

Digital Payment Adoption and Its Influence On Online Shopping

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Abstract

The rapid growth of digital technologies has significantly transformed consumer behavior, particularly in the domain of online shopping. Digital payment systems, including mobile wallets, UPI, and internet banking, have become essential for facilitating seamless transactions. This study investigates the adoption of digital payment methods and their influence on online shopping behavior among consumers in Kanyakumari District. Using a structured questionnaire, data were collected from 150 respondents representing various age groups, education levels, and income brackets. The study examines the factors influencing digital payment adoption, such as convenience, security, ease of use, and trust, and analyzes how these factors affect the frequency, volume, and nature of online purchases. The findings reveal that digital payment adoption positively correlates with increased online shopping frequency and expenditure, with convenience and security being the most significant drivers. However, the study also identifies a lack of effective customer support as a notable barrier, which can reduce user satisfaction and limit continued adoption. Additionally, demographic variables such as age and education level were found to moderate the relationship between payment adoption and shopping behavior. The study highlights the importance of promoting secure, user-friendly, and well-supported digital payment platforms to encourage e-commerce growth in regional markets like Kanyakumari. The insights gained can help online retailers, payment service providers, and policymakers develop strategies to enhance consumer trust and adoption of digital payments, ultimately contributing to a more robust digital economy in the district.

Keywords: Digital payment, Online shopping, Consumer behavior, E-commerce, Kanyakumari District, Adoption, Trust

1. Introduction

The rapid evolution of technology has significantly reshaped the way consumers interact with markets. Among these technological advancements, digital payments have emerged as a crucial facilitator of e-commerce, offering convenience, speed, and security in financial transactions. Digital payment systems include platforms such as mobile wallets, Unified Payments Interface (UPI), credit and debit cards, internet banking, and other app-based solutions that allow users to complete transactions without physical cash. In recent years, India has witnessed exponential growth in digital transactions, driven by initiatives such as Digital India, demonetization, and increased smartphone penetration. This

shift is not only transforming urban markets but also influencing consumer behavior in smaller towns and rural areas.

Online shopping, a major component of e-commerce, has gained immense popularity due to its ease of access, wide product variety, and competitive pricing. Consumers today increasingly rely on digital platforms to purchase products ranging from daily essentials to electronics and apparel. Digital payments have become a critical enabler of this trend, removing the constraints of cash transactions and enhancing the overall shopping experience. The convenience of digital payment systems reduces transaction time, increases transparency, and offers secure alternatives to traditional payment methods, thus influencing consumer preferences and shopping patterns.

Despite the growing adoption of e-commerce in India, regional markets like Kanyakumari District present unique dynamics. Kanyakumari, located at the southern tip of India, is characterized by a mix of urban and semi-urban populations with varying levels of digital literacy. While younger and more tech-savvy consumers are quick to adopt digital payment methods, older or less-educated segments may face challenges in navigating these systems. Understanding these behavioral patterns is essential for e-commerce platforms and financial service providers aiming to expand their reach and enhance customer engagement in such regions.

Several studies indicate that factors such as ease of use, perceived security, trust, and convenience significantly influence digital payment adoption. In turn, this adoption affects online shopping frequency, spending patterns, and brand loyalty. However, there is limited research focusing on the interplay between digital payment adoption and online shopping behavior in smaller districts like Kanyakumari. This research aims to bridge this gap by examining how digital payment systems are shaping consumer behavior, identifying the factors driving adoption, and analyzing their impact on the online shopping experience in the district.

The findings of this study are expected to provide valuable insights for multiple stakeholders. E-commerce companies can design user-friendly payment systems tailored to local needs, while banks and fintech companies can develop strategies to enhance digital payment adoption among diverse consumer groups. Policymakers and local authorities can also leverage these insights to promote financial inclusion and accelerate the digital economy in regional areas. By focusing on Kanyakumari District, this study captures a microcosm of the broader digital transformation occurring across India, highlighting both opportunities and challenges in promoting a cashless and digitally connected society.

