

Abandonment of the Shopping Cart: A Study of Online Consumer's Non Shopping Behavior

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Abstract The e-commerce business in India is booming. The country is likely to remain one of the fastest growing e-commerce markets in the foreseeable future. Homegrown players like Flipkart and global behemoths like Amazon are trying every trick possible to woo the Indian consumers. In a quest to increase the size of the market and to grab a large chunk of the market share, these players are however operating in the red. The need of the hour is to adopt a two-pronged strategy; increase turnover and curtail costs. A deeper peep into the online shopping process reveals that a large number of shoppers through the e-tailer's websites, initiate the shopping process but fail to complete it. Known as 'abandonment of the shopping cart', this mid-way departure hurts the top-line of the e-tailers in a big way. The present study used exploratory factor analysis to examine the factors that lead consumers to abandon their shopping carts. The findings revealed that the value conscious Indian consumers do not consummate the shopping process when they find reasonably priced options on other portals. The perceived risk and technical glitches also acted as stumbling blocks. The study also found evidence that consumers log onto shopping portals merely to gather information or kill time and not to purchase goods and services.

Keywords: Online non –shopping behavior, online shopping, online cart abandonment, online consumer behavior

Introduction

The Indian online retail marketplace presents a mouth watering opportunity for online retailers (Khare, Khare and Singh, 2012). The industry has witnessed astounding growth rates in the last decade. These robust growth rates are likely to continue in the future. The number of online shoppers is likely to increase three-fold to 175 million by 2020 (Akshay, 2016).

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Homegrown players like Flipkart and Jabong as well as global behemoths like Amazon have left no stone unturned to woo the Indian consumers. Freebies, hefty discounts and other attractive offers have been instrumental in creating the magnetic pull on consumers to log onto the e-commerce sites (Mazumdar, 2016). These favorable statistics however camouflage a grave reality of the Indian online retail sector. The big players operating in the industry are reeling under losses (Mazumdar, 2016). In light of the increased pressure on the profitability, the focus of these players has shifted to augmenting the top-line as well as the bottom-line. E-tailers have started working on curtailing infrastructure and delivery costs to reduce pressure on margins. At the same time, the quest to enhance revenue and increase market share continues to dominate strategic decision making.

One possible solution that has the potency to increase the revenue of the online retail industry and thus turnaround the fortunes of the players is to thwart consumers from abandoning their online shopping carts. This study¹ is focused on finding the reasons behind online shopping cart abandonment, also dubbed as online non-shopping behavior.

Review of Literature

Online shopping behavior is a widely researched subject. Various studies have examined consumer's attitude towards online shopping sites (Shim et al. 2001; Park and Jun 2003; Peng et al. 2006 and Riley et al. 2009). Website features including ease of navigation, quantum of information and animation play a pivotal role in attracting and retaining online consumers (Ahn, Ryu, and Han 2004; Bigne-Alcaniz et al. 2008; Omar, Bathgate, and Nwankwo 2011). Swinyard and Smith (2003) have established that web site interactivity tends to improve customer's shopping behavior. In the absence of seamless interactivity, consumers tend to leave the shopping process.

Martinez-Lopez et al. (2005) established that building customer trust was important to coax them into shopping online. Ahn et al. (2004) found that information dissemination and service quality played a pivotal role in determining online shopping behavior. Fowler and Bridges (2010) examined the influence of customer personality differences and their impact on shopping tendencies. Khare & Rakesh (2011) have specifically examined the shopping behavior of youth. The impact of social beliefs on online shopping behavior has been examined by Khare et al. (2011). Research has also documented that Internet is largely used for browsing purposes and not for shopping purposes (Shih 2004; Gupta, Handa and Gupta

2008). Bonera (2011) has established that in addition to utilitarian attributes, hedonic attributes also have a role in determining customer's online shopping behavior. Surfers throng online shopping sites for enjoyment and fun (Fiore, Jin, and Kim, 2005; Bonera, 2011). Thus the possibility that surfers visit shopping sites merely to glance through various items on offer cannot be ruled out. Such a scenario nonetheless represents an opportunity for the online marketer. It is akin to saying that a customer entered a brick-and-mortar store, shortlisted a few items for purchase and then left the store without purchasing them.

