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FinTech Disruption in Traditional Banking Services At Axis Bank

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ABSTRACT

This study examines the disruption caused by Financial Technology (FinTech) in traditional banking services, with specific reference to Axis Bank Limited. Using a descriptive research design, primary data were collected through a structured questionnaire administered to 100 Axis Bank customers selected through convenience sampling, supplemented by secondary data drawn from annual reports, RBI publications, and industry sources over the period 2021 to 2025. The study examined customer awareness, usage patterns, and satisfaction with Axis Bank's FinTech-enabled services — including mobile banking, UPI payments, and digital transactions — and tested whether demographic factors influence customer engagement with these services using independent-samples t-tests. The results show high customer awareness of Axis Bank's FinTech offerings (85%), with Mobile Banking (35%) and UPI Payments (30%) the most widely used services, about half of respondents transacting digitally on a daily basis, 70% finding the mobile banking app user-friendly, and 75% satisfied with transaction speed. A t-test comparing age and gender groups produced a calculated value of 29.48, exceeding the critical value at the 5% significance level and indicating that demographic factors significantly influence survey participation and engagement patterns; a second t-test comparing occupation and relationship duration produced a calculated value of 0.93, below the critical value of 1.96, indicating no significant association between these two factors. The study concludes that FinTech has meaningfully improved banking efficiency, convenience, and customer satisfaction at Axis Bank, while continued investment in cybersecurity, digital infrastructure, and customer education remains necessary to sustain this progress.

Keywords: *FinTech; Digital Banking; Traditional Banking; Axis Bank; Mobile Banking; UPI; Customer Satisfaction; Disruptive Innovation.*

1. INTRODUCTION

FinTech — the use of technology to improve the efficiency, accessibility, speed, and customer experience of financial services — has revolutionised the global financial sector over the past decade. Traditional banking, historically defined by physical branches, bureaucracy, and limited accessibility, is increasingly being challenged by digital-first FinTech firms offering customised products, seamless digital experiences, and round-the-clock availability. Advances in internet connectivity, mobile devices, cloud computing, blockchain, artificial intelligence, and big data analytics have enabled these firms to deliver faster, more convenient, and customer-focused financial solutions.

FinTech's disruptive influence spans digital payments (mobile wallets, online payment gateways, peer-to-peer transfer platforms), lending (AI-driven credit assessment that shortens approval times), and banking structure itself, through the rise of branchless neobanks. Traditional banks have responded by investing in digital infrastructure, adopting AI and machine learning for fraud detection and personalised advice, and exploring blockchain and open banking. The COVID-19 pandemic further accelerated this shift, pushing both FinTech firms and traditional banks toward greater reliance on digital channels. This study examines these dynamics specifically at Axis Bank Limited, a major Indian private sector bank, assessing customer awareness, adoption, and satisfaction with its FinTech-enabled services over the period 2021 to 2025.

1.1 Need for the Study

As FinTech firms challenge conventional banks across digital payments, mobile banking, AI, blockchain, and online lending, it becomes important to assess how a major traditional bank such as Axis Bank is adapting. This study examines Axis Bank's digital transformation and technological adaptation, alongside customer satisfaction,

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operational efficiency, service quality, and financial inclusion outcomes, to help the bank identify strategies for boosting competitiveness, customer engagement, and sustainable digital growth.

1.2 Scope and Period of the Study

The study examines how FinTech advances — digital payments, mobile banking, online banking, digital loans, AI, and chatbots — have affected Axis Bank Limited's operations, services, and customer experience over the period 2021 to 2025. It draws on both customer survey data and secondary sources, and its findings are limited to Axis Bank Limited rather than the wider banking industry.

