Role Of Digital Payment Systems In Shaping Purchase Intentions On E-Commerce Platforms: A Study In Coimbatore District

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ABSTRACT

The rapid adoption of digital payment systems has transformed consumer behavior and the overall shopping experience on e-commerce platforms. With the increasing availability of e-wallets, Unified Payments Interface (UPI), credit/debit cards, and internet banking, consumers are empowered to make quick and secure online purchases. This shift is especially evident in emerging markets like India, where government initiatives, technological advancements, and pandemic-induced changes have driven consumers towards cashless transactions. This study examines how digital payment systems influence purchase intentions among e-commerce shoppers in Coimbatore District. Primary data was collected from 150 respondents using a structured questionnaire, and chi-square tests were used to analyze relationships between demographic factors and purchase intentions. Findings indicate that digital payment systems significantly influence consumer purchasing behavior, with younger and educated consumers showing higher adoption rates. The study concludes that digital payment convenience, security, and cashback offers strongly shape purchase intentions on e-commerce platforms.

Keywords: Digital Payments, Purchase Intention, E-Wallets, E-Commerce, Cashless Transactions

INTRODUCTION

Digital payment systems have redefined the way consumers shop online by offering fast, secure, and convenient transaction methods. The surge in smartphone usage, internet penetration, and the government's push for a cashless economy have contributed to a robust digital payment ecosystem in India. In Coimbatore District, a major commercial hub in Tamil Nadu, there is a significant shift towards online shopping and digital transactions. According to the Reserve Bank of India, UPI transactions in 2024 crossed record highs, demonstrating widespread consumer acceptance of digital payments.

E-commerce platforms have integrated multiple payment options, including wallets, QR codes, and instant bank transfers, to enhance customer experience. These digital payment methods not only facilitate smoother transactions but also influence consumer purchase intentions through incentives like discounts, cashback, and reward points. This study focuses on understanding the role of digital payments in shaping purchase decisions of consumers shopping online in Coimbatore District.

REVIEW OF LITERATURE

D.Dinesh Muthu (2021) This study was conducted to understand online shopping behavior using a questionnaire with 120 respondents. The data collected focused on factors such as reasons for shopping online, types of products purchased, payment methods, sources of information, likes, dislikes, security concerns, and overall satisfaction. Using basic statistical tools like percentages and frequency analysis, the descriptive research method helped analyze consumer preferences. The results show that people shop online mainly to save time and access a variety of products. Both men and women have similar shopping behaviors, liking home delivery but disliking that they cannot touch or feel products before buying. Social networks and websites are the main sources of shopping information, and most purchases are for clothes and accessories, often paid through cash on delivery. Many consumers worry about payment security, and their overall satisfaction with online shopping is mixed.

Antima Jain,Ashutosh Bhardwaj (2022) This study aims to evaluate customer behavior in online shopping applications by analyzing their perceptions, purchasing habits, and satisfaction levels. The research was conducted among Indian consumers using a convenience sampling method, with primary data collected from 200 respondents through a structured questionnaire. The variables studied include demographic factors, product and service preferences, payment methods, perceptions of online shopping, and satisfaction levels. Data was analyzed using percentage techniques, Chi-square tests, and weighted average methods. The descriptive research methodology helped identify trends and patterns in online purchasing behavior. The results reveal that the majority of respondents prefer cash-on-delivery payments and that improving awareness, branding, and consumer-focused services can positively influence purchasing behavior, enabling online marketers to sell products and services more effectively in the future.

Dr.M.R.Chandrasekar,S.D.Janani (2023) The present descriptive research study empirically examined the impact of digital marketing on consumer buying behavior of electronic goods in Coimbatore city. A total of 125 respondents were surveyed using both primary data (collected through structured questionnaires) and secondary data (from journals, articles, and reports). The study focused on variables such as consumer preferences, purchasing patterns, information sources, brand utility, and the influence of digital marketing strategies. Statistical tools including percentage analysis and chi-square

tests were employed to analyze the data. The results revealed that digital marketing significantly influences consumers' selection and purchase of electronic products, with factors like online advertisements, reviews, and promotions playing a crucial role in shaping buying decisions.

