
Factors affecting adoption of Cashless Transactions in India: An Empirical Study in the era of FinTech Revolution

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Abstract

The rapidly growing financial technology or FinTech has accelerated the cashless payment system significantly in India, it has transformed the traditional ecosystem of payment into a digitally driven financial landscape. The key factors have been examined in this work that influence the adoption of cashless transactions in this modern era of FinTech revolution, the main emphasis was on platforms like mobile wallet, UPI and online banking system. It is revealed by the findings that perceived ease of use, perceived usefulness, security and trust, financial literacy and technical readiness are the most vital elements of user's adoption of cashless transactions. Convenience, cost efficacy, speed of the transaction, and accessibility are also identified by this study as main motivator that drive acceptance of cashless payment. FinTech innovation has reduced the cost of transaction and enhanced financial inclusion by integrating deserved population into formal system of finance. A sample of 259 was collected to find the result of the study.

Keywords: cashless transactions, FinTech, digital payment, digital banking, digital transactions

Introduction

For making financial transactions cash is always considered highly important, but this scenario has changed the whole world as they are adopting the ecosystem of cashless transactions. India has made lot of efforts towards converting the cash economy to cashless economy. It is observed that there are various elements influencing the adoption of cashless transactions. Instant, easy, convenient, compatibility with lifestyle and awareness about cashless transactions are considered as important factors that motivates people to adopt digital payment system. Some other factors like theft of identity, fear of fraud, misuse of personal and private information, complications, cybercrime, requirement of bank account, trust and high cost are some of the vital factors that always develop doubt in the mind of users before they adopt cashless transactions system. More initiatives must be taken by the government to control any such frauds related to cashless transactions and create more awareness among people to adopt digital payment options (**Chaturvedi, Singh & Chaturvedi, 2019**). FinTech services have been included by banks within their ambit as traditional banking services have failed to reach the un-bankable because of geographical restrictions. Digital technology like smart phones and internet connections have boosted the penetration of digital banking among people because previously they had very limited access to banking services. Cashless transactions, automated services, easiness of availing loans with prompt services just at a click are common reasons as to why customers have adopted FinTech services. However, risk of privacy, technical failures, cyber-security attacks, lacking technical knowledge for utilising the services are some reasons behind non-adoption of FinTech services by people. Additionally, the present banking customers are still not fully aware about novel FinTech products because most of them had not used them (**Sharma & Sharma, 2024**). Government of India has made lot efforts by initiating many policies like Aadhar enabled payment system, Payment through UPI, demonetisation, financial inclusion, enhanced digital infrastructure, etc. for progress of Indian economy towards cashless system of payment. Innovative financial instruments like credit cards

provide many advantages to users including facility of cashless payment, short-term borrowing and access to rewarding program, lounges, membership that makes them unique (**Banerji, 2020**). The FinTech revolution in India has brought strategic usage of Digital Public Infrastructure backed by state that has totally transformed the face of financial services in India. The regulatory vision of RBI conditions the involvement of all players that include big technology companies and novel FinTech companies, on connecting with banks or attaining a special license for transacting on UPI network. It is a unique condition for striking a balance between the goals to promote financial inclusion and maintain stability as it keeps all users under the attentive eye of central bank. By promoting cashless transactions actively and to ensure UPI works as a virtually free utility, the RBI provides required regulatory and institutional support for facilitating recent explosive growth of UPI (**Amrutrao, 2025**).

A digital payment also called electronic payment, is transmission of worth from one explanation of payment to alternate use of digital device like smart mobile phones, computers, point of sales, digital communication channels like wireless mobile data or SWIFT. A rising digital payment method has reduced the upper most significance by Indian Administration for conveying every section of India below official amenities of digital payment. The expenses and risks of cash treatment are decreased by digital payments, it increases the ease of foremost online dealings, improves transparency among monetary dealings between people. Digital and cashless payment system have embedded in almost everyone's life in present time. The estimates says that digital payment industry of India would rise more than 300% of its present size by the year 2025 (**Krishna & Thayumanavar, 2023**).

Literature Review

Shyam (2025) stated that as an outcome of digitalization of financial services and involvement of technology, the financial service sector has been transformed completely. With the widely available internet, rising use of smart mobile phones, and the breakthroughs of technology have transformed the whole system moving it towards technological shift in finance sector, which is also known as FinTech. FinTech is an automation and upgrading of the design and delivery of financial services. Internet financial services that are available at fingertips of users that ranges from digital payment system, insurance, wealth management, trade financing, crowd funding, lending services and much more. Digital banking has eased the performance of banking system and its services like transferring of funds, deposit and withdrawal of money. Many different initiatives and cashless transaction delivery of services has been initiated by GOI.

