

## FinTech Adoption and Consumer Trust: Evidence from Digital Payment Systems

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### Abstract

There have been tremendous developments and transformations within the sector of financial technology (FinTech) in recent times with significant impact on the financial industry especially in the case of developing nations like India. Factors like the growth of digital payments as a result of Digital India movement, demonetization and rising use of UPI are key aspects that have greatly aided the process of transitioning into a cashless world. Although there is huge growth in transactions, there still exist problems with issues such as mistrust, security risks and technological problems that are associated with the adoption of FinTech products. The current study is aimed at examining the impact of different factors influencing FinTech adoption amongst corporate employees in India as well as the influence of consumer trust on Perceived Usefulness, Perceived Ease of Use and Security with regards to the Adoption Intention of FinTech products. The cross-sectional design of this study was carried out on 500 corporate employees in diverse industries in India. The use of SEM technique enabled measurement and structural models to be tested. The findings reveal that the perception of the ease of use, usefulness, and security significantly impact consumer trust and directly affect FinTech adoption. Consumer trust partially mediates the relationship between the perception of technology and adoption decisions. This study highlights the importance of building trustful digital systems through cybersecurity practices, openness in communication, and user-centered designs. This study adds to the growing body of knowledge concerning FinTech, combining technology acceptance and trust theories to the Indian corporate setting.

**Keywords:** FinTech, Consumer Trust, Digital Payments, UPI, Technology Acceptance Model.

### 1. Introduction

During the past decade, the worldwide financial service industry witnessed an unprecedented revolution, mostly due to innovations introduced by digital technologies. FinTech is called the umbrella term used to denote both financial services and technologies that guarantee increased convenience, efficiency, and better customer experience. Probably, the most obvious way of implementing the FinTech technology in practice is to provide digital payment methods, which change the process of making financial operations.

India can serve as a bright example in regard to adopting FinTech solutions. Indeed, India should be considered among the fastest-growing digital markets characterized by a high rate of developing digital payment solutions.

Different government initiatives, including the Digital India initiative, usage of Aadhaar-based authentication, and implementation of the Unified Payments Interface (UPI) contributed to India's becoming more digitalized greatly. According to experts' estimates, at the current point, UPI transactions number exceeds billions per month, thus, putting India among the world's leading users of digital payments.

However, the narrative of the digitization revolution is not only about being equipped with technologies. There has been a surge in the usage of digital payment mechanisms, but continued adoption of digital payment platforms heavily relies on consumers' experience and perception. Technology adoption is not only an issue of technology. Consumers perform an evaluation in terms of the effectiveness, ease-of-use, security, reliability and credibility of the e-payment system when utilizing the same for financial transactions.

It is safe to say that trust is the basis for any financial digital ecosystem. Unlike traditional physical financial transactions where the level of risk is minimal or even non-existent, there is inherent uncertainty and risk associated with online financial transactions that takes place in virtual environments. Users' confidence in the services provided by payment service providers, underlying technology, regulation and data protection measures is vital in this regard. Hence, trust is a crucial factor behind the usage of digital payment systems.

This is particularly true concerning the organization's environment. Employees in companies apply digital payment tools in such aspects as salary, reimbursement, online shopping, paying bills, investments, as well as peer-to-peer payments. Digital payment technologies' experience influences not only individual financial behavior but the overall efforts of firms to go digital. From this perspective, the significance of the influence of trust in the use of FinTech applications by business professionals is immeasurable.

Justification of theoretical relevance of the discussed topic can be found within the Technology Acceptance Model (TAM). This model continues to be one of the most popular frameworks describing technology adoption. Under TAM, the perceived ease of use and usefulness of the technology emerge as the major factors influencing individuals' intention to adopt technologies. Yet, when it comes to digital finance where the core problems consist in cybersecurity and privacy concerns, the constructs proposed under TAM do not suffice to explain behavioral intentions. Therefore, there arises the need to incorporate trust into technology acceptance models.

Based on recent studies, it is possible to make conclusions about the awareness of consumers of the advantages and the benefit of using digital payment systems and their convenience and usefulness, but consumers do not want to adopt such systems due to the risks associated with fraudulent activities or other cybersecurity issues like access without permission or data breaches. Therefore, it is essential to carry out research on the mediating role of trust.

The Indian ecosystem of FinTech organizations presents an excellent environment for conducting research because of the growing interest in digital payments and cybercrime, at the same time being home to technologically advanced employees who actively use digital financial services.

