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# Future of fin tech business in India: A study on customer's attitude and adoption in select cities of Uttar Pradesh

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#### Abstract

Technology, particularly financial technology (FinTech), has been rapidly gaining ground, with a significant surge in its influence during the COVID-19 pandemic on a global scale. Over the past few years, the FinTech sector has experienced substantial growth. While numerous studies have delved into FinTech, primary research has scarce focused on customer adoption, sustainability, and propensity towards using FinTech.

This paper addresses the insights gleaned from customers regarding their adoption, sustainability considerations, inclinations, and attitudes toward the FinTech industry. The research draws support from well-structured questionnaires administered to a diverse spectrum of FinTech products and services retail customers, in addition to a comprehensive review of pertinent literature. We've endeavored to bridge notable research gaps, providing a groundwork for future studies. This research holds relevance for regulators, policymakers, banks, FinTech startups, other financial institutions, and individual customers alike, as it has the potential to impact them.

According to our findings, FinTech is poised to significantly impact sectors such as payments and investment management. Factors like ease of use, affordability, accessibility, and enhanced customer experience play a substantial role in this phenomenon. Customers are not only inclined to use FinTech in the upcoming five years but also express a prevailing belief that it contributes to achieving sustainable development goals."

Keywords: Fin Tech, financial products, technology, COVID-19, financial services, sustainability

#### Introduction

FinTech is essentially a term formed by merging 'financial' and 'technology.' Put simply, it refers to the use of technology for financial services, although it's a challenge to precisely define due to the rapid and ongoing technological advancements. FinTech has been closely linked with innovation, and this innovation has the potential to contribute significantly to achieving sustainable development goals.

Globally, FinTech has made substantial contributions in various ways, enhancing risk management, improving access to capital markets, and offering advanced payment services. For instance, in India, there have been notable advancements in payment services such as Unified Payment Interface (UPI), QR codes, big data, artificial intelligence (AI), machine learning (ML), digital currency, personal financial management, and blockchain technology. India stands out as one of the world's fastest-growing FinTech markets, boasting an impressive adoption rate of 87%, surpassing the global average of 64%. In 2021, the Indian FinTech sector reached a market size of \$50 billion, thanks to the presence of over 6,636 FinTech firms. Projections anticipate this market to expand to \$150 billion by 2025.

As per a Transfer Wise survey, consumers' preference for technology providers over traditional banks can be attributed to five primary factors:

- 1. Enhanced security compared to banks (34%)
- 2. Lower costs compared to banks (29%)
- 3. Greater convenience compared to banks (26%)
- 4. Faster service compared to banks (18%)
- 5. Superior customer service compared to banks (18%)

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Research Scholar, University of Lucknow, Lucknow, Uttar Pradesh, India In India, Fin tech can be segmented into several key categories, including Pay Tech, Lend Tech, InsurTech, WealthTech, and RegTech. Indian Fin tech companies employ various services such as payment gateways, card networks, application programming interfaces (APIs), and payment security to cater to this diverse industry. Consumer-oriented services encompass point-of-sale solutions, prepaid cards/wallets, bill payments, QR code transactions, and third-party applications. Business-centric services include B2B payments, corporate cards, and invoice processing. Leading players in this market include Paytm, PhonePe, MobiKwik, Amazon Pay, and Google Pay. Before delving into the prospects of Indian FinTech companies, let's examine a few more statistics.

The volume of digital payment transactions surged from Rs 2 trillion in 2019 to Rs 4 trillion in 2020, marking a significant increase. Between January and August 2021, digital transactions amounted to Rs 6 trillion. Projections indicate that the value of FinTech transactions is expected to grow at a compound annual growth rate (CAGR) of 20%, moving from US\$ 66 billion in 2019 to US\$ 138 billion in 2023. As of the conclusion of December 2021, India boasted approximately 17 fin tech companies that had attained unicorn status.

### Literature Review

According to Currency Cloud (2016), these patterns of declining client base and lost profitability have prompted banks to form collaborations with FinTech firms. If banks want to maintain consistent profit levels, they should seriously explore cooperating with FinTech companies.

