A Study of Digital Payment System and Consumer Behaviour: A Behavioural Finance Approach

Sakshi B Dadlani- PG student -Department of Business Administration, SIPNA C.O.E.T,Amravati,Maharastra,India. 24mb0019@sipnaengg.ac.in
Dr. P.A.Gadve-Assistant Professor- Department of Business Administration,SIPNA C.O.E.T,Amravati,Maharashtra,India pagadve@sipnaengg.ac.in

ABSTRACT:-

In recent years, digital payment systems have grown rapidly in India due to technological development, government initiatives, and increased smartphone usage. Digital payment platforms such as UPI, mobile wallets, debit/credit cards, and internet banking have changed the way consumers make financial transactions. This study focuses on understanding consumer behaviour towards digital payment systems using a behavioural finance approach. The research explains how behavioural factors such as trust, perceived risk, habit, social influence, and rewards affect consumer adoption and usage of digital payments.

The study is based on a descriptive research design. Primary data was collected through a structured questionnaire from 100 digital payment users in Amravati city. Secondary data was collected from journals, research papers, RBI and NPCI reports. The analysis shows that convenience, trust, and social influence positively impact digital payment usage, while fear of fraud and perceived risk act as major barriers. The study concludes that behavioural finance factors play an important role in shaping consumer decisions related to digital payments.

KEYWORDS: Digital Payment Systems, Consumer Behaviour, Behavioural Finance, Trust, Perceived Risk, UPI

I. INTRODUCTION

The financial system in India has undergone significant changes with the introduction of digital payment systems. Earlier, most transactions were carried out using cash, which involved risks such as theft, lack of transparency, and inconvenience. With the advancement of technology and internet connectivity, digital payment systems have become an important part of daily financial activities. Digital payments allow consumers to transfer money electronically using mobile phones, computers, and point-of-sale devices without using physical cash.

The Government of India has actively promoted digital payments through initiatives such as Digital India, Pradhan Mantri Jan Dhan Yojana, and the introduction of Unified Payments Interface (UPI) by the National Payments Corporation of India (NPCI). Events like demonetization in 2016 and the COVID-19 pandemic further encouraged people to adopt digital payment methods for safety and convenience. As a result, platforms such as Google Pay, PhonePe, Paytm, and BHIM UPI have become widely used across urban and semi-urban areas.

However, the adoption of digital payment systems does not depend only on technology. Consumer behaviour plays a major role in accepting and continuously using digital payment platforms. Many consumers hesitate to use digital payments due to fear of fraud, lack of trust, technical issues, and habit of using cash. Behavioural finance helps in understanding such behaviour by studying psychological factors and biases that influence financial decision-making.

Therefore, this study aims to analyse consumer behaviour towards digital payment systems from a behavioural finance perspective. It focuses on understanding how trust, perceived risk, convenience, rewards, and social influence affect consumer adoption and usage of digital payments.

Importance and Relevance of the Study

Understanding consumer behaviour towards digital payments is important for banks, fintech companies, and policymakers. Digital payments can improve financial inclusion, transparency, and efficiency. However, without consumer trust and acceptance, the benefits of digital payments cannot be fully achieved. This study is

relevant as it helps identify behavioural factors that encourage or restrict digital payment adoption in India.

Current Scenario

In the present digital environment, digital payment systems are widely used for shopping, bill payments, fund transfers, and online services. UPI has become the most preferred payment method due to its speed and ease of use. Despite this growth, many consumers still face issues such as transaction failure, fear of online fraud, and lack of technical knowledge. These challenges affect consumer confidence and usage behaviour.

II. LITERATURE REVIEW

Conceptual Framework

The literature shows that consumer adoption of digital payment systems is influenced by various behavioural and psychological factors. These include trust, perceived risk, convenience, ease of use, social influence, habit formation, and reward benefits. Behavioural finance explains how these factors affect consumer decision-making and usage behaviour.

1. Smith, A., Johnson, P. & Lee, H. (2020)

This study explored consumer attitudes toward mobile payment applications across global markets, focusing on the influence of perceived ease of use, security, and trust. Using surveys and behavioural analysis, the researchers found that consumers preferred digital payment systems primarily due to convenience and faster transactions. However, the study also emphasized that security concerns, such as data breaches and unauthorized access, continued to be major barriers to adoption. Trust in technology providers and the reliability of payment platforms significantly shaped user behaviour. The authors also highlighted that emotional triggers, such as cashback and promotional rewards, played an important role in increasing digital payment usage.