Hence, the aim of the proposed research would be to identify the impact of technology perceived as useful, easy to use, and safe on consumer trust and consequently on the adoption of FinTech companies' services within digital payment systems. The proposed study will prove invaluable both for academics and practitioners in developing an integrated model through SEM and answers provided by 500 employees of India.

In terms of contributions made by this research work, there are three main areas where this paper contributes to the body of existing literature. To begin with, this paper enhances the TAM model with a mediated effect of trust. Further, this paper offers empirical evidence from an Indian organization standpoint despite the fact that the FinTech industry is experiencing fast growth in India.

## **2. Research Gap and Justification**

Several scientific works have been written about the issue of FinTech adoption throughout the recent years. Scientists explored various factors such as technological readiness, perceived usefulness, user experience, social influence, perceived risk, and financial literacy. Nonetheless, there exist certain key gaps in this field of research.

Firstly, previous researchers have mostly focused on FinTech usage by consumers, students, or online buyers. However, a particular subgroup of users, which should be studied separately, since they use FinTech tools even more than the others – corporate employees – is barely considered in current research. It should be viewed separately because employees' FinTech usage is more frequent.

Secondly, in most cases, previous research analyzed the direct relationship between technology-based variables and intention to adopt FinTech tools. Nevertheless, this kind of approach neglects psychological aspects that provide such relationships. Trust is one of the key issues discussed, but it serves as a mediating factor rarely.

Thirdly, most of the literature on FinTech is based on findings from well-developed economies where institutional infrastructures are different from those of developing countries. Indeed, what holds true for the developed world might not apply in India since there are notable differences in terms of regulatory framework, technology usage, financial inclusion rates, and attitudes towards digital money.

Fourthly, the dynamics of digital transactions continue changing at a fast pace. The emergence of artificial intelligence technologies, biometric verification, real-time payment methods, and embedded financial products makes users expect higher levels of convenience and security when making payments. In that case, empirical information collected before the inception of UPI systems and other mobile FinTech platforms will hardly represent the needs of modern-day users.

Finally, while security remains an important element in the available literature on FinTech, there are few studies that integrate perceptions of usefulness, ease-of-use, and security into a single conceptual framework as key trust indicators. Information on how those elements affect the uptake of FinTech solutions can be useful in designing policies to encourage the use of financial technologies. This paper attempts to fill the identified gaps in the literature through its contributions.

### **3. Research Objectives**

The study is directed by the following objectives:

RO1: To assess the impact of perceived usefulness on consumer's trust in digital payment systems.

RO2: To investigate the effect of perceived ease of use and perceived security on consumer trust.

RO3: To study the impact of consumer trust on intention to adopt FinTech.

RO4: To investigate the mediating effect of consumer trust on the relationship between technology-related perceptions and FinTech adoption.

### **4. Hypotheses Development**

Consumer trust and perceived usefulness

Perceived usefulness is the extent to which a user believes that using a technology will enhance his or her performance and efficiency. Users tend to see digital payment systems as beneficial when they provide faster transactions, convenience and better financial management. These positive experiences establish trust in the technology.

H1: Consumer trust in digital payment systems is positively influenced by the perceived usefulness.

Consumer trust and perceived ease of use

Ease of use is the degree to which a technology is perceived free of effort. Uncertainty and perceived risk often result from complex systems. In contrast, user-friendly interfaces build confidence and help build trust.

H2: The perceived ease of use positively influences consumer trust in digital payment systems.

### Perceived Security and Trust of Consumers

Security is a major concern for digital financial transactions. Users expect that payment platforms will protect personal and financial information against unauthorized access and fraud. Trust is associated with strong security perceptions and uncertainty is reduced

H3: Perceived security has a positive effect on consumer trust in digital payment systems.

### Consumer Trust & Adoption of FinTech

Trust decreases the perceived risk and uncertainty associated with technology use. Individuals who trust digital payment providers are more likely to transact and remain loyal to FinTech services.

H4: The positive influences of consumer trust on FinTech adoption intention.

### Trust as a Mediator in the Consumer

Technology perceptions may not translate into adoption behavior. Trust is built by users' assessments of the usefulness, ease of use and security, which in turn leads to adoption intentions.\

H5: Perceived usefulness influences FinTech adoption through consumer trust.

H6: Consumer trust mediates the relationship between perceived ease of use and adoption of FinTech.

