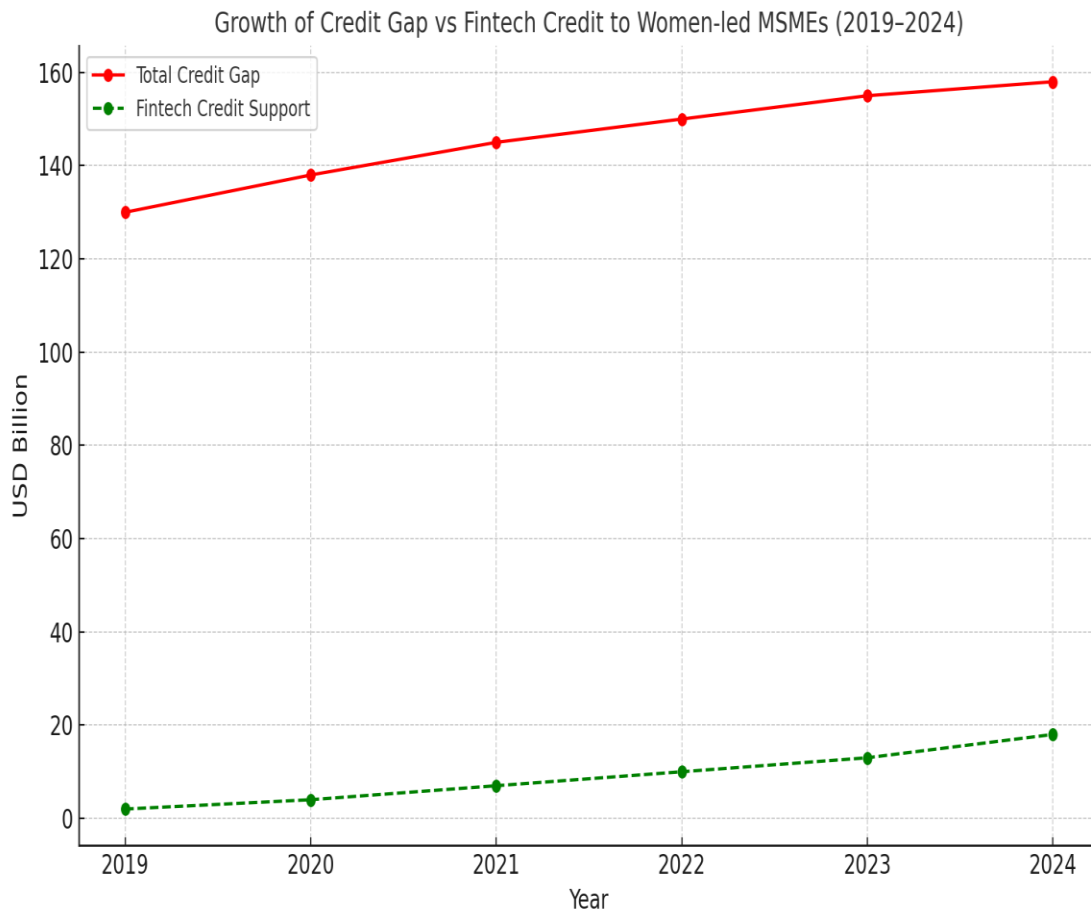
**4.2 Growth of credit by Fintech to Women-led MSMEs**

Fintech has significantly transformed access to credit for women led MSMEs, which traditionally faced gender bias, lack of collateral, and limited financial literacy. By leveraging digital tools, data analytics, and alternative credit scoring, fintech companies have expanded the reach and speed of credit delivery.

