

Fintech Adoption In Urban India: A Study of Usage Patterns and Preferences in Chennai

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Cite this paper as: Dr. G. Sankararaman, Dr. S. Suresh, Dr. Pg.Thirumagal, Dr. V. Rengarajan, Dr. R.Natarajan, (2025) Fintech Adoption In Urban India: A Study of Usage Patterns and Preferences in Chennai. *Advances in Consumer Research*, 2 (4), 2367-2373

KEYWORDS	ABSTRACT
FinTech, Digital Finance, Mobile Banking, Digital Banking	The rapid growth of financial technology (FinTech) has transformed the financial landscape, providing users with enhanced digital solutions for payments, banking, and investments. This study examines user preferences for FinTech services in Chennai, focusing on awareness, adoption factors, satisfaction levels, and challenges. Researchers conducted a mixed-method approach, incorporating surveys and interviews with 214 respondents. Findings indicate that convenience, transaction speed, and cost-effectiveness drive adoption, while security and regulatory concerns act as barriers. The study highlights opportunities for FinTech growth through enhanced cybersecurity measures, financial literacy programs, and improved user support. The recommendations aim to foster greater financial inclusion and trust in FinTech services in Chennai.

1. INTRODUCTION

The financial technology (FinTech) sector has seen rapid growth globally, and Chennai is no exception. With the increasing adoption of digital payments, mobile banking, and investment platforms, understanding user preferences is crucial for all stakeholders. This study focuses to analyze user behavior, key factors influencing FinTech adoption, and emerging trends in Chennai.

2. REVIEW OF LITERATURE

A review of recent studies highlights the key factors influencing FinTech usage, including innovation, user preferences, demographic trends, security awareness, and regional diversity.

Vinmalar et al. (2019) studied that integrating technology across organizational functions is essential for long-term survival and competitiveness. They liken innovation to the human heart—critical for life—arguing that openness to external technology, skill acquisition, and strategic partnerships enables organizations to thrive in the FinTech era. Their study explores how different sectors approach FinTech and the challenges they encounter.

Alamelu and Aarthi (2024) analyzed finTech adoption among Millennials and Gen Z in Chennai, focusing on their awareness, preferences, and satisfaction levels. Using data from 262 respondents, the study finds that age, education, income, and employment sector significantly influence FinTech usage. Convenience, security, and innovation are key factors affecting user engagement. The authors suggest targeted awareness programs for less-educated and low-income groups to enhance digital inclusion.

Theerthamalai et al. (2024) predicted a strong future for FinTech in India, driven by improved internet access, rising income levels, and government initiatives. The sector is expected to contribute to financial inclusion by offering affordable, personalized services to underserved groups such as SMEs, students, and lower-income households. This will also benefit banks and financial institutions by broadening their user base.



Manickam et al. (2023) explored the evolution of digital payments as a critical step toward a cashless economy. They identify four main trends—regulatory support, emerging service providers, user-centric innovation, and public infrastructure—that are shaping the growth of digital transactions. The Digital India initiative is seen as a key enabler of transparent, traceable, and efficient payment systems.

Sundararajan et al. (2024) studied Gen Z and Millennials' perceptions of FinTech-enabled banking. Their findings, based on statistical analyses, reveal that Gen Z shows a stronger preference for FinTech due to greater digital familiarity. The study recommends expanding the sample size and employing advanced statistical tools like Partial Least Squares for deeper insights.

Sankararaman G. et al (2024) investigated user awareness of digital banking security threats. With data from 174 respondents, the study highlights limited understanding of cybersecurity practices. Tools like ANOVA, regression, and chi-square tests reveal significant gaps in the use of available security features. The authors emphasize the need for user education and strengthened security protocols.

Samuel Thangaraj et al. presented a qualitative review of digital payment adoption, noting that efficient payment systems enhance economic liquidity. They have highlighted the importance of agility and accountability in digital transactions while acknowledging the benefits and challenges of a cashless economy.

Ravichandiran et al. (2024) described India's FinTech ecosystem as a collaboration among startups, traditional financial institutions, and government initiatives. With innovations driven by AI, blockchain, and mobile technology, the sector is expected to witness substantial growth. Cities like Bengaluru, Mumbai, and Chennai are emerging as innovation hubs, positioning India as a global FinTech leader.

Ashwardhini et al. (2024) focused on the role of artificial intelligence in banking and user perceptions in Chennai. Analyzing responses from 120 participants, they identify three major factors: efficiency and security, enhanced user interaction, and advanced risk management. The study calls for awareness campaigns and ethical implementation to address concerns such as job displacement and data privacy.

ElanTherian (2024) focused a cultural perspective, examining how India's linguistic and regional diversity impacts FinTech adoption. The study emphasizes the need for localized strategies tailored to varied user behaviors, highlighting the importance of cultural sensitivity in promoting financial technology across diverse populations.