Need and Significance of the Study

The shopping cart is said to have been abandoned when the online shopper places items in the cart but leaves the e-commerce website without purchasing those items. Surprisingly, only 33 per cent of the online shoppers tend to complete the purchase process. The rest, two-third of the online shoppers tend to abandon their shopping carts (Coppola and Sousa, 2008). These statistics have been corroborated by numerous surveys conducted in the recent past. Some surveys have suggested that the online cart abandonment rate is 68 per cent (Bolton, 2015). This information has different subtexts. Less than a third of shoppers go ahead and complete their purchase. Online shoppers are fond of window shopping alone. Surfers log on only for what marketing literature documents as information search. There are stumbling blocks that in the online shopping process. All said, not being able to convert 68 out of 100 potential clients may spell doom for any business. These figures thus speak volumes of the enormous revenue that e-tailers can potentially generate. Even if we do not talk of absolute numbers, the aforesaid data suggests that e-tailers could more than double their top-line if they could simply thwart online shoppers from abandoning their shopping carts.

There has been some improvement so far as the incidence of shopping cart abandonment is concerned. A decade back, only a tenth of the online shoppers completed the shopping process (Kukar-Kinney and Close, 2010). It is important to understand that online cart abandonment is not the problem; it is a symptom of the problem(s). The key then is to uncover the reasons that lead to online cart abandonment. This aspect gains monumental importance in the Indian context where online retail business is expected to maintain its growth trajectory. The present study has attempted to uncover the various factors because of which online shoppers abandon their shopping carts. This understanding will enable e-tailers to devise suitable strategies, reduce the incidence on online cart abandonment and thus increase their top line.

Research Objectives

The present study was devoted to studying the non buying behavior of the consumers. Many reasons may lead customers to abstain from shopping. The purchase inhibitors put forth by Howard and Sheth (1969) provide a good starting point to understand the non buying behavior of the consumers (Kukar-Kinney and Close, 2010). These inhibitors include price of the product, availability of the brand, time constrains and financial constraints of the consumer. The inhibitors with context to online shopping, like website design, ease of navigation, payment options and technical glitches can be added to Howard and Sheth's model which primarily elaborates consumer buying behavior in a brick and mortar setting.

The first objective of the study was to identify the factors that lead customers to abandon their online shopping carts. The second objective of the study was to understand if males and females accord equal importance to the factors that lead to abandonment of the shopping cart.

Empirical Methodology

Exploratory factor analysis was used in the study to understand the consumer's non-buying behavior. The scale was designed after analyzing various surveys related to online shopping cart abandonment. The extant literature on the subject provided valuable information on the subject (Kukar-Kinney and Close, 2010; Coppola and Sausa, 2008). The scale was modified and finally adopted after conducting a pilot study with twenty five respondents. In all nineteen variables/items were identified that could possibly lead to abandonment of the shopping cart. The respondents were asked to give their level of agreement on a five-point Likert scale (1= strongly disagree and 5= strongly agree). The internal consistency of the items in the scale was gauged by calculating Cronbach's alpha. The independent samples t-test was used to ascertain whether the behavior of males and females is different with regard to the abandonment of the online shopping cart.

Data Collection

Convenience sampling technique was deployed to collect data for this study. A questionnaire was administered to respondents through e-mail. Of the total responses, 290 were found to be usable. The demographic characteristics of the respondents are given in Table 1.

Table 1: Demographic Profile of Respondents

	No. of Respondents	% of Respondents
Gender		
Male	141	48.62%
Female	149	51.38%
Age Group		
21-30	173	59.66%
31-40	84	28.97%
41-50	33	11.38%
Education		
Undergraduate	37	12.76%
Graduate	72	24.83%
Post Graduate	181	62.41%

Source: Authors' own

Findings of the Study

The present section is devoted to the findings of the study. The details of Kaiser-Meyer-Olkin measure of sampling adequacy and Bartlett's Test of Sphericity are given in Table 2.

Table 2: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.904
Bartlett's Test of Sphericity	Approx. Chi-Square	3623.236
	df	171
	Sig.	0.000

Source: Author's Calculations

The KMO measure of 0.904 and Bartlett's Test of Sphericity (Sig 0.000) indicated that exploratory factor analysis could be conducted with the given set of information.

The details regarding number of factors to be extracted and the variance explained are given in Table 3. The output revealed that four factors that account for 67.72 per cent of the variance could be extracted. The details of these four factors, factor loadings of the variables and Cronbach's Alpha for each of these factors is given in Table 4A, 4B, 4C and 4D.