H7: The relationship between perceived security and FinTech adoption is mediated by consumer trust.

## 5. Conceptual Framework

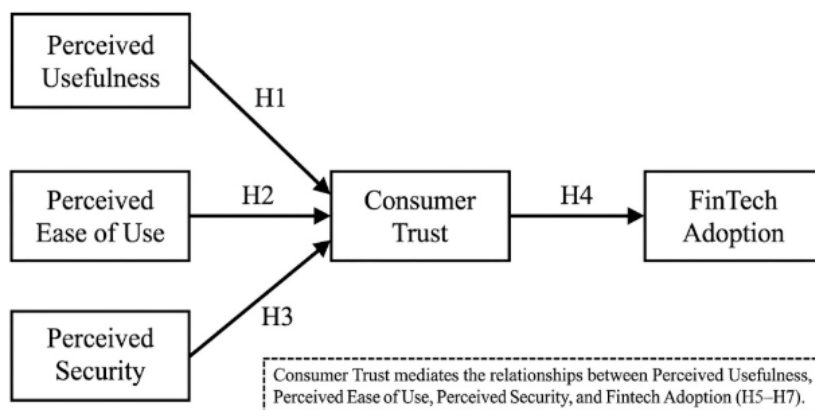


Figure 1. Proposed Research Model

The model integrates TAM constructs with Trust Theory, positioning consumer trust as a central mediating mechanism influencing digital payment adoption.

## 6. Literature Review

### 6.1 Evolution of FinTech and Digital Payment Systems

Innovation in this sector has been notoriously difficult, however, in light of the challenges created by regulation, institutional conservatism, and transaction risks. Nonetheless, innovations in the FinTech sector have altered traditional financial landscapes owing to the use of innovative and efficient solutions created as a result of technological advancements (Lee & Shin, 2018). Innovations in the FinTech sector can be defined as the development of mobile banking, digital wallets, peer-to-peer loans, blockchain transactions, robo-advisory, and digital payment systems.

All the above-mentioned innovations within the FinTech sector are quite popular and innovative; however, digital payments have become extremely popular in developing nations. In general, digital payments involve the process of performing electronic money transactions using mobile applications, net banking, QR Codes, and digital wallets. The introduction of the Unified Payments Interface (UPI) in India has led to radical changes in the digital payments market through instantaneous banking transactions across different banks via mobile applications.

The coronavirus outbreak and resultant pandemic have caused users to adopt cashless and contactless payment options at a faster pace. "The consumer shift towards digitization has accelerated further due to concerns about convenience, safety, and behavioral change.

But sustained uptake of new technologies depends on users' perceptions of their reliability, usefulness and trustworthiness. The financial transactions are dealing with sensitive personal information and monetary assets, making the Trust critically dependent on the adoption decisions.

### **6.2 Consumer Trust in Digital Financial Services**

The importance of trust in business transactions has been known all along. Trust in the conventional banking system is determined by branches, human interaction, reputation, and regulations. But there are not such tangible elements as physical presence that may lead to the establishment of trust in cyberspace.

Trust can be considered as a predisposition to rely on someone else because of the expectation that he/she will act in a particular way (Mayer et al., 1995). More precisely, trust presupposes some skillfulness, integrity, and goodwill. Therefore, trust in FinTech implies that people have confidence in digital payment platforms when it comes to the protection of funds, personal information, and effective processing of transactions.

Moreover, trust plays a significant role in determining the decision of customers to embrace digital financial technologies (Alalwan et al., 2017; Singh & Sinha, 2020). This element helps to protect consumers from potential threats and uncertainties. The adoption and use of digital payment platforms depend on how trustworthy people find them.

Digital payment systems are multi-layered trust. It contains:

- Technology trust (trust that the platform will work)
- Institutional trust (trust in providers and regulators)
- Security confidence (confidence in data protection mechanisms)
- Transaction trust (trust in payment processing)

These dimensions play a combined role in users' intention of behavior.

### **6.3 Perceived Usefulness and FinTech Adoption**

The perceived usefulness (PU) is about the extent to which people believe that using specific technologies helps to improve their performance (Davis, 1989). Digital payment systems are useful as they ensure fast transactions, no queues, convenience, accessibility, and proper financial management.

A large body of literature has demonstrated that perceived usefulness is one of the key factors that predict adoption of technologies. If the users think that the digital payments can offer them a lot more than the traditional payment methods, then they are likely to adopt them.

