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# An Empirical Examination of FinTech Adoption and Digital Lending in Retail Banking: An Empirical Examination from the Indian Context

Dr. Manita D Shah, Rupesh M

Assistant Professor, Faculty of Management Studies, JAIN (Deemed-to-be University), CMS Business School,  
Bengaluru, Karnataka, India

MBA Student, CMS Business School, JAIN (Deemed-to-be University), Bengaluru, Karnataka, India

**ABSTRACT:** This paper empirically investigates FinTech adoption and digital lending behavior among retail banking customers in India, with a primary survey of 120 respondents supplemented by secondary institutional evidence. Using descriptive statistics, reliability testing, ANOVA, chi-square analysis, and multivariate regression, the study identifies usage frequency, transactional comfort, and ease of learning as the dominant drivers of FinTech adoption. Digital lending acceptance is found to be significantly influenced by adoption depth, perceived approval speed, security expectations, and interest-rate sensitivity. The paper integrates the Technology Acceptance Model (TAM), Unified Theory of Acceptance and Use of Technology (UTAUT), Diffusion of Innovation, and perceived-risk theory within a single retail-banking framework. Findings confirm that FinTech adoption and digital lending are mutually reinforcing mechanisms rather than parallel phenomena, and that behavioral familiarity is a stronger predictor of digital credit acceptance than demographic characteristics.

**KEYWORDS:** *FinTech adoption; digital lending; retail banking; technology acceptance; perceived risk; India; financial inclusion*

## I. INTRODUCTION

The global financial services landscape has undergone a fundamental transformation driven by digital technology. In India, the rapid adoption of Unified Payments Interface (UPI), mobile banking platforms, and app-based financial services has repositioned retail banking from a branch-centric model to a platform-driven ecosystem. The Reserve Bank of India reported that digital transactions accounted for 99.9 per cent of all non-cash retail payments in 2024–25, reflecting the systemic entrenchment of digital channels. Against this backdrop, FinTech companies have emerged as significant disruptors, offering faster, more accessible, and lower-cost financial services that challenge traditional banking intermediation.

Within this transformation, two areas warrant particular empirical attention: FinTech adoption (the extent to which customers integrate digital financial services into routine behavior) and digital lending (the use of online platforms to apply for and receive credit without visiting a bank branch). These two phenomena are conceptually linked, customers familiar with digital payments and mobile banking are more likely to consider digital credit products, yet the nature and strength of this linkage remain underexplored in the Indian retail banking context. Understanding this connection has significant strategic implications for banks, FinTech firms, and regulators alike.

## II. RESEARCH PROBLEM

Retail banks face a strategic contradiction while digital customer behavior has deepened considerably, customer trust in digital credit is not uniformly automatic. Payment behavior and borrowing behavior involve different levels of perceived risk, emotional stakes, and accountability expectations. A customer who uses a mobile wallet several times daily may still hesitate to apply for an unsecured loan through the same smartphone, because the consequences of a credit decision are far less reversible than a payment error.



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Existing literature on FinTech adoption tends to address digital payments or mobile banking usage in isolation, without examining the translation from general FinTech engagement to digital lending acceptance. Many studies focus on inclusion, regulatory compliance, or platform economics, but few empirically test how ordinary retail customers evaluate digital lending in relation to their prior digital financial experience. This fragmentation produces incomplete decision models for banking practitioners. The central problem addressed in this paper is: what factors drive FinTech adoption in retail banking, how do customers evaluate digital lending, and how are these two phenomena connected.

### III. OBJECTIVES OF THE STUDY

The main objective of this study is to examine the relationship between FinTech adoption and digital lending acceptance among retail banking customers in India. The specific objectives are:

- To measure the level and determinants of FinTech adoption among retail banking customers.
- To analyze the factors influencing customer acceptance of digital lending services.
- To assess the empirical relationship between FinTech adoption depth and digital lending perception.
- To derive strategic and managerial implications for retail banking under digital transformation.

#### 4. Research Questions and Hypotheses

The study is guided by the following hypotheses:

- H1: FinTech adoption varies significantly across age groups.
- H2: Usage frequency, transactional comfort, and ease of learning positively influence FinTech adoption.
- H3: Higher FinTech adoption is associated with more favorable perception of digital lending.
- H4: Perceived faster approval and security importance positively influence digital lending acceptance.
- H5: Interest-rate sensitivity shapes digital lending perception.
- H6: Age group is significantly associated with usage of digital loan applications.