According to Daniel Drummer *et al.* (2016) <sup>[12]</sup>: due to the rapid growth of highly efficient competitors, banks may see a loss in revenues ranging from 29 to 35%. If, on the other hand, Banks that begin the digital transformation process on time will not only keep their position but will also benefit. They could potentially boost their profits.

According to a report by Accenture: (a global management consulting, technology services, and outsourcing company), fin tech is one of the fastest-growing sectors of the economy. Investments in the industry have increased rapidly reaching 12, 2 billion dollars in 2014, while in 2008, it was only 930 million dollars. The highest increase was observed in Europe (Accenture, 2015) [1].

According to Li et al. (2017) [13]: the number of fintech agreements and the volume of fintech funding are both increasing, and this isnotably favourable for incumbent retail banks in the U.S

The two sectors that can be highlighted as meriting additional research are Fintech customers and producers, according to Sing *et al.* (2019) <sup>[14]</sup>. As a result of the study, customer willingness to adopt Fintech in financial services will be further measured. Also emphasized was the fact that research on Fintech has not given the banking sector enough attention.

**According to Haddad and Hornuf (2021):** who looked at 87 nations between 2006 and 2018, the number of fintech startups is considerably positively correlated with the

success and stock returns of conventional financial institutions.

Nguyen *et al.* (2022) <sup>[15]</sup> examined 73 nations between 2013 and 2018 and discovered that fin tech credit considerably improved risk-adjusted profitability.

# Research Methodology Objective of the study

- 1. To understand the term FinTech
- 2. To know the growth of FinTech in India
- 3. To know the customer awareness and leaning towards Fin tech in the next five years in Lucknow city

### The approach of the study

The current study used a descriptive research design. For that primary data has been collected through questionnaires and secondary data has been collected from journals, magazines & books, newspapers, and various national and international reports.

# **Data collection instruments**

For data collection, a structured questionnaire was used and a total of 100 respondents were selected using the convenience sampling method from Lucknow city.

# **Hypotheses**

**Ho:** There is no statistically significant influence of customer perception regarding different factors coordinated towards using FinTech services on participant's interest in using FinTech in the next 5 years.

**H**<sub>1</sub>: There is a statistically significant influence of customers' perception regarding different factors coordinated towards using FinTech services on participant's interest in using FinTech in the next 5 years.

# **Data Analysis Method**

Different analysis techniques of Excel and SPSS have been utilized to investigate which the main factors are contributing to the spread of FinTech. To test a hypothesis, binary logistic regression has been applied.

# Findings and Conclusions Participants

The demographic status of participants was studied and reported in Table 1.100 participants for this study are from different genders, ages, groups, occupations, and monthly incomes. The Study Group consists of 100 samples out of 54 (54.40%) were male respondents and 46(46.60%) were female participants all from urban areas. Considering the different age groups, 5 (5%) of the sample are below age 20 years of age, 80(80%) of the sample are between 20 – 30 age, 10(10%) of the samples are between 30-40 age, 5(5%) of the samples are between 40-50 age. Study groups consists of 33(32.7%) from employee category, 62(62.4%) samples from student category, 3(2.9%) from self-employed/freelancer and 2(2%) samples from home-maker category. Looking at households' monthly income, the highest observations were 36 (36.6%) from samples having monthly

Looking at households' monthly income, the highest observations were 36 (36.6%) from samples having monthly income of 30,000- Rs.60, 000 followed by less than Rs 30,000 (36.6%), Rs. 60,000-90,000 (12.9%), Rs 90,000-1, 20,000 (7.9%), above Rs. 1, 20,000 (6%).

Particulars No. of respondents (Total respondents 100) Percentage Gender 54.40% Male Female 46 46.60% Age 5% < 20 years 05 80 20-30 years 80% 30-40 years 10 10% 40-50 years 05 5% Occupation Students 62.40% 32.70% Employees 33 Self-Employed/Freelancer 03 02.09% Home-Maker 02 02.00% **Household Monthly Income** Less than Rs 30, 000 36.60% 36 Rs 30, 000-60, 000 36 36.60% Rs 60, 000-90, 000 12.09% 12 Rs.90, 000-1, 20, 000 07 7.09% Above Rs. 1, 20, 000 06 6.00%

**Table 1:** Demographic variables of respondents

Table 2: Financial Institutions Contacts

Particulars	Participants	Percentage
Public banks	59	59.40%
Private Banks	31	30.67%
NBFI	05	05.00%
Fintech Start-ups	05	05.00%

When it were asked to participants for their contact which type of financial institutions for different financial products and services as reported in Table 1, 59.4% of participants confirmed that they use financial services of public banks followed by 30.6% who claimed to use financial services through private banks, 5% of participants confirmed to use of financial services through Fintech start-up and 5% of participants supported using financial services through NBFC's.

