



# ROLE OF FINANCIAL TECHNOLOGY IN FOSTERING FINANCIAL INCLUSION MET INSTITUTE OF PGDM

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## 1. Abstract

This research paper explores the transformative impact of financial technology (FinTech) on fostering financial inclusion across diverse global economies. As technological advancements continue to reshape the financial landscape, this study aims to provide a comprehensive analysis of the multifaceted ways in which FinTech contributes to expanding access to financial services for underserved and marginalized populations. The paper begins by offering a detailed overview of the key components of financial inclusion and the persistent challenges faced by individuals excluded from traditional banking systems in terms of primary research through questionnaire. It then delves into the evolution of FinTech solutions and their potential to address these challenges by enhancing accessibility, affordability, and usability of financial services. The analysis includes an examination of various FinTech tools, such as mobile banking, digital payments, blockchain, and artificial intelligence, and their specific contributions to financial inclusion. Moreover, the research scrutinizes the regulatory and policy frameworks that facilitate or hinder the integration of FinTech in promoting financial inclusion. Ultimately, this research contributes to the existing body of knowledge by synthesizing the current state of FinTech-driven financial inclusion, offering recommendations for policymakers, financial institutions, and FinTech developers to optimize their efforts in promoting inclusive finance, and outlining future research directions in this dynamic and rapidly evolving field.

## 2. Introduction

Financial technology (fintech) plays a crucial role in fostering financial inclusion by providing access to and use of formal financial services for previously unbanked individuals and enterprises. A portmanteau of "financial technology," "fintech" describes businesses that use new technology to supply financial services in competition with more established financial ways.

Big data, blockchain, cloud computing, and artificial intelligence are considered the "ABCD" (four essential areas) of fintech. Fintech companies are a mix of newly formed and well-established financial organizations, as well as technology firms, that aim to supplement or improve upon the financial services offered by more established financial companies.

In an era characterized by unprecedented technological advancements, the financial sector has undergone a profound transformation, with Financial Technology (FinTech) emerging as a driving force behind novel approaches to financial services. Amidst this transformative wave, the imperative of fostering financial inclusion has gained prominence as a global agenda, seeking to extend the benefits of formal financial services to marginalized and underserved populations. This research paper delves into the intricate relationship between FinTech and financial inclusion, examining how technological innovations can bridge longstanding gaps in access to financial services, thereby empowering individuals and communities worldwide.

2.1 SWOT ANALYSIS

<p><u>2.1.1 Strengths</u></p> <ul style="list-style-type: none"><li>• Increased Accessibility</li><li>• Cost efficiency</li><li>• Innovation and Customization</li><li>• Global Connectivity</li><li>• Data Analytics for Informed Decision making.</li></ul>	<p><u>2.1.2 Weaknesses:</u></p> <ul style="list-style-type: none"><li>• Technological Barriers</li><li>• Security concerns</li><li>• Exclusion of Vulnerable groups</li><li>• Limited Physical Presence</li><li>• Lack of Standardization</li></ul>
<p><u>2.1.3 Opportunities:</u></p> <ul style="list-style-type: none"><li>• Regulatory Support</li><li>• Partnerships and Collaboration</li><li>• Financial Education Initiatives</li><li>• Blockchain for Financial inclusion</li><li>• Government Initiatives and Digital Identity</li><li>• Evolving Regulatory Sandboxes</li></ul>	<p><u>2.1.4 Threats</u></p> <ul style="list-style-type: none"><li>• Regulatory Challenges</li><li>• Market saturation</li><li>• Resistance to change.</li><li>• Lack of Trust</li><li>• Dependency on Infrastructure</li><li>• Economic and Political Instability</li></ul>

3. Literature Review

According to Jack and Suri (Jack and Suri 2014), advancements in financial technology could offer more economical and effective solutions by reducing transaction costs (Black and Babin 2019). By lowering the expenses related to alternative payment methods, this also aids micro and small businesses in growing their sales (Frost et al. 2019).