1.3 Statement of the Problem

The rise of FinTech — mobile banking, internet banking, digital wallets, artificial intelligence, blockchain, and instant payment systems — is transforming a banking industry that historically relied on branch-based operations and manual processes, with customers now expecting services that are fast, convenient, and available 24/7. Even though FinTech offers clear benefits, conventional banks continue to face challenges around cybersecurity, data privacy, regulatory compliance, and high implementation costs in integrating these technologies, making it important to examine how well a specific bank such as Axis Bank is managing this transition.

2. LITERATURE REVIEW

Gust (2021) found that FinTech firms deliver faster, more customer-focused, and cheaper services than banks, but concluded that banks' strong client base, regulatory compliance, and financial resources prevent FinTech from fully replacing them, provided banks engage in digital transformation and innovation.

Kwong, Thorogood, and Van Toorn (2022) used qualitative interviews with banking and FinTech specialists to show that banks respond to FinTech disruption through collaboration, acquisition, and technology replication, and proposed a framework for bank-FinTech partnership to boost innovation and digital competitiveness.

Ojha (2022) examined FinTech's dual role in financial inclusion and banking disruption, finding that mobile banking, digital wallets, and online lending have expanded access for underserved groups, while recommending that banks prioritise security, client education, and regulatory compliance and pursue partnership over rivalry with FinTech firms.

Ghani (2024) reviewed the drivers of FinTech disruption — technological advances, changing consumer expectations, regulatory change, and competitive pressure — concluding that customer-centric innovation and technical agility are now essential for banks' financial sustainability.

Iyelolu and Paul (2024) compared traditional banks and FinTech firms on market share, efficiency, profitability, and growth, finding that while FinTech firms attract customers through ease and speed, traditional banks retain an edge in regulatory experience, customer trust, and established infrastructure.

Petrík (2023) reviewed how FinTech growth affects systemic banking risk, finding that FinTech promotes productivity and accessibility but also raises cybersecurity, operational, and financial contagion risks, and called for collaboration between regulators, banks, and FinTech firms to balance innovation with stability.

Hidayat (2024) used a systematic literature review to show that AI, blockchain, and big data analytics have improved banks' operational efficiency and lowered transaction costs, while noting that technological adaptation costs and regulatory compliance remain challenges for traditional banks.

Judijanto (2025) conducted a bibliometric review of FinTech disruption research from 2010 to 2024, finding that research accelerated sharply after 2020 and concentrated on digital payments, financial inclusion, and blockchain, with India, China, and the US leading FinTech research and development.

Zhou (2025) examined how FinTech adoption is destabilising traditional bank business models, finding that blockchain, AI, and big data analytics improve efficiency and enable data-driven decisions, but also raise competitive pressure and cybersecurity risk, and recommended that banks revamp their business models to compete.

Urmil and Uke (2025) compared neobanks and traditional banks on technological infrastructure, customer experience, and regulatory compliance, finding that neobanks attract younger, tech-savvy customers through personalised, faster, and cheaper digital services, while concluding that neobanks are reshaping rather than replacing traditional banking globally.

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Taken together, the literature confirms that FinTech is reshaping customer expectations and competitive dynamics across the banking sector, that traditional banks retain durable advantages in trust, regulatory expertise, and infrastructure, and that collaboration between banks and FinTech firms — rather than pure rivalry — is increasingly seen as the more productive path forward. This study builds on that consensus by examining how these dynamics play out concretely at a single traditional bank, Axis Bank Limited, from the customer's perspective.