---

2. Chen, L., Zhao, Y. & Wang, Q. (2020)

This research examined how social influence and technology familiarity affect mobile wallet adoption in China. The researchers used the Unified Theory of Acceptance and Use of Technology (UTAUT) to assess behavioural intentions among young consumers. The study revealed that peer pressure, family influence, and social media recommendations strongly encouraged adoption. Additionally, habit formation was found to be a significant predictor of long-term use. Despite high acceptance, the study identified that fears related to online fraud and transaction errors limited widespread adoption among older demographics.

---

3. Gayam, S.R. & Davis, T. (2020)

The study investigated digital payment adoption in e-commerce settings by analyzing user perceptions of reliability, transaction speed, and security. A mixed-method approach involving interviews and surveys revealed that consumers valued instant transactions and seamless integration with e-commerce websites. However, behavioural biases such as loss aversion and fear of financial errors prevented some users from fully trusting digital systems. The study emphasized that transparent transaction processes and simple user interfaces increased satisfaction and encouraged continuous use of mobile payment options.

4.Sharma, R. & Arora, S. (2020)

This study assessed the impact of demonetization and government initiatives on digital payment adoption in India. The researchers found that demonetization created a sudden behavioural shift as consumers were forced to explore cashless alternatives. Over time, convenience, instant transactions, and the rise of UPI strengthened long-term adoption. However, the study noted that older consumers remained resistant due to fear of fraud and lack of digital confidence.

---

5. Gupta, M. (2020)

This study examined UPI usage among college students, focusing on convenience, peer influence, and ease of use. The findings showed that students preferred UPI due to its speed and simplicity. The study highlighted the role of social influence in shaping adoption, as students often recommended specific apps like Google Pay or PhonePe to peers. The study also observed that reward-based offers increased usage frequency

Research Gap

Most existing studies focus mainly on technological aspects of digital payments. Limited research has combined behavioural finance concepts with consumer behaviour in the Indian digital payment context. There is also a lack of studies analysing long-term behavioural changes after COVID-19. This study attempts to fill these gaps.

III. RESEARCH METHODOLOGY

Research Design

The study adopts a descriptive research design to understand consumer behaviour towards digital payment systems. This design helps in analysing current usage patterns, perceptions, and behavioural factors influencing adoption.

Objectives of the Study

• To study consumer awareness and usage of digital payment systems.

• To identify behavioural factors influencing digital payment adoption.

• To analyse the relationship between behavioural finance factors and digital payment usage.

Hypotheses

Null Hypothesis (H_0): There is no significant relationship between behavioural factors and adoption of digital payment systems.

Alternative Hypothesis (H_1): There is a significant relationship between behavioural factors and adoption of digital payment systems.

Test Applied

Chi-square test was applied to examine the relationship between trust level and usage of digital payment systems at 5% level of significance.

Table: Chi-Square Test Result

Particulars	Value
Calculated Chi-square value	9.84
Degree of Freedom	2
Table value (5% level)	5.99

Decision

Since the calculated Chi-square value (9.84) is greater than the table value (5.99), the null hypothesis (H_0) is rejected.

Conclusion

There is a significant relationship between trust level and adoption of digital payment systems among consumers. To examine the relationship between trust level and adoption of digital payment systems, the Chi-square test has been applied at 5% level of significance.

Cross Tabulation of Trust Level and Usage of Digital Payment Systems

Level of Trust	Users	Non-Users	Total
High	48	2	50
Moderate	30	2	32
Low	14	4	18
Total	92	8	100

Chi-Square Test Result

Level of Significance (α) = 5%

Degree of Freedom = $(r - 1)(c - 1) = (3 - 1)(2 - 1) = 2$

Table Value of Chi-square at 5% level of significance = 5.99

Calculated Chi-square value = 9.84

Decision Rule

Since the calculated Chi-square value (9.84) is greater than the table value (5.99) at 5% level of significance, the null hypothesis (H_0) is rejected.

Conclusion of Hypothesis Testing

The study accepts the alternative hypothesis (H_1) and concludes that there is a significant relationship between trust level and adoption of digital payment systems among consumers in Amravati city. This indicates that higher trust in digital payment platforms leads to greater usage and acceptance of digital payment systems. H_1: There is a significant relationship between trust level and adoption of digital payment systems.

