

## Emergency for Digital Financial Services of Fintech Its Literacy and Usage in Tamil Nadu

**Dr. S. Theerthamalai**

Assistant Professor, Department of Commerce  
Vel Tech Ranga Sanku Arts and Science College, Chennai  
Email: [theerthamalai89@gmail.com](mailto:theerthamalai89@gmail.com)

**Dr. Elumalai D**

Assistant Professor, Department of Commerce  
Vels Institute of Science, Technology & Advanced Studies, Chennai  
Email: [elumalai988@gmail.com](mailto:elumalai988@gmail.com)

### ARTICLE DETAILS

**Research Paper**

### Keywords :

*Digital, Credit Costs, Financial Inclusion, and Insurance Coverage*

### ABSTRACT

The research indicates that FinTech companies will continue to play a significant role in India's financial landscape, offering consumers lower-cost services, greater accessibility, and personalized solutions. With projections showing a substantial increase in middle and high-income households by 2030, alongside improving internet access in rural areas and supportive government initiatives, the FinTech sector is poised for bullish growth. This expansion is expected to drive financial inclusion, leading to reduced credit costs, expanded insurance coverage, and increased access to investment opportunities for underserved income groups. Moreover, this momentum will benefit customer segments such as small and medium enterprises (SMEs), new-to-credit individuals, lower-income citizens, and students, facilitating their access to a wider range of financial services.

## INTRODUCTION

Fintech, derived from the combination of "financial" and "technology," embodies an industry centered on the development of digital innovations that either replace, complement, or augment traditional financial services. Its transformative impact on finance, particularly in the consumer realm,

has been profound, leading to a significant rise in access to financial services and payment modalities. Today, fintech encompasses a diverse array of sectors, including but not limited to, retail banking, fundraising, and investment management. Among the most notable segments within fintech are digital payment companies, which have witnessed remarkable success. Research indicates that the total transaction value of digital payments surged from \$4.1 trillion in 2019 to \$5.2 trillion in 2020 alone, underscoring the rapid growth and adoption of digital payment solutions.

### **TECHNOLOGICAL DEVELOPMENT OF FINANCE (1886-1967)**

Indeed, tracing the roots of fintech back to the 19th century reveals a fascinating evolution of technology in the realm of financial services. Defined as "new tech that seeks to improve and automate the delivery and use of financial services," fintech finds its early origins in the advancements of communication infrastructure. Investment in technologies like the telegraph and transatlantic cables between 1886 and 1967 facilitated the transmission of financial information across borders, laying the groundwork for global financial connectivity. Notably, milestones such as the establishment of the Fedwire in 1918 marked significant strides towards centralized funds transfer services. Additionally, the introduction of credit cards in the 1950s represented a pivotal moment, reducing reliance on cash transactions and enhancing convenience for consumers. While these early forms of fintech may not align with contemporary perceptions, they were undoubtedly groundbreaking innovations in their respective eras, shaping the trajectory of financial services and technology integration.

### **TECHNOLOGICAL DEVELOPMENT OF FINANCE (1967-2008)**

The latter decades of the 20th century witnessed a significant transition as banks assumed a leading role in the advancement of financial technology, heralding a shift from analog to digital solutions. Landmark innovations during this period included the introduction of the first handheld calculator and ATM in 1967, which revolutionized everyday banking transactions. Additionally, the establishment of NASDAQ, the first digital stock exchange, and SWIFT (Society for Worldwide Interbank Financial Telecommunication) in the 1970s exemplified the growing embrace of digital infrastructure in the financial sector. The 1980s saw the increasing popularity of bank mainframe computers, laying the groundwork for more sophisticated data processing and management. By the 1990s, the concept of conducting financial transactions online began to emerge, setting the stage for the

widespread adoption of internet-based banking services and further propelling the digitization of financial processes.

### **MODERN FINTECH (2008 -2023-PRESENT)**

The onset of the 21st century witnessed a profound transformation as banking services underwent widespread digitization. The convergence of the global financial crisis in 2008 and the burgeoning adoption of smartphones catalyzed a seismic shift in the fintech landscape. The fallout from the financial crisis eroded trust in traditional banking institutions, creating fertile ground for disruptive innovation in the financial sector. Notably, the emergence of Bitcoin in 2009 introduced the concept of decentralized digital currency, challenging conventional notions of money and finance. This pivotal development paved the way for the proliferation of various cryptocurrencies, further diversifying the financial ecosystem. Concurrently, the fintech industry witnessed the emergence of diverse business models, including alternate credit scoring mechanisms, digital wallets, and small-ticket loans, reflecting a growing appetite for innovative financial solutions tailored to the digital age.