**Table 3:** Primary access to financial Services- Mobile, Online, and physical Branch

Particulars	Respondents	Percentage
Mobile	40	39.600%
Online	49	49.50%
Physical branch	11	10.90%
Total	100	100%

It was asked how the participants primarily accessed financial products and services as reported in table-3. Out of all the participants, 49.50% said that they access financial services through online banking, and 39.60% of the participants confirmed using financial services through mobile. Only 10.90% of participants said that they access financial services through physical branches. These findings demonstrate that more people are using digital technology to access even financial services.

Table 4: Awareness, Usage, and Willingness to Use Different Financial Services of Fintech

Participants	Aware	Percentage	Using	Percentage	Interested in using	Percentage
Peer to Peer lending	75	75%	12	12%	13	13%
Crowd Funding	79	79%	07	07%	14	14%
Online lending by NBFCs	67	67%	12	12%	21	21%
M-Wallets	33	33%	48	48%	19	19%
Merchant payments & PoS services	32	32%	49	49%	19	19%
Robo advisors	69	69%	8	8%	23	23%
Online financial advisors	59	59%	14	14%	27	27%
Online Wealth Management services	67	67%	9	9%	24	24%
Crypto Currencies	53	53%	20	20%	27	27%

This study also tried to check participants' awareness, usage, and willingness to use various financial services of FinTech, as recorded in Table – 4. A maximum of 79% of participants confirmed that they are aware of crowd funding followed by 75% aware of peer-to-peer lending, 69% of aware Robo-advisors, and as mentioned in Table. If we look at the usage of those services, 49% of participants claimed to use merchant payments and PoS services followed by 48% of participants who claimed to use M-wallet, and only 7% and 8% of participants claimed to use crowd funding and Robo advisors respectively. Maximum number of

respondents 27% were interested in using online financial advisors and cryptocurrencies followed by 23% interested in using Robo advisors, and 21% interested in using online lending by NBFCs. Only 13% of participants had shown interest in using peer-to-peer lending.

The factor contributing to using FinTech: When questioned about what factors are coordinating the customers to move towards FinTech and recorded in Table-5, participants were asked to give their response on a 1(Very Unlikely) to 5 (Very likely) scale and results were recorded

in Table. Faster Services with a mean score of 4.72 on the scale were found to be the main factor for the customers to use FinTech services followed by Ease of use (mean score

of 4.71) and the wider availability of services (mean score of 4.68). The least mean score of 4.05 was reported for minimum regulatory concerns.

Table 5: Factors Contributing to Using FinTech

	Very Likely (5)	Likely (4)	Somewhat Likely (3)	Unlikely (2)	Very Unlikely (1)	Mean Score
Ease of Use	76	21	02	0	1	4.71
Faster Services	73	26	01	0	0	4.72
Wider Availability of Services	75	18	07	0	0	4.68
Cheaper Services	60	23	16	1	0	4.42
Access to advice	52	38	10	0	0	4.42
Easy accessibility	69	27	04	0	0	4.65
Enhanced customer experience	60	32	08	0	0	4.52
Minimum regulatory concern	41	33	18	06	02	4.05
Innovation in existing product	41	48	08	01	02	4.25

**Table 6:** Existing Institution Rating on FinTech Parameters

	(Highest Score) 5	(High Score) 4	(Average Score) 3	(Low Score) 2	(Lowest Score) 2	Mean Score
Digital Identity	57	26	10	03	04	4.29
Use of vernacular languages	28	44	23	03	02	3.93
Online banking	68	26	03	01	02	4.57
Robo advisor	24	31	36	09	0	3.70
Precise Lending (ex- Agri-lending	25	33	29	09	04	3.66
Micro insurance	31	28	34	04	03	3.80
Social media usage for communication	50	32	13	02	03	4.24
Mobile banking	73	18	05	01	03	4.57

This study also concentrated on finding out participants' ratings of existing institutions on FinTech parameters and recorded in Table 6. Participants were asked to give their response on a 1(Lowest score) to 5 (Highest score) scale and results were recorded in Table. Precise lending (Ex- Agri Lending) with the lowest mean score of 3.66 on the scale for existing financial institutions followed by Robo advisors (mean score of 3.70) and micro insurance (mean score of 3.80). The highest mean score 4.57 was reported for online banking and mobile banking for existing financial institutions.