2.1 Theoretical Framework

This study draws on six complementary theoretical perspectives. Christensen's (1997) Disruptive Innovation Theory holds that new entrants targeting underserved markets with simpler, cheaper, more convenient offerings can progressively displace incumbents — a lens through which FinTech firms' low-cost, high-convenience digital services can be viewed as a disruptive threat to conventional banks. Davis's (1989) Technology Acceptance Model (TAM) explains adoption through perceived usefulness and perceived ease of use, both of which are central to why customers favour user-friendly, efficient digital banking platforms. Rogers's (1962) Diffusion of Innovation Theory frames FinTech adoption through five characteristics — relative advantage, compatibility, complexity, trialability, and observability — and through adopter categories (innovators, early adopters, early and late majority, and laggards) that help explain uneven uptake across customer segments. Barney's (1991) Resource-Based View holds that valuable, rare, and hard-to-imitate resources create competitive advantage; here, banks' regulatory expertise, customer trust, and branch networks are weighed against FinTech firms' technological agility and digital infrastructure. Financial Intermediation Theory, which frames banks as intermediaries between savers and borrowers, is directly challenged by peer-to-peer lending, crowdfunding, and online investment platforms that reduce reliance on that intermediation. Finally, Innovation Ecosystem Theory frames the interaction between banks, FinTech firms, regulators, technology vendors, and customers as a collaborative system in which joint ventures and partnerships — rather than pure competition — drive innovation forward.

3. OBJECTIVES OF THE STUDY

- To understand the concept and significance of FinTech in the banking industry.
- To analyse the impact of FinTech innovations on conventional banking services at Axis Bank Limited.
- To assess customer awareness of FinTech-based banking services offered by Axis Bank.
- To evaluate customer preferences for digital banking and FinTech products.
- To evaluate Axis Bank's offerings in mobile banking, online banking, and digital payment services.

Hypotheses

H_0: FinTech disruption does not significantly affect traditional banking, and FinTech adoption is not significantly associated with customer satisfaction.

H_1: FinTech disruption significantly affects traditional banking, and FinTech adoption is significantly associated with customer satisfaction.

4. ANALYSIS

This descriptive study is based on primary data collected through a structured questionnaire administered to 100 Axis Bank Limited customers, selected through convenience sampling, covering digital banking, mobile banking, internet banking, digital payments, and customer satisfaction. This was supplemented with secondary data from Axis Bank's annual reports, RBI publications, and other banking and FinTech sources. Data were analysed using percentage analysis, tabulation, and independent-samples t-tests to examine whether demographic characteristics are associated with survey responses.

4.1 Demographic Profile of Respondents

Table 1: Demographic Profile of Respondents (N = 100)

Category	Group	Respondents	Percentage (%)
Age	Below 20 years	15	15
Age	21–30 years	45	45

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Category	Group	Respondents	Percentage (%)
Age	31–40 years	25	25
Age	Above 40 years	15	15
Gender	Male	60	60
Gender	Female	35	35
Gender	Other	5	5
Occupation	Student	20	20
Occupation	Employee	40	40
Occupation	Business Person	15	15
Occupation	Professional	15	15
Occupation	Other	10	10
Relationship with Axis Bank	Less than 1 year	15	15
Relationship with Axis Bank	1–3 years	30	30
Relationship with Axis Bank	3–5 years	25	25
Relationship with Axis Bank	More than 5 years	30	30

Source: Primary survey data collected from 100 Axis Bank Limited customers.

The sample skews young and employed: the largest age group is 21–30 years (45%), followed by 31–40 years (25%), with employees the single largest occupational group (40%), suggesting that FinTech services are used most actively by working-age professionals conducting regular banking transactions. The sample is 60% male, 35% female, and 5% other. On tenure, 60% of respondents have banked with Axis Bank for more than a year, including 30% for over five years, indicating a base of long-term, loyal customers alongside a healthy share of newer relationships — a mix well suited to evaluating FinTech services across different customer life stages.

