



# International Journal of Multidisciplinary Research in Science, Engineering and Technology

*(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)*



**Impact Factor: 8.206**

**Volume 9, Issue 3, March 2026**



## International Journal of Multidisciplinary Research in Science, Engineering and Technology (IJMRSET)

(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)

# A Study on Digital Checkout Friction and Cart Abandonment among E-Commerce Customers in Coimbatore City

Dr. K. Princy M. Com., M. Phil., Ph. D, Mr.Vimal R D

Assistant Professor, Department of B.com A&F/ M.com (IB), Sri Krishna Arts and Science College, Coimbatore, Tamil Nadu, India

Department of B.com A&F/ M.com (IB), Sri Krishna Arts and Science College, Coimbatore, Tamil Nadu, India

**ABSTRACT:** The rapid expansion of e-commerce has significantly transformed consumer purchasing behavior, making the checkout stage a critical determinant of transaction completion. Despite advancements in digital platforms, cart abandonment and order cancellation remain persistent challenges due to various forms of digital checkout friction. This study examines the factors influencing digital checkout friction and cart abandonment among e-commerce customers in Coimbatore City.

The research adopts a quantitative, cross-sectional design using primary data collected from 108 respondents through a structured questionnaire. Statistical tools such as Percentage Analysis, Chi-square test, and One-Way ANOVA were employed to analyze consumer behavior, demographic influences, and checkout-related perceptions. The findings reveal that extra charges (shipping/tax), lengthy checkout processes, payment issues, and security concerns are key contributors to cart abandonment. Delivery delays emerged as a major reason for order cancellations, while slow website loading speed and limited preferred payment options significantly influenced purchase discontinuation.

Although the majority of respondents expressed overall satisfaction with checkout experiences, behavioral factors such as price comparison habits, review influence, fraud concerns, and sensitivity to personal data requests were found to impact purchase completion decisions. Statistical results indicate that checkout challenges are experienced across demographic categories, with limited significant associations in most cases.

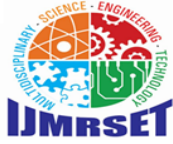
The study concludes that minimizing checkout friction through transparent pricing, simplified processes, improved website performance, diverse payment options, and enhanced security measures is essential for reducing cart abandonment and improving conversion rates. The research contributes to the understanding of digital consumer behavior in an emerging market context and provides practical recommendations for e-commerce platforms seeking to enhance user experience and long-term customer retention.

**KEYWORDS:** Digital Checkout Friction, Cart Abandonment, Order Cancellation, E-commerce, Consumer Behaviour, Online Payment Security, User Experience.

### I. PROBLEM STATEMENT

Digital checkout friction such as extra charges, lengthy processes, payment issues, and security concerns leads to cart abandonment and order cancellations in e-commerce. Understanding these barriers is essential to improve purchase completion and reduce revenue loss.

Identifying how these friction points influence consumer behavior can help businesses enhance user experience and increase conversion rates. This is particularly important in competitive and price-sensitive markets.



## International Journal of Multidisciplinary Research in Science, Engineering and Technology (IJMRSET)

(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)

### II. OBJECTIVES OF THE STUDY

1. To identify the key factors that create friction in the digital checkout process.
2. To analyze how checkout friction influences cart abandonment and order cancellation rates.
3. To examine the role of consumer behaviour and psychological factors in shaping checkout decisions.

### III. REVIEW OF LITERATURE

#### 1. Kukar-Kinney, M., & Close Scheinbaum, A. (2010)

Kukar-Kinney and Close Scheinbaum examined the major factors influencing consumers' shopping cart abandonment in online shopping environments. The study found that many consumers add products to their shopping carts without the immediate intention of purchasing. Factors such as high shipping costs, price comparison, and the desire to save items for later significantly contribute to cart abandonment. The research also highlighted that promotional offers and discounts can reduce abandonment rates and encourage purchase completion.

#### 2. Huang, T., Korfiatis, N., & Chang, Y. (2018)

Huang, Korfiatis, and Chang investigated the psychological factors influencing mobile shopping cart abandonment. The study emphasized that internal conflicts, consumer ambivalence, and hesitation during the decision-making process often lead to abandonment. The findings revealed that when consumers experience uncertainty or confusion about product information or pricing, they are more likely to abandon their carts, particularly in mobile shopping environments.

#### 3. Rubin, M., Martins, J., Iyuk, V., & Hildebrand, D. (2020)

Rubin and colleagues explored online shopping cart abandonment from a consumer mindset perspective. Their research indicated that different shopping motivations, such as browsing for entertainment, information gathering, or future purchase planning, play a role in cart abandonment. The study suggested that not all abandonment behavior reflects lost sales; in many cases, it is part of consumers' normal online shopping behavior.

### SCOPE OF THE STUDY

- The study provides practical recommendations for improving checkout design, payment integration, and user interface optimization in e-commerce platforms.
- The research contributes to academic understanding by linking digital marketing, consumer psychology, and user experience within the context of an emerging urban market.
- The findings serve as a reference for future researchers and businesses seeking to analyze checkout friction and cart abandonment behaviour in similar demographic settings.

### RESEARCH DESIGN

The study adopts a quantitative, cross-sectional research design to examine digital checkout friction and cart abandonment behaviour among e-commerce customers.