The utility of the corporate employees can be seen in:

- Transactions for salaries immediately
- Fast bill payments
- Reimbursement of normal expenses
- Decreased cash dependency
- Better financial tracking: Recent studies show that usefulness has a direct effect on adoption and an indirect effect on adoption through the development of trust. Providing value in technologies reliably builds user confidence and positive expectations for future interactions

### **6.4 Perceived Ease of Use and FinTech Adoption**

PEOU is the level at which the system usage is perceived as being effortful on the part of the user. This translates into high scores when the interface of the application is friendly, the navigation is easy, and the transactions are also seamless.

Usability happens to be the one aspect that is the most argued factor among digital payment applications. Using a platform becomes difficult when the program itself becomes complicated and also features confusing interface designs.

The literature available earlier has shown that there exists a connection between usability and trust/adoption intentions. When the users have no problems at all while performing transactions and there are no glitches, trust comes into the picture.

Ease of use is an aspect that is very important in organizational settings because time is a constraint for the workers here. Time-saving means of performing transactions contribute to their usability.

### **6.5 Perceived Security and FinTech Adoption**

Security issues are one of the biggest hurdles in the way of digital payments' adoption.

Financial transaction involves risks to users like:

- False Identity

- Misleading financial

- Data breaches

- Access without authorization

- Phishing attacks • Breaches of malware

Perceived security is the belief users have regarding the efficacy of technological safeguards protecting their information and financial assets.

Research indicates that security perceptions are a major antecedent of trust development. Even a useful technology may not gain widespread adoption if users perceive it as having serious security flaws.

As cybercrime awareness increases in India, so does the importance of security in digital financial ecosystems. Consumer confidence is increasing as payment providers adopt more multi-factor authentication, biometric verification, encryption technologies and fraud monitoring systems.

### **6.6 FinTech Adoption in the Indian Context**

“India is one of the hottest FinTech markets in the world. The FinTech industry has witnessed a sharp spur in growth owing to governmental endeavours in financial inclusion, digital governance and technological innovation.

There are few developments which have gone miles in popularizing digital payment adoption:

1. Digital India programme:
2. Aadhaar-enabled services
3. Unified Payments Interface (UPI)
4. Bharat Bill Payment System
5. Mobile Phone Usage
6. Low-cost Internet

Today, the Indian digital payment ecosystem is filled with diverse set of stakeholders including traditional banks, FinTech startups, payment banks and technology companies.

But the adoption patterns are heterogeneous. Urban professionals reported relatively high levels of use, but behaviour was subject to the influence of trust, privacy and cyber security concerns. Understanding of these factors is vital for long term growth

## **7. Theoretical Foundation**

### **7.1 Technology Acceptance Model (TAM)**

The Technology Acceptance Model (TAM), proposed by Davis (1989), remains one of the most influential frameworks for explaining technology adoption behavior.

According to TAM, two primary beliefs determine users' acceptance of technology:

**Perceived Usefulness**

The belief that technology improves performance.

**Perceived Ease of Use**

The belief that technology requires minimal effort.

These perceptions influence attitudes and behavioural intentions and ultimately influence actual usage behaviour.

TAM has been broadly applied in different technological contexts such as:

- Mobile Banking
- Online shopping
- Digital wallets
- FinTech services
- ICT-enabled government services

However, some critics argue that TAM may not sufficiently reflect the trust-related concerns in high-risk environments such as financial services.

**7.2 Trust Theory**

Trust Theory offers other explanations for digital financial behaviour.

Trust can mitigate incomplete information and can establish exchange relationships. In the realm of digital payment, the users are unable to see directly the mode of operation of the platform or its security. Thus, trust spans the psychological distance between uncertainty about technology and action.

Trust theory suggests that people assess: • Skills: • Be truthful • Reliability • Dependability  
• Transparency before the financial transactions

The integration of TAM and Trust Theory offers a comprehensive explanation for FinTech adoption by combining the technology perception and the psychological confidence processes.

**7.3 Integrated Research Framework**

This study adds consumer trust as a mediating construct to the well-established Technology Acceptance Model (TAM).

The logic is simple, in theory:

1. Usefulness, ease of use and security as perceived by users.
2. Such perceptions affect the development of trust.
3. Trust is thus a predictor of adoption intentions.

The integrated framework captures the technological and behavioral dimensions of digital payment adoption;

**8. Research Methodology**

**8.1 Research Design**

A cross-sectional quantitative research design was employed.