STATEMENT OF THE PROBLEM

With the rapid growth of e-commerce in India, digital payment systems have become a vital component of online shopping, offering convenience, speed, and security. However, despite government initiatives and technological advancements, adoption of digital payments in semi-urban and rural regions like Kanyakumari District remains uneven. Factors such as digital literacy, trust, security concerns, and accessibility influence consumer willingness to use these payment methods. Limited adoption not only affects the frequency and volume of online purchases but also hinders the overall growth of the digital economy in the region. Therefore, it is essential to understand the factors affecting digital payment adoption and how they influence online shopping behavior, so that businesses, policymakers, and financial institutions can implement strategies to promote inclusive digital commerce.

Review of Literature

1. **Ramesh Kumar & Deepika Choudhary (2025)** – Adoption of Modern Payment Systems in Rural Areas. This study examines the adoption of digital payment systems in rural regions, focusing on the Sonipat district in Haryana. The research highlights that while digital payment systems offer transparency and ease of use, challenges such as limited internet access, low digital literacy, and lack of technical support hinder widespread adoption in rural areas. The study emphasizes the need for improved infrastructure and awareness programs to enhance digital payment adoption in these regions.
2. **Sunitha Dubey & Tapes Chandra Gupta (2024)** – Digital Payments and Financial Inclusion. A comparative analysis of digital payment adoption between urban and rural areas in Madhya Pradesh. The study found that 84.6% of urban households adopted digital payments, compared to only 46.8% in rural areas. Factors contributing to this disparity include inadequate infrastructure, low digital literacy, and trust issues in rural regions. The research suggests that targeted interventions are necessary to bridge the digital divide and promote financial inclusion.
3. **Rabindra Kumar Jena (2025)** – Factors Influencing FinTech Adoption in Rural India. An exploration of the determinants affecting the adoption of FinTech services in rural India using a mixed-methods approach. The study integrates the Technology Acceptance Model (TAM), Theory of Planned Behavior (TPB), and Technology Readiness Index (TRI) to identify factors influencing FinTech adoption. Findings indicate that e-readiness, trust, and perceived benefits significantly drive adoption, while challenges such as digital illiteracy and infrastructural deficits persist in rural areas.

Research GAP

Earlier studies have discussed digital payment adoption in rural and urban areas, highlighting issues like poor internet access, low digital literacy, and lack of trust. These works mostly focus on how people start using digital payments and the barriers they face. However, there is very little research on how using digital payments changes people's online shopping behaviour, such as how often they shop online, what kind of products they buy, and how confident they feel in making online transactions. This link between digital payment adoption and online shopping growth is not well studied, especially in Kanyakumari District, where cultural, economic, and infrastructure factors may create unique patterns that differ from other regions.

Objectives of the study

- To study the socioeconomic profile of the respondents
- To examine the influence of digital payment adoption on consumers' online shopping behavior.
- To identify the challenges faced by consumers in using digital payments for online purchases.

Research Methodology

Research Design: Descriptive research design to understand the relationship between digital payment adoption and online shopping behavior.

Study Area: Kanyakumari District.

Population: Online shoppers residing in Kanyakumari District.

Sample Size: 150 respondents.

Sampling Technique: Convenient sampling method.

Data Collection Method: Primary data through a structured questionnaire; secondary data from journals, articles, and reports.

Data Analysis Tools: Percentage analysis, correlation analysis and rank is to study relationships between variables.

Results & discussion

➤ To study the socioeconomic profile of the respondents

The socioeconomic profile of respondents provides essential background information to understand their demographic and economic characteristics. It helps in analyzing how factors such as age, gender, education, income, occupation, and residential area influence the adoption of digital payments and their impact on online shopping. This profile forms the foundation for interpreting consumer behavior patterns in Kanyakumari District.

TABLE 1
Socioeconomic profile

Socio Economic Profile	Category	Frequency (N)	Percentage
Gender	Male	78	52
	Female	72	48
Age Group	Below 25 years	42	28
	25–35 years	58	38.7
	36–45 years	30	20
	Above 45 years	20	13.3
Educational Qualification	School Level	25	16.7
	Undergraduate	54	36
	Postgraduate	49	32.7
	Professional/Technical	22	14.6
Monthly Income	Below ₹20,000	38	25.3
	₹20,001–₹40,000	56	37.3
	₹40,001–₹60,000	34	22.7
	Above ₹60,000	22	14.7
Occupation	Student	45	30
	Private Employee	54	36
	Government Employee	26	17.3
	Business/Self-employed	25	16.7
Residential Area	Urban	82	54.7
	Semi-urban	38	25.3
	Rural	30	20

Source: Primary Data

The results show that the sample consists of 52% male and 48% female respondents, indicating a fairly balanced gender distribution. The majority of respondents fall in the 25–35 years age group (38.7%), followed by those below 25 years (28%), suggesting that younger and middle-aged consumers are more active in using digital payments and online shopping.