Yoon and colleagues (2016) employed a range of linear regression analyses as a statistical analytical instrument to investigate user behaviours related to fintech company consultation. Examining the discrete interactions between variables that impacted the dependent variables was effective with the use of this methodology. They discovered that as customers from different nations had distinct cultural and socioeconomic perspectives, the answers to the trustworthy elements differed based on the individual countries. Organizations must therefore develop an entry plan, a customer acquisition strategy, and an expansion strategy tailored to the country in which they intend to start their business to join the global market.

Dwivedi's research (2020) focused on FinTech, a comprehensive technological foundation for the Indian financial industry. When considering FinTech, the author of this study considered the Indian Financial Ecosystem (IFES), paying particular attention to the social, economic, technological, and regulatory aspects that have helped FinTech gain a significant position inside the Indian financial system. The author also emphasized the importance of politicians and regulators in developing countries like India's financial system and the concept of "financial inclusion." A brief synopsis is also provided of the impact of two of the most recent FinTech technical developments, namely blockchain and artificial intelligence, on the IFES.

4. Study Objectives

- 4.1 To evaluate how existing policies either facilitate or hinder the growth of FinTech for financial inclusion in India.
- 4.2 To identify key FinTech Innovations Enabling Financial Inclusion.
- 4.3 To investigate the government support in encouraging financial inclusion.

## 5. Methodology Adopted

The study conducted is based on primary data, all data is first handed and collected from the research questionnaire. The questionnaire is made to collect the data about the awareness of various fintech solutions enhancing financial inclusion. Besides that, to study the various government schemes for the growth of Indian economy.

## 6. Hypothesis

H0: Financial inclusion is not significantly impacted by fintech.

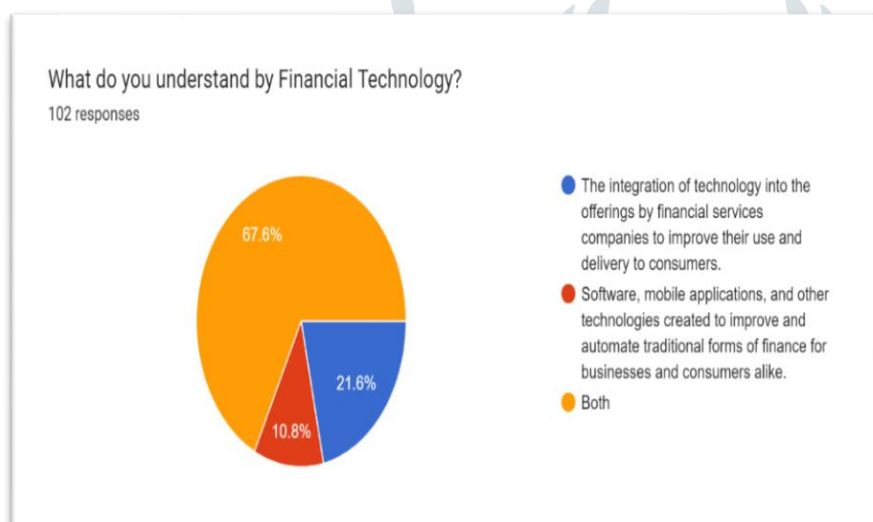
H1: Fintech contributes to financial inclusion in a favourable way, especially by fostering digital financial inclusion and closing the wealth-poverty, gender, and rural divides. Fintech might not be sufficient on its own to close the gender gap in financial services access, and specific legislative measures might be required to deal with this issue head-on.

## 7. Analysis

### 7.1 Questionnaire Analysis

A formal questionnaire is used to collect data. To maintain consistency in data collection, 102 respondents from Mumbai city were chosen using a simple random sample technique. The 102 participants in this study represent a variety of gender, age, and various occupational groups. The analysis of questionnaires is shown below:

#### 7.1.1. What do you understand by financial technology?



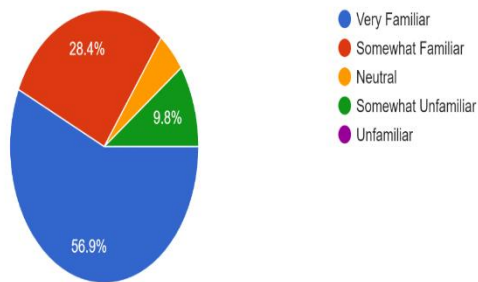
#### Interpretation:

The chart indicates that most respondents have a broad understanding of Financial Technology, encompassing both integration and creation of new technologies to enhance financial services.