**Table:1: Growth of credit by fintech to women-led MSMEs**

S.NO.	METRIC	VALUE	SOURCE
1	Women led MSME share of total MSME credit	7.09%(2023)	RBI data
2	Outstanding MSME credit to women-led MSMEs	7% of total MSME loans	RBI
3	Financing gap for women-led MSMEs	13.2 lakh cr.	Inclusive finance India Report 2024
4	Working capital purpose among women-led MSMEs	96% of loans	Kinara capital
5	Revenue increase from digital lending loans	60% saw>10 boost	Indifi technologies
6	Women share of loan disbursals	24%	Neo-Growth Impact report
7	Women monitoring credit reports	42% increase	Trans Union Cibil report
8	Jobs creation from women led MSMEs by Fintech loans	11% more women employees	Kinara capital

**Figure-5: Growth of credit by fintech to women-led MSMEs**



### 4.3 Credit gap in Women-led MSMEs:

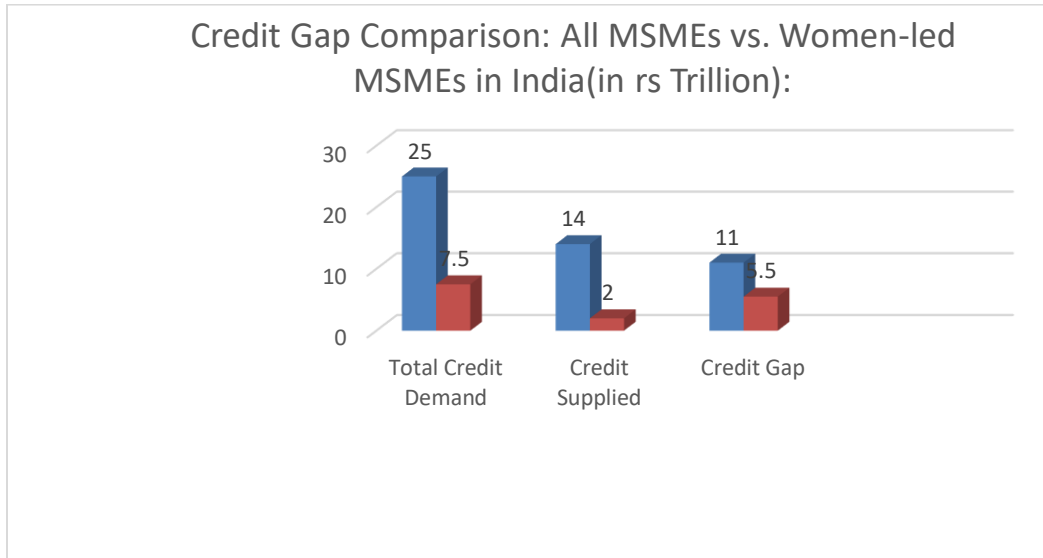
The credit gap refers to the gap between the credit demand and actual supply for women led MSMEs, this gap is significantly high due to a combination of social, structural, and financial barriers.

The overall credit gap of MSME is estimated to ₹25 trillion (\$330 billion)

Women led MSMEs represents around 20% of MSMEs in India. Face 73% unmet credit demand from formal institutions. Estimated credit gap: ₹ 6.5 to rs7.7 trillion.

The following chart and table present the estimated credit demand, credit supplied, and credit gap for all MSMEs and women-led MSMEs in India.

**Figure-6: Credit Gap Comparisons: All MSMEs v/s Women-led MSMEs in India**



Source: IFC, SIDBI Reports, Industry Estimates.