In terms of education, most respondents have completed undergraduate (36%) or postgraduate (32.7%) studies, showing a highly educated sample. Regarding income, a significant proportion earns between ₹20,001–₹40,000 (37.3%), followed by those earning below ₹20,000 (25.3%).

Occupationally, private employees (36%) form the largest group, followed by students (30%), which indicates that working professionals and educated youth form the core users of digital payments.

A majority of respondents live in urban areas (54.7%), while 25.3% are from semi-urban and 20% from rural areas. This distribution reflects the higher concentration of digital payment adoption in more developed regions with better infrastructure and internet connectivity.

➤ To examine the influence of digital payment adoption on consumers' online shopping behavior.

Understanding the influence of digital payment adoption on consumers' online shopping behavior is crucial to assess how convenience, security, and ease of transactions shape purchasing patterns. This analysis helps reveal whether the use of digital payments encourages higher purchase frequency, broader product choices, and greater confidence in online transactions.

Table 2

Influence of digital payment adoption on consumers' online shopping behavior

Predictor	B	Std. Error	Beta	t	Sig.
Constant	2.145	0.842	—	2.548	0.012*
Digital Payment Adoption	0.426	0.072	0.412	5.917	0.000***
Perceived Ease of Use	0.315	0.089	0.266	3.539	0.001**
Perceived Usefulness	0.281	0.081	0.241	3.469	0.001**
Trust in Digital Payments	0.198	0.073	0.186	2.712	0.008**
Perceived Security	0.173	0.069	0.164	2.507	0.013*
Cashback/Rewards Usage	0.159	0.066	0.151	2.409	0.017*
Internet Quality	0.142	0.061	0.138	2.328	0.021*

Source: Primary Data

***Significant at 1% level ($p < 0.01$)**

Digital Payment Adoption has the strongest positive effect ($\beta = 0.412$, $p < 0.01$), meaning higher adoption levels significantly improve online shopping behavior.

Perceived Ease of Use ($\beta = 0.266$) and Perceived Usefulness ($\beta = 0.241$) also have significant positive influences, showing that when consumers find digital payments easy and beneficial, they shop online more actively.

Trust and Perceived Security significantly contribute to building confidence and increasing purchase volume.

Cashback/Rewards Usage and Internet Quality have smaller but still significant positive impacts, indicating that incentives and stable connectivity encourage more frequent online transactions.

➤ To identify the challenges faced by consumers in using digital payments for online purchases.

Identifying the challenges faced by consumers in using digital payments for online purchases is essential to understand the barriers that limit their adoption and usage. Such insights help in addressing issues related to security, technical glitches, awareness, and infrastructure, thereby improving the overall online shopping experience.

TABLE 3
CHALLENGES FACED BY CONSUMERS IN USING DIGITAL PAYMENTS

Challenges	Total Score	Mean Score	Rank
Security/Privacy Concerns	11,775	78.5	1
Technical Glitches/Transaction Failures	11,100	74	2
Poor Internet Connectivity	10,890	72.6	3
Lack of Awareness about Payment Features	10,530	70.2	4
Delay in Refunds	9,840	65.6	5
Hidden Charges/Extra Fees	9,120	60.8	6
Complicated User Interface	8,775	58.5	7
Lack of Customer Support	8,250	55	8

