

# Impact of Fin Tech on Financial Inclusion

R.V. Balaji<sup>1\*</sup> and G. Jerin Rose<sup>2</sup>

<sup>1</sup>*Research Scholar, Department of Commerce, Annai Velankanni College, Tholayavattam, (Affiliated with Manonmaniam Sundaranar University, Tirunelveli), Tamil Nadu*

<sup>2</sup>*Assistant Professor of Commerce, Annai Velankanni College, Tholayavattam, Tamil Nadu*

\*Corresponding Author Email: [balajirv1999@gmail.com](mailto:balajirv1999@gmail.com)

## **Abstract**

*Financial Technology (FinTech) uses software and digital platforms to deliver efficient, cost-effective financial services, expanding access—especially in underserved areas like rural—beyond traditional institutions. Financial inclusion ensures affordable access to banking, savings, insurance, and credit for low-income and marginalized groups, driving inclusive growth. Despite growing FinTech literature, empirical studies linking it to financial inclusion in Tamil nadu remain scarce. This study fills that gap by examining FinTech awareness, usage, adoption factors, and impact in tamil nadu. Objectives include analyzing demographic influences, assessing awareness/usage levels, evaluating FinTech's impact on inclusion, identifying adoption barriers, and suggesting enhancement measures. Hypotheses test associations between demographics and adoption, awareness levels, impact, and influencing factors. Using convenient sampling, 100 responses were collected from residents. Findings aim to guide banks, policymakers, and strategies for FinTech-driven inclusion, boosting economic participation in Tamil nadu.*

**Keywords:** *FinTech, financial inclusion, adoption factors, demographic influences, digital financial services, awareness levels, inclusive growth*

## **Introduction**

Financial Technology (FinTech) leverages software and digital platforms to provide financial services in a more efficient and cost-effective manner compared to traditional financial institutions. FinTech's innovative solutions aim to reach a wider audience, particularly in rural or underserved areas, by offering faster, more accountable, and more efficient services. This increased accessibility and reduced cost make financial products and services more attainable and affordable for consumers.

Financial Inclusion is a process of conformity of access to efficient and reliable financial products and services, which include bank account, formal savings, insurance and cheaper credit facility needed by unserved and underprivileged segments such as low-income groups and weaker sections at an affordable cost in a transparent and fair way by mainstream formal institutional entities (Raza et al. 2015). It might assist the individual with having moderate access to financial services like formal investment funds, credit, payments, protection, settlement and so on. Along these lines, Financial Inclusion is critical for quicker Inclusive Growth. The term Financial Inclusion has turned into a catchphrase in the Indian financial circles particularly after RBI reported a progression of measures in its credit approach recently, to incorporate a significant number of the gatherings which were until now prohibited and denied of the advantages. Financial Inclusion is an express methodology for quickened economic development and is thought to be basic for accomplishing inclusive Growth in the nation.

## Review of Literature

Recent advancements in the FinTech industry have led to a substantial increase in scholarly literature on the topic. Despite this, comprehensive research is still limited. Existing studies primarily focus on theoretical aspects or lack empirical substantiation, especially regarding the role of FinTech in enhancing financial inclusion. Empirical research in India has explored various facets of online banking, internet banking, cashless transactions, digital financial services, digital payments, and e-payment methods. Notable studies by Reddy & Jayalaxmi, Mankar & Kishor (2017), Vasantha & Meena (2018), Sankar, Dash & Leepsa (2018), Jain (2018), and Prabha, Ahmed, Shankar & Vijaysri (2019) have examined these areas. Additionally, Durai and G. (2019) investigated the impact of digital finance on financial inclusion. However, there is a significant gap in research that connects the latest financial technologies with their effects on financial inclusion in Tamil nadu. This study aims to fill this gap by exploring the public's understanding of FinTech, identifying areas that require increased awareness and utilization, and analyzing factors that influence the adoption of FinTech in Tamil nadu. This research is crucial for addressing the specific financial inclusion challenges faced by Tamil nadu diverse population.

## Objectives of the Study

1. To analyse the influence of demographic factors on FinTech based financial inclusion in Tamil nadu.
2. To assess the impact of FinTech on Financial Inclusion.
3. To study the factors affecting adoption of FinTech for financial inclusion.
4. To suggest measures for enhancing financial inclusion through FinTech

## Sampling Method:

The convenient sampling method was employed to gather data quickly and efficiently.