Yang et al. (2021) revealed that cashless transactions of payment through digital system is a recent implementation in digital commerce is a smart method of payment alternate in majority of developing nations for attaining sustainable competitive advantage. Perceived ease of use, perceived usefulness, social influence, compatibility with lifestyle, and perceived trust shows a substantial positive impact on intentions to adopt e-wallet. The arrival of digitalization through internet has helped in accelerating the flow of globalization and systems of payments from manual to online transactions, leading to the dependency on using digital money. E-wallets and cashless transactions have dealt with many issues associated with handling of cash and long-distance transactions.

Patnaik et al. (2023) highlighted that substantial transformation in digital payment has been experienced by India in the past few years, which is driven by technical advancement, penetration of smartphones and initiatives of government. Financial services consumption has been made more convenient by FinTech as it provides innovative application for variety of financial services and products. Customers are highly interested in financial solutions based on technology and FinTech companies are responding to such demands as it offers accessible and cost-effective approach to borrow, transfer and investment of money. Using technology in financial system helps in improving and computerising the supply of different financial services. FinTech or financial technology has become advanced and popular trend. At present,

a batch of startups have offered many FinTech services and many of them are also listed on Indian Stock Exchange. These firms are offering wide range of services on one single platform like transferring of money, management of wealth, insurance services, personal financing, business financing and much more.

Aashrith (2024) stated that revolution of FinTech in traditional banking practices, system of mobile banking has appeared as a secured, convenient, and efficient alternates to cash as well as cards. User's experience and adoption of cashless payment system in content of FinTech must be explored the study the relation between technology, user behavior and money. A crucial role is played by mobile payment system in the upheaval that FinTech or financial technology has brought in such a way that users as well as organizations can manage their account. Worldwide, apps of cashless payment system have been adopted at rising rate because of its ease of use as well as accessibility as smart mobile phones have become very common. It is essential to understand behavior of users on such payment platforms and the variables making impact on their uptake. The adoption and continuous use of cashless system of payment have influence the user's experience significantly. The presence of value-added services, its dependability, ease of use, and transaction's speed are some of the common factors making impact on loyalty as well as satisfaction of users.

Chaudhary et al. (2025) found that rapid transformation of digital finance has been experienced by India, it has changed the way customers acquire and transact financial services completely. Digital financial system has become a main part of Indian financial system because of the rising penetration of smartphones, high use of UPI payment system, and the development of mobile banking system. Behavior of customers has changed because of the transformation in digital transaction that permits quick, convenient, and cashless financial deals. As customer become active in UPI app platforms, e-wallet and digital banking services, main factors determining the adoption and satisfaction have become central element of concern among providers and policymakers of FinTech.

Banuwa, Bangsawan & Roslina (2023) studied that digital transformation plays a vital role in making impact on customer behavior. One of the considerable changes that have been seen in the society is users are making payment through e-wallets. Such elements have improved the revolution of financial technology or FinTech and brought the habit of cashless transaction system. A positive attitude is suggested by the findings towards utilising e-wallets that make contribution in a positive way on intention of an individual to download and use such applications. Services providers of e-wallet keep updating and innovating new systems to make this application easier to use and improve its features to enjoy its benefits fully.

Hashim, Chan & Li (2023) stated that high level of e-wallet compatibility means a customer would get more choice as well as value in the system of payment. When an e-wallet system enters the cashless transaction system, the overall system should be considered as there would be consistent conflicts that occurs in integration process, and the level of such conflicts would affect directly the adoption by customers. Encouraging development of e-wallet is responsibility of government by facilitating conditions to promote the goal of cashless transactions. The findings shows that hedonic motivation, compatibility, habits and self-efficiency make substantial relations with the behavior of users using e-wallet. Self-efficiency was observed to be strong predictor that make influence on users of e-wallet.

Zargar et al. (2023) highlighted that the adoption of cashless transactions has become highly popular because it is trending globally. Digital transaction provides security, convenience and fast processing in comparison to traditional system of cash payment. The economy with cash transaction system is categorized in three payment modes like electronic payment, card payment and mobile payment system. Such classification provides an updated overview of digital system of payment also help scholars to obtain

quality reference for future research. Some technical, legal, social, economic and literacy challenges have been identified in the study that are related with the cashless transaction system. With categorization of such challenges into themes, scholars like directors of banks and policymakers can improve their understanding and knowledge of technology of digital payment issues in distinct cultural settings.

Rahman et al. (2022) found that adoption of digital payment system by business enterprises has the potential of reducing the related costs to handle huge amount of cash in the market and improve the speed of transactions. The trend of cashless transactions is all over the globe and it must be understood that if anything works in one nation is not necessary would be working in other because of difference in infrastructure of technology as well as culture and behavior. Less cash would lead to lower number of crimes, but a cashless economy would lead to cybercrimes, digital frauds, digital hacking and crimes. Using encryptions and strong authentications can helps in reduction of crimes. Cashless transaction system would lead to financial inclusion, mainly for non-banking people. It is revealed that compatibility and competence of technology have high substantial relation with the adoption of cashless transaction system. Support of management, critical mass of firm, pressure of competition, and intensity of information are substantially related with the adoption of cashless transaction system.