Table 3: Factor Extraction and Total Variance Explained

Factor	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.112	47.956	47.956	9.112	47.956	47.956	3.690	19.421	19.421
2	1.505	7.923	55.879	1.505	7.923	55.879	3.300	17.369	36.789
3	1.219	6.418	62.297	1.219	6.418	62.297	3.035	15.971	52.761
4	1.030	5.432	67.720	1.030	5.423	67.720	2.842	14.959	67.720

Extraction Method: Principal Component Analysis.

Source: Author's Calculations

Factor 1: Price

The Indian consumer is known to be a bargain hunter. This aspect has emerged in the present study as well. High price of the product emerged as one of the biggest reasons because of which the online shopping cart was abandoned.

Table 4A: High Price (Cronbach's Alpha .900)

Variable	Factor Loading
Item not on Sale	.613
Cost exceeds budget	.700
Promo code not working	.637
Better Offer Elsewhere	.614
High Handling Charges	.715

Source: Author's Calculations

Factor 2: Perceived Risk

Consumers tend to abandon the cart when they perceive certain risks in the online shopping process. Privacy concerns and security issues acted as a deterrent to completing the shopping process. This study has revealed that consumers stopped shy of divulging their personal as well as financial information on online shopping sites. These concerns lead them to abandon the shopping cart midway rather than consummating the shopping process. The Indian consumer is still wary of delivery of products ordered online. They prefer to use the cash on delivery (COD) option rather than paying upfront though debit or credit cards. The present study has revealed that when the COD option was not available, consumers preferred to give a cold shoulder to online shopping and abandoned the cart. This is in line with the general understanding of the Indian online consumer. Akshay (2016) avers that COD is the dominant mode of payment in India. Flipkart, the poster of e-commerce in India used this understanding of the Indian consumer to launch a successful advertising campaign highlighting the company's COD and easy returns policy

Table 4B: Perceived Risk (Cronbach's Alpha .830)

Variable	Factor Loading
Security of Financial Information	.787
Security of Personal Information	.794
Cash on Delivery	.696
Complex Return Process	.669

Source: Author's Calculations

Factor 3: Technical Glitches

A fool proof system rarely exists in the real world. The online shopping process is no exception. The technical glitches emerged as the third factor due to which consumers abandon their online shopping cart. The consumers left their online shopping spree midway when the Internet connection failed or when they found it difficult to navigate through the website. Likewise, if the consumers were not able to make the payment through their preferred payment option, they abandoned the cart

Table 4C: Technical Glitches (Cronbach's Alpha .821)

Variable	Factor Loading
Internet Connection Failure	.819
Payment Option Not Working	.776
Website Not Working	.683

Source: Author's Calculations

Factor 4: Hedonic Tendencies

The study revealed that many consumers did not have an immediate intention to purchase the product. They had logged onto the shopping portal to complete a preliminary assessment of what all was available online. The fourth factor is thus named hedonic tendencies, suggesting that some consumers indulge in online shopping merely to have entertain themselves, have fun or simply to kill boredom.

Table 4D: Hedonic Tendencies (Cronbach's Alpha .740)

Variable	Factor Loading
Created Wish List For Future	.747
Items Of Interest Put Together To Take A Decision Later	.737

Source: Author's Calculations

Table 5A and Table 5B enumerate the details of the independent samples test. These results establish that there is statistically significant difference in the non-shopping behavior of males and females with regard to three of the four factors; high price, technical glitches and hedonic tendencies.

Table 5A: Levene's Test and T-Test (Gender)

Factor	Levene's Test		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
High Price	0.089	0.766	-4.478	104	0.000	-0.878	0.196
Perceived Risk	1.993	0.161	0.960	104	0.339	0.249	0.259
Technical Glitches	0.901	0.345	-5.188	104	0.000	-0.851	0.164
Hedonic Tendencies	14.267	0.000	-3.632	96.627	0.000	-0.933	0.257

Table 5B: Mean Score of Males and Females

Factor	Gender	Mean	Std. Deviation	Std. Error Mean
High Price	Male	1.573	1.016	0.137
	Female	2.451	1.001	0.14
Perceived Risk	Male	3.940	1.367	0.184
	Female	3.691	1.297	0.182
Technical Glitches	Male	1.515	0.803	0.108
	Female	2.366	0.885	0.124
Hedonic Tendencies	Male	2.145	1.545	0.208
	Female	3.078	1.074	0.15

The data suggested that females are more likely to abandon the shopping cart when they find high priced products ($\mu=2.451 \pm \sigma= 1.001$) as compared to men ($\mu=1.573 \pm \sigma= 1.016$), $t(104) = -4.478$, $p=0.000$. Likewise, when females encounter technical glitches ($\mu=2.366 \pm \sigma= .885$), they abandon the shopping cart more promptly as compared to males ($\mu=1.515 \pm \sigma= 0.803$), $t(104) = -5.188$, $p=0.000$.