Data were collected at a single point in time through a structured questionnaire administered to corporate employees across India. The design is appropriate because:

- It facilitates large-scale data collection.
- It supports SEM analysis.
- It enables testing of mediation relationships.

## 8.2 Population and Sampling

### Target Population

Corporate employees working in:

- Information Technology
- Banking and Financial Services
- Manufacturing
- Telecommunications
- Consulting
- Retail
- Healthcare

### Sampling Technique

A combination of:

- Stratified sampling
- Convenience sampling

was utilized to ensure representation across sectors.

### Sample Size

A final sample of 500 respondents was obtained.

The sample exceeds recommended SEM requirements:

Criterion	Recommended	Achieved
Minimum Sample for SEM	200	500
Item-to-Response Ratio	10:1	18:1

Thus, statistical power is adequate.

**Table 1. Demographic Profile of Respondents (N = 500)**

Variable	Category	Frequency	Percentage
Gender	Male	282	56.4
	Female	218	43.6
Age	21–30 years	186	37.2
	31–40 years	212	42.4
	41–50 years	77	15.4
	Above 50	25	5.0
Education	Graduate	152	30.4
	Postgraduate	283	56.6
	Doctorate	65	13.0
Experience	<5 years	145	29.0

	5–10 years	201	40.2
	>10 years	154	30.8

### 8.3 Data Collection Procedure

Data collection occurred between January and March 2025.

Questionnaires were distributed through:

- Corporate HR networks
- Professional LinkedIn groups
- Industry associations
- Online survey platforms

Participation was voluntary and anonymous.

A pilot study involving 50 respondents was conducted to assess questionnaire clarity and reliability.

Minor wording modifications were incorporated before full-scale deployment.

### 8.4 Measurement Instrument

A structured questionnaire was developed using validated scales from prior studies.

All items were measured using a five-point Likert scale:

1 = Strongly Disagree

2 = Disagree

3 = Neutral

4 = Agree

5 = Strongly Agree

**Table 2. Measurement Constructs**

Construct	Items	Source
Perceived Usefulness (PU)	5	Davis (1989)
Perceived Ease of Use (PEOU)	5	Davis (1989)
Perceived Security (PS)	5	Kim et al. (2016)
Consumer Trust (CT)	5	McKnight et al. (2017)
FinTech Adoption Intention (FA)	5	Venkatesh et al. (2016)

Total Items = 25

### 8.5 Data Analysis Technique

Data analysis was conducted using:

- SPSS 29
- AMOS 28

The analytical procedure included:

1. Descriptive Statistics

2. Reliability Analysis
3. Confirmatory Factor Analysis (CFA)
4. Convergent Validity Testing
5. Discriminant Validity Testing
6. Structural Equation Modeling
7. Mediation Analysis using Bootstrapping

## **9. Data Analysis and Results**

### **9.1 Preliminary Data Screening**

Before conducting SEM analysis, the dataset was screened for missing values, outliers, and normality assumptions.

#### **Missing Data**

The response rate was approximately 78%. Initial data screening revealed less than 2% missing values across all variables. Since the missing data percentage was below the recommended threshold of 5%, mean substitution was employed.

#### **Outlier Detection**

Mahalanobis Distance ( $D^2$ ) analysis identified 17 multivariate outliers. These observations were removed, resulting in a final usable sample of 500 responses.

#### **Normality Assessment**

Skewness and kurtosis values were examined to assess normality.

**Table 3. Normality Statistics**

<b>Construct</b>	<b>Mean</b>	<b>SD</b>	<b>Skewness</b>	<b>Kurtosis</b>
Perceived Usefulness	4.08	0.71	-0.62	0.44
Perceived Ease of Use	4.01	0.76	-0.58	0.37
Perceived Security	3.89	0.81	-0.41	0.29
Consumer Trust	3.94	0.73	-0.49	0.31
FinTech Adoption	4.12	0.69	-0.67	0.48

All skewness and kurtosis values were within the acceptable range of  $\pm 2$ , indicating satisfactory normality (Hair et al., 2022).

### **9.2 Descriptive Statistics and Correlation Analysis**

Table 4 presents the means, standard deviations, and Pearson correlation coefficients among the study variables.

