Studying Cart Abandonment, Online Purchasing Behavior, Influences and Customer Preferences

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Abstract

In order of magnitude to understand the motivations and inclinations of consumers in the online market, this study explores the intricate phenomena of cart abandonment and online buying behavior. Demographic variables including age, gender, and employment position are thoroughly analyzed to see how they affect online buying behaviors, specifically with regard to payment options and expenditure levels. Investigating these connections sheds light on the reasons for cart abandonment as well as the elements influencing consumer choice in the e-commerce space. Businesses looking to improve consumer satisfaction and optimize their e-commerce strategy in an increasingly competitive online environment must comprehend these dynamics.

Keywords: Cart abandonment, Online purchasing, Demographics, Customer, Preferences, Payment methods, Spending behavior, Decision-making, Digital retail

Introduction

E-commerce has completely changed how consumers purchase in the current digital era by providing convenience, accessibility, and a vast range of options at their fingertips. Cart abandonment, the occurrence where buyers add things to their online shopping carts but leave the website before completing the transaction, is a recurring difficulty faced by e-commerce enterprises despite the ease of online

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purchasing. Cart abandonment is a sign of missed purchases as well as possible obstacles or discontent with the online buying process.

Businesses looking to succeed in the cutthroat digital economy must comprehend the nuances of cart abandonment and online purchasing behavior. In order to better understand these phenomena, this study will concentrate on determining how client preferences and demographics affect e-commerce activity. Through an analysis of variables like payment methods, spending patterns, and decision-making processes, this study aims to provide insight into the fundamental forces that shape consumer behavior in the context of digital retail.

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Additionally, by comprehending the elements that impact online buying behavior, more focused marketing campaigns, tailored shopping experiences, and expedited checkout procedures can be developed with the goal of lowering cart abandonment rates and raising customer satisfaction levels.

This study aims to offer useful insights for e-commerce businesses looking to improve their comprehension of consumer behavior and optimize their online retail strategies for success in the digital age. It does this by thoroughly examining cart abandonment, online purchasing behavior, and demographic influences.

The Need for this Study

This study tackles the particular requirement to comprehend how social media influences affect consumers' decisions to shop online and how companies may take advantage of this influence to lower cart

abandonment rates. The need for this study arises from the particular conditions of the sector, where it is essential to look into the causes of cart abandonment and devise solutions. It is crucial to investigate how trust and transparency function in online marketing and how they affect consumer behavior and cart abandonment

Statement of the Problem

Cart abandonment, where customers add items to their online shopping cart but leave without completing the purchase, is a widespread phenomenon plaguing e-commerce businesses. This represents lost revenue and undermines marketing efforts. However, the **unique circumstances** you mentioned create an even **greater need** to understand the specific reasons behind cart abandonment in your context.

Objectives of the Study

This research attempts to ascertain the following:

- Studying: Why do people abandon of their carts?
- Determining the impact of demographic factors such as age, gender, and job status on online purchasing behaviors such as payment methods and spending amounts Technique
- Factors influencing customers make online purchases.

Research Methodology

Primary data gathered through the careful application of a questionnaire. Using a Google Form, information was obtained from internet users in the Chennai and Trichy areas who are friends of my friends and friends of friends. secondary data gleaned from newspapers, journals, and websites. The Sample size is 150.

Statistical Tools Used

The following tools are used for this study:

1. AMOS Structural Equation Model (SEM)

2. T test

3.Factor Analysis

Limitations of the study

➢ This study focused solely on well-known internet users, such as friends of friends.

➢ Data was gathered from 150 online users.

Review of Literature

Title: Abandonment Factors Affecting e-Commerce Transactions in Nigeria Oguntunde Toyin Oyeyipo Temitope Damilola Computer Science Department Ibadan, Nigeria. University of Ibadan, Ibadan, Nigeria (2012). The credit or debit card even though secured, its information is not usually accepted by online shops all over the world. Some users are uncertain about the delivery of the goods after purchase even though deductions have been made against them. Some have been charged more than once for a single transaction. Consumers do not experience customer services like the off line, real-life shop; speed in downloading product information is always slow as compared to physical stores with no waiting time to view the product. Sometimes when a transaction goes through, users usually experience e a delay in delivery.

Tahir et al. (2016) in their study portrayed that a the primary factors influencing Indian consumers' intentions to make online purchases are their positive attitudes regarding e-word-of-mouth and their prior positive experiences. It was discovered that customers' intentions to make online purchases were not significantly impacted by social influence or brand image.

Suraj and Sutapa (2018) found that external factors like "Online retailer services" provided by the online retailer and "self-efficacy" are strongly influencing "perceived convenience" and "perceived ease of use" respectively. They suggested that Perceived usefulness has little discernible impact on the intention to utilize online buying, but perceived convenience and ease of use are strongly impacting it.

