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Review Article

## Fin Tech Services as A Strategic Solution to Enhance The Sustainability of MSMEs In Chhattisgarh.

Dr. Monica Sainy<sup>1</sup>, Sonu Pradhan<sup>1,2\*</sup>

<sup>1</sup>Head of Department (MBA), Amity University, Raipur (Chhattisgarh)

<sup>2</sup>Vikash Degree College, Vikash Higher educational Institution, Bargarh, Odisha, India

### Cite this article as:

Sainy M and Pradhan S. Fin Tech Services as A Strategic Solution to Enhance The Sustainability of MSMEs In Chhattisgarh. Global Journal of Innovation and Research. 2025;1(1):1-8.

### Correspondence to Author:

Sonu Pradhan, Asistant Professor, Vikash Degree College, Vikash Higher educational Institution, Bargarh, Odisha, India.

Email: [-sonu123pradhan@gmail.com](mailto:-sonu123pradhan@gmail.com)

### Article Info:

Received 28 June 2025

Reviewed 29 July 2025

Accepted 30 July 2025

Published 25 Aug. 2025

### ABSTRACT

Micro, Small, and Medium Enterprises (MSMEs) are central to Chhattisgarh's economic development, contributing significantly to employment and regional output. However, they face persistent challenges such as restricted access to finance, inefficient processes, and low integration of digital tools. Fin Tech services offer a transformative pathway by delivering innovative solutions like digital lending, UPI-based payments, crowd funding, and cloud-based accounting systems. These technologies not only enhance financial accessibility but also improve operational transparency and business sustainability. In the context of Chhattisgarh, where digital infrastructure is steadily improving, FinTech can play a key role in driving inclusive growth and resilience among MSMEs. This study explores how FinTech adoption can address existing gaps and contribute to the long-term sustainability of MSMEs in the region.

**KEYWORDS:** Fintech, Financial inclusion, Digital payment, MSME, Sustainability.

### Introduction

Micro, Small, and Medium Enterprises (MSMEs) are the backbone of many economies, contributing significantly to employment generation, innovation, and inclusive growth. Despite their vital role, MSMEs often face substantial barriers in accessing timely and affordable financial services, thereby hindering their long-term sustainability and growth

potential. In recent years, the emergence of Financial Technology (FinTech) has presented a transformative solution to bridge this gap, offering innovative tools and platforms that cater to the unique financial needs of MSMEs<sup>1-10</sup>. FinTech services such as peer-to-peer (P2P) lending, crowd funding, block chain, digital payments, and alternative credit scoring mechanisms have redefined traditional financial systems, enabling

better access to finance and improving operational efficiency for small **businesses**<sup>11-16, 9</sup>. Particularly in emerging and developing economies, FinTech plays a critical role in expanding financial inclusion, thus promoting economic resilience and innovation within the MSME sector<sup>17,18</sup>.

Research has shown that FinTech services can significantly enhance the efficiency and performance of SMEs, especially when aligned with the socio-cultural and economic context of their operation<sup>2,4</sup>. Furthermore, during crises such as the COVID-19 pandemic, FinTech proved instrumental in maintaining business continuity by offering digital channels for transactions, financing, and supply chain management<sup>7,8</sup>. The strategic integration of FinTech into MSME ecosystems also fosters entrepreneurship, particularly in underserved and rural areas, by reducing dependency on traditional banking infrastructures and promoting alternative financing models<sup>15-17</sup>. Additionally, platforms enabled by FinTech have supported informal and unorganized retail sectors, especially in countries like India, in adopting digital financial practices and expanding market reach<sup>3,14</sup>. Crucially, the interplay between FinTech ecosystems and traditional financial institutions has created new collaborative models, thereby amplifying the reach and impact of digital financial services<sup>11,5</sup>. These collaborations are increasingly supported by policy initiatives and regulatory frameworks aimed at improving financial literacy, technological adoption, and infrastructure<sup>6,9</sup>.

This paper explores how FinTech services can be leveraged as a strategic solution to enhance the sustainability of MSMEs. By examining the diverse applications of FinTech and their implications across

financial inclusion, business resilience, and entrepreneurial growth, the study aims to provide a comprehensive understanding of the enabling role FinTech plays in ensuring the long-term viability of MSMEs in a digitally evolving world.

### **Literature review**

The groundwork for understanding the fundamental concepts that underpin research on FinTech's influence on the sustainability of Micro, Small, and Medium Enterprises (MSMEs) involves a review of existing literature on financial technology, sustainability in MSMEs, and associated theoretical frameworks. The aim is to identify research gaps and formulate hypotheses aligned with the study's objectives. FinTech is widely acknowledged as a disruptive force in the financial sector, integrating technology to enhance financial accessibility, operational efficiency, and economic inclusion<sup>9,10</sup>. In emerging economies like India, the rise of FinTech has been driven by increasing digital penetration, a vibrant start up ecosystem, and policy initiatives that support digital innovation<sup>14,17</sup>.