## Sample Size:

According to the normal distribution table, a 95% confidence interval is considered; the Z value considered for calculation is 1.96. The error margin is 5%; so, (Krejcie and Morgan 1970) recommends that the value of p should be considered as 0.50 as it results in maximization of variance. Furthermore, according to KMT (Krejcie and Morgan Table), a sample size of 100 is adequate for the study. The designed questionnaire was distributed to the eligible people living in different areas of Tamil nadu taking into account.

## Significance of Study:

This study investigates the influence of financial technology on the level of financial inclusion in Tamil nadu. It aims to make significant contributions at both the state and organizational levels, with a special focus on the banking industry. The study will provide concrete suggestions for improving financial inclusion via FinTech. Firstly, it would enhance accessibility to financial services by assisting banks and financial institutions in devising customized strategies to cater to the requirements of marginalized people, hence enhancing access for various demographic segments. Furthermore, this study will enhance strategic decision-making by analyzing the correlation between technology and banking services, offering evidence-based recommendations for banks to incorporate and implement cutting-edge technologies in order to optimize service delivery.

## **Impact of fin tech in financial inclusion:**

### **a) Embedded finance**

Banking-as-a-service (BaaS) technology is driving the rapid integration of embedded finance into the financial landscape. This invention has created new possibilities for providing loans inside different industries. Vertical software-as-a-service (SaaS) enterprises in healthcare, edtech, and e-commerce have collaborated with digital lenders to offer effortless financing services to customers.

### **b) Cryptocurrency lending**

Cryptocurrency has experienced a significant increase in popularity, drawing the attention of investors with diverse risk profiles. While certain investors prioritize immediate profits, others perceive it as a catalyst for long-term expansion. In order to accommodate these investors who have a long-term perspective, modern digital lenders have implemented crypto lending, which enables investors to utilize their cryptocurrency holdings as security for obtaining loans.

### **c) Virtualization of Collateral Assessment**

Conventional property ads have frequently been inaccurately priced, leading lenders to utilize several property verifiers. The progress in artificial intelligence (AI) and deep learning, along with precise satellite photography, is transforming conventional valuation techniques and facilitating the use of automated valuation models.

### **d) InsureTech**

The Indian insure tech industry encompasses many business models, including digital-native platforms for discovering and delivering insurance policies, aggregators, systems for enabling and managing claims, and providers of infrastructure. Aggregation and policy management are the most dynamic categories in the insurance industry. However, in recent years, there have been noteworthy advancements in areas such as pure-play digital insurance, IoT and telematics enablers, embedded insurance, and technology infrastructure within the insurance sector.

**e) Blockchain Technology**

It is a major driver of innovation in the FinTech industry. The decentralized and secure characteristics of blockchain technology have fundamentally transformed traditional processes such as payments, settlements, and identity verification. By leveraging blockchain technology, FinTech businesses may accelerate and improve the security of transactions, reduce costs associated with intermediaries, and ensure transparency in financial operations.

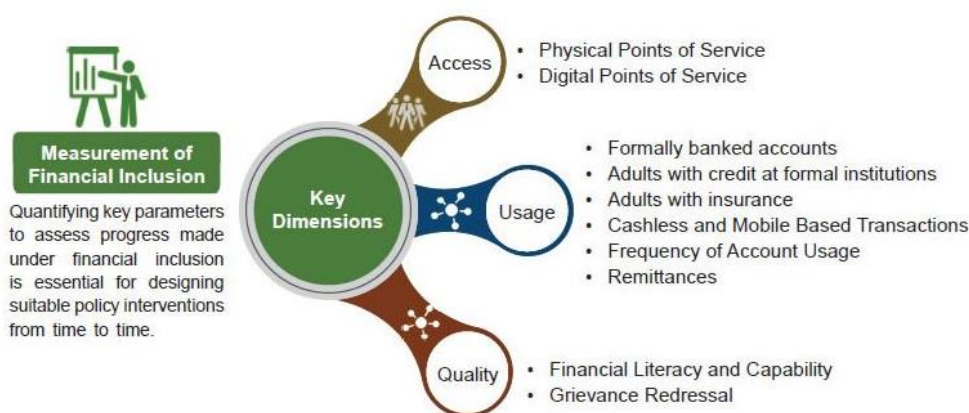
**f) Artificial Intelligence (AI):**

AI is an essential technology that drives innovation in the financial technology industry. It enables advanced data analysis, personalized consumer offerings, and automated decision-making. Artificial intelligence algorithms possess the capacity to analyze vast amounts of financial data in real-time, identify patterns, and provide significant insights for both businesses and consumers.