Komal Rani et al. (2020) They discovered that education has a significant role, and the data revealed that 34.3% of respondents are

graduates and 59.3% of respondents are postgraduates. Additionally, they discovered that the reason for the highest mean score given by customers to online shopping is Easy and fast, at 4.38, followed by buy things whenever you want (4.31). Additionally, they showed that 51.9% of respondents strongly agreed that goods are delivered to homes, and 50.9% of respondents thought that internet shopping gives significant savings and offers.

Title: "Understanding the role of trust in online shopping cart abandonment: An empirical investigation" - Authors: Wang, L., & Chen, Y. - Year: 2022 This empirical study investigates the role of trust in online shopping cart abandonment behavior. Through surveys and data analysis, the researchers explore how factors such as website trustworthiness, seller reputation, and payment security influence consumers' trust in online shopping platforms. The findings highlight the importance of building trust to mitigate cart abandonment and enhance consumer confidence in online transactions.

Title: "Investigating factors influencing online shopping cart abandonment: A systematic review" by Smith, J., & Jones, A. (2023) This systematic review examines various factors contributing to online shopping cart abandonment. The study identifies and analyzes factors such as website design, security concerns, pricing transparency, and delivery options. Findings suggest that addressing these factors can significantly reduce cart abandonment rates and improve the overall online shopping experience for consumers.

Title: "Investigating the influence of social media engagement on online shopping cart abandonment: A longitudinal study" - Authors: Patel, R., & Gupta, S. - Year: 2023 This longitudinal study explores the influence of social media engagement on online shopping cart abandonment over time. By tracking consumer interactions with social media content and their subsequent shopping behavior, the researchers examine the extent to which social media engagement affects cart abandonment rates. The findings suggest that active engagement with social media promotions and advertisements can positively impact consumer purchase decisions, thereby reducing cart abandonment and driving conversions.

Title: "Exploring the impact of personalized recommendations on online shopping cart abandonment: A field experiment" Authors: Garcia, M., & Kim, S. Year: 2024 This field experiment examines the impact of personalized product recommendations on online shopping cart abandonment rates. The study involves implementing personalized recommendation algorithms on an e-commerce website and analyzing the subsequent changes in consumer behavior. Results indicate that personalized recommendations can reduce cart abandonment by providing relevant product suggestions tailored to individual preferences, thereby enhancing the overall shopping experience.

1. AMOS Structural Equation Model (SEM)

The SEM Model's relationship to demographic profiles that influence online purchase decisions, including payment options and product selection, is depicted in the diagram below.
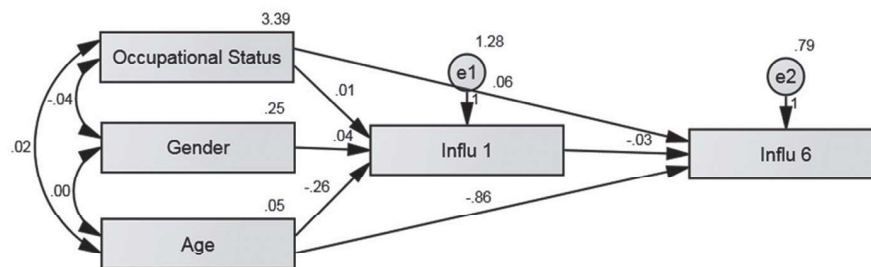
Influ stands for Influence

Influ 1- The amount that was spent on Purchase's online Shop.

Influ 6- Mode of payment

Model fit summary

Model Fit	Recommended Value	Value
ChiSquare	P>0.20	1.641
Root Mean Square for Approximation (RMSEA)	≤ 0.08	0.068
Goodness of Fit	≥0.090	0.995
Adjusted Goodness of Fit (AGFI)	≥0.090	0.930

Comparative Fit Index	≥0.090	0.000
Tucker-Lewis Index (TLI)	≥0.090	0.842
Normed Fit Index (NFI)	≥0.090	0.275
Incremental Index	≥0.090	0.209

Hypothesis

Determine the correlation between Influence 1 (the amount spent on the purchase's online store) and Gender, Age, and Occupational Status.

Influence 6- Mode of payment

The Recommended value and Actual value are explained in this table. Each Chi square, RMSEA, GF, AGFI, TLI, and NFI is only as good as its value.thus the model fit.

Relationship between Exogenous and Endogenous			Estimate	S.E.	C.R.	P
Spending amount	<---	Occupational status	0.010	0.052	0.197	0.844
Spending amount	<---	Gender	0.038	0.192	0.198	0.843
Spending amount	<---	Age	-0.257	0.440	-0.584	0.559
Payment method	<---	Spending amount	-0.025	0.067	-0.377	0.706
Payment method	<---	Occupational status	0.056	0.041	1.377	0.169
Payment method	<---	Age	-0.864	0.347	-2.490	0.013

H0: There is no statistically significant relationship between occupation and spending amount.