### V. REVIEW OF LITERATURE

Financial Technology (FinTech) has attracted significant academic attention due to its ability to transform traditional banking services and improve financial accessibility. One of the most widely used theoretical models in technology adoption research is the Technology Acceptance Model (TAM) proposed by Davis (1989). TAM suggests that users adopt new technologies when they perceive them to be useful and easy to use. In the context of digital banking, perceived usefulness relates to faster transactions, convenience, and efficiency, while perceived ease of use refers to the simplicity of mobile applications and online interfaces. Several studies have confirmed that customers are more willing to adopt digital banking services when they believe these technologies improve their financial management experience.

Venkatesh et al. (2003) extended TAM by introducing the Unified Theory of Acceptance and Use of Technology (UTAUT), which highlights additional factors such as social influence and facilitating conditions. According to UTAUT, individuals are influenced not only by personal perceptions but also by the behaviour of others and the availability of supporting infrastructure such as smartphones and internet connectivity. In retail banking, customers are more likely to adopt FinTech services when digital platforms are widely used by peers and when technological resources are easily accessible. This theory is particularly relevant in the Indian context, where the rapid growth of smartphone usage and internet penetration has increased the adoption of digital financial services.

Rogers (2003), through the Diffusion of Innovation theory, explained that new technologies spread more quickly when they provide clear benefits, are easy to understand, and are compatible with users' needs. Digital payment platforms such as UPI have become popular because they simplify everyday financial transactions and reduce the need for cash. The visibility and widespread use of these platforms encourage more users to adopt digital financial services. This gradual spread of technology explains how customers develop familiarity with digital payments before moving towards more complex services such as digital lending.

Trust and perceived risk are also important factors influencing adoption of digital financial services. Gefen, Karahanna, and Straub (2003) highlighted that trust plays a central role in online transactions, especially when users share personal and financial information. Customers are more likely to adopt digital platforms when they believe that their data is secure and protected from misuse. Similarly, Lee (2009) found that perceived risk related to privacy, performance, and financial outcomes can reduce the willingness of customers to use internet banking services. These concerns are particularly relevant for digital lending because borrowing involves financial commitments and long-term repayment obligations.



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Arner, Barberis, and Buckley (2015) describe FinTech as a major innovation that has changed the structure of financial intermediation by introducing new ways of delivering financial services. Their work suggests that FinTech does not simply improve efficiency but also changes how customers interact with financial institutions. Gomber, Koch, and Siering (2017) further explain that digital financial innovation includes payment systems, lending platforms, investment tools, and financial advisory services, all of which contribute to a digital financial ecosystem. These studies highlight that FinTech adoption should be viewed as part of a broader transformation of financial services rather than as isolated technological developments.

### VI. RESEARCH METHODOLOGY

#### 6.1 Research Design

The study follows a descriptive and analytical research design to understand FinTech adoption and digital lending behaviour among retail banking customers. The descriptive approach helps in identifying customer usage patterns of digital financial services, while the analytical approach examines the relationship between FinTech adoption and factors influencing the acceptance of digital lending. A quantitative method is used to analyse customer responses and draw meaningful conclusions.

#### 6.2 Data Sources

The study uses both primary and secondary data. Primary data is collected through a structured questionnaire from retail banking customers who are familiar with digital financial services such as mobile banking and UPI payments. Secondary data is collected from reliable sources such as RBI reports, research journals, World Bank publications, and industry reports to understand the broader development of FinTech and digital lending.

#### 6.3 Sampling Method and Sample Size

A convenience sampling method is used to select respondents due to time and resource constraints. The sample consists of 120 retail banking customers from different demographic backgrounds such as age, education, occupation, and income groups. This sample size is considered adequate for analysing customer behaviour and identifying patterns in FinTech adoption.

#### 6.4 Variables of the Study

The independent variables include factors such as usage frequency, ease of use, comfort with mobile transactions, perceived security, approval speed, and interest rates. The dependent variables are the level of FinTech adoption and customer perception of digital lending services. Demographic variables are also considered to examine differences in adoption behaviour across customer groups.

