

CHAPTER 3

Fintech Startups and Their Role in Enhancing Financial Literacy

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ABSTRACT

FinTech startups have become key players in changing the financial landscape by making financial services easier to access and understand. This study looks at how FinTech startups help improve financial literacy among individuals, especially in developing and emerging economies. The research draws solely on secondary data from scholarly articles, industry reports, policy documents, and trustworthy online sources. It examines how digital platforms like mobile wallets, online investment apps, and digital lending services help users better understand financial concepts. By offering simple interfaces, personalized insights, and educational features, FinTech startups empower users to manage savings, plan budgets, understand credit, and make informed investment choices. Furthermore, these startups promote financial inclusion by reaching people with limited access to traditional banks. However, the study also points out challenges such as low digital awareness, concerns about data privacy, and a lack of trust in digital platforms. The findings indicate that FinTech startups play a major role in closing the financial knowledge gap by combining technology with education. With stronger regulations and increased digital literacy initiatives, their impact on financial literacy can be further improved.

Keywords: FinTech Startups, Financial Literacy, Financial Inclusion, Financial Education, Technology Adoption.

1.0 Introduction

FinTech startups are now central to India's shift from simple account ownership to more substantive financial inclusion. The spread of UPI, mobile wallets and app-based banking has expanded access to formal services, yet national evidence still points to modest financial and digital financial literacy, with sharp gaps by region, gender and income.

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Because their apps are used daily, FinTech firms are well placed to double as learning platforms, using intuitive interfaces, local-language content and interactive tools to explain concepts like interest, risk and fraud prevention. Many already offer tutorials, contextual tips, spending insights and goal reminders, along with webinars and offline awareness efforts for first-time digital users. This paper focuses on how such design and outreach choices affect financial and digital financial literacy in India, and whether FinTech innovation is building genuine financial capability or mainly boosting transaction volumes, to inform decisions by policymakers, regulators and startup founders

2.0 Review of Literature

The IJFMR article “A Study on the Relationship Between Digital Literacy and Financial Inclusion in the Context of FinTech Users in India” (2025) shows, using survey data from 300 users, that higher digital literacy significantly increases both frequency and variety of FinTech use, which in turn improves access to savings, payments and basic credit. The authors conclude that digital literacy is a core precondition for inclusive FinTech adoption and urge FinTech firms and public agencies to embed structured digital-literacy support in onboarding, app design and outreach, particularly for low-income and rural users (Author, 2025).

In “FinTech-Driven Financial Inclusion in Rural India” (SSRN, 2025), Priyadarshi finds that rural consumers with higher digital financial literacy are more likely to use apps such as PhonePe and Google Pay for everyday payments and small savings, and that this use is positively associated with formal account usage and access to services. However, socio-cultural norms, low trust and weak infrastructure limit benefits for less literate groups, leading the author to recommend vernacular training, simple interfaces and trust-building by startups, alongside public investment in infrastructure and gender-sensitive policies (Priyadarshi, 2025).

The IJAR paper “role of fintech in financial inclusion” (2025) synthesises secondary data to argue that tools like ATM cards, internet and mobile banking and UPI lower barriers of distance, time and cost while offering channels to deliver financial education through intuitive interfaces and multi-language content. Nonetheless, the article notes that low literacy, cyber-security concerns and weak regulatory awareness still constrain impact and proposes joint action by regulators, banks and FinTech startups to improve infrastructure, consumer protection and in-app financial education (Author, 2025).

The study “Digital Financial Literacy, FinTech Adoption and Investment Behaviour in India” (2024/2025) reports that individuals with higher digital-literacy scores are more likely to use FinTech apps for trading, mutual funds and portfolio tracking, and that this is

associated with greater diversification and engagement with formal investments. The authors warn that limited awareness of risk and cyber-security can undermine these gains for less literate users and call for integrated educational content, risk disclosures and decision-support tools, supported by wider digital-financial-literacy programmes (Author, 2024).

In “What Drives FinTech Adoption? A Study of Financial Literacy in India” (2024), financial literacy is shown—via multivariate analysis—to have a significant positive effect on both intention to adopt and actual FinTech use, even after controlling for demographics and perceived usefulness and trust. The authors argue that FinTech interfaces, tutorials and support should be designed to build users’ financial understanding over time and that policymakers must treat financial literacy as a foundation of digital-finance strategies to avoid disadvantaging vulnerable consumers (Author, 2024).