**Table 4. Descriptive Statistics and Correlations**

<b>Variable</b>	<b>Mean</b>	<b>SD</b>	<b>PU</b>	<b>PEOU</b>	<b>PS</b>	<b>CT</b>	<b>FA</b>
PU	4.08	0.71	1.00				
PEOU	4.01	0.76	.61**	1.00			
PS	3.89	0.81	.54**	.58**	1.00		

CT	3.94	0.73	.69**	.63**	.71**	1.00	
FA	4.12	0.69	.66**	.59**	.64**	.78**	1.00

Note:  $p < .01$

The correlations indicate significant positive relationships among all constructs. Consumer Trust exhibits the strongest correlation with FinTech Adoption ( $r = .78$ ), providing preliminary support for the proposed mediation model.

### 9.3 Reliability Analysis

Reliability was assessed using Cronbach's Alpha and Composite Reliability (CR).

**Table 5. Reliability Assessment**

Construct	Number of Items	Cronbach's Alpha	Composite Reliability
Perceived Usefulness	5	0.901	0.913
Perceived Ease of Use	5	0.886	0.901
Perceived Security	5	0.912	0.921
Consumer Trust	5	0.918	0.928
FinTech Adoption	5	0.894	0.907

#### Interpretation

All Cronbach's Alpha values exceed the recommended threshold of 0.70, indicating strong internal consistency. Similarly, Composite Reliability values exceed 0.70, confirming construct reliability.

### 9.4 Confirmatory Factor Analysis (CFA)

A measurement model consisting of five latent variables and twenty-five observed indicators was evaluated using AMOS 28.

**Table 6. Standardized Factor Loadings**

Construct	Item	Loading
PU	PU1	0.82
	PU2	0.85
	PU3	0.87
	PU4	0.81
	PU5	0.84
PEOU	PEOU1	0.79
	PEOU2	0.84
	PEOU3	0.86
	PEOU4	0.83
	PEOU5	0.81
PS	PS1	0.85
	PS2	0.88

	PS3	0.86
	PS4	0.82
	PS5	0.87
CT	CT1	0.89
	CT2	0.91
	CT3	0.87
	CT4	0.84
	CT5	0.88
FA	FA1	0.83
	FA2	0.85
	FA3	0.87
	FA4	0.81
	FA5	0.84

All standardized loadings exceed 0.70, demonstrating strong indicator reliability.

### 9.5 Convergent Validity

Convergent validity was assessed using Average Variance Extracted (AVE).

**Table 7. Convergent Validity Results**

Construct	CR	AVE
PU	0.913	0.678
PEOU	0.901	0.645
PS	0.921	0.702
CT	0.928	0.721
FA	0.907	0.661

All AVE values exceed 0.50, indicating satisfactory convergent validity.

### 9.6 Discriminant Validity

The Fornell-Larcker criterion was used to assess discriminant validity.

**Table 8. Discriminant Validity Matrix**

Construct	PU	PEOU	PS	CT	FA
PU	<b>0.823</b>				
PEOU	0.61	<b>0.803</b>			
PS	0.54	0.58	<b>0.838</b>		
CT	0.69	0.63	0.71	<b>0.849</b>	
FA	0.66	0.59	0.64	0.78	<b>0.813</b>

Diagonal values represent the square root of AVE.

Since all diagonal values exceed corresponding inter-construct correlations, discriminant validity is established.

9.7 Measurement Model Fit

The CFA model demonstrated satisfactory fit.

Table 9. Measurement Model Fit Indices

Index	Recommended	Obtained
$\chi^2/df$	< 3.00	2.31
GFI	> 0.90	0.932
AGFI	> 0.90	0.917
CFI	> 0.95	0.968
TLI	> 0.95	0.963
RMSEA	< 0.08	0.051
SRMR	< 0.08	0.043

The measurement model exhibits excellent fit.

10. Structural Equation Modeling Results

Following measurement model validation, the structural model was tested.