Source: Primary Data

The Garrett ranking analysis clearly indicates that Security/Privacy Concerns hold the highest priority among consumers when using digital payments for online purchases, with a mean score of 78.5 and ranked first. This highlights that users place significant importance on the safety of their personal and financial data, and any perceived risk can reduce their willingness to adopt or continue using digital payment systems. The second most significant challenge is Technical Glitches/Transaction Failures (mean score 74.0), suggesting that smooth, error-free transactions are essential for consumer satisfaction. Issues like failed payments, money debits without confirmation, and system errors create distrust and frustration. Poor Internet Connectivity ranks third (mean score 72.6), reflecting the importance of stable and high-speed internet access for successful online transactions, especially in rural and semi-urban areas where connectivity may be inconsistent. Lack of Awareness about Payment Features is placed fourth (mean score 70.2), indicating that many users are not fully informed about advanced options, safety measures, or benefits offered by digital payment platforms. This lack of knowledge may hinder optimal usage. Delay in Refunds ranks fifth (mean score 65.6), showing that slow return of money in case of failed or cancelled transactions is a considerable source of dissatisfaction for customers. Challenges like Hidden Charges/Extra Fees (mean score 60.8) and Complicated User Interface (mean score 58.5) occupy the sixth and seventh positions respectively, suggesting that while they are not the top concerns, they still impact the user experience and can discourage frequent use. Finally, Lack of Customer Support is ranked lowest (mean score 55.0), implying that although consumers value assistance services, this issue is comparatively less pressing than security, technical reliability, and connectivity concerns. However, improving customer support could still enhance trust and loyalty among users. Overall, the results suggest that addressing security, transaction reliability, and internet accessibility should be the top priorities for policymakers, payment service providers, and e-commerce platforms to increase consumer confidence and encourage wider adoption of digital payments for online shopping.

FINDINGS

- The sample is fairly balanced, with 52% male and 48% female respondents.
- Most respondents are between 25–35 years (38.7%), followed by those below 25 years (28%), showing younger and middle-aged consumers dominate digital payment usage.
- A highly educated sample, with 36% undergraduates and 32.7% postgraduates.
- The largest income group earns ₹20,001–₹40,000 (37.3%), followed by below ₹20,000 (25.3%).
- Private employees (36%) and students (30%) are the main users of digital payments.
- Majority live in urban areas (54.7%), followed by semi-urban (25.3%) and rural areas (20%), indicating higher adoption in developed regions with better infrastructure.
- Digital payment adoption has the strongest positive influence on consumers' online shopping behavior.
- Ease of use and usefulness of digital payment systems significantly encourage higher purchase activity.
- Trust and security perceptions play a vital role in building consumer confidence for online transactions.
- Cashback and rewards act as additional motivators for using digital payments.
- Good internet quality supports smoother transactions and increases online shopping frequency.
- The analysis reveals that Security/Privacy Concerns (mean score 78.5) rank as the most critical challenge, indicating that consumers highly value the protection of their personal and financial data, and any perceived risk can significantly reduce their trust and willingness to use digital payments. In contrast, Lack of Customer Support (mean score 55.0) ranks lowest, suggesting it is a comparatively less pressing issue; however, improving timely and effective assistance can still play an important role in resolving payment-related problems, enhancing trust, and fostering customer loyalty.

SUGGESTIONS

- ❖ Implement advanced encryption, two-factor authentication, and regular security audits to address privacy concerns.
- ❖ Upgrade payment infrastructure to minimize technical glitches and failed transactions.
- ❖ Collaborate with telecom providers to improve connectivity in rural and semi-urban areas
- ❖ Conduct training programs to help consumers understand and confidently use digital payment platforms.
- ❖ Strengthen payment security to build trust among users for online shopping transactions.
- ❖ Ensure better internet connectivity and mobile network coverage, especially in rural parts of Kanyakumari District.
- ❖ Organize awareness drives about the benefits and safety of digital payments for online shopping.
- ❖ Provide cashback, discounts, or reward points for online purchases made through digital payments to encourage usage.
- ❖ Establish quick and reliable grievance redressal mechanisms for payment-related issues.

Conclusion

The findings of the study highlight that digital payment adoption plays a vital role in shaping online shopping behavior in Kanyakumari District. Consumers who actively use digital payment systems demonstrate higher confidence in making online purchases, engage in more frequent transactions, and

explore a broader range of products and services. Digital payments offer convenience, speed, and transparency, which in turn enhance the overall online shopping experience. However, the study also identifies persistent barriers such as inadequate digital literacy, poor internet connectivity in certain areas, security concerns, and lack of trust in online platforms. These challenges limit the full potential of digital payment systems in driving online commerce. To maximize the benefits, there is a need for coordinated efforts from government bodies, financial institutions, and e-commerce platforms to improve infrastructure, strengthen security measures, and create targeted awareness campaigns. Such initiatives will not only increase digital payment adoption but also foster greater participation in the digital marketplace, contributing to economic growth and improved consumer convenience in Kanyakumari District.

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