Mohamed Iliyas A (2024) This study adopts a mixed-methods research approach to examine the factors influencing online shopping behavior among consumers in Coimbatore District, Tamil Nadu. Primary data was collected from a sample of 150 respondents through a structured questionnaire designed to capture demographic details, digital payment usage patterns, purchase frequency, platform preferences, and key factors influencing purchase decisions such as convenience, security, product variety, and promotional offers. The variables studied include age, gender, education level, income, preferred digital payment method, perceived ease of use, trust in e-commerce platforms, and the impact of incentives like cashback or discounts on purchase intention. Quantitative analysis was conducted using statistical tools such as the Chi-square test to explore associations between demographic factors and purchase behavior, while descriptive statistics helped summarize consumer preferences and behaviors. This methodological framework allows for a comprehensive understanding of the interplay between digital payment systems and consumer behavior in the online shopping ecosystem of Coimbatore.

Sriraam N (2025) The rapid growth of e-commerce has transformed shopping habits and consumer satisfaction patterns, particularly in Coimbatore city. This study analyzes the factors influencing consumer behavior toward online shopping and measures customer satisfaction levels. Primary data was collected from a sample of 150 respondents through structured questionnaires, complemented by secondary data from reliable sources. The variables studied include ease of use, product variety, pricing, convenience, trust, post-purchase service, shopping frequency, and overall satisfaction. Statistical tools such as descriptive analysis and Chi-square tests were used to examine the relationship between these factors and consumer behavior. The descriptive research methodology helped identify key drivers of online shopping preferences. The results show that consumers are mainly attracted to online shopping for its time-saving benefits and variety of products, but concerns remain about product quality and return policies. The findings provide insights for e-commerce platforms to improve their services and enhance customer satisfaction, highlighting the evolving trends of online shopping in tier-II cities like Coimbatore.

STATEMENT OF THE PROBLEM

India's transition towards a digital economy has accelerated, especially after demonetization and the COVID-19 pandemic. Consumers now frequently use online payment modes for shopping. In Coimbatore District, which has witnessed rapid urbanization and digital adoption, e-commerce platforms report increased digital transaction volumes.

Despite these advancements, there is limited understanding of how digital payment systems specifically shape purchase intentions of consumers on e-commerce platforms in this region. Factors such as security concerns, payment convenience, cashback offers, and demographic characteristics may influence this relationship. This study seeks to analyze these factors and determine how they drive consumer decisions in the online marketplace.

OBJECTIVES OF THE STUDY

1. To examine the relationship between socio-economic characteristics and purchase intentions of consumers using digital payments on e-commerce platforms.
2. To analyze the impact of digital payment systems on shaping consumer purchase intentions in Coimbatore District.

HYPOTHESES OF THE STUDY

- H01: There is no significant relationship between socio-economic characteristics (Gender, Age, Education, Monthly Income) and consumer purchase intentions on e-commerce platforms.
- H02: Digital payment systems have no significant impact on shaping consumer purchase intentions in online shopping.

RESEARCH METHODOLOGY

The study was conducted to evaluate how digital payment systems affect purchase intentions among e-commerce users in Coimbatore District. Primary data was collected through a structured and pre-tested questionnaire distributed to 150 respondents selected via convenience sampling. Data analysis was performed using simple percentage analysis and chi-square tests to test the hypotheses.

ANALYSIS AND INTERPRETATION
Demographic Profile of Respondents

Demographic Variable	Category	Respondents	Percentage (%)
Gender	Male	85	56.7%

	Female	65	43.3%
Age	18–30	70	46.7%
	31–40	40	26.7%
	41–50	25	16.7%
	51+	15	10.0%
Education	School level	20	13.3%
	Diploma	25	16.7%
	College	65	43.3%
	Professional	40	26.7%
Monthly Income	Up to 25,000	35	23.3%
	25,001–50,000	60	40.0%
	50,001–75,000	35	23.3%
	Above 75,000	20	13.3%

Findings from the Above Table:

- The majority of respondents were male (56.7%), while females accounted for 43.3%.
- Younger individuals (18–30 years) formed the largest age group (46.7%).
- Most respondents were educated, with 43.3% having college-level education and 26.7% holding professional qualifications.
- A significant portion of respondents (40%) had a monthly income between ₹25,001–50,000, representing a middle-income majority.
- Overall, the sample mainly consisted of young, educated, middle-income individuals, indicating a consumer base likely to be more familiar and comfortable with digital payment methods.