The largest section being – 67.6% (Both), second – 21.6% and third being 10.8%.

### 7.1.2. How Familiar are you with the fintech services and products?

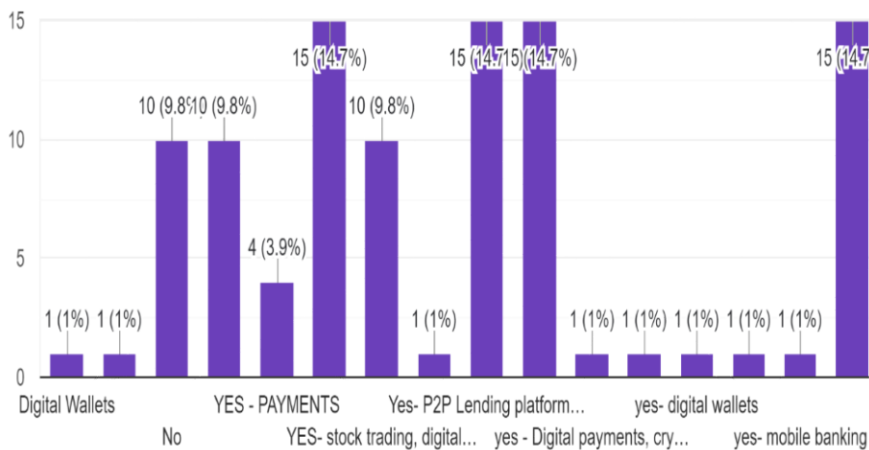
How familiar are you with the fintech services and products?  
102 responses



**Interpretation:** Based on the analysis of the questionnaire it is observed that most of the respondents to the research are very familiar (56.9%) with the various fintech products and services available. It is observed that some sections of participants are somewhat familiar with the products however not wholly aware. These participants might be aware of the basic services which are – mobile banking, digital wallets, cryptocurrencies.

### 7.1.3. Have you ever used Fintech services? If yes, then specify.

Have you ever used fintech services? If yes then specify  
102 responses

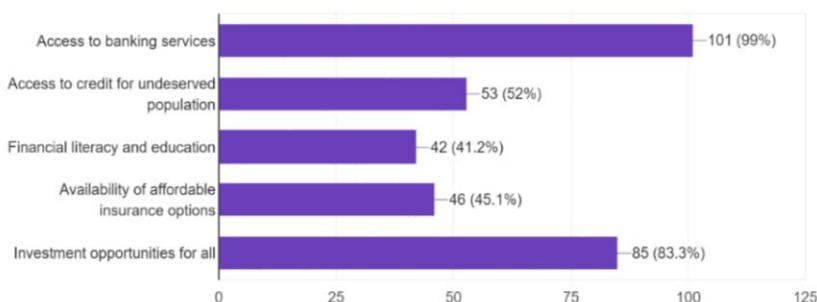


#### Interpretation

The chart indicates a variety of fintech services used by the respondents, with the most popular being - digital wallets, mobile banking, stock trading platforms, cryptocurrency platforms. Few participants have also used for P2P lending services. However, there is also a respondent who has not used any of the services due to various reasons which can be analysed based on further questions.