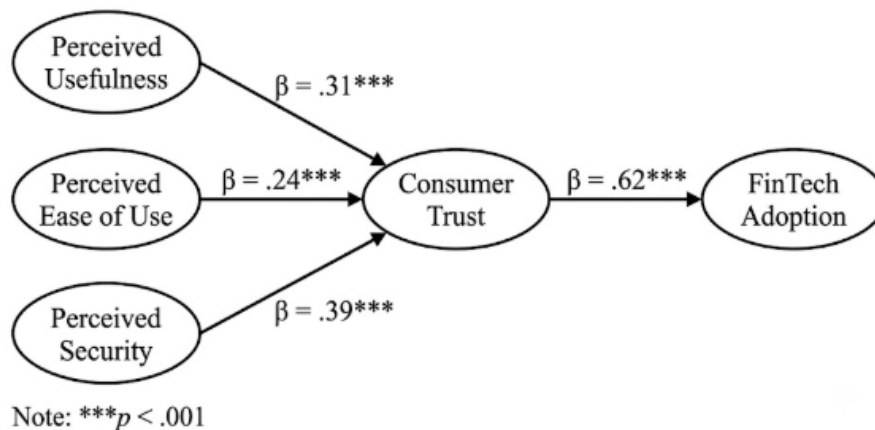


Figure 2. Structural Model Results

10.1 Direct Effects Analysis

Table 10. Structural Path Results

Hypothesis	Relationship	$\beta$	t-value	p-value	Result
H1	PU → CT	0.31	5.84	<0.001	Supported
H2	PEOU → CT	0.24	4.91	<0.001	Supported
H3	PS → CT	0.39	7.16	<0.001	Supported
H4	CT → FA	0.62	11.42	<0.001	Supported

Interpretation

Perceived Security emerged as the strongest predictor of Consumer Trust ( $\beta = 0.39$ ), followed by Perceived Usefulness ( $\beta = 0.31$ ) and Perceived Ease of Use ( $\beta = 0.24$ ).

Consumer Trust significantly influenced FinTech Adoption ( $\beta = 0.62$ ), indicating that trust plays a pivotal role in digital payment acceptance.

10.2 Structural Model Fit

Table 11. Structural Model Fit Indices

Fit Index	Threshold	Result
$\chi^2/df$	< 3.00	2.48
GFI	> 0.90	0.926
AGFI	> 0.90	0.912
CFI	> 0.95	0.964
TLI	> 0.95	0.958
RMSEA	< 0.08	0.054
SRMR	< 0.08	0.047

The structural model demonstrates acceptable goodness-of-fit.

10.3 Coefficient of Determination (R<sup>2</sup>)

The explanatory power of the model was evaluated using R<sup>2</sup> values.

Table 12. Variance Explained

Endogenous Variable	R <sup>2</sup>
Consumer Trust	0.67
FinTech Adoption	0.58

Interpretation

The model explains:

- 67% of variance in Consumer Trust
- 58% of variance in FinTech Adoption

These values indicate substantial explanatory power.

11. Mediation Analysis

To examine the mediating role of Consumer Trust, bootstrapping with 5,000 resamples was performed.

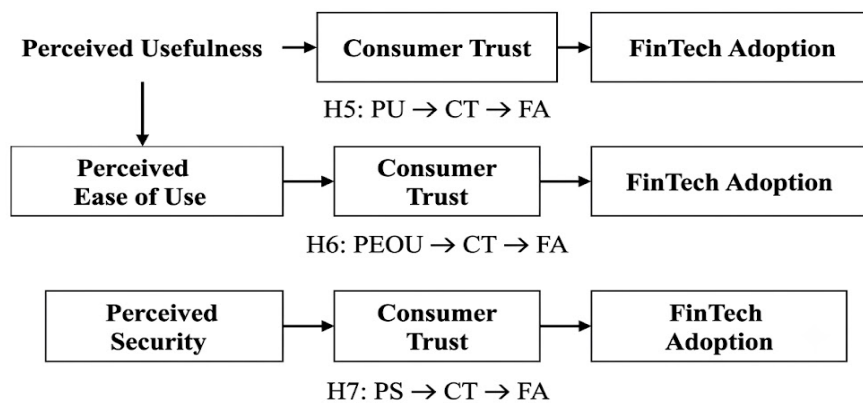


Figure 3. Mediation Framework

**Table 13. Bootstrapped Mediation Results**

Path	Indirect Effect	Lower CI	Upper CI	Result
PU → CT → FA	0.192	0.121	0.284	Significant
PEOU → CT → FA	0.149	0.087	0.231	Significant
PS → CT → FA	0.242	0.164	0.337	Significant

95% confidence intervals exclude zero, confirming mediation.

**Table 14. Hypothesis Testing Summary**

Hypothesis	Statement	Status
H1	PU positively influences CT	Supported
H2	PEOU positively influences CT	Supported
H3	PS positively influences CT	Supported
H4	CT positively influences FA	Supported
H5	CT mediates PU → FA	Supported
H6	CT mediates PEOU → FA	Supported
H7	CT mediates PS → FA	Supported

## 12. Key Findings

The analysis reveals some important findings.