Gender and Purchase Intention

Gender	Low Intention	High Intention	Total
Male	30 (35%)	55 (65%)	85
Female	18 (28%)	47 (72%)	65
Total	48	102	150

The above table shows that the chi-square value ($\chi^2 = 1.45$, df = 1) is lower than the table value (3.841), indicating no significant impact of gender on purchase intention. Both male (65% high intention) and female consumers (72% high intention) show similar adoption levels of digital payments.

Age and Purchase Intention

Age Group	Low Intention	High Intention	Total
18–30	15 (21%)	55 (79%)	70
31–40	12 (30%)	28 (70%)	40
41–50	12 (48%)	13 (52%)	25
51+	9 (60%)	6 (40%)	15
Total	48	102	150

The above table shows that the chi-square test ($\chi^2 = 10.28$, df = 3) exceeds the table value (7.815), showing a significant influence of age. Younger consumers (18–30 years) have the highest adoption (79% high intention), whereas older groups, particularly 51+ years, show much lower adoption (40% high intention).

Education and Purchase Intention

Education	Low Intention	High Intention	Total
School	8 (40%)	12 (60%)	20
Diploma	10 (40%)	15 (60%)	25
College	15 (23%)	50 (77%)	65
Professional	15 (37%)	25 (63%)	40

Total	48	102	150

The above table shows that the chi-square value ($\chi^2 = 8.76$, df = 3) is above the table value (7.815), indicating a significant relationship between education and purchase intention. College-educated respondents (77% high intention) are more likely to use digital payments compared to those with school (60%) and diploma education (60%).

Monthly Income and Purchase Intention

Income	Low Intention	High Intention	Total
Up to 25k	15 (43%)	20 (57%)	35
25k–50k	20 (33%)	40 (67%)	60
50k–75k	10 (29%)	25 (71%)	35
Above 75k	3 (15%)	17 (85%)	20
Total	48	102	150

The above table shows that with a chi-square value ($\chi^2 = 6.12$, df = 3) lower than the table value (7.815), income has no significant impact on purchase intention, indicating that digital payment adoption remains relatively consistent across different income levels.

SUGGESTIONS

The study suggests that e-commerce platforms should target younger consumers (18–30 years), who show the highest adoption of digital payments, by offering youth-focused campaigns with cashback offers, instant discounts, and gamified rewards. Since education significantly influences purchase intentions, collaboration with colleges and professional institutions can promote digital literacy and build user confidence. To bridge the adoption gap among older demographics (41–51+ years), simplified and secure payment interfaces with personalized guidance should be introduced. As income does not significantly impact adoption, platforms can adopt universal promotional strategies instead of income-based segmentation. Strengthening security features, offering fraud protection guarantees, and displaying trust badges can further reduce consumer fears, while localized communication with regional language support and user-friendly navigation can make digital payment usage more inclusive. Additionally, partnering with banks and fintech firms to provide EMI options, zero-interest credit, and loyalty rewards can increase transaction volumes. Finally, improving digital infrastructure to enhance transaction speed, reliability, and reduce technical failures will boost consumer confidence and encourage repeated adoption of digital payments.

CONCLUSION

The study concludes that digital payment systems significantly shape purchase intentions among e-commerce shoppers in Coimbatore District. The analysis revealed that age and education are the two key demographic factors influencing adoption, with younger and more educated consumers demonstrating a higher preference for digital payments. In contrast, gender and income showed no significant impact, indicating that digital payment adoption is not limited to any specific gender or income segment.

Consumers are motivated primarily by convenience, security, and cashback incentives, which makes digital transactions an attractive choice over traditional cash-on-delivery options. To further boost adoption, it is crucial to focus on awareness campaigns, enhanced security features, and inclusive strategies targeting older and less-educated populations. Strengthening digital infrastructure and building consumer trust can accelerate the transition towards a cashless, digitally empowered e-commerce ecosystem in Coimbatore District.

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