### 7.1.4. In your opinion what are the key elements of financial inclusion?

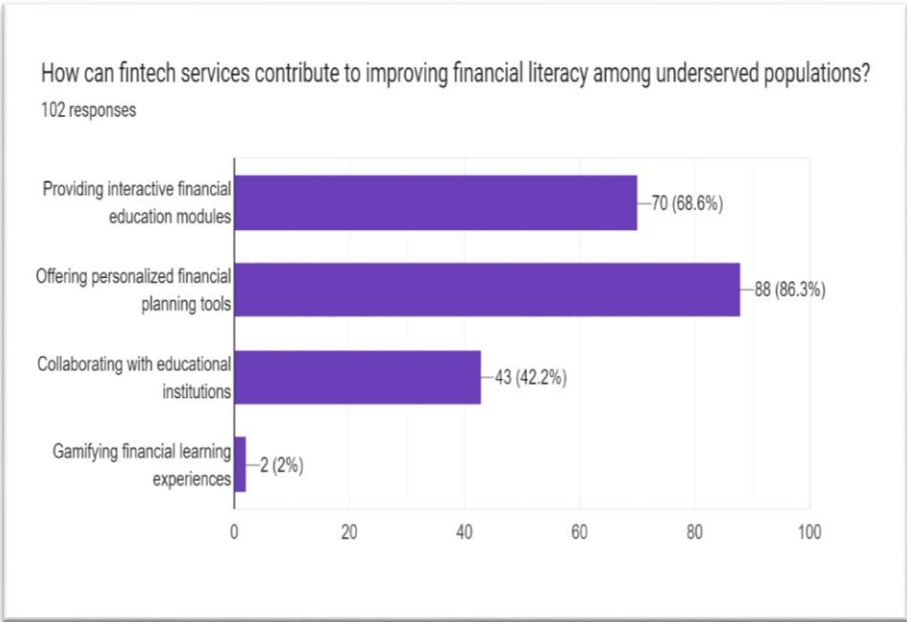
In your opinion what are the key elements of financial inclusion?  
102 responses



#### Interpretation:

The survey found that the most important element of financial inclusion is access to banking services (99%), followed by investment opportunities for all (83.3%), access of credit to undeserved population (52%), availability of affordable insurance options (45%) and financial literacy and education (42.1%).

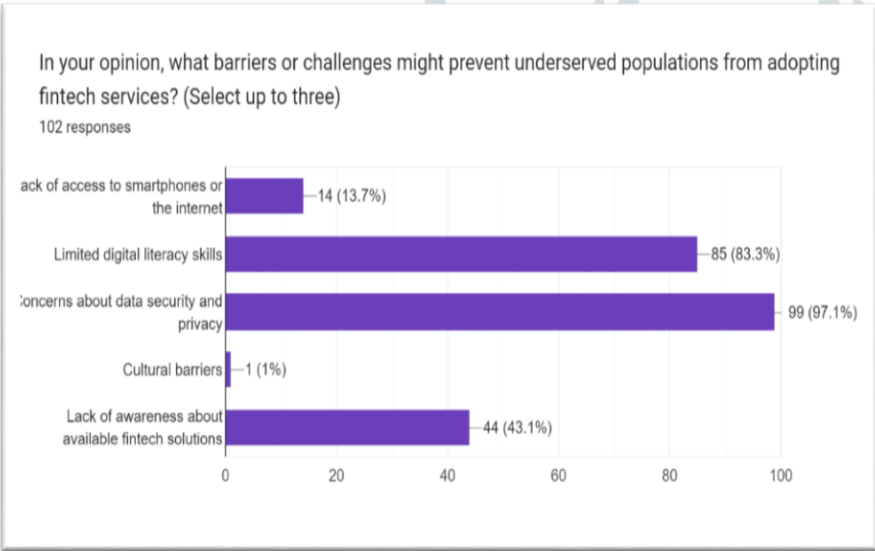
7.1.5. How can Fintech Contribute to improving financial literacy among undeserved population?



Interpretation:

Overall, the graph suggests that there is a strong belief that fintech services can play a significant role in improving financial literacy among underserved populations. The most important ways that they can do this are by providing interactive (68.6%) and personalized financial education (86.3%), and by collaborating with educational institutions (42.2%).

7.1.6. In your opinion what barriers or challenges might prevent undeserved population from adopting fintech services?



Interpretation:

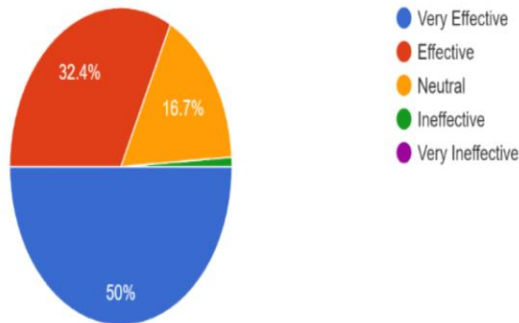
The above chart shows the results of a survey asking people to select up to three barriers they believe prevent underserved populations from adopting fintech services. The top three barriers were: Limited digital literacy skills (83.3%) Concerns about data security and privacy (97.1%) Lack of awareness about available fintech solutions (43.1%).



