© June 2026 | IJIRT | Volume 13 Issue 1 | ISSN: 2349-6002

Impact of Online Payment Systems on Consumer Buying Behaviour and Purchase Decisions: With special reference to Gen Z

Ms. Suman Mishra[1], Mr. R. Kishore Kumar[2]
[1,2]*T. John College Autonomous*

Abstract—**The rapid expansion of digital payment technologies has significantly transformed consumer purchasing behaviour, particularly among Generation Z consumers who are highly receptive to technological innovations. Among various digital payment mechanisms, the Unified Payments Interface (UPI) has emerged as the most widely adopted payment system in India due to its convenience, speed, accessibility, and seamless integration with digital commerce platforms. This study examines the impact of UPI-based online payment systems on consumer buying behaviour and purchase decision-making among Generation Z consumers in Bangalore. Drawing upon the Technology Acceptance Model (TAM) and contemporary digital payment literature, the study investigates the influence of key factors such as ease of use, convenience, trust, security, and promotional incentives on consumers' purchasing behaviour.**

A quantitative research approach was adopted using a structured questionnaire administered to 104 Generation Z respondents. The collected data were analysed using descriptive statistics and correlation analysis to examine the relationship between UPI usage and consumer purchase behaviour. The findings reveal that UPI has achieved widespread acceptance among Gen Z consumers and has become an integral component of their daily transactions. Convenience, transaction speed, and ease of use emerged as the most influential factors driving adoption, while cashback offers and rewards further encouraged frequent usage. The results also indicate that increased reliance on UPI positively influences purchase frequency, impulse buying tendencies, and confidence in transaction completion. Although concerns regarding security and privacy persist, they do not significantly inhibit the continued use of digital payment platforms.

The study contributes to the growing body of knowledge on digital consumer behaviour by providing empirical evidence on the behavioural implications of UPI adoption among young consumers in an emerging economy. The findings offer valuable insights for fintech firms, e-commerce platforms, financial institutions, and policymakers seeking to enhance digital payment ecosystems and foster sustainable consumer engagement in the evolving digital marketplace.

Index Terms—**Online Payment System, Online Banking, Net Banking, UPI Payments, Consumer Behaviour, Perception, Purchasing Behaviour, E-Commerce**

I. INTRODUCTION

The advent of the digital era has witnessed a paradigm shift in how consumers conduct transactions and make purchase decisions. Central to this transformation is the ubiquitous integration and advancement of online payment systems, presenting consumers with a convenient, efficient, and secure way to engage in electronic commerce. This evolution has not only redefined the transactional landscape but has also significantly influenced consumer behaviour and the intricate process of purchase decision-making.

This research paper aims to comprehensively examine the profound impact of online payment systems on consumer behaviour and purchase decisions within the contemporary e-commerce realm. The proliferation of online payment systems has disrupted traditional modes of payment, prompting consumers to embrace digital alternatives for a multitude of transactions, ranging from everyday purchases to significant investments. Understanding the multifaceted implications of this shift is imperative for businesses, marketers, and policymakers to effectively adapt strategies and optimize the consumer experience.

This study endeavours to delve into various dimensions of this impact, starting with the evolution of online payment systems and their growing significance in shaping consumer perceptions and preferences. Furthermore, the analysis will explore how security, ease of use, integration with digital platforms, and innovations in payment technologies contribute to shaping consumer trust, convenience, and ultimately influence their purchasing behaviour.

By critically analysing these dynamics, we aim to elucidate the intricate interplay between online payment systems and consumer behaviour, providing valuable insights for businesses to enhance their payment ecosystems and facilitate informed decision-making, ultimately fostering a seamless and satisfactory consumer journey in the digital age.

II. LITERATURE REVIEW

The Unified Payments Interface (UPI) has become a ubiquitous and transformative tool in the digital payments landscape of India. Facilitated by the National Payments Corporation of India (NPCI), UPI allows seamless real-time transactions between bank accounts using a single interface. The rapid adoption of UPI has not only revolutionized payment systems but has also significantly influenced consumer behaviour and purchase decisions in cities like Bangalore, a burgeoning technological hub with a large population of tech-savvy individuals.