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Figure 1: Demographic Profile of Respondents (N = 100)

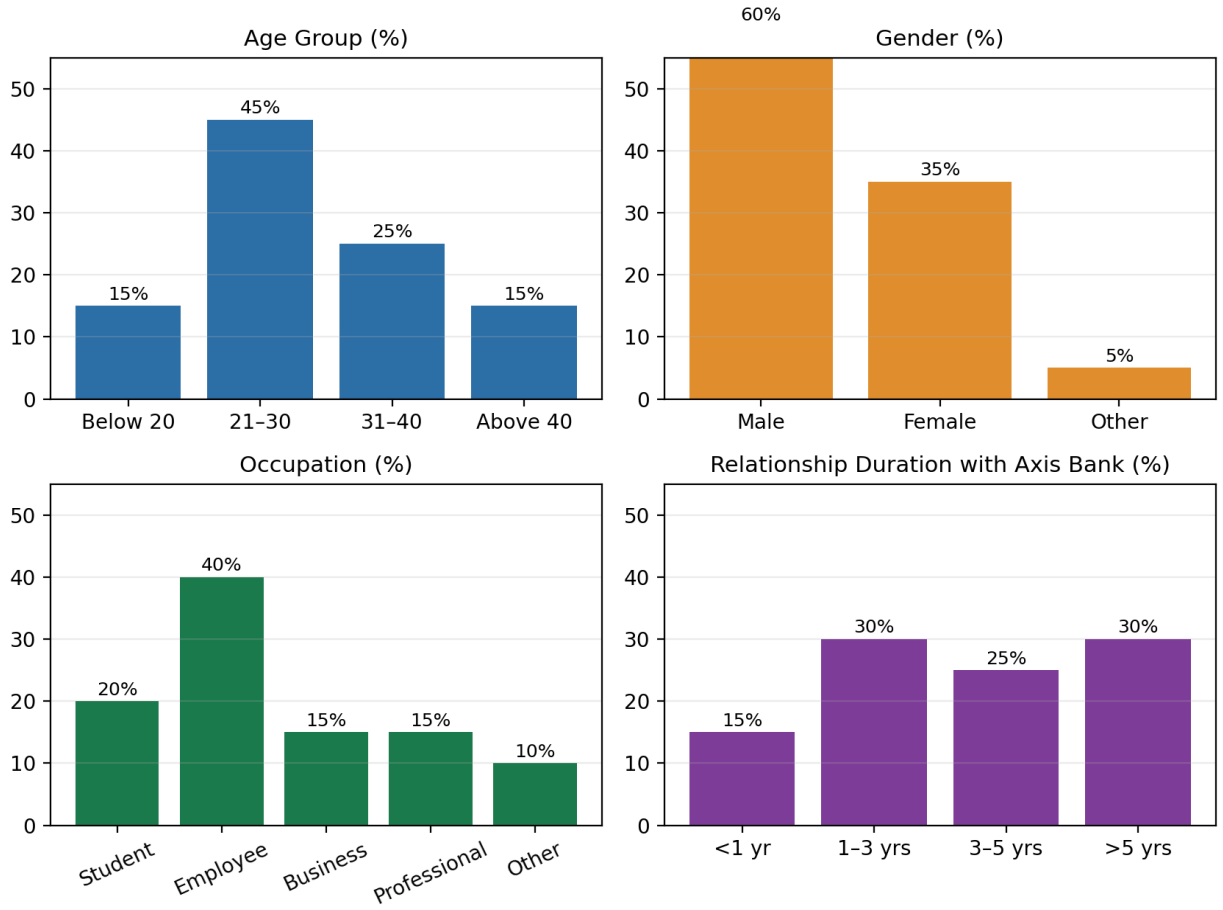


Figure 1: Demographic Profile of Respondents (N = 100)

4.2 FinTech Awareness, Usage, and Satisfaction

Table 2: Awareness of and Engagement with Axis Bank's FinTech Services

Metric	Percentage of Respondents (%)
Aware of Axis Bank's FinTech services	85
Most-used services: Mobile Banking (35%) and UPI Payments (30%)	65 combined
Use digital banking services on a daily basis	50
Primary purpose of use: fund transfer	40
Find the mobile banking app user-friendly	70
Satisfied with the speed of digital transactions	75

Awareness of Axis Bank's FinTech offerings is high, at 85% of respondents, reflecting effective promotion of the bank's digital banking options. Mobile Banking (35%) and UPI Payments (30%) are the most widely used services, together accounting for nearly two-thirds of the sample's primary usage, and about half of respondents transact digitally every

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day, most commonly to transfer funds. Customer experience metrics are strong as well: 70% find the mobile banking app user-friendly and 75% are satisfied with the speed of digital transactions, indicating that Axis Bank's digital infrastructure is, on the whole, meeting customer expectations for convenience and reliability.