 Table 7: Participants Perceptions towards FinTech

Particulars	Yes	NO
More inclined towards FinTech in the next 5 years	84	16

Source: Calculated by Author

In Table 7, it was questioned if you would be more likely to use fintech in the following five years.

According to the data, 84 (or 84%) of the participants said they would be more likely to use fintech in the next five years.

This study aimed to gauge the extent of disruption perceived by customers regarding FinTech. The data from the respondents are presented in Chart 1. Out of the respondents, 38 indicated that they believed FinTech would be disruptive, while 37 expressed that they anticipated it to be highly disruptive. The average score for this perception is

4 33

Based on the gathered data, it is evident that the primary concerns are financial security, followed by cyberattacks, personal data protection, and insufficient knowledge. A small percentage of respondents claimed to be worry-free when utilizing fintech goods and services.

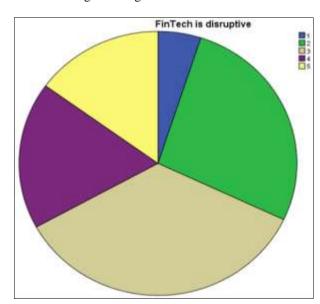


Chart: 1 Fintech is Disruptiv

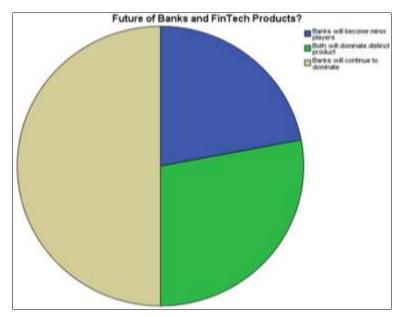
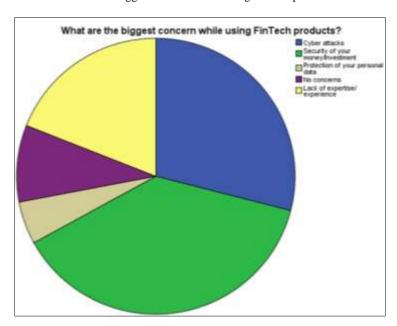


Chart 2: Biggest concern while using Fintech product.



**Chart 3:** A specific question was posed to respondents regarding their perspective on the future status of banks. The results, as presented in Chart- 3, indicate that the majority, constituting 50% of the respondents, hold the belief that banks will continue to dominate and the remaining 50% shows banks and FinTech both companies will each exert dominance in distinct product categories and Banks will become a minor player respectively.

# **Hypothesis Testing**

**H0** (Null Hypothesis): There is no impact of customers' perceptions regarding various factors that contribute to the use of FinTech services on respondents' inclination to use FinTech in the next 5 years.

**H1** (Alternative Hypothesis): There is an impact of customers' perceptions regarding various factors contributing to the use of FinTech services on respondents' inclination to use FinTech in the next 5 years.

To examine the hypotheses mentioned above, binary logistic regression was employed. As outlined in Table 7, respondents were asked about their inclination to use FinTech in the next five years. Based on the data, 100 respondents expressed a higher inclination to do so. This variable served as the dependent variable for the Binary

Logistic analysis. As discussed in Table 5, respondents' scores were recorded for nine different factors contributing to the adoption of FinTech, all of which were considered independent variables for Binary Logistic analysis.

