

A Study on Adoption of Digital Payment Fintech Services among Students

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Abstract

The expansion of financial technology has significantly altered the way monetary transactions are carried out, particularly through digital payment systems that are increasingly used by students. This study examines the extent to which students adopt digital payment FinTech services and identifies the factors that encourage usage as well as the difficulties experienced during adoption. A descriptive research design was employed, and primary data were collected from 102 students using a structured questionnaire through convenience sampling. The collected data were analysed using percentage analysis and chi-square testing. The results indicate that students largely prefer digital payment services due to their ease of use, quick transaction processing, and round-the-clock availability. Despite this positive outlook, issues such as technical disruptions, security-related concerns, and limited acceptance by certain merchants continue to restrict effective usage. The study highlights the need for improved system reliability, stronger security mechanisms, and enhanced financial awareness to promote sustained adoption of digital payment FinTech services among students.

Keywords: Digital payments, Finance, Fintech Services, Technology, Students spending Behavior, Internet Banking, Investments.

Introduction

The increasing use of technology in financial activities has led to a steady shift from cash-based transactions to digital modes of payment. Digital payment platforms have become widely used due to their ability to simplify transactions, reduce time consumption, and offer greater accessibility. In India, the widespread availability of smartphones and internet services has further accelerated the use of digital payment FinTech solutions across different user groups.

Students form a significant segment of digital payment users as they frequently engage in online purchases, educational payments, and peer-to-peer transfers. Their exposure to technology and adaptability to new systems make them early adopters of digital financial services. However, existing studies largely concentrate on working professionals or the general population, with limited emphasis on students' specific usage behaviour, perceptions, and difficulties. This indicates a research gap in understanding how students interact with digital payment FinTech services and the challenges that influence their continued usage.

Therefore, the present study focuses on analyzing the adoption of digital payment FinTech services among students by examining their awareness, usage patterns, perceptions, and the barriers they encounter.

The findings aim to provide useful insights for improving digital payment systems and promoting informed usage among students.

Statement of Problem

The rapid development of FinTech has transformed transaction practices, making digital payment services a common part of daily life. Students increasingly depend on these services for routine financial activities, yet their adoption experience is influenced by multiple factors such as convenience, security, and technical efficiency. Despite growing usage, students continue to face challenges related to system reliability, safety concerns, and acceptance issues. Hence, it becomes necessary to examine the factors affecting the adoption of digital payment FinTech services among students and to identify the obstacles that limit their effective usage.

Objectives of the Study

- To understand the Demographic variable of the respondent.
- To study the awareness and user experience of Fintech digital payment services among students
- To find out the challenges faced by the students adopting Fintech digital payment services.

Methodology

Sample Size: In order to know the experience of students in usage of Fintech digital payment services, A total of 102 students from various domains have been selected for the study.

Sampling Technique: To determine the sample size, the convenience sampling technique has been adopted for the study.

Source of Data: The primary data have been collected through structured questionnaires distributed among the students. The secondary data sources include research papers, articles from newspapers and journals and official websites.

Technique of Data Analysis: Data is analysed using chi-square test and percentage method is used.

Review of Literature

Harsimran Kaur, Richa Mehta (2021) conducted a study on the topic “A Study on the

Adoption of digital payments by Indian Youth”. The object of the study is to identify the key elements which are influencing the Indian youths to adopt digital payments. The researcher concluded that the consumers are more likely to adopt and accept the well secured and convenient digital payment platforms. **Amit Kumar Arora et al (2023)** made a cross-sectional study on the topic of “Digital payment apps: perception and adoption- a study of higher education students”. The study focused on examining the awareness and perception of consumers towards digital payment apps. The result of the study shows that demonetization has played a significant role in the adoption of digital payment apps and also stated that the majority of students are using digital payments apps, **Dhrubaiyoti Bordoloia, Murathoti Rajendra Nath Babu (2024)** conducted a study on the topic” Consumer’s Attitude towards Digital Payments: A Demographic Analysis”. The purpose of study is to evaluate the awareness and the perception of consumers towards various payment modes. The researcher concluded that consumers are satisfied with the digital payment option.