The Levene's test revealed unequal variances between the two groups with regard to hedonic tendencies, $F=14.267$, $p=0.000$. It can be inferred from the results of the study that females log onto e-commerce websites because of hedonic tendencies ($\mu=3.078 \pm \sigma= 1.074$) as compared to males ($\mu=2.145 \pm \sigma= 1.545$), $t(96.627) = -3.632$, $p=0.000$. With regard to perceived risk, the present study found no statistical difference in the behavior of females ($\mu=3.691 \pm \sigma= 1.297$) and males ($\mu=3.940 \pm \sigma= 1.367$), $t(104) = .960$, $p=.339$.

Conclusion

The present study establishes that the era wherein online retailers in India compete in the marketplace on the plank of service differentiation is still a far cry. There is no denying the fact that e-tailers are trying to woo the consumers by offering value added services like hassle free returns, faster delivery and extended warranty. At the end of it all, all these value-adds tend to hike the price of the product which does not hit the right chord with the hoi-polloi. The Indian consumers still accord a lot of weight to 'value' and simply walk away if they do not get the desired value. In line with this, the present study found that high price acted as a major stumbling block for online consumers to complete the online shopping process. The consumers tend to seek value not only in terms of the actual price of the product but also with regard to associated costs like delivery charges. The sales promotions schemes like coupon codes go a long way in reducing the price of the product and thus increasing the value for the consumers.

The customer perception that online commerce is risky so far as personal privacy, financial transactions is concerned has to be removed so that the industry as a whole flourishes. The e-tailer's will have to offer COD as a payment option otherwise they will lose out on customers. Akin to brick and mortar stores, other payment options like cards and e-wallet will be the dominant payment modes only after the industry wins the trust of the consumers. The remedial action with regard to technical glitches can be taken by the individual players.

Managerial Implications

The results of the present study indicate that online shoppers can be categorized into two broad categories; value seeking, task-oriented, rational shoppers and experiential shoppers. Managers have to devise separate strategies to woo these distinct segments of online consumers. They have to increase the usefulness and trust quotient of the website for the former category of consumers and enhance the entertainment and interaction dimensions for the latter. A follow up on the online shoppers who abandon their shopping carts is of utmost importance to draw them back to the e-tailer's websites. The industry as a whole needs to work together to attenuate the perceived risk of the consumers. It is pertinent to mention that Flipkart, the poster boy of e-commerce in India, ran an advertising campaign to assuage the security concerns of the customers. Such promotional campaigns are likely to drive up demand for the entire industry. Needless to say, the market leader, in this case Flipkart, is likely to bag the biggest proportion of the increased market demand.

Limitations of the Study

The data was collected by sending the questionnaire link to potential respondents. It was practically not possible to develop a probability sampling technique using the aforesaid method of data collection. The sample size of the study was 290 which can be increased in subsequent research.

There is a possibility that online shoppers changed their navigation due to the presence of other marketing stimuli (hyperlinks, banners) on the website. This may have resulted in more information search and comparison shopping which may ultimately have led to abandonment of the shopping cart. The same consumer may have returned to the e-tailer's website at a later point of time and may have completed the shopping process subsequently. The present study does not take into consideration the subsequent steps initiated by the customers after they abandon the cart. Future studies can incorporate a multi-stage model to assess the behavior of online shoppers over a longer time frame.

The present study did not take into consideration whether the reasons for online shopping cart abandonment were same across different product categories. Research has documented that online purchase preferences are different for males and females. While men tend to buy consumer electronics, books and media, women prefer to shop lifestyle and personal care products. To gather further insights into gender specific online shopping behavior, future research may be carried out to understand the reasons for online shopping cart abandonment across different product categories. Last but not the least, other demographic variables education, income level and occupation of the consumers can be analyzed to better understand the online non shopping behavior.

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