These studies collectively indicate that while India's FinTech sector holds immense promise, inclusive growth requires addressing user awareness, improving security infrastructure, and designing culturally relevant solutions

3. RESEARCH METHODOLOGY

This study adopts a mixed-method research design, integrating both qualitative and quantitative approaches to gain a comprehensive understanding of FinTech adoption. A structured questionnaire was distributed to a total of 384 individuals representing diverse demographic segments across Chennai city. The sampling technique employed was non-probability convenience sampling.

Although 384 responses were initially collected, several questionnaires contained incomplete responses. After careful screening, 214 valid responses were considered for final analysis. The data was analyzed using a range of statistical tools including percentage analysis, Chi-square tests, correlation analysis, one-way and two-way ANOVA.

The geographical scope of the study was limited exclusively to Chennai, focusing on understanding FinTech usage patterns and user preferences within this urban context.

The objectives of the study are as follows;

- To examine the level of awareness and extent of usage of FinTech services among users in Chennai.
- To identify the major determinants influencing user preferences in adopting FinTech solutions.
- To evaluate user satisfaction across different categories of FinTech services.
- To investigate the key challenges encountered by individuals while using FinTech platforms.
- To suggest actionable strategies to enhance the adoption and accessibility of FinTech services in urban settings.

Hypothesis of the study

Ho1: There is no association between Gender, Education and Knowledge on FinTech

Ho2: There is no association between Occupation and Types of FinTech Service used

Ho3: There is no significance difference amongst Education, Annual Income and Frequency of Usage

Ho4: There is no significance difference amongst Types of FinTech Services, Annual Income and Satisfaction Level



4. RESULTS AND DISCUSSION

Table 1: Demographic Profile

Parameters	Options Given	Percentage of the Frequency%
Gender of the Respondents	1.Male	52.3
	2. Female	47.7
Education of the Respondents	1. School Education	15.4
	2. UG	7.9
	3. PG	70.1
	4. PhD	6.6
Age of the Respondents	1. Below 25	64
	2. 25-35	8.4
	3. 35-50	21
	4. Above 50	6.5
Annual income of the respondents	1. Below 3 Lacs	59.3
	2. 3-6 Lacs	14.1
	3. 6-10 Lacs	9.8
	4. Above 10 Lacs	16.8
Occupation	1. Student	53.7
	2. Entrepreneur	3.3
	3. Private	36.9
	4. Others	6.1

Source: Data collected through questionnaire

Table 1 reveals key demographic insights from the 214 valid respondents. A majority of the participants were male (52.3%), and 64% belonged to the age group below 25 years. Notably, 70.1% of the respondents held a postgraduate (PG) qualification, indicating a well-educated sample. In terms of annual income, 59.3% reported earning below ₹3 lakhs per year. Regarding family size, the most common family structure consisted of four members (36.2%). Additionally, 53.7% of the respondents identified themselves as students, highlighting a strong representation of the younger, academically engaged demographic.

TABLE 2: KNOWLEDGE AND AWARENESS ON FINTECH

Parameters	Option Given	Percentage of Frequency
KNOWLEDGE OF FINTECH	YES	87.9
	NO	7.4
	MAY BE	4.7
TYPE OF FINTECH SERVICE USED	Digital Payments	40.2
	Mobile Banking	22.4



	P2P Lending	6.5
	Digital Wallets	10.3
	Crypto Exchanges	2.8
	Investment and Trading Apps	6.1
	InsureTech	1.9
	Remittance Services	2.3
	Others	7.5
FREQUENCY OF USAGE OF FINTECH SERVICE	Daily	63.6
	Weekly	21.5
	Monthly	4.7
	Rarely	10.3
SOURCES OF INFORMATION	Friends and Relatives	37.4
	News Papers and Magazines	6.1
	Television Ads	6.5
	Financial Advisors	12.6
	Awareness programs conducted by Banks and Financial Institutions	22.9
	You Tube Videos	13.1
	No awareness	1.4
REASON FOR USAGE OF FINTECH	Convenience	33.2
	Security	20.6
	Cost-effectiveness	11.2
	Ease of use	25.7
	Others	9.4

Source: Data collected through questionnaire

It is found from the table – 2 that 87.9% of the respondents reported having awareness of FinTech services. Among the various FinTech applications, digital payments emerged as the most commonly used service, with 40.2% of respondents indicating frequent use. Additionally, 63.6% of participants stated that they engage with FinTech services on a daily basis. The primary source of information about these services was found to be friends and relatives (37.4%), highlighting the influence of peer networks. Convenience was identified as the leading reason for adopting FinTech solutions.