Data Analysis

A total of 102 respondents have been interviewed for the study through a structured questionnaire and data have been collected among students from Chennai. A brief description about the profile of respondents is given as below:

Table 1 Profile of Respondents

Profile		Number Of Respondents	Percentage
Gender	Male	41	40%
	Female	61	60%
Total		102	100%
Age group	20 and below	47	46%
	21-25	32	31%
	Above 25	23	23%
Total		102	100%
Educational Qualification	UG	80	79%
	PG	22	21%
Total		102	100%

Domain of study	Commerce	46	45%
	Engineering	43	42%
	Medical	13	13%
Total		102	100%
Location	Urban	74	73%
	Rural	18	18%
	semi urban	10	10%
Total		102	100%

Source: Field survey

The table shows the demographic factors of the respondents. Here, the majority of 61% of the responses were collected from female respondents. Out of 102 respondents, 46% were from the age between 20 and below and 31% were from the age group between 20-25. Vast responses have been

collected from the UG students (79%). Respondents from all domains were collected but the majority were commerce and engineering students. Major responses were urban areas i.e. 73%. Generally, the age, education and location of respondents play an important role in determining the adaptability towards fintech digital payment technology. In this context, the relationships between age, gender, and location of respondents and adoption of fintech digital payment can be traced and the following hypotheses have been formed.

Gender and Adoption of Fintech Services

H_0 : Gender doesn't influence the adoption of fintech digital payment services.

H_1 : Gender influence the adoption of fintech digital payment services.

Table 2: Gender and Adoption of Fintech services

Gender* Usage of fintech digital payments Cross tabulation							Chi square statistic	p value
Respondents =102							4.439	0.218
		Usage				Total		
		Daily	Weekly	Monthly	Rarely			
Gender	male	16	12	8	5	41		
	female	24	9	21	7	61		
Total		40	21	29	12	102		

Source: Computed Data

The p-value (0.218) is greater than the typical significance level of 0.05. This means there is no statistically significant association between the gender and the usage of fintech digital payment services. Gender doesn't influence the adoption of fintech digital payment services.

Age and Adoption of Fintech Digital Payment Services

H_0 : Age doesn't influence the adoption of fintech digital payment services.

H_1 : Age influences the adoption of fintech digital payment services.

Table 3 Age and Adoption of Fintech Services

Age * Usage Cross Tabulation							Chi square statistic	p value
Respondents =102							4.439	0.218
		Usage				Total		
		Daily	Weekly	Monthly	Rarely			
Gender	Below 20	25	15	4	3	47		
	20-25	12	6	12	2	32		
above 25		3	10	7	3	23		
Total		40	21	29	12	102		

Source: Computed Data

The p-value (0.523) is greater than the typical significance level of 0.05. This means there is no statistically significant association between the age and the usage of fintech digital payment services. Location doesn't influence the adoption of fintech digital payments.

Location and Adoption of Fintech digital payment Services

H_0 : Location doesn't influence the adoption of fintech digital payment services.

H_1 : Location influences the adoption of fintech digital payment services.

Table 4 Location and Adoption of Fintech Services

Location * Usage of fintech digital payments Cross Tabulation							Chi square statistic	p value
Respondents =102							1.623	0.647
		Usage				Total		
		Daily	Weekly	Monthly	Rarely			
Gender	Urban	36	12	18	8	74		
	Semi-urban	4	9	1	4	18		
	Rural	3	2	4	1	10		
Total		40	21	29	12	102		

Source: Computed Data

The p-value (0.647) is greater than the typical significance level of 0.05. This means there is no statistically significant association between the location and the usage of fintech digital payment services. Location doesn't influence the adoption of fintech digital payment services.