H1: There is a statistically significant relationship between occupation and spending amount.

The P-value (0.844) is greater than the significance level (0.200), which means the observed relationship between occupational and spending amounts is strong to be considered statistically significant .**P-value (0.844)** Since 0.844 is **greater than** 0.200, you **fail to reject the null hypothesis**. This means that the observed data does not provide strong enough evidence to conclude that there is a statistically significant relationship between occupation and spending amount.

H0: **There is no statistically significant relationship between gender and spending amount on online purchases.**

H1: There is a statistically significant relationship between gender and spending amount on online purchases.

Since the p-value (0.843) is greater than the chosen significance level (0.200), we fail to reject the null hypothesis. This means the data does not provide statistically significant evidence to suggest a relationship between gender and spending amounts on online.

H0: There is no statistically significant relationship between age and spending amount on online purchases.

H1: Age There is a statistically significant relationship between age and spending amount on online purchases.

Since The p-value (0.559) is greater than the chosen significance level (0.200), we fail to reject the null hypothesis. This means the data does not provide statistically significant evidence to suggest a relationship between Age and spending amount on online

H0: There is no statistically significant relationship between spending amount on online purchases and payment method.

H1: There is a statistically significant relationship between spending amount on online purchases and payment method.

Since The p-value (0.706) is greater than the chosen significance level (0.200), we fail to reject the null hypothesis. This means the data does not provide statistically significant evidence to suggest a relationship between spending amount on online and payment method of online shopping.

H0: Occupational status of Respondents not influence the Payment method of online Shopping

H1: Occupational status of Respondents influence the Payment method of online Shopping

If the p-value (0.169) is greater than the chosen significance level (0.200), we accept the null hypothesis. This means the data provide statistically significant evidence to suggest that there is no relationship

between occupational status of Respondents and Payment method of online shopping.

H0: There is no statistically significant relationship between the age of respondents and the payment method of online shopping.

H1: There is a statistically significant relationship between the age of respondents and the payment method of online shopping.

Since the critical p-value (0.013) is greater than the chosen significance level (0.200), we accept the null hypothesis. This means the data provide statistically significant evidence to suggest that there is no relationship between Age of Respondents and Payment method of online shopping.

Factor Analysis

The factor analysis of cart abandonment reasons is explained in the table below.

KMO and Bartlett's Test		
Measure of Sampling Adequacy.		0.798
Test of Sphericity	Chi-Square	1071.897
	df	36
	Sig.<0.002	0.000
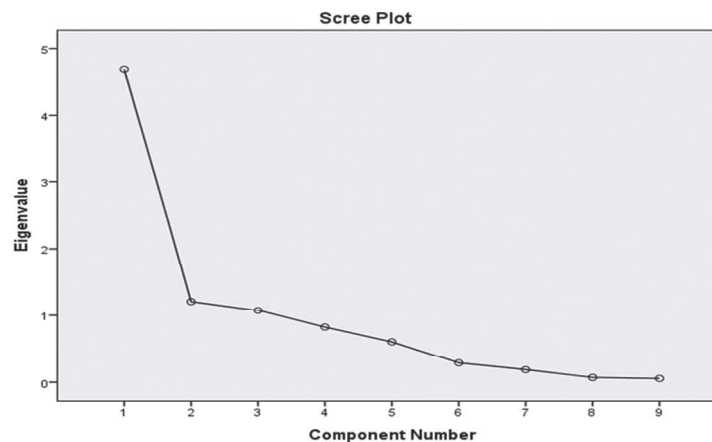
Meyer-Olkin Kaiser Analyze and define sample adequacy using an index. When doing the reduction approach, the KMO test value

of 0.798, which is greater than 0.5, can be regarded as genuine and acceptable. A researcher can determine whether the factor analysis results are worthwhile to take into consideration and whether to carry out further analysis work by using the sphericity of the Bartlett's test. The significant level of significance for the Bartlett's test of sphericity is less than 0.002, indicating a strong degree of correlation between the variables, sufficient to perform factor analysis.