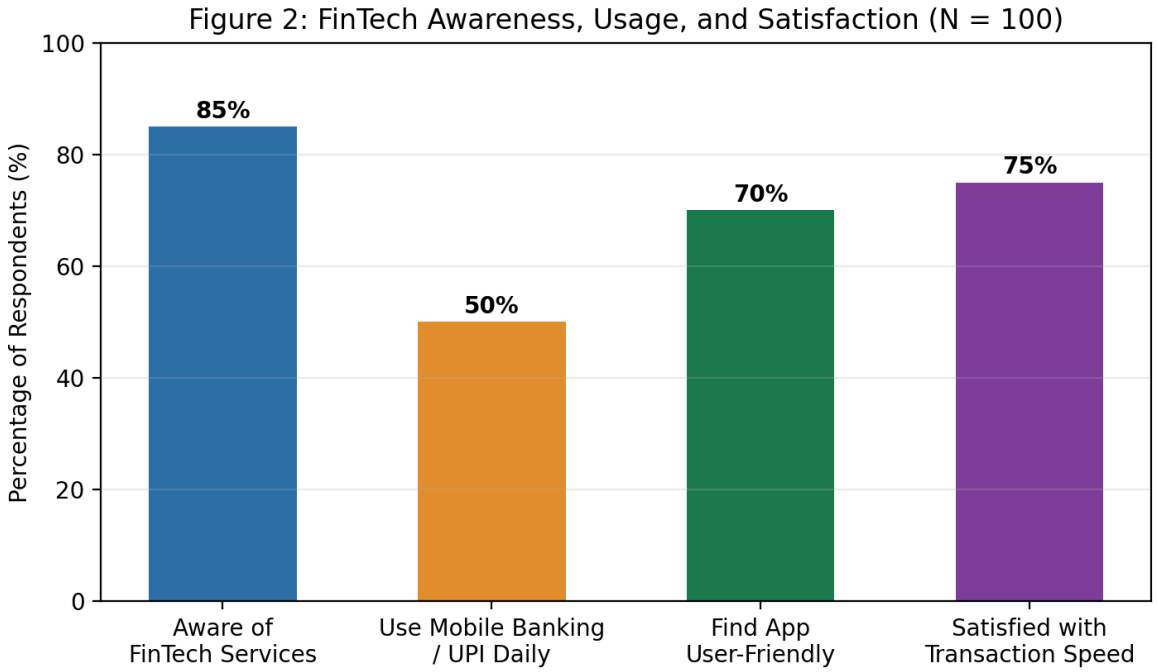


Figure 2: FinTech Awareness, Usage, and Satisfaction (N = 100)

4.3 Hypothesis Testing

An independent-samples t-test was used to test whether coded demographic variables (age and gender) differ significantly, and a second t-test examined whether occupation and relationship duration with the bank differ significantly, using group frequencies converted to numerical mid-values or codes.

Table 3: Independent-Samples t-Test Results

Test	Variables Compared	Calculated t-value	Critical Value (0.05)	Decision
Test 1	Age group vs. Gender	29.48	—	Reject H_0 (significant difference)
Test 2	Occupation vs. Relationship duration	0.93	1.96	Accept H_0 (no significant difference)

The first test returns a calculated t-value of 29.48, which exceeds the critical value at the 5% significance level, leading to rejection of the null hypothesis; this indicates that demographic characteristics such as age and gender are associated with meaningfully different response patterns, which may in turn shape how different customer segments perceive and engage with Axis Bank's FinTech services. The second test returns a calculated t-value of 0.93 (df ≈ 198), below the critical value of 1.96, so the null hypothesis is accepted: occupation and length of relationship with the bank appear to be independent of one another, suggesting that how long a customer has banked with Axis Bank does not vary systematically by occupational category, and that occupation and tenure operate as largely independent factors in FinTech adoption.