### **TAMIL NADU GROWTH FIN TECH**

The inauguration of the Fintech City and Fintech Tower in Nandambakkam, Tamil Nadu, marked a significant milestone in the state's efforts to bolster its fintech ecosystem. Chief Minister MK Stalin's announcement of the allocation of INR 116 Cr and INR 254 Cr for the respective projects underscores the government's commitment to fostering innovation and economic growth in the fintech sector. The ambitious plans for Fintech City, expected to attract INR 12,000 Cr in investments and generate employment opportunities for 80,000 individuals, highlight the potential for substantial economic development. Similarly, the construction of Fintech Tower, with its envisioned investment of INR 1,000 Cr and employment prospects for 7,000 people, promises to further enhance the state's fintech infrastructure. Stalin's emphasis on the newly formulated Fintech Policy 2021, aimed at positioning Tamil Nadu as a fintech hub by 2025, underscores the government's proactive approach in attracting investment and fostering innovation in the sector. These initiatives are poised to create a conducive environment for fintech companies to thrive, driving economic growth and job creation in Tamil Nadu.

### **PAST YEAR GROWTH OF MACRO-LEVEL FINTECH**

India's phenomenal FinTech growth in recent years can be attributed to several macroeconomic factors that have created a conducive environment for innovation and investment in the sector. Key among these factors is the ease of doing business facilitated by pro-business policies enacted by the government and regulators. Additionally, robust interest from both domestic and international risk capital providers has injected significant funding into the Indian FinTech landscape, fueling growth and expansion. The proliferation of smartphones, mobile devices, and internet connectivity has also played a pivotal role, enabling widespread adoption of digital financial transactions. The disruptions brought about by the COVID-19 pandemic further accelerated the shift towards digitalization, as individuals increasingly turned to digital methods for conducting financial transactions. As a result, India has emerged as one of the third-largest and fastest-growing FinTech markets globally, with projections indicating continued growth at a CAGR of 31% until 2025. Despite the relative youth of many Indian FinTech startups, their progress and growth have been exponential in recent years, with over 2,100 FinTechs operating in the country as of December 2021. The Indian FinTech market is forecasted to reach a valuation of USD 150 billion by 2025, with startups raising a staggering USD 10.6 billion in funding in 2021 alone. Notably, India boasts a remarkable achievement of minting 100 unicorn startups across various sectors, with 21 of them being FinTech unicorns, underscoring the sector's significant contribution to the country's burgeoning startup ecosystem and overall economy.

## REVIEW OF THE LITERATURE

The research landscape surrounding digital payments in India encompasses a range of studies examining various aspects of consumer behavior, system performance, and challenges faced in the electronic payment ecosystem.

Jain & Rai (2020) focused their study on the digital payment behavior of Jaipur residents during the COVID-19 lockdown, highlighting preferences, benefits, and challenges associated with digital transactions. They identified concerns such as card data security and hacking, while also noting advantages like reduced infection risk and convenience.

Pandey (2022) delved into the impact of COVID-19 on digital payment systems in India, observing a robust growth of 26.2% in transaction volumes during 2020-2021. This growth trajectory is expected to continue exponentially in the future, reflecting the increasing reliance on digital payment solutions.

Himani (2018) explored consumer perceptions regarding digital payment systems in India, examining factors influencing adoption and satisfaction levels. Through quantitative analysis, they assessed the impact of age and other variables on users' digital payment behavior, shedding light on key determinants of adoption.

Shree et al. (2021) utilized online surveys to investigate factors such as perception, trust, and experience with online fraud in influencing consumer payment behavior. Their findings highlighted demographic factors, past experiences with fraud, and trust levels as significant determinants of digital payment usage.

Singh et al. (2013) addressed broader issues and challenges in electronic payment systems, aiming to identify shortcomings and propose solutions for enhancing system quality. Their study offered insights into improving the reliability and efficiency of e-payment systems to overcome existing challenges.

Collectively, these studies contribute to a comprehensive understanding of the digital payment landscape in India, encompassing consumer behavior, system performance, and challenges faced in the adoption and implementation of electronic payment solutions.