Gupta’s chapter “Mobile Wallets Growth and Financial Literacy in India” (2024) notes that India combines very high mobile-wallet usage with relatively low financial-literacy levels, which limits effective use of wallets beyond simple payments. Gupta recommends that providers and public authorities invest in in-app tutorials, gamified learning and community partnerships so users can better understand fees, security features and budgeting tools, allowing wallets to support both transactions and financial-literacy enhancement (Gupta, 2024). Ozkaya and colleagues conduct a systematic review that examines how financial literacy is shaped across countries, grouping its determinants into socio-demographic, economic and contextual factors (Ozkaya et al., 2023). Their work highlights that the spread of FinTech and digital finance now plays an important role in how people learn about and manage money through online channels, and they argue that future financial capability models should explicitly incorporate digital financial literacy and FinTech use, particularly for younger and low-income segments (Ozkaya et al., 2023).

The study titled “Digital Financial Literacy in the Era of FinTech” applies PRISMA procedures and bibliometric techniques to trace the development of the digital financial literacy (DFL) field alongside the growth of FinTech (Author, 2025). It observes that most DFL research focuses on users’ competence in navigating digital interfaces, understanding online financial products and dealing with cyber risks in app-based environments, while also noting that definitions and measurement tools are inconsistent, which makes it difficult to compare findings across different studies and settings (Author, 2025).

The review “Financial Literacy and Digital Savings Behavior of Gen Z in the Fintech Era” concentrates on how Gen Z uses FinTech-enabled saving instruments such as e-wallets, neobanks and goal-oriented saving applications (Author, 2025). The authors show that being comfortable with technology does not automatically result in prudent financial decisions; instead, financial literacy and appropriate guidance remain crucial for effective use of

automated saving tools, and features like gamification, instant feedback and personalised prompts are most useful when supported by basic financial understanding (Author, 2025).

In “Financial Literacy and Use of Fintech in MSMEs,” the authors review evidence on how the financial literacy of micro, small and medium enterprise owners affects their adoption and utilisation of FinTech solutions, including digital payments, online lending and accounting systems (Author, 2025). The review finds that owners with stronger financial knowledge are better positioned to judge costs and benefits, interpret contracts and apply FinTech for working capital and business growth, while widespread gaps in literacy and digital skills among micro-entrepreneurs indicate a need for targeted training and supportive policies from both governments and FinTech providers (Author, 2025).

The article “Digital Financial Literacy and Digital Finance Usage: A Systematic Literature Review and Bibliometric Analysis” gathers studies on how digital financial literacy influences the use and intensity of digital finance channels such as mobile banking, e-wallets and online investments (Author, 2025). Its synthesis shows that higher DFL is associated with lower perceived risk and complexity and higher confidence, which together promote more sustained engagement with FinTech services, but the authors point out that most studies are cross-sectional and call for longitudinal work to examine how rising DFL affects long-term financial well-being and resilience (Author, 2025).

The MDPI paper “Factors Affecting Fintech Adoption: A Systematic Literature Review” organises FinTech adoption drivers into categories such as perceived usefulness, ease of use, trust, security, social influence and user capabilities, including financial and digital literacy (Author, 2022). The review concludes that literacy and digital skills often act as enabling conditions that help users interpret information correctly, compare alternatives and manage risks, and it recommends expanding standard technology-acceptance models by treating financial and digital literacy as central antecedents of FinTech adoption, especially in emerging economies (Author, 2022).

In “Challenges and Trends of Financial Technology (Fintech): A Systematic Literature Review,” the authors provide a broad overview of global FinTech developments, addressing themes such as regulation, cybersecurity, data protection, competition and user-level barriers (Author, 2020). They stress that low levels of financial and digital literacy are major obstacles to inclusive FinTech use, as poorly informed users can misinterpret product terms or fall victim to fraud, and they propose that technological innovation should go hand-in-hand with consumer education and transparent communication to avoid reinforcing financial exclusion (Author, 2020).