**g) Cryptocurrencies:**

Cryptocurrencies like as Bitcoin, have significantly contributed to the progress of financial technology by establishing decentralized digital currencies that operate independently from traditional banking institutions. These digital assets employ blockchain technology to facilitate safe transactions among individuals, minimize transaction costs, and facilitate cross-border payments.

**Dimensions of Financial Inclusion:**



**Profile of the Respondents:**

Category	Status	Number of Respondents	Percentage of Respondents
Gender	Male	67	67%
	Female	33	33%
Age	Upto 25	45	45%
	26 - 35	36	36%
	36 -45	19	19%
Marital status	Married	29	29%
	Unmarried	61	61%
	widower	10	10%
Educational Qualification	Upto 12 std	11	11%
	UG	59	59%
	PG	34	34%
	others	06	6%
Occupation	Student	44	44%
	Govt job	22	22%
	Pvt job	23	23%
	Business	11	11%
Place of Residence	Urban	56	56%
	Rural	44	44%

**Findings:**

1. Geographic location affects FinTech adoption, with higher prevalence in urban areas for certain services.
2. Gender does not significantly influence FinTech adoption patterns, indicating equitable usage among males and females.
3. Blockchain and cryptocurrency, crowd funding, lending, and insurance services show uniform distribution across age cohorts.

4. No significant association between marital status and usage of mobile payments, personal finance, blockchain, lending, and insurance services; crowd funding is more prevalent among unmarried individuals.
5. Higher education levels correlate with increased adoption of personal finance, blockchain, crowd funding, lending, and insurance services.
6. Mobile payment platforms are widely used across occupational statuses; students use personal finance, lending, and insurance services less.
7. Significant income-based differences in FinTech adoption, favoring income earners for mobile payments and personal finance.
8. Mobile payment platforms lead in usage, followed by personal finance and insurance; blockchain and crowd funding are less popular.
9. Significant impact of FinTech on financial inclusion in Patna District; high perceived usefulness, ease of use, security, and frequent usage.
10. No significant gender differences in perceptions of FinTech services; uniform attitudes and evaluations across genders.
11. Urban residents have more positive perceptions and higher usage of FinTech services compared to rural residents.
12. Younger respondents rate FinTech services higher in perceived usefulness, ease of use, security, and digital financial literacy.

## **Conclusion**

This study highlights the significant impact of demographic factors like age, education, occupation, and income on FinTech adoption in Bihar. Younger individuals, particularly those up to 35 years old, show higher adoption rates, especially in Personal Finance and Blockchain services. While gender differences in digital engagement are minimal, disparities in educational attainment and occupation influence adoption patterns and service utilization. Urban residents have higher adoption rates, indicating an urban-rural divide in access and infrastructure. Key factors driving adoption include Perceived Usefulness, Ease of Use, Digital Financial Literacy, and Behavioral Intention. The study emphasizes the potential of FinTech to democratize financial services and promote inclusive economic growth in Bihar by addressing socio-demographic disparities and enhancing digital financial literacy.

## References

- 1) 1.Durai, T., & G., S. (2019). *Impact of digital finance on financial inclusion: Evidence from India. Journal of Banking and Financial Technology*, 3(2), 45–62.
- 2) 2.Jain, R. (2018). *Digital payments and financial inclusion in India: An empirical analysis. International Journal of Bank Marketing*, 36(5), 990–1010.
- 3) 3.Krejcie, R. V., & Morgan, D. W. (1970). *Determining sample size for research activities. Educational and Psychological Measurement*, 30(3), 607–610.
- 4) 4.Mankar, A., & Kishor, N. (2017). *Internet banking adoption in rural India: Barriers and opportunities. Journal of Indian Business Research*, 9(4), 287–304.
- 5) 5.Prabha, C., Ahmed, S. S., Shankar, R., & Vijaysri, V. (2019). *E-payment systems and financial inclusion: A study of urban consumers in South India. International Journal of Information Management*, 45, 112–123.
- 6) 6.Raza, M. H., Afshan, S., & Khan, M. A. (2015). *Financial inclusion in India: An empirical analysis. Pakistan Journal of Commerce and Social Sciences*, 9(2), 542–560.
- 7) 7.Reddy, K., & Jayalaxmi, P. (2017). *Online banking and financial inclusion: Perspectives from Andhra Pradesh. Banking and Finance Review*, 12(1), 78–95.