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5. FINDINGS

- The largest respondent age group is 21–30 years (45%), showing that young customers are the primary users of Axis Bank's FinTech services.
- Male respondents make up 60% of the sample against 35% female, indicating relatively higher male participation in digital banking.
- Employees form the largest occupational group (40%), indicating that working professionals rely heavily on FinTech for routine banking needs.
- 60% of respondents have banked with Axis Bank for more than a year, including 30% for over five years, reflecting strong customer loyalty.
- 85% of respondents are aware of Axis Bank's FinTech offerings, indicating effective communication of its digital banking options.
- Mobile Banking (35%) and UPI Payments (30%) are the most popular FinTech services among respondents.
- About 50% of respondents use digital banking services daily, reflecting substantial adoption of digital platforms.
- Fund transfer is the primary purpose of FinTech usage for 40% of respondents.
- Over 70% of respondents find Axis Bank's mobile banking app user-friendly.
- About 75% of respondents are satisfied with the speed of digital transactions.
- A t-test on age and gender ($t = 29.48$) shows a statistically significant demographic effect on survey responses, while a t-test on occupation and relationship duration ($t = 0.93$, below the critical value of 1.96) shows these two factors are statistically independent.

6. SUGGESTIONS

- Axis Bank should continually strengthen its cybersecurity systems to protect customers from fraud, phishing, and unauthorised account access.
- Regular awareness campaigns, seminars, and digital literacy programs should be run to educate customers on FinTech services and safe banking practices.
- The mobile banking app should be updated regularly with user-friendly features, improved navigation, and personalised services.
- The bank should invest in modern technology infrastructure to reduce system downtime, transaction failures, and application issues.
- 24/7 customer support via chatbots, helplines, and online assistance should be strengthened for faster problem resolution.
- Older customers should be encouraged toward digital banking through dedicated training and simplified interfaces.
- Customers should be periodically informed about password protection, OTP security, fraud prevention, and safe online transaction practices.
- Digital payment adoption (UPI, mobile banking) should be encouraged through incentives, cashback offers, and promotional campaigns.
- Axis Bank should use AI and data analytics to offer more customised banking services and personalised financial recommendations.
- Continued collaboration with FinTech firms can help the bank develop new products and services suited to evolving customer needs.

7. CONCLUSION

This study of FinTech disruption in traditional banking services at Axis Bank Limited finds that FinTech innovations have meaningfully improved banking efficiency, convenience, and customer satisfaction. Most respondents rely on mobile banking, UPI payments, and online banking, and the speed, accessibility, and ease of use of these digital channels have visibly reduced the need for branch visits. High awareness (85%), strong satisfaction with transaction speed (75%), and positive perceptions of app usability (70%) together indicate that Axis Bank's digital transformation

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efforts are resonating with its customer base.

At the same time, the hypothesis tests show that demographic factors such as age and gender meaningfully shape engagement with FinTech services, while occupation and length of banking relationship operate largely independently of one another — a reminder that digital banking strategies may need to be tailored by age and gender segment rather than assumed to be uniform across the customer base. A few respondents also flagged occasional technical issues and security concerns, underscoring the continued need for technology upgrades and cybersecurity investment. Overall, FinTech disruption has modernised banking procedures and improved customer experience at Axis Bank Limited, and sustained investment in technical innovation, digital infrastructure, customer education, and security will be essential for the bank to stay competitive and meet evolving customer expectations in the fast-changing financial services market.

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