Alshater and co-authors, in “The Role of Financial Technology on the Nexus Between Demographic, Socio-economic, and Psychological Factors, and the Financial Literacy Gap,” use empirical analysis to examine how FinTech interacts with structural and

psychological variables to influence differences in financial literacy across groups (Alshater et al., 2024). Their findings indicate that FinTech can help narrow literacy gaps where people have basic digital skills and infrastructure, but may widen disparities where these prerequisites are lacking, leading them to argue that FinTech initiatives should be coupled with targeted literacy interventions and inclusive design to ensure marginalised communities also benefit (Alshater et al., 2024).

Prabhakaran and colleagues, in “Perception vs. Reality: Analysing the Nexus Between Financial Literacy and Fintech Adoption,” distinguish between self-assessed and objectively measured financial literacy when analysing FinTech usage patterns (Prabhakaran et al., 2023). They show that overconfident users who rate their knowledge highly but perform poorly on objective tests tend to adopt FinTech products in riskier ways, whereas those with strong tested literacy adopt more cautiously and appropriately, suggesting that FinTech providers and educators need to address misperceptions and overconfidence as well as basic knowledge gaps (Prabhakaran et al., 2023).

Finally, Nguyen and co-authors, in the conference paper “A Study on Factors Influencing Financial Literacy and Fintech Adoption,” combine literature review and empirical data to explore how demographic factors, education, income and psychological traits shape both financial literacy and willingness to adopt FinTech (Nguyen et al., 2024). They propose a dual-path model in which literacy directly drives adoption and indirectly influences attitudes such as trust, perceived usefulness and risk tolerance, and they recommend integrating financial education into formal and community programmes while strengthening digital infrastructure to support broader and more effective FinTech use (Nguyen et al., 2024).

3.0 Research Gap Analysis

Variable	Citation	Gap identified	Gap description
Digital literacy → financial inclusion	Author, 2025 (IJFMR); Priyadarshi, 2025	Limited focus on startup-specific FinTech	Most work links digital literacy to overall FinTech use and inclusion but rarely isolates the role of FinTech startups (e.g., new apps, neobanks) as distinct from banks and big tech.
Digital financial literacy in rural and low-income users	Priyadarshi, 2025; Author, 2025 (IJAR)	Rural and vulnerable groups under-explored	Evidence comes mainly from small rural samples or secondary data; there is still little systematic analysis of how startups can build literacy among women, low-income and digitally excluded users.

Digital financial literacy → investment behaviour	Author, 2024 (Investment behaviour study)	Narrow product and outcome coverage	Existing work focuses on trading and mutual funds; there is limited research on how literacy via FinTech startups affects long-term behaviours like retirement planning, insurance and debt management.
Financial literacy → FinTech adoption (India)	Author, 2024 (What drives FinTech adoption?)	Mechanisms of “how” largely unspecified	Studies show that literacy raises adoption but do not clearly unpack which design features (education modules, nudges, UI) of FinTech startups translate literacy into safer, higher-quality usage.
Mobile wallets & financial literacy	Gupta, 2024	Beyond-payments use not well understood	Research documents high wallet penetration with low literacy but gives little detail on how wallets can evolve from simple payment tools into structured financial-education and budgeting platforms.
Global financial literacy determinants	Ozkaya et al., 2023	Limited integration of startup-based digital tools	Global reviews recognise FinTech context but seldom model FinTech startups and digital literacy jointly as central determinants of financial capability, especially in emerging markets like India.
Digital financial literacy (DFL) concept & measures	DFL in Era of FinTech SLR; Digital DFL & usage SLR	Measurement fragmentation	Reviews report many different DFL scales; there is no widely accepted, India-specific measure capturing how users learn through FinTech apps, tutorials and gamified features.
Gen Z digital savings behaviour	Gen Z FinTech savings SLR	Population and context narrow	Work on Gen Z centres on savings apps, often outside India; evidence is limited on Indian Gen Z users of domestic FinTech startups and their literacy trajectories over time.
MSME financial literacy and FinTech use	MSME FinTech SLR	Startup solutions for MSMEs under-studied	Studies look at MSMEs’ literacy and digital tools broadly; there is little focus on how Indian FinTech startups design products and education specifically for MSME owners.
Literacy gaps and FinTech access	Alshater et al., 2024; Prabhakaran et al., 2023; Nguyen et al., 2024	Interaction of overconfidence, gaps and startup design not explored	Research shows literacy gaps and overconfidence affect risk, but does not examine how startup features (simplified journeys, warnings, tiered interfaces) can mitigate these behavioural risks.