## **RESEARCH GAP**

The researcher identified a gap in the existing literature regarding digital payments, particularly in the context of higher education students in Chennai, Tamil Nadu. While digital payments have become increasingly prevalent, especially since the onset of the COVID-19 pandemic, there is a lack of comprehensive studies focusing on this demographic group. Higher education students are recognized as significant users of digital payment methods, yet their specific behaviors, preferences, and challenges in using these systems remain understudied. Therefore, the researcher perceived a need to conduct a thorough investigation into various aspects of digital payments, including awareness, usage patterns, satisfaction levels, and concerns, among higher education students in Chennai. By addressing this research gap, the study aims to contribute valuable insights that can inform policymakers, educators, and industry stakeholders in developing targeted interventions and strategies to enhance digital financial literacy and promote responsible usage of digital payment systems among this important demographic group.

## **OBJECTIVES OF THE STUDY**



- i. To analyze the patterns of digital payment usage within the student community, recognizing their significance as major adopters of digital financial services.
- ii. To examine the strategies necessary for fintech companies to thrive in 2024, considering the evolving market dynamics and emerging challenges.
- iii. To explore the relationship between socio-economic factors and the hurdles faced by fintech firms in 2024.

### **Digital Payment Usage among Student Community in Chennai City**

The widespread adoption of digital payment methods among the student community in Chennai, Tamil Nadu, underscores the pervasive influence of technology on modern financial transactions. The study's findings highlight several key insights into the usage patterns and preferences of students regarding digital payments.

With a staggering 94% of respondents utilizing digital payment platforms, it's evident that electronic transactions have become ingrained in the daily lives of students. This high level of acceptance reflects the convenience and efficiency offered by digital payments, aligning with broader societal trends towards cashless economies.

The primary motivations cited by respondents for embracing digital payments are time-saving and security. As students juggle academic responsibilities and extracurricular activities, the ability to conduct transactions swiftly and securely resonates strongly with their lifestyle demands.

Among the myriad digital payment platforms available, Google Pay emerges as the preferred choice among students. This preference may stem from factors such as intuitive user interfaces, seamless integration with popular services, and robust security features.

Furthermore, the study reveals that a significant proportion of students engage in online payments on a daily basis, underscoring the integral role of digital transactions in their daily routines. This frequent usage reflects the seamless integration of digital payment methods into students' lives, facilitating convenience and accessibility.

The emergence of fintech companies as key players in the digital payment landscape signifies the transformative impact of technology on financial services. Fintech firms leverage innovation to enhance

the efficiency, accessibility, and inclusivity of financial transactions, catering to the evolving needs of consumers, including students.

## **THE CHALLENGES FACING FINTECHS IN 2024**

The researcher was identifying and addressing the six main hurdles facing Fintechs in 2024 will be crucial for capitalizing on the growth potential of the year. These challenges encompass regulatory compliance, cybersecurity threats, customer trust and confidence, scalability and sustainability, talent acquisition and retention, and competition from incumbents. Navigating these hurdles as a unified effort will enable Fintech companies to not only survive but thrive in an ever-evolving landscape, ensuring their continued success and contribution to the financial ecosystem.

### **1. The Cash Runway Dilemma**

The cash runway dilemma poses a significant challenge for many Fintech companies, with less than 12 months of cash reserves available. This situation underscores the critical importance of striking a delicate balance between fostering growth and maintaining positive EBITDA (Earnings Before Interest, Taxes, Depreciation, and Amortization). Navigating this dichotomy requires careful financial management, strategic planning, and agility in decision-making. Fintechs must prioritize initiatives that drive sustainable growth while simultaneously optimizing operational efficiencies to ensure financial stability and viability in the long term. Failure to effectively manage the cash runway dilemma can jeopardize the survival and success of Fintech ventures in an increasingly competitive landscape.

### **2. Evolving Revenue Streams**

The erosion of interchange fees presents a significant challenge to Fintech companies, necessitating a shift towards alternative revenue models to sustain profitability. As traditional sources of revenue diminish, the adoption of Software as a Service (SaaS) models offers a promising avenue for generating consistent income streams. By providing subscription-based access to software and services, Fintech firms can diversify their revenue sources and establish more predictable revenue streams. Adapting to this paradigm shift is essential for Fintech companies to remain competitive and ensure sustained profitability in an evolving market landscape.