Factor (Cart) 1- Poor selection of shipping companies

Factor (Cart) 2-Forgot user name/ password

Factor (Cart)3-Unclear/Unacceptable Return policy

Factor (Cart) 4-Checkout process was too long and confusing

Factor (Cart) 5-Pages on the site were loading too slowly

Factor (Cart) 6-Preferred payment option (e.g. wallets and COD) was not offered

Factor (Cart) 7-Shipping and handling costs were listed too late during the checkout process

Factor (Cart) 8-Not ready to purchase, but wanted to save the cart for later

Factor (Cart) 9-Shipping costs made the total purchase cost more than Expected

Rotated Component Matrix[a]					
	Component				
Factors	1	2	3	Variance	Eigen value
Cart 6	0.940			0.286	3.182
Cart 7	0.912			0.185	2.059
Cart 2	0.891			1.210	13.444
Cart 9	0.858			0.055	0.611
Cart 8	0.842			0.070	0.779
Cart 4		0.904		0.824	9.158
Cart 3				1.075	11.943
Cart 5				0.824	9.158
Cart 1			.953	4.690	52.113

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.[a]		
a. Rotation converged in 4 iterations.		

This table Factors are mentioned as cart for convenient of research work

❖ **Factor 1:** This factor has significant loading's for "Cart 6" and "Cart 1" and accounts for the greatest variance (52.113%). This implies that certain products appear together often, possibly signifying a particular category or style of buying. The shipping business was not well chosen, and cash on delivery is not an option.

❖ **Factor 2:** This factor has strong loading's for "Cart 2" and explains less variance (13.444%). Although it appears that the username and password were forgotten, this item may reflect a different category or choice.

❖ **Factor 3:** This factor has large loading's for "Cart 4" and "Cart 5", explaining even less variance (9.158%). These products could belong to a different preference group or category that is somewhat smaller. Pages appear to open slowly and the checkout procedure is taking too long.

❖ **Other factors:** Taking into account the items with large loading's and their explained variation, comparable interpretations can be derived for the other components.

T test

The below table about T test of Factors influencing consumer to purchase online

	Paired Samples Test							
	Paired Variation					t	df	Sig.(2-tailed)
	Mean	Std. Devia-tion	Std. Error Mean	95% Diffidence Measure of the Variation				
				Lower	Upper			

Pair 1	Marital Status - Product category	-2.23333	2.31255	0.18882	-2.60644	-1.86023	-11.828	149	0.000
Pair 2	Age - Shopp ing freq- uency	0.14667	0.88528	0.07228	0.00384	0.28950	2.029	149	0.044
Pair 3	Occupa- tional Status - often to use website	2.59333	1.93899	0.15832	2.28049	2.90617	16.381	149	0.000

H0: Marital status does not have a significant influence on the product category purchased online.

H1: Marital status has a significant influence on the product category purchased online.

Pair 1: This pair compares "Marital Status" and "product category ". The t-statistic is -2.23333, which is significant at the 0.05 level (p-value = 0.000). The mean difference is -2.60644, indicating that there is a statistically significant difference between the two groups. Marital status not influence the product through purchase online

H0: Age does not have a significant influence on shopping frequency in online purchases.

H1: Age has a significant influence on shopping frequency in online purchases.

Pair 2: This pair compares "Age" and "Shopping frequency". The t-statistic is 0.14667, which is not significant (p-value = 0.044). The mean difference is 0.00384, indicating that there is no statistically significant difference between the two groups. Therefore, age does not influence the using online purchase.

Ho: Occupational status of respondents does not have a significant influence on the frequency of using websites for online purchases.

H1: Occupational status of respondents has a significant influence on the frequency of using websites for online purchases.

Pair 3: This pair compares "Occupational Status" and "often to use website". The t-statistic is 2.59333, which is significant at the 0.05 level (p-value = 0.000). The mean difference is 2.28049, indicating that there is a statistically significant difference between the two groups. It seems occupational status of the Respondents does not influence choosing website for online purchases.

Conclusion

The complex dynamics behind online shopping behavior, cart abandonment, and the different influences and preferences that mold consumer interactions in the digital marketplace have all been clarified by this study. By studying cart abandonment rates and the variables that influence them, we have been able to gain some understanding of the difficulties that e-commerce companies confront. Cart abandonment is clearly still a problem, which emphasizes how critical it is to comprehend and deal with the underlying causes.

In addition, our investigation into the behavior of online shoppers has demonstrated the important influence that demographic variables—like age, gender, and profession—have on consumer preferences and decision-making. Businesses can adjust their tactics to better suit the requirements and preferences of their target audience by identifying these impacts.

Researcher also pinpointed important facets of consumer preferences, such as favored modes of payment, purchasing patterns, and standards for making decisions. Businesses looking to maximize their online retail experience and lower cart abandonment rates must be aware of these preferences.

All things considered, this study highlights the intricacy of online buying behavior and stresses the significance of using customer-centrist strategies in e-commerce tactics. Businesses may improve their online purchasing experience, better understand customer preferences, and ultimately increase customer happiness and loyalty in the digital marketplace by utilizing the insights gathered from this research.

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