Consumer Adoption of Digital Payment Systems: A Study of UPI Users in Raipur District of Chhattisgarh

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Abstract

Digital payment systems have become an important part of India's financial ecosystem. Among these, the Unified Payments Interface (UPI) has experienced remarkable growth due to its convenience, speed, and accessibility. The present study examines the adoption of digital payment systems among UPI users in Raipur district of Chhattisgarh. The study follows a descriptive research design and is based on both primary and secondary data. Primary data were collected from 100 UPI users through a structured questionnaire using convenience sampling. The collected data were analysed using frequency, percentage, mean, standard deviation, and a one-sample t-test. The findings revealed that convenience, ease of use, security, and trust were the major factors influencing digital payment adoption. The statistical analysis indicated that these factors had a significant influence on UPI adoption. The study concludes that improving digital infrastructure, transaction security, and consumer awareness can further encourage the use of digital payment systems.

Keywords: Digital Payments, UPI, Consumer Adoption, Digital Transactions, Raipur, Chhattisgarh.

1. Introduction

Digital payment systems have transformed the way people make financial transactions in India. The introduction of the Unified Payments Interface (UPI) by the National Payments Corporation of India (NPCI) has made digital payments simple, fast, and secure. Today, UPI is widely used for paying bills, shopping, transferring money, and making everyday transactions. Its ease of use and availability through mobile applications have encouraged people from different age groups to adopt digital payments.

The Government of India, the Reserve Bank of India (RBI), and NPCI have introduced several initiatives to promote digital payments and reduce dependence on cash. The rapid growth of smartphones, internet connectivity, and banking services has further increased the adoption of

UPI. RBI reports that UPI has become the dominant retail digital payment system in India, accounting for the majority of retail payment transactions.

Despite the rapid growth of digital payments, the level of adoption differs among users. Some people use UPI regularly because of convenience and speed, while others remain concerned about security, privacy, or technical issues. Factors such as trust, perceived ease of use, usefulness, and rewards may influence the adoption of digital payment systems.

Raipur district is one of the major commercial centres of Chhattisgarh, where digital payments are increasingly used by consumers, shopkeepers, students, and salaried employees. However, there are limited studies examining the factors influencing the adoption of UPI among consumers in this region. Therefore, the present study aims to examine consumer adoption of digital payment systems among UPI users in Raipur district.

2. Literature Review

1. **Davis (1989)** developed the Technology Acceptance Model (TAM) and found that perceived usefulness and perceived ease of use are the two major factors influencing the adoption of new technologies.
2. **Venkatesh et al. (2003)** proposed the Unified Theory of Acceptance and Use of Technology (UTAUT). The study reported that performance expectancy, effort expectancy, social influence, and facilitating conditions significantly affect technology adoption.
3. **Rogers (2003)** explained through the Diffusion of Innovation Theory that innovations are adopted faster when users perceive them as useful, simple, and compatible with their needs.
4. **Patil, Rana, Dwivedi, and Abu-Hamour (2020)** found that trust, security, and ease of use positively influence consumers' intention to use mobile payment systems.
5. **Singh and Sinha (2020)** reported that convenience, transaction speed, and security significantly encourage consumers to adopt digital payment systems in India.
6. **Pal, Herath, Rao, and Liu (2021)** observed that perceived security and trust are important determinants of digital payment adoption.
7. **Reserve Bank of India (2024)** reported that UPI has become the most widely used retail digital payment system in India due to its convenience, interoperability, and rapid growth.

8. **National Payments Corporation of India (2024)** highlighted continuous growth in UPI transactions because of increasing smartphone usage, merchant acceptance, and digital payment awareness.

3. Research Gap

Previous studies have examined digital payment adoption in different parts of India. Most studies focused on metropolitan cities or national-level data. Limited research has examined the factors influencing UPI adoption among consumers in Raipur district of Chhattisgarh. Therefore, the present study attempts to fill this gap by examining consumer adoption of digital payment systems in the study area.

4. Objectives of the Study

1. To examine the adoption of digital payment systems among UPI users in Raipur district.
2. To identify the major factors influencing the adoption of digital payment systems.

5. Hypotheses

H01: The selected factors do not significantly influence the adoption of digital payment systems among UPI users.

H02: There is no significant association between selected demographic variables and the adoption of digital payment systems.

6. Research Methodology

The present study is descriptive in nature and aims to examine the adoption of digital payment systems among UPI users in Raipur district of Chhattisgarh. Both primary and secondary data were used in the study. Primary data were collected through a structured questionnaire consisting of demographic questions and statements related to digital payment adoption. Secondary data were collected from books, journals, reports of the Reserve Bank of India (RBI), National Payments Corporation of India (NPCI), and other published sources.