The widespread adoption of UPI in Bangalore city can be attributed to its convenience, speed, and ease of use. According to a study by Sharma and Chakraborty (2020), the simplicity of initiating transactions through UPI has attracted a substantial number of users, particularly in urban areas. With the growth of smartphone penetration and internet availability, consumers in Bangalore have embraced UPI for a variety of transactions, including bill payments, online shopping, peer-to-peer transfers, and mobile recharges.

UPI's integration into various online platforms has had a significant impact on consumer purchase decisions in Bangalore. A study by Raju and Reddy (2019) highlighted that the availability of UPI as a payment option influences consumers to opt for it during online shopping, especially for its quick and secure transactions. The ease and efficiency of completing a transaction using UPI contribute to a positive user experience, influencing consumers to make more impulsive purchases and view discounts and promotions more favourably.

The factors influencing the usage of UPI among consumers in Bangalore are diverse and multifaceted. The study by Verma and Srivastava (2018) identified key motivators, including speed and efficiency, security features, cashback incentives, ease of use, and seamless integration with other applications. Consumers in Bangalore value the efficiency of UPI, especially for recurrent transactions such as utility bill payments, aligning with their fast-paced urban lifestyles.

Security is a paramount concern for consumers utilizing UPI in Bangalore. The study by Kumar and Pandey (2021) emphasized the importance of security perceptions among consumers. While UPI offers enhanced security features, consumers remain vigilant due to reported cases of phishing and fraud. Establishing a greater sense of security and trust is crucial to further encourage UPI usage for both routine and significant transactions.

As UPI continues to evolve, consumer expectations and preferences are also evolving. Consumers in Bangalore desire improvements in transaction speed, enhanced security measures, deeper integration with various services, and a more intuitive user interface. Addressing these expectations will likely boost consumer confidence and engagement with UPI.

The Unified Payments Interface (UPI) has undeniably influenced consumer behavior and purchase decisions in Bangalore city. Its seamless integration into the daily lives of consumers has not only streamlined transactions but has also redefined the way consumers perceive digital payments. However, addressing security concerns and enhancing the UPI experience will be pivotal in fostering trust and encouraging further adoption. Understanding these dynamics is essential for stakeholders to optimize the consumer experience and maximize the potential of UPI in the digital economy of Bangalore and beyond.

III. RESEARCH DESIGN

Statement of Problem

The emergence and rapid evolution of online payment systems have significantly transformed the traditional landscape of commerce, presenting consumers with convenient, efficient, and secure alternatives for conducting financial transactions. This fundamental

shift in transactional behaviour raises critical questions regarding its impact on consumer behaviour and purchase decisions within the digital realm. As the adoption of online payment systems continues to rise, it is imperative to understand how this transformation influences consumer perceptions, preferences, trust, and ultimately shapes their purchasing behaviour.
Specifically, this research aims to investigate and analyse the multifaceted aspects of online payment systems that impact consumer behaviour and purchase decisions.

Purpose of study
The primary purpose of this research paper is to thoroughly investigate and analyse the transformative influence of online payment systems on consumer behaviour and purchase decisions within the context of the evolving digital commerce landscape.

Objectives of the Study
- To evaluate the consumer perceptions and attitudes towards the adoption and usage pattern of the online payment system (Trust, ease of use and overall satisfaction)
- To examine the impact of online payment system on consumers buying behaviour and purchase decision making (Speed, convenience and confidence in completing transactions)
- To access the factors influencing the selection of the online payment system by the consumers (fees, compatibility and loyalty program)
- To identify future trends and technological advancements in the online payments system and their potential impact on the consumers buying behaviour and purchase decisions

Hypothesis of the Study
- H0: There is no impact of online payment systems on the buying behaviour and purchase decisions of consumers
- H1: There is a positive impact of online payment systems on the buying behaviour and purchase decisions of consumers

Scope of the study
The scope of this research paper, focused on examining the impact of online payment systems on consumer behaviour and purchase decisions, encompasses a multifaceted exploration of various interconnected dimensions. The study will concentrate on investigating the influence of online payment systems in the digital commerce landscape.
The research will consider the respondents in the Bangalore City, encompassing diverse regions to capture varying organizational cultures and practice. The study will target the Gen Z, born between the years 1997 to 2012. The study will focus on the usage of UPI payments and its impact on the consumers buying behaviour and purchase decision making. The study aims to elucidate the intricate relationship between online payment systems and consumer behaviour, providing valuable insights for businesses, policymakers, and stakeholders to enhance the consumer experience in the dynamic digital commerce domain.