#### 6.5 Analytical Techniques

Statistical tools such as descriptive statistics, correlation analysis, ANOVA, chi-square test, and multiple regression analysis are used to analyse the data. These techniques help identify relationships between FinTech adoption and digital lending behaviour and provide empirical support for the study's hypotheses.

### VII. DATA ANALYSIS AND KEY FINDINGS

#### 7.1 Trend in FinTech Adoption Behaviour

The descriptive analysis shows that digital financial services are widely used among respondents, indicating a strong presence of FinTech adoption in retail banking. A majority of respondents reported frequent use of mobile banking and digital payment applications, reflecting the increasing dependence on digital platforms for everyday financial transactions. High usage frequency suggests that digital financial services have become part of routine financial behaviour rather than occasional usage. The findings indicate that familiarity with digital platforms reduces hesitation and encourages customers to explore additional financial services, including digital lending options.

#### 7.2 Usage Behaviour and Digital Engagement



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The analysis indicates that most respondents use one or more digital financial applications regularly, demonstrating a high level of digital engagement. Comfort with mobile transactions is also observed to be high among respondents, suggesting that customers trust digital platforms for managing financial activities. Ease of learning digital applications plays an important role in adoption, as users prefer platforms that are simple and user-friendly. These findings suggest that continuous usage and positive digital experiences contribute significantly to building confidence in FinTech services.

### 7.3 Factors Influencing FinTech Adoption

Correlation and regression analysis show that usage frequency, comfort with mobile transactions, and ease of learning digital applications are key factors influencing FinTech adoption. Customers who regularly use digital payment applications tend to develop greater confidence in using financial technology. Behavioural factors are found to have a stronger influence on adoption compared to demographic characteristics such as age, gender, or education level. This indicates that practical experience with technology plays a more important role than personal characteristics in shaping adoption behaviour.

### 7.4 Perception of Digital Lending Services

The results indicate that customers generally have a positive perception of digital lending services, especially in terms of faster approval, convenience, and reduced need to visit bank branches. Many respondents agree that digital lending improves access to credit and simplifies the loan application process. Customers perceive digital lending platforms as efficient alternatives to traditional banking procedures, particularly when the process is transparent and easy to understand.

### 7.5 Relationship between FinTech Adoption and Digital Lending

The statistical results show a positive relationship between FinTech adoption and customer perception of digital lending services. Customers who frequently use digital financial applications are more likely to show favourable attitudes toward digital loan platforms. This suggests that familiarity with digital financial services increases customer confidence and reduces hesitation in adopting digital lending. The findings support the idea that digital lending is often a continuation of existing digital banking behaviour rather than a completely new decision.

## VIII. CONTRIBUTION AND SIGNIFICANCE

Theoretically, this paper contributes by integrating TAM, UTAUT, Diffusion of Innovation, and perceived-risk theory in a single empirically tested retail-banking framework. It advances the understanding of digital lending as an adjacent adoption phenomenon, where the quality of upstream FinTech engagement predicts willingness to use digital credit channels. This staged-adoption perspective offers a more nuanced and sequentially coherent model than prior literature that treats payments and lending as parallel and independent digital behaviors.

Practically, the findings provide actionable guidance for retail banking managers. Banks should monitor behavioral engagement depth, payment frequency, multi-feature app usage, and comfort scores — as leading indicators of digital lending readiness rather than relying on demographic targeting alone. Product design for digital lending must make approval speed visible and trust tangible through transparent pricing, security signaling, and consent architecture. For regulators, the study reinforces the RBI's emphasis on disclosure, data consent, and customer protection as essential components of the trust infrastructure that enables digital lending to scale responsibly.

## IX. CONCLUSION

This paper establishes empirically that FinTech adoption and digital lending in retail banking are not parallel phenomena but mutually reinforcing mechanisms. Behavioral familiarity with digital financial services, built through repeated low-stakes transactions, reduces hesitation and enables customers to extend trust toward higher-stakes credit decisions. Speed, security, and pricing transparency are not peripheral features; they are the conditions under which that trust is confirmed or withdrawn. Retail banks that combine platform-grade convenience with bank-grade governance credibility are best positioned to capture the digital-lending opportunity as India's financial ecosystem continues to digitize.

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