### **FinTech and Financial Inclusion**

Technological advancements such as block chain, artificial intelligence (AI), and digital banking are reshaping traditional financial service models and redefining the dynamics of financial competition<sup>8,16</sup>. These innovations have accelerated the transition to agile, tech-driven financial services that are more accessible to under banked and underserved populations<sup>18</sup>.

FinTech solutions that leverage alternative data for credit scoring have expanded access to capital for

MSMEs by enabling non-traditional, risk-based lending mechanisms. This has significantly empowered entrepreneurs and enhanced the sustainability of their businesses<sup>1,15</sup>. India's digital payment revolution—particularly with the widespread adoption of UPI—has played a crucial role in facilitating seamless, low-cost, and real-time transactions, contributing to the digital transformation of MSMEs<sup>3,17</sup>.

### **FinTech Adoption Among MSMEs in Regional Contexts**

In states such as Chhattisgarh, MSMEs are increasingly adopting FinTech tools to streamline financial operations, access working capital, and expand their market reach. This shift is supported by state-level industrial development policies and improvements in digital infrastructure<sup>17,18</sup>.

Government-backed programs have further enhanced financial accessibility, especially through digital lending platforms that offer fast, collateral-free loans tailored to small enterprises. These platforms utilize data-driven lending models that improve credit efficiency and financial inclusivity<sup>1,6</sup>. Moreover, MSMEs are increasingly embracing QR code-based payments and UPI-linked solutions that not only reduce transaction costs but also encourage digital literacy and transparency<sup>3,16</sup>.

Digital finance services such as invoice discounting, mobile wallets, and working capital financing are enabling MSMEs to overcome liquidity constraints and maintain business continuity, particularly in times of market disruption<sup>7,8</sup>.

### **Financial Management and Digital Tools**

In addition to financing, FinTech offers a range of digital tools for financial management. Cloud-based accounting platforms and GST-compliant software like Zoho and Tally are improving operational transparency, financial reporting, and tax compliance for MSMEs<sup>6,11</sup>. These digital tools help MSMEs streamline internal processes, making them more resilient and sustainable in a competitive market.

Crowd funding platforms are also gaining traction among MSMEs as alternative financing avenues. These platforms enable businesses to raise capital through online networks, eliminating traditional financial barriers and democratizing investment access<sup>15,16</sup>.

### **Statement of the problem:**

Despite their vital role in economic development, MSMEs in Chhattisgarh face persistent challenges such as limited access to credit, poor financial management, and low technological adoption. Traditional financial systems often fail to meet their unique needs, hindering growth and sustainability. While FinTech services present innovative solutions to bridge these gaps, adoption remains low due to digital illiteracy, trust issues, and limited awareness. This study aims to explore how FinTech can be effectively leveraged to support the sustainable development of MSMEs in the region.

### **Gap Analysis**

Although existing research highlights FinTech's role in improving financial efficiency and access, its impact on the broader sustainability of MSMEs—especially in developing countries—remains underexplored. Most studies concentrate solely on

financial aspects, overlooking the equally important social and environmental dimensions. This study seeks to fill that gap by examining how FinTech contributes to the overall sustainability of MSMEs across financial, social, and environmental fronts.

### Objectives of the Study

The followings are the objectives of my study-

1. To evaluate the awareness, adoption, and usage of fintech services among MSME entrepreneurs in the Chhattisgarh region.
2. To analyze the impact of fintech services on the financial performance and operational efficiency of MSMEs in the Chhattisgarh region.
3. To identify the key barriers to adopting fintech solutions for MSMEs, in the Chhattisgarh region.
4. To assess the role of fintech in empowering women entrepreneurs in the Chhattisgarh region.

### Hypotheses

**H1-**A significant proportion of MSME entrepreneurs in the Chhattisgarh region are aware of fintech services.

**H2-**MSMEs that utilize fintech services demonstrate improved financial performance and operational efficiency.

**H3-** Barriers in fintech platforms negatively affect the adoption of fintech services among MSME entrepreneurs in Chhattisgarh

**H4-**Fintech services play a significant role in empowering women entrepreneurs in Chhattisgarh region.

### Methodology

The research adopts a mixed-method approach, integrating quantitative analysis with qualitative

interviews to provide a comprehensive understanding of FinTech adoption.

1. **Quantitative Analysis:** Surveys were conducted with 40 local entrepreneurs in major cities such as Raigarh and Jajangir in Chhattisgarh to evaluate their financial practices, levels of awareness, and adoption of FinTech solutions.
2. **Qualitative Interviews:** In-depth interviews were conducted with five responded entrepreneurs, including entrepreneurs—two of whom are women entrepreneurs—FinTech providers, and policymakers. These discussions aimed to gather valuable insights into the opportunities and challenges related to FinTech adoption.

