



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

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**Abstract.** Digital technology has significantly transformed the way consumers shop, especially through e-commerce platforms. This study examines digital checkout friction and cart abandonment behaviour among e-commerce customers, with special reference to Coimbatore City. Checkout friction, such as extra charges, lengthy processes, payment issues, and security concerns, plays a major role in influencing purchase decisions. The study aims to understand customer behaviour, identify the key reasons for cart abandonment, and analyse factors affecting checkout completion. The study is based on primary data collected through a structured questionnaire from respondents. The findings reveal that while many customers frequently shop online, a significant number abandon their carts due to factors like additional costs, slow website performance, and lack of preferred payment options. Security concerns and complicated checkout processes also contribute to incomplete transactions. Overall, the study highlights the importance of improving website design, ensuring transparency in pricing, enhancing payment security, and simplifying checkout procedures. These measures can help reduce cart abandonment and improve customer satisfaction in e-commerce platforms.

**Keywords:** E-commerce, Checkout Friction, Cart Abandonment, Consumer Behaviour, Online Shopping, Payment Security

## I. Introduction of the Study

The rapid growth of digital technology has significantly transformed consumer shopping behaviour, especially through e-commerce platforms in Coimbatore City. Digital checkout processes have become an essential part of online shopping, where customers complete their purchases through websites or mobile applications. However, many customers do not complete their transactions due to various issues, leading to cart abandonment. Checkout friction refers to the difficulties faced by customers during the online purchasing process, such as extra charges, complicated steps, slow website performance, payment issues, and security concerns. E-commerce platforms like Amazon and Flipkart continuously improve their checkout systems to enhance user experience and reduce cart abandonment. A smooth and user-friendly checkout process helps increase customer satisfaction and conversion rates. Despite the growth of online shopping, checkout friction remains a major challenge. Customers may abandon their carts due to unexpected costs, lack of preferred payment options, or concerns about data security. Therefore, this study focuses on understanding the factors influencing checkout friction, customer behaviour, and cart abandonment among e-commerce users with special reference to Coimbatore City.

### Objectives of the Study

- To know the level of awareness of digital checkout processes among e-commerce customers.



- To study the perception of customers regarding checkout friction and its impact on purchase decisions.
- To identify the factors influencing cart abandonment behaviour among e-commerce users.

## II. Statement of the Problem

The rapid growth of digital technology and increasing use of e-commerce platforms have significantly changed the way consumers shop, especially in Coimbatore City. With the widespread use of smartphones, internet access, and online payment systems, customers are increasingly engaging in online shopping activities. However, many customers do not complete their purchases due to issues faced during the checkout process, leading to cart abandonment.

Checkout friction, such as extra charges, lengthy procedures, payment failures, and security concerns, creates barriers in the purchasing process. Many users may feel frustrated or uncertain during checkout, which affects their decision to complete the transaction. Despite the growth of e-commerce, there is still a lack of understanding regarding the key factors influencing checkout behaviour and cart abandonment. Therefore, this study aims to examine the level of awareness and perception of digital checkout processes among customers. It focuses on identifying the major reasons for cart abandonment and understanding how checkout friction impacts consumer behaviour, with special reference to Coimbatore City.

## III. Research Methodology

Research methodology refers to the systematic process used to collect, analyse, and interpret data for a particular study.

### Research Design

This study adopts a descriptive research design to assess the level of awareness and perception of digital checkout friction and cart abandonment among e-commerce customers. The design is suitable as it focuses on describing existing conditions, attitudes, and customer behaviour without manipulating any variables.

### Sample Size and Sampling Technique

A sample of respondents was selected from the target population using a convenience sampling method. The total sample size for the study was 200 respondents.

### Data Collection Methods

The study uses both Primary and Secondary data.

#### Primary Data

Primary data is collected through a structured questionnaire distributed among e-commerce customers

#### Secondary Data

Secondary data is gathered from research articles and journals, government reports and publications, websites, and online sources related to e-commerce, checkout processes, and consumer behaviour.



### Tools for Data Analysis

Simple percentage analysis.