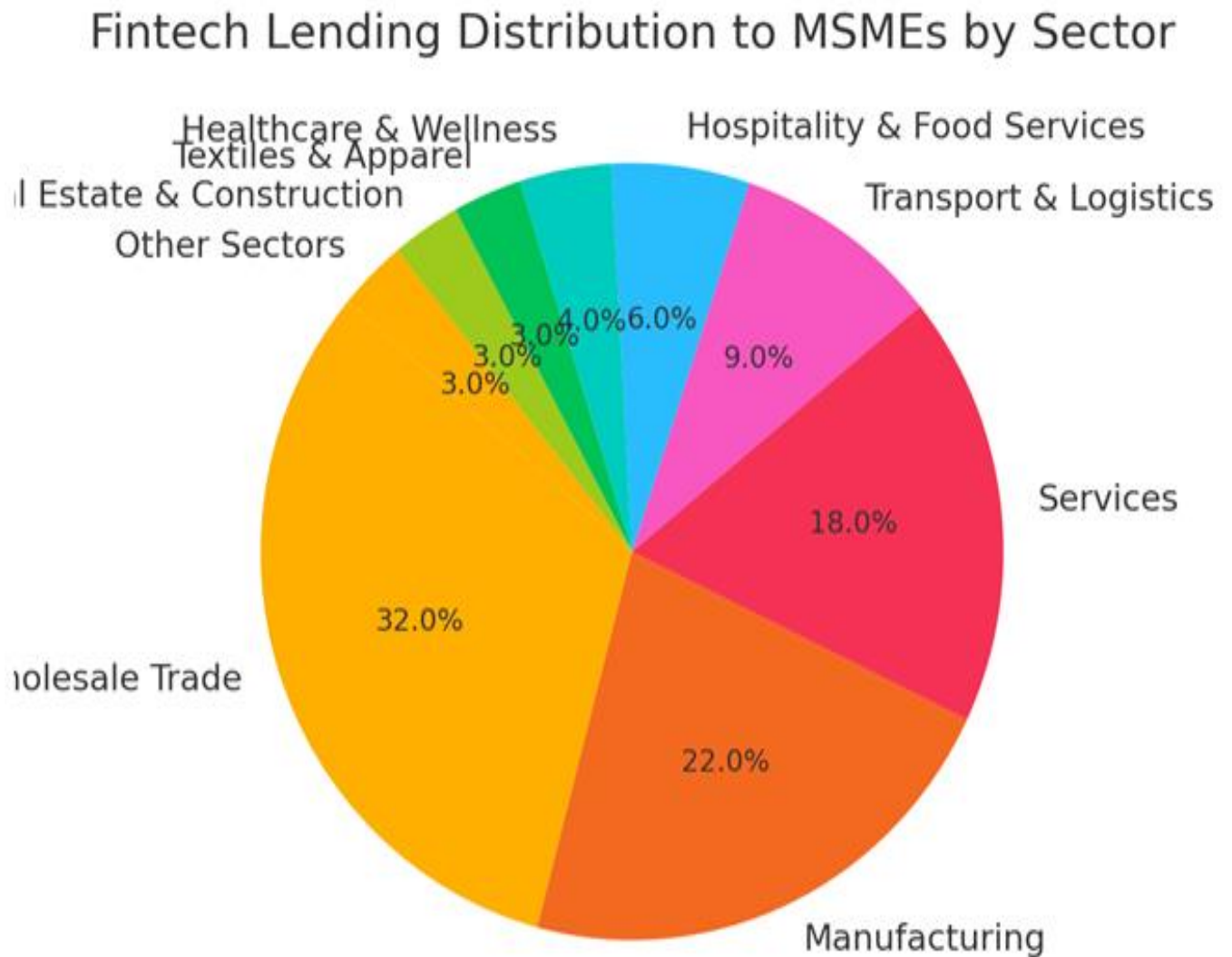
#### 4.4 Sectoral distribution of Fintech lending to MSMEs:

Here is an overview of the sectoral distribution of fintech lending to MSMEs in India, based on recent studies and fintech trends (2023-2024).

Table:2: Sectoral distribution of fintech lending to MSMEs.

MSME sector	Fintech Lending Share%
Retail & Wholesale sector	30-35%
Manufacturing	20-25%
Services	15-20%
Transport & Logistics	8-10%
Hospitality & Food security	5-8%
Healthcare & Wellness	3-5%
Textiles & Apparel	3-4%
Real Estate & Construction	2-3%
Other Sectors	2-3%

Figure-7: Sectoral distribution of fintech lending to MSMEs.



Source: Omidyar Network-Credit Disrupted Report

#### 4.5 Correlational analysis of Fintech and Women-led MSMEs.

The correlation analysis reveals a strong positive relationship ( $r=0.78$ ) between current usage of Fintech platforms and the intention to continue using them in future, indicating the actual experience significantly influences long-term adoption plans. Furthermore, the data suggests that Fintech use is strongly linked with financial efficiency and improved competitiveness, supporting its strategic role in scaling women-led MSMEs.