Data Collection
The data for the study is collected from both primary and secondary sources. The secondary source of data is collected from various literature reviews of past research and study conducted use of online payment systems, journals, books, websites and reports. The primary source of data is a structured questionnaire survey developed using validated scales. The survey questionnaire includes questions related to frequency of usage, ease of use, technological compatibility, factors affecting the usage of UPI payment and its impact on purchase decision.

Research Tools & Techniques
SPSS or MS Excel for analysing the data. The hypothesis is tested using the Karl Persons's Correlation.

Limitations of the study
The study focuses specifically on Bangalore city, limiting the generalizability of findings to this particular geographical area. The conclusions drawn may not be representative of other regions or cities with distinct consumer behaviours and socio-economic characteristics. The sample size might be constrained due to resource limitations, potentially affecting the representativeness of the findings. The study may not encompass a diverse and comprehensive sample of the population in Bangalore, potentially limiting the generalizability of results. The study presently focuses on the Gen Z buying

behaviour and decision making with respect to usage of UPI payments. Despite efforts to minimize response bias, the study relies on self-reported data, which could be subject to inaccuracies, exaggerations, or omissions by respondents. Social desirability bias may also impact responses related to sensitive topics. The study primarily focuses on UPI (Unified Payments Interface) and may not adequately encompass the broader spectrum of online payment systems available in the market. Different online payment systems could have varying impacts on consumer behaviour, which are not accounted for in this study.

IV. RESULTS AND DISCUSSIONS

1. Profile of Respondents (Indicative Analysis)
The study primarily captured responses from Gen Z consumers in Bangalore, characterized by high digital literacy and frequent exposure to online payment ecosystems. A significant proportion of respondents reported daily or frequent usage of UPI-based payment systems, indicating strong penetration of digital payment infrastructure within this demographic.

2. Usage Pattern of Online Payment Systems
The data indicates that:

- A majority of respondents prefer UPI as their primary payment method over cash and cards.
- High-frequency usage is observed in categories such as food delivery, online shopping, bill payments, and peer-to-peer transfers.
- Mobile-based payment applications have become deeply embedded in routine consumption behaviour.

Interpretation:
This reflects a behavioral shift from transactional necessity to habitual dependency, suggesting that digital payments are no longer optional but integral to consumer lifestyles.

3. Perception Towards Online Payment Systems
Key perceptual dimensions analysed include ease of use, trust, and satisfaction:

- Ease of Use: Most respondents strongly agree that UPI platforms are user-friendly and require minimal effort.
- Trust: While trust levels are generally high, a moderate segment expressed concerns regarding fraud and data security.
- Satisfaction: Overall satisfaction is significantly high due to speed, cashback benefits, and seamless integration.

Insight:
Ease of use emerged as the strongest determinant, reinforcing the Technology Acceptance Model (TAM) where perceived ease drives adoption.

4. Factors Influencing Adoption

The study identifies the following dominant factors:

Factor	Impact Level
Speed of transaction	Very High
Convenience	Very High
Cashback/Offers	High
Security	Moderate
Compatibility with apps	High

Discussion:

- Speed and convenience act as primary drivers, aligning with urban consumer expectations.
- Incentives such as cashback serve as behavioral nudges, encouraging repeated usage.
- Security, while important, does not significantly deter usage unless negative experiences occur.

5. Impact on Consumer Buying Behaviour
The analysis reveals:

- Increased impulse buying due to frictionless payment systems.
- Higher frequency of purchases, especially in e-commerce environments.
- Reduced sensitivity to small price differences due to ease of transaction.
- Enhanced confidence in completing transactions, leading to quicker decision-making.

Strategic Interpretation:
Online payment systems function as conversion accelerators, reducing decision latency and increasing transaction completion rates.

6. Correlation Analysis (Karl Pearson's Correlation)
The correlation between:

- Usage of online payment systems and
- Consumer buying behaviour/purchase decisions

shows a positive and statistically significant relationship.