7.1.7. In your opinion how fintech is reaching and serving undeserved population, such as low- income individuals or those in rural areas?

In your opinion, how effective is fintech in reaching and serving underserved populations, such as low-income individuals or those in rural areas?

102 responses



#### Interpretation

2.4% of respondents believe fintech is very effective in serving underserved populations.

16.7% of respondents believe fintech is effective.

20.6% of respondents believe fintech has a neutral impact.

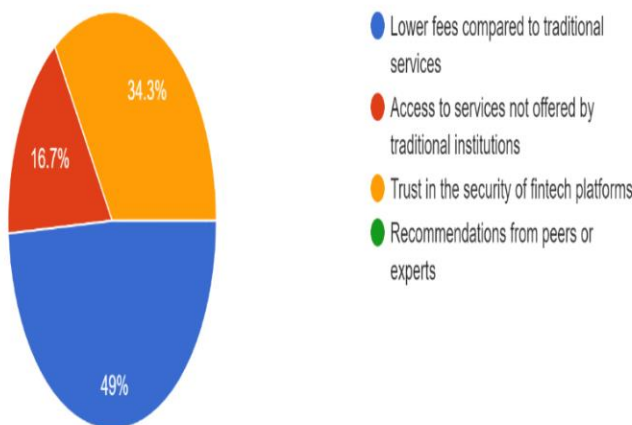
32.4% of respondents believe fintech is ineffective.

28.0% of respondents believe fintech is very ineffective.

7.1.8. What motivates you to adopt Fintech services?

What motivates you to adopt fintech services?

102 responses



#### Interpretation:

The pie chart slices are labelled with reasons indicating percentage of each reason was important to them.

Lower fees compared to traditional financial services: 34.3% of respondents listed this as a motivator.

Access to services not offered by traditional institutions: 16.7% of respondents listed this as a motivator.

Trust in the security of fintech platforms: 49% of respondents listed this as a motivator.

Recommendations from peers or experts: 38.8% of respondents listed this as a motivator.

## 7.2 Types of Fintech and How do they help in Financial Inclusion

Financial technology (FinTech) encompasses a wide array of innovative solutions that leverage technology to enhance and streamline financial services. These solutions play a crucial role in fostering financial inclusion by addressing traditional barriers to access. Here are several types of FinTech and how they contribute to financial inclusion:

### 7.2.1 Mobile Banking:

How it Helps: Mobile banking provides individuals with the ability to access basic financial services using their mobile phones. This is particularly impactful in regions with limited physical banking infrastructure.

Benefits: Enables easy and convenient account management, fund transfers, and access to basic financial information without the need for a physical bank branch.

### 7.2.2 Digital Payments:

How it Helps: Digital payment solutions, including mobile wallets and digital currencies, facilitate secure and swift transactions, reducing the reliance on cash and traditional banking infrastructure.

Benefits: Increases financial access for the unbanked or underbanked, enabling them to participate in the formal economy and reducing the risks associated with carrying and storing cash.

### 7.2.3. Peer-to-Peer (P2P) Lending:

How it Helps: P2P lending platforms connect borrowers directly with lenders, cutting down the intermediaries. This is particularly useful for individuals or small businesses lacking access to traditional banking credit.

Benefits: Provides an alternative source of financing for those excluded from traditional credit systems, fostering entrepreneurship and economic development.

### 7.2.4. Crowdfunding:

How it Helps: Crowdfunding platforms allow individuals to raise small amounts of money from a large number of people. This is beneficial for those who may struggle to access traditional financing sources.

Benefits: Facilitates community support and allows individuals to fund projects or ventures that may not align with traditional banking criteria.

### 7.2.5. Blockchain and Cryptocurrency:

How it Helps: Blockchain technology and cryptocurrencies provide decentralized and secure financial services, especially in areas with weak or unreliable banking infrastructure.

Benefits: Enables cross-border transactions, reduces the risk of fraud, and provides financial services to individuals who lack access to traditional banking systems.

### 7.2.6. Insurtech:

How it Helps: InsurTech leverages technology to enhance the accessibility and affordability of insurance products, ensuring that a broader population can protect against unforeseen risks.