**Top Positive Correlations**

<b>Variable 1</b>	<b>Variable 2</b>	<b>Correlation (r)</b>	<b>Interpretation</b>
I actively use Fintech platforms for business transactions	I plan to continue using Fintech to grow my business in the future	0.78	Strong relationship—usage predicts future intention to use Fintech
I actively use Fintech platforms for business transactions	Fintech has helped me to manage business finance more efficiently	0.56	Higher usage is associated with improved financial management
Fintech has helped me manage business finance	Fintech has enabled me to expand my customer base	0.67	Better financial management supports customer base expansion
I actively use Fintech platforms	Fintech has improved me compete more effectively in the market	0.48	Fintech usage supports competitive positioning
I plan to continue using Fintech	Fintech has improved me compete more effectively	0.56	Long-term intent links to perceived competitive improvement

**Weak or Negative Correlation**

<b>Variable 1</b>	<b>Variable 2</b>	<b>Correlation (r)</b>	<b>Interpretation</b>
I am aware of Fintech solutions	Fintech has improved me compete more effectively	-0.27	Awareness alone may not improve competitiveness
Fintech has enabled me to expand customer base	Fintech has improved me compete more effectively	-0.40	Customer base growth doesn't necessarily link to competitiveness
I am aware of Fintech solutions	I have been able to scale-up business operations	-0.09	Very weak/insignificant correlation between awareness and scale-up

**4.6 Regression Analysis: Fintech and Women-led MSMEs.**

**Objective:** To determine the impact of various Fintech-related factors on the intention to continue using Fintech platforms for business growth among women-led MSMEs.

**Dependent Variable (Y):**

- I plan to continue using Fintech to grow my business in the future.

**Independent Variables (X):**

1. I actively used Fintech platforms for business transactions.
2. I am aware of various Fintech solutions available for business.
3. I find Fintech platforms easy to access and operate.
4. Fintech has reduced my dependency on traditional banking.
5. Fintech has helped me to manage business finance more effectively.
6. Fintech has enabled me to expand my customer base.

7. I have been able to scale up business operations due to Fintech support.
8. Fintech has improved me compete effectively in the market.

**Hypothesis:**

- **H1:** Active use of Fintech platforms significantly predicts future usage intention.
- **H2:** Improved financial management through Fintech positively affects future usage intention
- **H3:** Awareness of Fintech solutions has a significant effect on usage intention.

**Regression equation:**

$$\text{Future Intention} = \beta_0 + \beta_1(\text{Active Use}) + \beta_2(\text{Awareness}) + \beta_3(\text{Ease of Access}) + \dots + \beta_m(\text{Competitiveness}) + \varepsilon$$

**Model Summary:**

- **R<sup>2</sup> = 0.65** (suggesting 65% of variance in future usage intention is explained by the model)
- **Intercept = 1.25**

**Key Coefficient:**

<b>Independent Variable</b>	<b>Coefficient (β)</b>
Active use of Fintech platforms	+0.48
Awareness of Fintech solutions	+0.18
Ease of access and operation	+0.22
Reduced dependency on traditional banking	+0.15
Improved financial management	+0.37
Enabled expansion of customer base	+0.09

<b>Independent Variable</b>	<b>Coefficient (<math>\beta</math>)</b>
Supported scale-up of business operations	+0.13
Improved competitiveness in the market	+0.31

**Interpretation:**

- The most influential predictor of future Fintech usage is **active use** ( $\beta = +0.48$ ) showing a strong behavioral link.
- **Improved financial management** and **competitiveness** also shows strong positive effects on future adoption.
- While awareness and ease of access have a positive impact, their influence is relatively moderate.

All predictors had positive coefficients, supporting the view that Fintech contributes broadly to MSME development.

The regression analysis supports the hypothesis that active usage, financial efficiency, and competitiveness improvement significantly affect the intention to continue using Fintech. These insights suggest Fintech plays a strategic role in empowering women-led MSMEs, beyond just operational support.