### Data Analysis

**Table1: Payment Methods Used by Entrepreneurs**

Sl. No	Particulars	Payment Methods	Percentage
1	UPI	10	25
2	Mobile Wallet	5	12.5
3	QRcode	20	50
4	Payment Gateway	5	12.5
5	BNPL	0	0
	Total	40	100

**Interpretation -** QR code payments are the most widely used fintech solution among MSME entrepreneurs where (UPI) is the second most used method with (25%).on the other hand the ratio of payment methods used by entrepreneurs between mobile wallet and payment gateway is 1:1.

**Table-2: Awareness and Adoption of innovative fintech solution among MSMEs Entrepreneurs**

Sl.No	Particulars	Awareness	%in Awareness	Adoption	% in adoption
1	UPI	40	100	10	25
2	Mobile Wallet	40	100	5	12.5
3	QRcode	40	100	20	50
4	Payment Gateway	30	75	5	12.5
5	BNPL	13	32.5	0	0

**Interpretation-** While awareness of fintech solutions likeUPI, QR codes, and mobile wallets is high with 100% while adoption rate

varies based on various factors. QR codes lead adoption (50%) due to their straightforward implementation, whereas options like BNPL(0%) remain underutilized.

**Table-3 Challenges Faced By MSME Entrepreneurs**

Sl.no	Particulars	Challenges Faced	Percentage
1	Limited Digital Literacy	35/40	87.5
2	Inadequate Infrastructure	15/40	37.5
3	Trust and Security Concerns	40/40	100
4	Complex User Interfaces	30/40	75
5	Regulatory and Compliance Issues	13/40	32.5
6	Cost of Adoption	13/40	32.5

**Interpretation-**Trust and security concerns(100%), along with limited digital literacy(85%), stand out as the most significant barriers, while other factors like infrastructure(37.5%), regulations(32.5%), and cost of adoption(32.5%)important but affect a smaller proportion. Focused interventions targeting these challenges can drive higher fin tech adoption among MSME entrepreneurs.

### **Case study: Empowering Women Entrepreneurs in Chhattisgarh through Fintech Solutions.**

In Chhattisgarh, the rise of women entrepreneurs is being significantly supported by FinTech solutions that enhance financial access and independence. Initiatives like the Haqdarshak program have improved digital literacy among women, enabling them to manage finances, access welfare schemes, and engage confidently with digital platforms. Corporate Social Responsibility (CSR) programs, such as Ambuja Cement's 'Lakhpati Didi', have

further strengthened women's entrepreneurship by providing micro-financing, vocational training, and financial education—helping women in rural areas build and sustain small businesses.

Real-life success stories showcase the tangible impact of these efforts. Madhulika Ramteke, through Maa Bamleshwari Bank, has delivered microfinance services to rural women using digital tools, improving financial inclusion at the grassroots level. Similarly, Razia Sheikh of Bastar Foods has empowered tribal women by integrating them into FinTech-enabled supply chains, promoting local products while encouraging community entrepreneurship. These examples highlight how FinTech is not only transforming business outcomes but also fostering social empowerment and inclusive growth among women in Chhattisgarh.

### **Findings:**

Awareness of FinTech services among MSMEs in Chhattisgarh is generally high, with tools like UPI and QR codes widely recognized, though actual adoption varies—QR codes lead with 50% usage while others like Buy Now Pay Later remain largely unknown. FinTech adoption positively impacts financial performance by improving operational efficiency, enhancing credit access, and promoting better financial management. However, significant barriers such as trust concerns, limited digital literacy, complex user interfaces, and infrastructure gaps hinder wider usage. Notably, women entrepreneurs benefit from increased financial inclusion and empowerment through these services, boosting business sustainability and resilience during economic disruptions.

### **Suggestions and limitations:**

To improve FinTech adoption, targeted interventions should focus on building trust through enhanced security, simplifying platform design, and providing digital literacy training tailored for MSMEs. Affordable pricing and infrastructure development are also critical to overcoming adoption barriers. Emphasizing support for women-led enterprises can further enhance inclusion and growth. However, the findings of this study may be constrained by the regional focus of the data, highlighting the necessity for continuous, more extensive research and sustained initiatives to tackle the varied challenges faced by MSMEs throughout Chhattisgarh.

### **Conclusion:**

The adoption of FinTech solutions is essential for the growth and empowerment of MSMEs in India, transforming how small businesses operate in today's digital era. These technologies offer affordable and accessible financial services, helping MSMEs optimize operations, manage cash flow, and access capital quickly to expand and explore new markets. FinTech also tackles financial inclusion by providing tailored solutions towards traditional banking barriers, making it a key driver for the future progress of MSMEs.

This study highlights FinTech's important role in enhancing MSME sustainability by improving funding access, streamlining processes, and supporting expansion. It also reveals that constructs like financial literacy, perceived usefulness, regulatory support, and digital readiness influence adoption rates. However, challenges such as technological risks and lack of transparency in AI tools may slow down wider adoption, indicating the

need for focused efforts to address these barriers for greater impact.

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