Benefits: Offers tailored insurance solutions, including microinsurance, to individuals with low incomes, providing a safety net against financial shocks.

### 7.2.7 RegTech (Regulatory Technology):

How it Helps: RegTech solutions automate compliance processes, helping financial institutions adhere to regulations more efficiently. This can reduce operational costs and enable financial institutions to reach underserved markets.

Benefits: Streamlines regulatory compliance, making it more feasible for financial institutions to expand their services to marginalized or remote populations.

### 7.2.8. Neobanks:

How it Helps: Neobanks are digital-only banks that often have lower operational costs. They can reach customers in remote areas where traditional banks may not have a physical presence.

**Benefits:** Provides banking services without the need for a physical branch, making financial services more accessible and cost-effective for a broader demographic.

### 7.3 Fintech Status in India

India's fintech space is experiencing impressive growth and holds immense promise for the future. Here's a summary of its current status:

**Positive Indicators:**

**High Adoption Rate:** India boasts the highest global FinTech adoption rate at 87%, significantly exceeding the global average of 64%. This signifies the widespread acceptance and enthusiasm for these services among the population.

**Second Most Funded Startup Sector:** In 2022, Indian fintech startups secured \$5.65 billion in funding, making it the second most funded sector among Indian startups. This significant investor confidence indicates the sector's potential and future expected growth.

**Largest Funding Share:** India captures a 14% share of global FinTech funding, highlighting its position as a major player in the global FinTech landscape.

**Market Opportunity:** The Indian FinTech market is projected to reach a massive \$2.1 trillion by 2030, reflecting the immense potential for future growth and expansion.

**Growth in Inclusion:** FinTech plays a crucial role in promoting financial inclusion, especially for individuals traditionally excluded from traditional banking services.

**Innovation:** Indian FinTech companies are known for their agile and innovative approach, developing solutions that address specific needs and challenges within the Indian market.

**Government Support:** The Indian government actively supports the FinTech sector through initiatives like regulatory sandboxes and promoting digital infrastructure development.

**Challenges:**

**Complex Regulatory Landscape:** Navigating the multifaceted regulatory framework poses a challenge for many FinTech players.

**Data Security and Privacy:** Addressing data security concerns and ensuring compliance with data privacy regulations remains an imperative.

**Financial Literacy:** Improving financial literacy among the population is crucial for ensuring the responsible and effective use of FinTech services.

Overall, India's FinTech sector is thriving, driven by high adoption, significant funding, and a promising future. However, addressing regulatory complexities, data security concerns, and financial literacy will be crucial for its continued success and positive impact on the Indian financial landscape.

## 8. Conclusion

India's financial sector has seen remarkable growth in the FinTech sector due to growing GDP, employment opportunities, and other economic indicators. The statistics demonstrate that, despite its tiny user base and propensity for mobile access to financial services, India has a sizable fintech industry. Online loans are among the fintech services that consumers find appealing. Fintech is popular because of its prompt services, ease of usage, and reasonably priced solutions. Financial technology will have a big impact on the payment and



investment management sectors. The simplicity of use, reduced costs of services, accessibility, and enhanced customer experiences will all significantly influence consumers' eagerness to embrace fintech over the course of the next five years. A survey found that four factors—easier accessibility, more services offered, product innovation, and speedier service—would significantly affect consumers' enthusiasm for using fintech in the next five years. Furthermore, studies show that random sampling yields accurate findings.

## 9. References

- 9.1 Demircuc-Kunt, A., Klapper, L., Singer, D., & Van Oudheusden, P. (2015). "The Global Findex Database 2014: Measuring Financial Inclusion around the World." Policy Research Working Paper 7255, World Bank. Link
- 9.2 Arner, D. W., Barberis, J., & Buckley, R. P. (2015). "The Evolution of Fintech: A New Post-Crisis Paradigm?" Georgetown Journal of International Law, 47(4). Link
- 9.3 IFC Insights. (2019). "The Business of Financial Inclusion: Insights from Banks in Emerging Markets." International Finance Corporation. Link
- 9.4 Evans, W. (2019). "The Future of Fintech and Banking: Digitally disrupted or reimaged?" Forbes.
- 9.5 World Bank Group. (2021). "Financial Inclusion."

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