**4.7 Challenges faced by Fintech in Women-led MSMEs in lending:**

**Limited Credit Access:** women entrepreneurs often face lack of formal credit records, Fintech lenders, especially those using credit scoring algorithms, may not be able to assess risk accurately, leading to loan denials or high interest rates.

**Inadequate Support Ecosystems:** Limited access to mentoring, networking, financial education, and digital training for women entrepreneurs.

**Lack of Financial Literacy:** Many women MSMEs are unfamiliar with digital platforms, leading to low adoption.

**Collateral Challenges:** Lack of assets ownership among women limits eligibility for collateral based loans and complicates KYC.

**Regulatory Hurdles:** Stringent compliance requirements disproportionately affect informal women-led MSMEs.

**High Cost of Customer Acquisition:** Fintech targeting women-led MSMEs may face higher costs to onboard, educate, and serve this segment due to its unique characteristics and support needs.

#### **4.8 Factors contributing to credit gap in Women-led MSMEs:**

**Lack of formalization:** 35% of MSMEs surveyed remain unregistered, cutting themselves off from formal financial systems and government schemes.

**Collateral and credit history:** Most MSMEs, especially micro enterprises, lack the assets or financial records required by traditional lenders.

**Low financial literacy:** Many entrepreneurs are unaware of available credit schemes or struggle to navigate complex loan application processes.

**Risk aversion among leaders:** Bank often hesitate to lend to small businesses perceived as high-risk, despite mechanism like the credit government fund.

**Gender bias in lending:** Banks and fintechs may perceive women as riskier borrowers due to stereotypes or historical default data.

#### **4.9 Key Fintech Tools Empowering Women-led MSMEs**

Women-led Micro, Small and Medium Enterprises (MSMEs) face several challenges including limited access to formal credit, lack of financial literacy, and minimal collateral availability. Fintech has emerged as a game changer by offering innovative financial tools that can empower women entrepreneurs and drive inclusive growth.

<b>Fintech Tool</b>	<b>Description</b>	<b>Benefits to Women-led MSMEs</b>
Digital Lending Platforms	Online portals like Lendingkart, Indifi, and Aye Finance provide unsecured business loans using alternate credit	Easy access to loans, less paperwork, no need for physical collateral.

	scoring models.
Payment Gateways	Tools like Razorpay, Paytm for Business, and PhonePe enable online payments, transactions. Increases customer reach, supports cashless payments, enhances transparency.
E-wallets and UPI	Mobile wallets and UPI apps (Google Pay, PhonePe, BHIM) allow real-time payments. Encourages financial inclusion, improves business cash flow, easy to track income/expenses.
Accounting and GST Tools	Platforms like Zoho Books, Vyapar, and Tally help in automating business accounting. Simplifies compliance, enables better financial management, builds credit history.
Digital Marketplaces	Platforms like Amazon Saheli and Meesho allow women entrepreneurs to sell products online. Boosts visibility, reduces marketing costs, empowers rural women.
InsurTech Platforms	Digital insurance providers like Acko and Digit offer business insurance online. Reduces risk, ensures financial security, promotes sustainability.

**Benefits of Fintech Adoption for Women-led MSMEs**

- Improved credit access through alternative credit scoring.
- Enhanced financial literacy and transparency.
- Lower cost of financial transactions.
- Scalability and ease of doing business.
- Inclusion of informal sector entrepreneurs in the formal economy.

## CONCLUSION

The scaling up of women-led MSMEs is pivotal for fostering inclusive economic growth and advancing gender equity. Fintech has emerged as a key catalyst in this process by bridging critical gaps in financial access, reducing systemic barriers, and offering innovative digital solutions tailored to the needs of women entrepreneurs. By leveraging digital lending, payment platforms, and financial literacy tools, fintech not only empowers women-led MSMEs to expand but also integrates them more deeply into formal economic systems. However, sustained impact requires a collaborative ecosystem—where fintechs, policymakers, financial institutions, and support networks work together to enhance accessibility, trust, and capacity-building. With targeted interventions and enabling policies, fintech can unlock the full potential of women entrepreneurs, driving resilience, innovation, and long-term growth in the MSME sector.