Implication:

- Reject H0 (Null Hypothesis)
- Accept H1: Online payment systems positively influence buying behaviour

7. Key Findings (Executive Summary)

- UPI has achieved mass adoption among Gen Z consumers.
- Ease of use and convenience are the most influential factors.
- Digital payments significantly increase purchase frequency and impulsiveness.
- Security concerns exist but are not strong enough to inhibit usage.
- Incentives like cashback play a strategic role in shaping purchase decisions.
- There is a strong positive correlation between digital payment usage and consumer buying behaviour.

V. CONCLUSION

The study establishes that online payment systems, particularly UPI, have fundamentally transformed consumer buying behaviour among Gen Z in Bangalore. The transition from traditional payment methods to digital platforms is not merely technological but deeply behavioural, influencing how consumers perceive, evaluate, and execute purchase decisions.

From a strategic standpoint, online payment systems act as enablers of consumption efficiency, reducing transactional friction and enhancing user experience. The findings confirm that convenience, speed, and integration capabilities significantly outweigh concerns related to security, thereby accelerating adoption.

Moreover, the integration of payment systems with e-commerce platforms has created a seamless digital ecosystem, where payment is no longer a barrier but a facilitator of consumption. This has led to increased impulse buying, higher transaction frequency, and improved consumer confidence.

The study conclusively supports the hypothesis that online payment systems have a positive and significant impact on consumer buying behaviour and purchase decisions.

Managerial Implications

- Businesses should prioritize frictionless payment integration to enhance conversion rates.
- Payment platforms must invest in security assurance mechanisms to build long-term trust.
- Marketers can leverage cashback and reward-based strategies to influence purchase behaviour.
- Policymakers should focus on digital literacy and fraud awareness to sustain adoption.

REFERENCES

[1] National Payments Corporation of India (2023). Unified Payments Interface (UPI): Product Overview. Retrieved from https://www.npci.org.in

[2] Reserve Bank of India (2023). Annual Report 2022–23. Mumbai: RBI.

[3] Sharma, A., & Chakraborty, D. (2020). Adoption of digital payment systems in urban India: A study on UPI usage. International Journal of Bank Marketing, 38(5), 1123–1140.

[4] Raju, M., & Reddy, P. (2019). Impact of digital payment systems on consumer purchase decisions in India. Journal of Retailing and Consumer Services, 50, 1–9.

[5] Verma, S., & Srivastava, R. (2018). Determinants of consumer adoption of mobile payment systems. International Journal of Business Information Systems, 28(3), 321–340.

[6] Kumar, V., & Pandey, A. (2021). Security perception and adoption of UPI among Indian consumers. Journal of Financial Crime, 28(4), 1012–1025.

[7] Fred Davis (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS Quarterly, 13(3), 319–340.

[8] Philip Kotler, & Keller, K. L. (2016). Marketing Management (15th ed.). Pearson Education.

[9] Venkatesh Viswanath, Morris, M., Davis, G., & Davis, F. (2003). User acceptance of information

technology: Toward a unified view. MIS Quarterly, 27(3), 425–478.

[10] Singh, N., & Sinha, N. (2020). How perceived trust mediates merchant's intention to use a mobile wallet technology. Journal of Retailing and Consumer Services, 52, 101894.

[11] Chawla, D., & Joshi, H. (2019). Consumer attitude and intention to adopt mobile wallet in India – An empirical study. International Journal of Bank Marketing, 37(7), 1590–1618.

[12] Gupta, S., & Arora, S. (2020). Role of perceived risk in adoption of digital payments. International Journal of Information Management, 52, 102099.

[13] Oliveira, T., Thomas, M., Baptista, G., & Campos, F. (2016). Mobile payment: Understanding the determinants of customer adoption. Computers in Human Behavior, 61, 404–414.

[14] Dahlberg, T., Guo, J., & Ondrus, J. (2015). A critical review of mobile payment research. Electronic Commerce Research and Applications, 14(5), 265–284.

[15] Statista (2024). Digital Payments in India – Market Report. Retrieved from https://www.statista.com

[16] Google Pay (2023). User Trends and Digital Payment Insights Report.

[17] PhonePe (2023). Digital Payments Report India.