### Limitations of the Study

- The study is limited to a specific group of e-commerce customers, so not applicable to all populations
- It is based on self-reported data, which may include bias or inaccurate responses.
- Time and resource constraints may have limited the sample size and depth of the study.

## IV. 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., Ilyuk, 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.

## V. Data Analysis and Interpretation

TABLE 1

Table Showing Awareness of Online Shopping Behaviour

S.NO	Particulars	Respondents	Percentage (%)
1	Frequently Shop Online	49	45.37%
2	Occasionally Shop Online	38	35.19%
3	Rarely/Never	21	19.44%
	TOTAL	108	100%

### Interpretation

The table shows that 45.37% of respondents frequently shop online, while 35.19% shop occasionally. Only 19.44% of respondents rarely or never shop online. This indicates



that a majority of respondents are active online shoppers, making them relevant for analysing checkout behaviour and cart abandonment.

TABLE 2

Table Showing Perception of Checkout Friction

S.No	Particulars	Respondents	Percentage (%)
1	High Friction	54	50%
2	Moderate Friction	38	35.19%
3	Low/No Friction	16	14.81%
	TOTAL	108	100%

### Interpretation

The table shows that 50% of respondents experience high checkout friction, 35.19% experience moderate friction, and 14.81% face low or no friction. This indicates that a majority of users face difficulties during the checkout process, which may lead to higher cart abandonment.

TABLE 3

Table Showing Factors Influencing Cart Abandonment

S.No	Particulars	Respondents	Percentage (%)
1	Extra Charges (Shipping/Tax)	32	29.63%
2	Long Checkout Process	27	25%
3	Payment Issues	22	20.37%
4	Security Concerns	16	14.81%
5	Slow Website	11	10.19%
	TOTAL	108	100%

### Interpretation

The table shows that extra charges (29.63%) are the main reason for cart abandonment, followed by long checkout processes (25%) and payment issues (20.37%). Security concerns (14.81%) and slow website performance (10.19%) also contribute to abandonment. This indicates that pricing and convenience are the key factors influencing customer decisions.

### Findings

The analysis shows that a majority of respondents are active online shoppers, indicating a high level of engagement with e-commerce platforms. A significant number of respondents experience checkout friction, with 50% perceiving it as a major issue during the purchasing process, while 35.19% face moderate difficulties and 14.81% experience low or no issues.

These findings indicate that although online shopping is widely adopted, several factors negatively influence purchase completion. The study reveals that extra charges (29.63%) are the main reason for cart abandonment, followed by long checkout processes (25%), payment issues (20.37%), security concerns (14.81%), and slow website performance (10.19%). Overall, the results highlight that pricing and convenience play a crucial role in customer decision-making, emphasizing the need to improve checkout systems and user experience to reduce cart abandonment.



### **Suggestion**

#### **Enhance Awareness Programs on Artificial Intelligence**

Although most respondents are aware of AI, there is still a gap in deep understanding. Organizations should conduct seminars, workshops, and awareness programs to improve knowledge about AI applications and benefits.

#### **Provide Training and Skill Development**

Companies should invest in training employees to use AI tools effectively. Proper skill development will reduce resistance to change and improve productivity in HR, marketing, and financial operations.

#### **Promote Strategic Implementation of AI**

Organizations should not adopt AI randomly but should align AI implementation with their business goals. A well-planned strategy will help maximize efficiency and performance outcomes.

#### **Focus on Cost-Effective AI Solutions**

Since cost reduction is a major factor influencing AI adoption, companies—especially small and medium enterprises—should adopt affordable and scalable AI technologies to ensure wider usage.

#### **Improve Data Management Systems**

AI depends heavily on data. Organizations should ensure proper data collection, storage, and analysis systems to improve accuracy and effectiveness of AI-based decisions.

## **VI. Conclusion**

The study shows that 80% of respondents are aware of AI technologies, reflecting their growing importance in organizations, especially in Coimbatore District. While understanding of AI's full impact varies, it clearly enhances Human Resource Management, Marketing, and Financial Performance by improving efficiency and decision-making. There is a need for awareness programs and training to help individuals effectively use AI. Promoting skill development and strategic implementation can help organizations maximize AI benefits and achieve long-term success.

## **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*