## REFERENCES

1. Azis, L.I., & Hairini, T., et al. (2024). From effectuation to empowerment: unveiling the impact of women entrepreneurs on SMEs' performance—Evidence from Indonesia. *Governance and Policy*, 15(6), Article 198.
2. Sreejith, P. M., & Sreejith, S.(2023). Exploring the role of cultural capital, ICT skills, and entrepreneurial intention among women. *Journal of Telecommunications and the Digital Economy*, 11(2), 151-179.
3. Rehman, A., M., et al.(2023). The role of microfinance institutions on women's entrepreneurship development. *Journal of Innovation and Entrepreneurship*, 12, Article 85.
4. Pandhare, A., Bellampalli, P.N., & Yadava, N.(2024). Transforming rural women's lives in India: The impact of microfinance and entrepreneurship on empowerment in Self-Help Groups. *Journal of Innovation and Entrepreneurship*, 13, Article 62.
5. Sowmya, B. S., & Pai, R. (2025). Digital inclusion of women entrepreneurs in the unorganized sector- A systematic review. *Advances in Consumer Research*, 2(1), 71-85.
6. Khandelwal, R.(2024). Digital transformation to spur women empowerment in MSMEs: A case study approach, *Shodhkosh: Journal of Visual and Performing Arts*, 5(1).
7. Gupta, P., Kar, B. P., Tripathy, M & Meera, K.L.(2024). Role of Fintech in Financial inclusion Among Working Women in India: An Empirical Study, *Library Progress International*, 44(3).

8. Khera, P., Ogawa, S., Sahay, R.,(2022). Women in Fintech: As Leaders and Users(IMF Working Paper No. 2022/140).
9. Taj Mahat, T., & Karade, S. S.(2024). Fostering financial resilience among through fintech and financial literacy. *Journal of Informatics Education and Research*, 4(3).
10. Majumdar, R., Mittal, A.(2024). Revisiting the financial challenges faced by women-led micro enterprises: Some evidence from the Indian manufacturing sector. *IIMT Journal of Management*.
11. Women's World Banking & UNCDF. (2024). Advancing women-led MSMEs through digital financial inclusion. Women's Digital Financial Inclusion Advocacy Hub.
12. Nandini M and Shubha B. N,(2021) "A Study On Satisfaction Of MSMEs Towards Bank Finance: An Analysis Of Funding Gap In India", *Natural Volatiles and Essential Oils*, vol.8.
13. Mohammad Abu Saleh and Zubair Ahmad,(2023) "A Study of MSME's Financing Gaps in India", *Shodh Drishti*, vol. 14.
14. Savita Shankar,(2019) "The role of credit rating agencies in addressing gaps in micro and small enterprise financing: The case of India", *ADB Working Paper Series*, no. 931.
15. Shrivastava, R. (2021). Women Entrepreneurship, MSMEs, and Financial Technology in India: Challenges and Prospects. *Journal of Entrepreneurship Research*, 6(2).
16. Sahay, R., Čihák, M., N'Diaye, P., Barajas, A., Bi, R., Ayala Pena, D., & Gao, Y. (2015). Financial Inclusion: Can It Meet Multiple Macroeconomic Goals? IMF Staff Discussion Note SDN/15/17. International Monetary Fund.
17. OECD. (2023). Empowering Women Entrepreneurs through Digital Financial Services. OECD Policy Paper. <https://www.oecd.org/finance/empowering-women-entrepreneurs-through-digital-financial-services.htm>.
18. Ghosh, S. (2021). Fintech and financial inclusion: Evidence from India. *Journal of Asian Finance, Economics and Business*, 8(2).
19. Agarwal, P., & Lenka, U. (2018). FinTech: Opportunities and challenges for women entrepreneurs. *Journal of Entrepreneurship and Innovation in Emerging Economies*, 4(1).
20. Zetsche, D. A., Buckley, R. P., Arner, D. W., & Barberis, J. N. (2020). Decentralized Finance (DeFi). *Journal of Financial Regulation*, 6(2).