Finding 1: Trust is more important than usefulness in security

Perceived security as the antecedent was the strongest influence on consumer trust. This observation indicates that safety from frauds, cyber attacks and privacy violations are important considerations for Indian corporate employees while adopting digital payment platforms.

Finding 2: Trust Drives Adoption

Consumer trust was the most direct driver of FinTech adoption. This gives rise to the perception that there is a high level of uncertainty and risk associated with digital financial transactions.

Finding 3 Technology alone is not enough

Usefulness and ease of use had a strong effect on trust but their effect on adoption was largely mediated by trust.

Finding 4: Trust is a strategic intermediary.

The mediation analysis results indicate that users do not adopt digital payment technologies for their benefits or ease of use. Rather, positive technology perceptions build trust that flows to intention to adopt.

Finding 5: The Integrated TAM–Trust Model Is Highly Predictive

The model explained 58% of the variance in FinTech adoption and 67% of the variance in trust indicating a good explanatory power.

The empirical findings provide strong support for the proposed theoretical framework and position consumer trust as an important mechanism linking technological perceptions and adoption of digital payments among Indian corporate employees.

### **13. Discussion**

This research study is based upon the factors behind FinTech adoption in the context of the digital payment system. This research study involves the combination of TAM and trust theories in order to assess the relationship between FinTech adoption and consumer trust. Specifically, this paper considers the role of perceived usefulness, perceived ease of use, and perceived security on consumer trust. Moreover, this paper examines the impact of consumer trust on FinTech adoption intentions.

From the empirical results obtained from the analysis, it has been found out that perceived usefulness has a significant influence on consumer trust. The participants who viewed the use of digital payment systems to be useful trusted these technologies much more as compared to those who found their use as a cause for inefficiencies and inconvenience. The result of this paper aligns with the existing literature that discusses the positive influence of utility on consumer trust.

Ease of use perceptions was also one of the determinants influencing the development of trust in the current study. Thus, this result confirms the assumption that convenient to use technology removes uncertainties and cognitive barriers during adoption processes. In today's technological environment, complicated digital financial technologies lead to uncertainties and risks for consumers. The simplicity of interface and convenient usage encourage users to adopt these systems again. The results confirm the assumptions proposed by contemporary models of TAM, which indicate that convenience influences both the adoption of technology and trust in it.

It was revealed that security perceptions were the most influential factors forming consumer trust. In view of the Indian market where consumers become increasingly aware of cyber attacks, fraud, and data breaches because of the wide adoption of FinTech systems, this conclusion is especially important. Employees will adopt new FinTech only when they realize that all measures are taken to secure their personal and financial information.

The highest relationship between consumer trust and FinTech adoption intentions is observed. This aspect further confirms the importance of trust as a core prerequisite for joining the financial system which utilizes digital technologies. Indeed, financial transactions involve sharing personal data and money, which creates risks for participants. Therefore, trust is a crucial variable necessary to overcome uncertainty and engage in digital payment operations.

The most fascinating conclusions can be drawn from the mediation analysis. Indeed, results show that trust mediates the effect of all three studied variables on the adoption intention partially. This fact suggests that technology attributes cannot influence the adoption process on their own. To put it simply, only those technologies that inspire trust among consumers are adopted. Thus, technology evaluation becomes an important tool in forming the adoption decision. However, it does not mediate adoption processes, but rather creates conditions that promote the use of innovations by building trust.

Therefore, it can be argued that the shift in digital transformation strategies has occurred recently. With the development of financial technologies and integration thereof into the daily routine, psychological aspects became more valuable than functional advantages of a particular technology.

### **14. Conclusion**

Digital revolution in financial services can be defined as one of the most important technologies of the 21st century. India can serve as a good example of digital revolution in financial services because of its role in the sphere of digital payments.

The aim of the current research was to investigate the relationship between the factors such as perceived usefulness, perceived ease of use, perceived security, consumer trust and FinTech adoption among workers in Indian corporations. The research used structural equation modeling to test the proposed TAM-trust integration model based on 500 participants. It has been proven that perceived usefulness, ease of use, security are crucial factors that affect the level of consumer trust, with the last factor having the biggest impact on it. Consumer trust can be one of the factors that influences FinTech adoption; it also depends on technological perception.

Therefore, one can conclude that FinTech adoption does not depend solely on technological advancement, but on consumers' trust in it as well. Trust plays a key role in today's Indian digital economy.

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