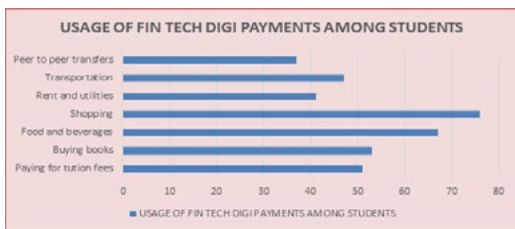
Perception of Students on Digital Payment Fintech Services Based on Convenience, Speed, And Accessibility

Table 6: Perception of Students on Digital Payment Fintech

Source: Field survey

The overall student perception of digital payment FinTech services is highly positive, particularly in terms of convenience, speed, and accessibility. The results suggest that students find these services easy to use, fast, and available anytime and anywhere, which promotes their adoption of digital payments.

Usage of Fin Tech Digi Payments Among Students



Source: Field survey

Table 5 Usage of Fin Tech Digi Payments Among Students

The data suggests that students primarily use digital payments for shopping, food, and tuition fees, while peer-to-peer transfers and transportation see lower adoption. This highlights the growing influence of FinTech in discretionary and essential spending habits. (Table:4).

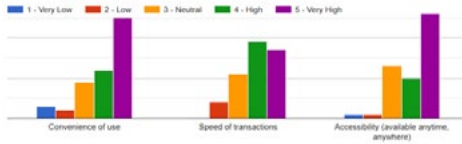
Challenges or Barriers Faced by Students When Using Digital Payment Fintech Services

Table 7 Challenges or Barriers Faced by Students When Using Digital Payment

Particulars	Average (%)	Correct Rank
Technical issues (e.g., app crashes, connectivity issues)	86%	I
Security concerns	57%	II
Lack of acceptance by merchants	37%	III

Lack of financial literacy	33%	IV
Insufficient funds in the linked account	26%	V
High transaction fees	19%	VI
Poor user interface or user experience	11%	VII

Source: Computed data



The primary barriers to adopting digital payment FinTech services among students are technical issues, security concerns, and limited merchant acceptance. While usability concerns and high fees are less significant, addressing these issues can further enhance adoption. To improve digital payment usage among students, FinTech companies should focus on improving app reliability, strengthening security measures, and increasing merchant acceptance. Additionally, financial literacy programs can help students make better use of these services.

Finding and Conclusion

Major Findings

- Most respondents are undergraduate students, with a higher representation of females and urban residents.
- Statistical analysis reveals no significant relationship between demographic variables and the frequency of digital payment usage.
- Digital payments are mainly used by students for shopping, food-related expenses, and educational payments.
- Students express a favourable perception towards digital payment services, particularly in terms of convenience and speed.
- Technical difficulties and security-related issues are the most prominent challenges faced by users.
- Limited merchant acceptance and lack of financial awareness also affect the adoption process, though to a lesser extent.

Conclusion

The study provides insights into the adoption of digital payment FinTech services among students by analysing demographic factors, usage behaviour, perceptions, and challenges. The results show that students widely accept digital payment systems due to their convenience and efficiency, irrespective of demographic differences. However, technical issues, security concerns, and limited acceptance by merchants continue to restrict optimal usage. Addressing these concerns through improved technology, enhanced security measures, and increased financial awareness can strengthen the adoption of digital payment services. The study contributes to a better understanding of student-centric digital payment behaviour and offers practical implications for stakeholders involved in the FinTech ecosystem.

Suggestions

- FinTech service providers should focus on improving application stability and reducing technical failures to enhance user confidence.
- Stronger security features and transparent grievance redressal systems can help address safety concerns among students.
- Educational institutions can conduct awareness programmes to improve students’ understanding of secure digital payment practices.
- Policymakers may encourage wider merchant participation and promote digital inclusion initiatives targeting young users.

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