### SOURCE OF DATA

Both primary and secondary data were used in the study. Primary data were collected through a questionnaire, supported by journals and industry reports.

### SAMPLE SIZE

The study consists of 108 respondents. The sample size is adequate for statistical analysis and behavioural trend identification.

### SAMPLING METHOD

Convenience sampling was used to select respondents based on accessibility and online shopping experience. This method ensured quick and efficient data collection.

### TOOLS FOR ANALYSIS

Data were analysed using Percentage Analysis and Chi-square test. These tools helped identify response patterns and associations between demographic variables and checkout behaviour.



## International Journal of Multidisciplinary Research in Science, Engineering and Technology (IJMRSET)

(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)

### FINDINGS BASED ON PERCENTAGE ANALYSIS

- The **majority** (70.37%) of respondents are aged 18–24, while the **least** (1.85%) are under 18.
- The **majority** (56.48%) are male, while the **least** proportion (43.52%) are female.
- The **majority** (50%) shop online rarely, while the **least** (6.48%) never shop online.
- The **majority** (55.56%) earn below ₹20,000, while the **least** (12.96%) earn above ₹60,000.
- The **majority** (65.74%) are students, while the **least** (1.85%) are homemakers/others.
- The **majority** (70.37%) are single, while the **least** (0%) are widowed.
- The **majority** (40.74%) complete purchases most of the time, while the **least** (7.41%) never complete purchases.
- The **majority** (47.22%) sometimes abandon carts, while the **least** (5.56%) never abandon carts.
- The **majority** (39.81%) abandon carts due to extra charges, while the **least** (15.74%) cite security concerns.
- The **majority** (50.93%) remain neutral about cancelling due to checkout delay, while the **least** (9.26%) strongly disagree.
- The **majority** (48.15%) sometimes abandon due to slow loading, while the **least** (8.33%) never abandon due to slow speed.
- The **majority** (37.96%) cancel due to delivery delays, while the **least** (6.48%) cancel due to payment/refund issues.
- The **majority** (41.67%) remain neutral about stress from personal data requests, while the **least** (9.26%) strongly disagree.
- The **majority** (40.74%) remain neutral about storing information, while the **least** (8.33%) strongly agree.
- The **majority** (42.59%) agree that fraud fear affects checkout decisions, while the **least** (11.11%) strongly agree.
- The **majority** (51.85%) always compare prices, while the **least** (4.63%) never compare.
- The **majority** (43.52%) always consider reviews, while the **least** (5.56%) never consider them.
- The **majority** (64.81%) agree checkout design is user-friendly, while the **least** (2.78%) strongly disagree.
- The **majority** (54.63%) agree payment options influence abandonment, while the **least** (6.48%) strongly disagree.
- The **majority** (58.33%) feel confident about payment security, while the **least** (4.63%) strongly disagree.
- The **majority** (74.07%) are satisfied with checkout experience, while the **least** (1.85%) are very dissatisfied

### FINDINGS BASED ON CHI-SQUARE ANALYSIS

- Cart abandonment reasons, particularly extra charges and lengthy checkout processes, show similar patterns across different age groups.
- Fraud concern during checkout is consistently observed across gender categories, highlighting the role of trust and security.
- Preferred payment options influence checkout decisions across various occupational groups.
- Price comparison behaviour is prominently seen across different income categories.
- Overall, demographic variables show comparable behavioural trends in checkout-related decisions, indicating limited variation across groups.

### IV. SUGGESTION

- Ensure transparent pricing and simplify the checkout process by reducing unnecessary steps and clearly displaying all charges to minimize abandonment.
- Improve website performance, optimize checkout design, and offer multiple secure payment options to enhance user convenience and trust.
- Strengthen security measures, provide accurate delivery timelines, and use analytics and customer feedback to continuously reduce checkout friction and improve conversion rates.

### V. CONCLUSION

The study emphasizes the importance of minimizing digital checkout friction to improve customer experience and conversion rates. Factors such as extra charges, slow website performance, limited payment options, and security concerns significantly influence cart abandonment and order cancellations. Although overall satisfaction levels are high, friction points persist across demographic groups. Therefore, adopting simplified checkout design, transparent pricing, improved security, and better website performance is essential for enhancing trust, reducing abandonment, and ensuring sustainable growth in e-commerce.



## International Journal of Multidisciplinary Research in Science, Engineering and Technology (IJMRSET)

(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)

### REFERENCES

1. Kukar-Kinney, M., & Close Scheinbaum, A. (2010). *The determinants of consumers' shopping cart abandonment*. Journal of the Academy of Marketing Science.
2. Huang, T., Korfiatis, N., & Chang, Y. (2018). *Mobile shopping cart abandonment: The roles of conflicts, ambivalence, and hesitation*. Journal of Business Research.
3. Rubin, M., Martins, J., Ilyuk, V., & Hildebrand, D. (2020). *Online shopping cart abandonment: A consumer mindset perspective*. Journal of Consumer Marketing



INTERNATIONAL  
STANDARD  
SERIAL  
NUMBER  
INDIA



# INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY RESEARCH IN SCIENCE, ENGINEERING AND TECHNOLOGY

| Mobile No: +91-6381907438 | Whatsapp: +91-6381907438 | [ijmrset@gmail.com](mailto:ijmrset@gmail.com) |

[www.ijmrset.com](http://www.ijmrset.com)