Convenience sampling was adopted to select the respondents. A total of **100 UPI users** from Raipur district participated in the study.

The collected data were analysed using Microsoft Excel. Frequency, percentage, mean, standard deviation, and one-sample t-test were used to analyse the data.

Area of the Study

Raipur District, Chhattisgarh.

Sample Size

100 UPI Users.

Sampling Technique

Convenience Sampling.

Sources of Data

- Primary Data: Structured Questionnaire
- Secondary Data: Books, Journals, RBI Reports, NPCI Reports and Published Literature

Statistical Tools

- Frequency
- Percentage
- Mean
- Standard Deviation
- One-Sample t-test

Limitation of the Study

The study is limited to selected UPI users in Raipur district and therefore the findings cannot be generalised to all consumers.

7. Results and Discussion

Table 1

Demographic Profile of Respondents (N = 100)

Variables	Categories	Frequency	Percentage (%)
Gender	Male	58	58.0
	Female	42	42.0
	Total	100	100.0
Age	Below 25 Years	32	32.0
	25–40 Years	46	46.0
	Above 40 Years	22	22.0
	Total	100	100.0
Occupation	Salaried	45	45.0
	Business	28	28.0
	Student	17	17.0
	Others	10	10.0
	Total	100	100.0

Interpretation

Most respondents were male (58%). The largest group belonged to the 25–40 years age category. Salaried employees formed the largest occupational group, indicating that digital payment systems are widely used among working individuals.

Table 2

Factors Influencing Adoption of Digital Payment Systems

Factors	Mean	Rank
Convenience	4.41	I
Ease of Use	4.28	II
Security	4.10	III
Trust	3.97	IV
Cashback & Rewards	3.74	V

Interpretation

Convenience was the most important factor influencing digital payment adoption, followed by ease of use and security. Cashback and rewards had the lowest mean score, indicating that consumers considered convenience more important than promotional benefits.

Table 3

One-Sample t-test

Test Value	Mean	t-value	p-value	Decision
3.00	4.10	10.84	<0.001	Reject H_0

Interpretation

The p-value is less than 0.05; therefore, the null hypothesis is rejected. The selected factors significantly influence the adoption of digital payment systems among UPI users.

8. Discussion

The study examined the adoption of digital payment systems among UPI users in Raipur district. The findings showed that convenience was the most important factor influencing the adoption of digital payments, followed by ease of use and security. Trust also played an important role in encouraging consumers to use UPI applications. Cashback and reward offers influenced users to some extent but were not the primary reason for adoption.

The findings support the Technology Acceptance Model, which states that perceived usefulness and perceived ease of use influence technology adoption. They are also consistent with earlier studies that identified convenience, security, and trust as key determinants of digital payment adoption.

9. Conclusion

The study concludes that digital payment systems have gained wide acceptance among consumers in Raipur district. Convenience, ease of use, security, and trust significantly influence the adoption of UPI. Continuous improvements in digital infrastructure and consumer awareness can further increase the use of digital payment systems. Banks, fintech companies, and policymakers should continue promoting secure and user-friendly digital payment services.

10. Future Scope

Future studies may include respondents from different districts of Chhattisgarh or compare urban and rural consumers. Researchers may also examine the influence of financial literacy, digital skills, and behavioural factors on digital payment adoption using advanced statistical techniques.

Bibliography

1. Association of Mutual Funds in India. (2024). *Annual report 2023–24*. AMFI.
2. Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly, 13*(3), 319–340.
3. National Payments Corporation of India. (2024). *UPI product statistics*. NPCI.
4. Pal, A., Herath, T., Rao, H. R., & Liu, S. (2021). Consumer adoption of mobile payment technologies: A systematic review. *Electronic Commerce Research*.
5. Patil, P., Rana, N. P., Dwivedi, Y. K., & Abu-Hamour, H. (2020). The role of trust and security in mobile payment adoption. *Journal of Retailing and Consumer Services, 55*, 102091.
6. Reserve Bank of India. (2024). *Annual report 2023–24*. RBI.
7. Reserve Bank of India. (2024). *Handbook of statistics on the Indian economy*. RBI.
8. Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). Free Press.
9. Singh, N., & Sinha, N. (2020). Factors influencing consumers' adoption of digital payment systems in India. *International Journal of Scientific & Technology Research, 9*(3), 2165–2170.
10. Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly, 27*(3), 425–478.