TABLE 3: CHALLENGES AND FUTURE OF FINTECH

VARIABLE	OPTIONS	PERCENTAGE OF FREQUENCY
CHALLENGES IN USING FINTECH	Security issues	11.2
	Lack of transparency on fees	14.0
	Compatibility issues(Technology)	11.2
	Fraud or misconduct	8.4



	Payment Failures	47.7
	Nil	7.5
SATISFACTION LEVEL OF FINTECH USERS	Extremely Satisfied	25.2
	Satisfied	33.6
	Neutral	20.6
	Dis-Satisfied	17.8
	Highly Dis-Satisfied	2.8
USER CARE EXPERIENCE	Very Good	12.1
	Good	25.2
	Poor	43.9
	Very Poor	18.7
FUTURE OF FINTECH	Very Good Scope	66.4
	Good Scope	18.7
	Neutral	9.3
	Poor	5.6

Based on the above table the respondents face Payment failures (47.7%). They are moderately satisfied with the services provided by Fintech Firms (33.6). They have negative feeling about the user care experience (43.9). The respondents strongly believe that Fintech has got very good scope in the future.

Table 4 Test of Association between selected Variables

Variables	Pearson Chi-square value	df	Sig Value
Gender & Knowledge on FinTech	8.776	2	0.012**
Education & Knowledge on FinTech	20.888	6	0.002**
Occupation & Types of FinTech Service used	1.233	24	0.000**

The Chi-square test results show that there are important connections between demographic factors and FinTech usage. There is a significant relationship between gender and awareness of FinTech services ($\chi^2 = 8.776$, $df = 2$, $p = 0.012$), which means that awareness levels differ between males and females. The study also found that education level is linked to FinTech awareness ($\chi^2 = 20.888$, $df = 6$, $p = 0.002$); people with higher qualifications are generally more aware of FinTech. In addition, there is a strong relationship between occupation and the types of FinTech services used ($\chi^2 = 123.3$, $df = 24$, $p < 0.001$), suggesting that people's jobs influence the kind of FinTech services they prefer or use.



Table 5 - Two Way Anova on Education, Annual Income and Frequency of Usage

Tests of Between-Subjects Effects					
Dependent Variable: Frequency of Usage					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	25.262 ^a	6	4.210	4.915	.000
Intercept	235.540	1	235.540	274.969	.000
Education	10.571	3	3.524	4.113	.007
AnnualIncome	18.414	3	6.138	7.165	.000
Error	177.317	207	.857		
Total	762.000	214			
Corrected Total	202.579	213			
a. R Squared = .125 (Adjusted R Squared = .099)					

The Two-Way ANOVA analysis was conducted to examine how education level and annual income influence the frequency of FinTech usage. The overall model is statistically significant ($F = 4.915$, $p < 0.001$), indicating that the combined impact of the independent variables has a meaningful effect on usage frequency.

Specifically:

- Education level significantly affects how often respondents use FinTech services ($F = 4.113$, $p = 0.007$). This suggests that people with different educational backgrounds tend to use FinTech at different frequencies.
- Annual income also has a strong and significant impact on FinTech usage ($F = 7.165$, $p < 0.001$). Individuals with varying income levels show different usage patterns, possibly due to their financial needs or access to digital tools.

The R-squared value of 0.125 shows that about 12.5% of the variation in FinTech usage frequency is explained by the education and income variables. The adjusted R-squared value (0.099) indicates the model has a modest but meaningful fit.

Table 6- Two Way – ANOVA between Types of FinTech Services, Annual Income Vs Satisfaction Level

Tests of Between-Subjects Effects					
Dependent Variable: Satisfactionlevel					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	34.660 ^a	11	3.151	2.693	.003
Intercept	261.426	1	261.426	223.414	.000
TypeofFTservice	7.221	8	.903	.771	.628
AnnualIncome	27.597	3	9.199	7.861	.000
Error	236.368	202	1.170		
Total	1496.000	214			
Corrected Total	271.028	213			

a. R Squared = .128 (Adjusted R Squared = .080)

The analysis was conducted to determine whether types of FinTech services used and annual income levels have a significant effect on users' satisfaction level with FinTech services.



- The overall model is statistically significant ($F = 2.693$, $p = 0.003$), which means that the combination of the independent variables has a meaningful impact on satisfaction level.
- The type of FinTech service used does not have a significant effect on satisfaction ($F = 0.771$, $p = 0.628$). This suggests that users' satisfaction does not vary much based on the specific FinTech service they use.
- However, annual income shows a highly significant impact on satisfaction levels ($F = 7.861$, $p < 0.001$). This means that satisfaction levels differ notably among users with different income brackets—likely due to differences in expectations, service access, or perceived benefits.
- The R-squared value is 0.128, which means that 12.8% of the variation in satisfaction levels can be explained by the variables included in the model. The adjusted R-squared value of 0.080 reflects a modest but meaningful model fit after adjusting for the number of predictors.

5. CONCLUSION

The rise of FinTech has reshaped financial services by offering faster, more convenient digital solutions. This study explores FinTech usage in Chennai, analyzing user awareness, satisfaction, and adoption drivers. Data from 214 respondents revealed that convenience and speed encourage usage, while security concerns hinder it. Key suggestions include boosting cybersecurity, user education, and service support. These efforts can enhance financial inclusion and trust in Chennai's FinTech ecosystem.

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