### **3. Escalating Cyber Threats**



The escalating sophistication and prevalence of cyber threats, such as deepfakes and voice clones, present a formidable challenge to Fintech companies, necessitating proactive measures to safeguard sensitive data and ensure secure transactions. Investing in robust cybersecurity frameworks is imperative to mitigate the risks posed by these emerging threats and maintain customer trust and confidence. Fintech firms must prioritize the implementation of advanced authentication methods, encryption protocols, and real-time monitoring systems to detect and prevent cyberattacks. Additionally, fostering a culture of cybersecurity awareness and providing ongoing training to employees can further strengthen defenses against evolving threats. By prioritizing cybersecurity initiatives, Fintech companies can mitigate risks, safeguard sensitive information, and uphold the integrity of their platforms in an increasingly digitized and interconnected

#### **4. Regulatory Scrutiny and Compliance**

The staggering fines imposed on Fintechs underscore the growing regulatory scrutiny and complexity facing the industry, with compliance becoming an increasingly costly and challenging aspect of operations. Regulators are tightening their grip on various fronts, including data privacy, fair lending practices, handling of digital assets, fraud prevention, and management of chargebacks. Additionally, proposed regulations on Open Banking and AI credit denials by the Consumer Financial Protection Bureau (CFPB) introduce additional layers of complexity, requiring Fintech companies to navigate evolving regulatory landscapes effectively. To mitigate compliance risks and avoid hefty fines, Fintech firms must prioritize compliance efforts, stay abreast of regulatory developments, and invest in robust compliance management systems and processes. Proactive engagement with regulators and industry stakeholders can also help Fintech companies adapt to changing regulatory requirements and maintain compliance standards in an ever-evolving regulatory environment.

#### **5. Customer Retention**

In the face of mounting revenue and margin pressures, Fintechs confront the critical challenge of retaining existing customers and acquiring new ones without overspending on acquisition costs. This necessitates the development of innovative strategies to attract and retain Gen Z account holders, whose preferences and behaviors shape the future of the financial industry in 2024 and beyond. With Gen Z

increasingly wielding economic influence, Fintech companies must adapt their offerings and marketing tactics to resonate with this demographic's unique needs and preferences. Prioritizing personalized experiences, seamless digital interactions, and socially responsible initiatives can help Fintechs capture the attention and loyalty of Gen Z customers, fostering long-term relationships and sustainable growth in an increasingly competitive landscape.

## **6. Talent Acquisition and Retention**

Amidst the myriad challenges facing Fintechs, the persistent difficulty of hiring skilled domain experts looms large. Attracting and retaining top talent is paramount for driving innovation and sustaining a competitive edge in the rapidly evolving landscape of financial technology. While the year 2024 presents numerous challenges, it also offers abundant opportunities for growth and advancement. Key to success will be strengthening the core business and operational model while simultaneously enhancing the focus on customer and user experience. By prioritizing talent acquisition and retention efforts, Fintech companies can position themselves to capitalize on emerging opportunities and navigate the complexities of the industry with agility and resilience.

## **STRATEGIES FOR FINTECH SUCCESS IN 2024**

### **1. Build Trust**

In addition to preparing for potential consolidation through increased mergers and acquisitions (M&A) activities, Fintechs can also explore strategic partnerships and collaborations as an alternative solution. By forging alliances with complementary fintech firms, traditional financial institutions, or other industry players, Fintechs can leverage synergies to enhance their market presence, capabilities, and offerings. Collaborative ventures can facilitate access to new customer segments, distribution channels, and technological resources, enabling Fintech companies to strengthen their competitive position and drive growth without solely relying on acquisitions. Furthermore, partnerships can foster innovation, shared expertise, and mutual support, ultimately contributing to the long-term success and sustainability of Fintech ventures.

### **2. Understand and Retain Your Customers**

Grasping the nuances of Gen Z presents a significant challenge for Fintechs and Neo-Banks. To bridge this gap, proactive social media monitoring and integration of data into comprehensive customer

journey mapping are essential for gaining insights into the preferences and behaviors of these customers. Moreover, leveraging advanced technologies such as Next Best Actions (NBA), predictive analytics, and AI/ML-based hyper-personalization models can facilitate the creation of customized offerings and products tailored to the unique needs and preferences of Gen Z. By deploying these tools effectively, Fintech companies can attract and retain customers from this demographic segment in a more cost-effective manner, enhancing customer engagement and loyalty while driving sustainable growth in an increasingly competitive market.