4.0 Research Objectives

1. To examine how digital financial literacy affects the adoption of FinTech startup platforms in India.

2. To evaluate whether using FinTech apps improves users' financial and digital financial literacy over time.
3. To analyse how key FinTech design features (tutorials, vernacular interfaces, nudges) influence users' financial understanding and behaviour.
4. To identify major barriers that limit the literacy-enhancing role of FinTech startups, especially in rural and low-income segments.

5.0 Research Methodology

This study adopts a descriptive and exploratory research design based entirely on secondary data. Academic articles were collected from reputed peer-reviewed journals, conference proceedings, and scholarly databases such as Google Scholar. The review focuses on studies published between 2018 and 2025, ensuring the inclusion of recent developments in FinTech startups and financial literacy. The selected studies were screened based on their relevance to FinTech startups, digital financial literacy, financial inclusion, and consumer financial behaviour. The literature was then analysed using a thematic synthesis approach, allowing for the identification of common themes, recurring findings, mediating/moderating relationships, and research gaps. This methodological approach ensures a systematic and unbiased synthesis of existing research.

6.0 Key Findings

- *Digital and financial literacy are fundamental for meaningful FinTech use:* Studies consistently show that people with stronger digital and financial skills use a wider range of FinTech services more often and gain better access to formal savings, payment, credit and investment options, which supports greater financial inclusion.
- *FinTech access without capability does not guarantee inclusion:* Evidence from rural users, MSMEs and younger cohorts suggests that the presence of apps or platforms alone is insufficient; low literacy, limited digital skills, social norms, lack of trust and weak infrastructure all restrict how far different groups can benefit, especially those already disadvantaged
- *App design and embedded education appear important but are not well tested:* Simple interfaces, local-language content, gamified elements, personalised nudges and in-app tutorials are frequently proposed as ways to support better decisions and learning, yet empirical work rarely isolates and evaluates the impact of these specific startup design features over time.
- *Digital financial literacy is widely used but weakly standardised:* Review articles show that digital financial literacy is recognised as a key construct, but definitions and

measurement tools vary greatly across studies, making it hard to compare findings across countries, platforms and target groups or to set common policy benchmarks.

- *Most evidence is associative rather than causal:* Because much of the literature relies on cross-sectional surveys, it typically identifies positive links between literacy and FinTech use but rarely demonstrates that targeted literacy programmes directly produce lasting changes in behaviour, financial outcomes or risk management.
- *FinTech can reduce or deepen inequality depending on context:* Some research shows that when basic digital access and skills exist, FinTech can help close literacy and inclusion gaps; other work warns that those without these prerequisites may be left further behind, so overall effects depend on design choices and supporting policies.
- *Mismatch between perceived and actual literacy is a significant concern:* Studies separating self-assessed and tested literacy indicate that overconfident users may adopt FinTech products more aggressively and face higher risks, highlighting the need for interventions that correct misperceptions as well as improve underlying knowledge and skills.

7.0 Conclusion

FinTech startups offer a powerful channel to expand both financial literacy and financial inclusion, but the benefits depend heavily on users' skills and context. Studies show that people and MSMEs with stronger digital and financial capabilities engage more deeply with FinTech platforms and gain better access to formal savings, payment, credit and investment products, whereas users facing low literacy, poor connectivity or social barriers often remain at the margins despite having technical access to apps.

Research also suggests that thoughtful product design—clear interfaces, local-language options, in-app education, gamified learning and transparent risk information—can support learning and safer financial decisions, although these design elements are still not systematically tested in most empirical work. Overall, the evidence implies that FinTech alone cannot close literacy and inclusion gaps; startups, regulators and educators need to place digital and financial literacy at the core of FinTech strategies, tackle overconfidence and trust issues and address structural constraints so that digital finance genuinely improves financial capability rather than reinforcing existing inequalities.

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