Sadhu & Bhattacharya (2022) revealed that digital transaction system has been adopted in India by majority of population mainly in semi urban and urban regions. With the arrival of demonetization of currency note of high amount by Indian government and incentives provided for its adoption by lowering the fees and waving off the taxes, people in India are accepting cashless transactions with enthusiasm. On the other hand, with the increasing demand of cashless transactions, the tension of security is also increasing. It is ultimately on the government and business organizations are promoting digital alternatives for cash for providing sufficient security for its services, moreover customers need to maintain habits of good security. There are many factors that include perceived usefulness, ease of use with digital system of payment, convenience, quickly growing penetration of smartphones, growth on non-banking payment institutes, progressive regulatory policies and escalation of customer readiness to platform of digital payment leading to high growth of cashless payment in India. Electronic payment linked with Aadhar, UPI system and improvement of digital infrastructure are main element of digital payment system and have become a game-changer.

Objective

To examine the Factors affecting adoption of Cashless Transactions in India.

Methodology

Study survey was conducted among 259 people from respondents from different educational level and income level. “Random sampling method” along with “T-test” were used to collect and analyse the data.

Data Analysis

In the total population of study survey males are 54.05% and females are 45.95%. 36.36% of them are 25 to 35 years of age, 27.41% are between 35 to 45 years, and 38.23% are above 45 years. Looking at the educational level, 32.04% are graduates, 37.45% are post graduates and 30.51% are professionals. Regarding income level, 24.32% are between 1 to 5 lacs, 38.99% are between 5 to 10 lacs and 36.69% are more than 10 lacs.

“Table 1 General Details”

“Variables”	“Respondents”	“Percentage”
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Male	140	54.05
Female	119	45.95
Total	259	100
Age (years)		
25 to 35	89	34.36
35 to 45	71	27.41
Above 45	99	38.23
Total	259	100
Education		
Graduates	83	32.04
Post graduates	97	37.45
Professionals	79	30.51
Total	259	100
Income Level		
1 to 5 lacs	63	24.32
5 to 10 lacs	101	38.99
More than 10 lacs	95	36.69
Total	259	100

Factors affecting adoption of Cashless Transactions in India

“S. No.”	“Statements”	“Mean Value”	“t value”	“Sig.”
1.	Cashless payment methods are easy to learn and adopt	4.29	21.126	0.000
2.	Cashless transactions system saves time compared to traditional system	4.09	17.964	0.000
3.	FinTech platform delivers consistent and dependable services	4.17	19.589	0.000
4.	Fear of fraud discourages adoption of digital payment system	4.23	20.178	0.000
5.	Lack of awareness limits the adoption of cashless transaction system	4.33	22.177	0.000
6.	Government initiatives promote adoption of cashless payment system	4.31	21.475	0.000
7.	Availability of smartphones enables the adoption of digital transaction system	4.00	16.548	0.000
8.	Cashless system makes financial management more convenient	4.10	18.284	0.000
9.	Policies supporting digital payment encourages its adoption	4.19	19.542	0.000
10.	Incentives like discounts and cashbacks motive consumers to adopt digital payment system	4.01	16.876	0.000

Above table shows the statements pertaining to “Factors affecting adoption of Cashless Transactions in India” the statements of respondents with the mean value are as follows, Cashless payment methods are easy to learn and adopt (4.29), Cashless transactions system saves time compared to traditional system (4.09), FinTech platform delivers consistent and dependable services (4.17), Fear of fraud discourages adoption of digital payment system (4.23), Lack of awareness limits the adoption of cashless transaction system (4.33), Government initiatives promote adoption of cashless payment system (4.31), Availability of smartphones enables the adoption of digital transaction system (4.00), Cashless system makes financial management more convenient (4.10), Policies supporting digital payment encourages its adoption (4.19), and Incentives like discounts and cashbacks motive consumers to adopt digital payment

system (4.01). All statements pertaining to Factors affecting adoption of Cashless Transactions in India are found to be significance, with p-values below 0.05 following the application of a t-test.

Conclusion

The study reveals that the shift towards the digital payment ecosystem is influenced by the combination of technological, behavioral, and institutional elements. The findings indicate that perceived ease of use, perceived usefulness, trust, security, financial literacy, and social influence plays a significant role in shaping individual's willingness to adopt cashless modes of payment. The rapid growth of FinTech innovations, supported by initiatives of government like Digital India, has accelerated the penetration of digital payment platforms across urban and semi-urban regions. This work also highlighted the concerns related to cybersecurity risks, lack of awareness, and digital divide continue to hinder widespread adoption, mainly in rural areas. Demographic factors like gender, age, education and income level make significant influence towards the adoption behavior. It is concluded that India is still progressing steadily towards a cashless economy, achieving inclusive digital financial adoption need targeted interventions. All statements pertaining to Factors affecting adoption of Cashless Transactions in India are found to be significance, with p-values below 0.05 following the application of a t-test.

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