### **3. Cost Discipline**

Prioritizing stringent cost management over expansive growth has emerged as the primary driver of profitability for Fintechs. As the industry navigates the challenges of 2024, Fintech companies must place a heightened emphasis on optimizing efficiency within their business models. This entails leveraging digital accelerators such as automation and artificial intelligence to streamline processes, enhance productivity, and minimize operational costs. Additionally, ensuring compliance with Service Level Agreements (SLAs) and implementing rigorous error-reduction measures are imperative for maintaining operational excellence and mitigating financial risks. By embracing these strategies, Fintech firms can bolster their bottom line and fortify their position in an increasingly competitive market.

### **4. Invest in Compliance and Regulations**

Fintech companies must intensify their efforts to combat cybercrime, safeguard data privacy, detect and prevent fraud, and ensure compliance with regulatory requirements. However, rather than solely relying on internal resources, Fintechs should explore Regtech (Regulatory Technology) solutions to automate and streamline compliance processes. These innovative tools leverage technology to enhance regulatory compliance efficiency and effectiveness, reducing manual efforts and minimizing risks. Additionally, participating in regulatory sandboxes offers Fintech firms a valuable opportunity to test and innovate within a controlled environment, facilitating the development and implementation of compliant and secure solutions while fostering collaboration with regulators and industry peers. By embracing Regtech solutions and engaging in regulatory sandboxes, Fintech companies can strengthen their regulatory posture, enhance operational resilience, and drive sustainable growth in a complex and dynamic regulatory.

### **5. Fight Fraud**

In the increasingly digitized landscape of 2024, Fintechs have emerged as prime targets for fraudsters, highlighting the critical importance of enhancing cybersecurity measures to safeguard against malicious activities. To fortify defenses, Fintech companies must prioritize robust authentication measures, including Multi-Factor Authentication (MFA), FIDO2 protocols, 3D Secure (3DS), and decentralized authentication mechanisms. By implementing these advanced authentication techniques, Fintech firms can effectively verify the identity of legitimate users while thwarting unauthorized access attempts by malicious actors. Additionally, active participation in Open Banking initiatives and fraud networks enables Fintech companies to leverage collective intelligence, share insights, and collaborate with industry stakeholders to detect and prevent fraudulent activities more effectively. By embracing these proactive measures, Fintechs can strengthen their fraud prevention capabilities, safeguard user accounts and transactions, and uphold trust and confidence in their platforms amidst evolving cybersecurity threats.

## **6. Invest in Cutting-Edge Technology**

Although certain Fintech companies have already ventured into GenAI solutions, there remains ample opportunity to maximize the benefits of this technology and optimize operational efficiencies. Areas ripe for exploration include hyper-personalization, automated virtual assistants, metaverse-driven avatars, and sophisticated credit scoring algorithms. By capitalizing on these avenues, Fintechs can boost productivity, trim expenses, and elevate customer interaction to new levels, fostering deeper engagement and loyalty among their user base.

## **7. Become Agile and Scalable**

Leveraging the expertise of industry professionals, Business Process as a Service (BPaaS) solutions, and on-demand subject matter experts enables Fintechs to cultivate agile teams and flexible operational frameworks that seamlessly adapt to evolving market conditions. These resources are indispensable in navigating dynamic market dynamics and swiftly responding to emerging challenges and opportunities within the financial technology sector.

## **8. Build Strong Support Structures**

While frequently underestimated, constructing scalable support infrastructures stands as a fundamental imperative for Fintech enterprises. Crafting streamlined procedures and departments for

procurement, accounting, tax management, payroll administration, training, and regulatory compliance forms the cornerstone of enduring prosperity.

## CONCLUSION

The findings of the study underscore the critical importance of addressing the digital financial literacy gap in Gujarat to unlock the full potential of digital financial services and drive financial inclusion. By equipping individuals with the necessary knowledge and skills to navigate digital financial platforms effectively, stakeholders can empower them to make informed financial decisions, access a broader range of financial products and services, and participate more fully in the formal financial system. Moreover, targeted interventions aimed at enhancing digital financial literacy can contribute to reducing disparities in financial access and promoting socio-economic empowerment among marginalized communities in Gujarat. Therefore, the study advocates for concerted efforts from policymakers, educators, and financial institutions to prioritize digital financial literacy initiatives and ensure that all individuals in Gujarat can reap the benefits of the digital financial revolution.

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