The outcomes of the Binary Logistic analysis are presented in Table 14. According to the analysis, four variables—easy-accessibility, enhanced customer experience, wider availability and faster services—significantly influence customers' inclination to use FinTech in the next five years. The remaining five variables did not exhibit a substantial impact on the dependent variable. Binary logistic regression produced a statistically significant chi-square value of 15.241, indicating a well-fitted model for the data. Moreover, the Pseudo R-squared value is equal to 20.9%, suggesting that this model, overall, can account for 20.9% of the variation in the dependent variable. Furthermore, the

analysis indicates that, on the whole, this model is expected to yield the correct result approximately 78% of the time.

Table: 8 Reliability Test

Cronbach's Alpha	N of Items
.728	32

Source: Calculated by Author. As we can see above reliability test

value is .728 of 32 variables which is good to go.

Table 9: Omnibus Tests of Model Coefficients

		Chi-square	DF	Sig.
	Step	15.241	7	.033
Step 1	Block	15.241	7	.033
•	Model	15.241	7	.033

Source: Calculated by Author.

Table 10: Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square				
1	97.226 <sup>a</sup>	.141	.209				
Source	Source: Calculated by Author. a. Estimation terminated at iteration number 5 because parameter estimates changed by less than .001.						

Table 11: Hosmer and Lemeshow Test

Step	Chi-square	DF	Sig.
1	7.458	7	.383

Source: Calculated by Author.

Table 12: Contingency Table for Hosmer and Lemeshow Test

		Are you willing to use FinTech	more in the next 5 years? = No	Are you willing to use FinTech	nore in the next 5 years? = Yes	Total
		Observed	Expected	Observed	Expected	1 otai
	1	6	6.256	4	3.744	10
	2	5	4.677	5	5.323	10
	3	2	3.628	8	6.372	10
Ctom	4	4	2.196	5	6.804	9
Step	5	1	1.091	5	4.909	6
1	6	6	3.744	17	19.256	23
	7	0	1.268	9	7.732	9
	8	0	1.026	9	7.974	9
	9	1	1.116	13	12.884	14

Source: Calculated by Author

Table 13: Classification Table

			Predicted			
Observed		Are you willing to use l	Percentage			
		No	Yes	Correct		
C4	Are you willing to use FinTech more in the next 5	No	7	18	28.0	
Step	years?	Yes	4	71	94.7	
1	Overall Percentage				78.0	

The cut value is .500

Source: Calculated by Author.

Table 14: Variables in the Equation

		В	S.E.	Wald	DF	Sig.	<b>Exp.</b> (B)	95% C. I. for EXP(B)	
								Lower	Upper
Step 1 <sup>a</sup>	Easy accessibility	.898	.556	2.612	1	.106	2.456	.826	7.300
	Enhanced Customer experience	.624	.507	1.515	1	.218	1.866	.691	5.041
	Minimum regulatory concern	310	.334	.865	1	.352	.733	.381	1.410
	Innovation in existing product	099	.448	.049	1	.824	.905	.377	2.177
	Ease of use	722	.589	1.503	1	.220	.486	.153	1.541
	Faster Services	.864	.630	1.882	1	.170	2.372	.691	8.150
	Wider availability	.254	.509	.248	1	.618	1.289	.475	3.496
	Constant	-5.904	2.734	4.665	1	.031	.003		

a. Variable(s) entered on step 1: Easy accessibility, Enhanced Customer Experience, Minimum regulatory concern, Innovation in existing product, Ease of use, Faster Services, Wider availability.

Source: Calculated by Author.

# Conclusion

In the coming five years, the inclination towards FinTech is expected to be influenced by several factors. These factors include ease of use, cost-effectiveness, accessibility,

enhanced customer experience, random and some variability.

Conclusions drawn from our analysis suggest a substantial growth potential for FinTech in India, primarily because there are currently relatively few FinTech users, and people prefer accessing financial services through mobile platforms. Customers are showing interest in FinTech services such as robo-advisors and online lending, areas where traditional financial services may not meet their expectations.

The key drivers for the adoption of FinTech services are fast and convenient access, affordability, and improved customer experiences. FinTech is poised to disrupt traditional payment and investment management sectors. However, one of the major concerns are security of investment/money and the risk of cyber-attacks. To address this, FinTech companies should prioritize cyber security to ensure a safe and secure experience for their customers and track their investment/ money properly.

In summary, factors like easy affordability, faster services, wider availability and enhanced customer experience are expected to significantly influence customers, "interest in using FinTech in the next five years."

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