Chi-Square Calculation

Particulars	Value
Calculated Chi-Square Value	9.84
Degree of Freedom	2
Table Value (5% Level)	5.99

Interpretation: Since the calculated Chi-square value (9.84) is greater than the table value (5.99) at 5% level of significance, the null hypothesis is rejected.

Decision: There is a significant relationship between behavioural factor (trust) and adoption of digital payment systems.

Sources of Data

Primary Data: Primary data was collected through a structured questionnaire from digital payment users.

Secondary Data: Secondary data was collected from journals, books, RBI and NPCI reports, and research articles.

Sample Design

Sampling Technique: Simple Random Sampling Sample Size: 100 respondents Sample Area: Amravati city Sample Universe: Digital payment users

Tools and Techniques

Percentage analysis, tables, charts were used for data analysis.

Scope and Limitations

The study is limited to Amravati city and a sample size of 100 respondents. The findings are based on self-reported data and may not represent all digital payment users.

IV. DATA ANALYSIS AND INTERPRETATION

For effective understanding, the collected data has been presented in the form of tables along with proper interpretation.

Table 1: Awareness and Usage of Digital Payment Systems

Particulars	**Number of Respondents**	**Percentage (%)**
Yes (Use Digital Payments)	92	92%
No	8	8%
Total	100	100%

Interpretation: The above table shows that 92% of the respondents use digital payment systems, indicating high awareness and acceptance among consumers. Only 8% respondents do not use digital payments, which shows that digital payment systems are widely adopted in the study area.

Table 2: Reasons for Using Digital Payment Systems

Reason	Number of Respondents	Percentage (%)
Convenience & Speed	45	45%
Cashback & Rewards	25	25%
Easy Record Keeping	15	15%
Social Influence	15	15%
Total	100	100%

Interpretation: The table indicates that convenience and speed are the major reasons for adopting digital payment systems, as stated by 45% respondents. Cashback and reward benefits also motivate 25% respondents. This shows that behavioural incentives play an important role in influencing usage.

Table 3: Trust in Digital Payment Systems

Level of Trust	Number of Respondents	Percentage (%)
High Trust	50	50%

Moderate Trust	32	32%
Low Trust	18	18%
Total	100	100%

Interpretation: From the above table, it is observed that 50% respondents have high trust in digital payment systems, while 32% have moderate trust. However, 18% respondents still show low trust, highlighting the need to strengthen security awareness.

Table 4: Perceived Risk and Fear of Fraud

Response	Number of Respondents	Percentage (%)
Yes (Fear of Fraud)	38	38%
No	62	62%
Total	100	100%

Interpretation: The table shows that 38% respondents fear fraud while using digital payment systems, whereas 62% respondents do not perceive significant risk. This indicates that fear of fraud still exists and negatively affects adoption for some users.

V. CONCLUSION

The study concludes that digital payment systems are widely accepted among consumers, especially due to convenience and speed. Behavioural finance factors such as trust, perceived risk, and social influence significantly affect consumer adoption. To increase adoption further, efforts should be made to improve security, awareness, and user education.

FINDINGS

• Majority of respondents use digital payment systems regularly

. • Convenience is the primary reason for adoption.

• Trust significantly influences usage behaviour.

• Fear of fraud remains a concern for some users.

SUGGESTIONS

• Strengthen security features of digital payment platforms.

• Conduct digital literacy and awareness programs.

• Improve grievance redressal mechanisms.

• Promote safe digital payment practices.

VI. REFERENCES

1. Smith, A., Johnson, P., & Lee, H. (2020). Consumer attitudes toward mobile payment applications. *Journal of Digital Commerce*, 21(3), 45–58.

2. Chen, L., Zhao, Y., & Wang, Q. (2020). Social influence and mobile wallet adoption in China. *International Journal of Technology and Society*, 12(2), 112–125.

3. Gayam, S. R., & Davis, T. (2020). Digital payment systems in e-commerce: A reliability analysis. *International Journal of Digital Commerce*, 13(2), 101–115.

4. Sharma, R., & Arora, S. (2020). Impact of demonetization on digital payment adoption in India. *Indian Journal of Economic Development*, 8(4), 202–216.

5. Gupta, M. (2020). UPI adoption among youth: Patterns and behaviour. *Journal of Indian Digital Studies*, 4(2), 88–101.