

FACTOR DETERMINANTS OF E-CONSUMERS' SHOPPING CART-DROPOUTS IN DEVELOPING ECONOMIES

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ABSTRACT

With emerging e-marketplace incurring huge transaction losses, there is a need to expand research in the online non-buying behaviour especially with respect to Indian online consumers with their cultural influences being our frame of reference. India's buzzing e-commerce space has huge potential and its consumer base has its own socio-cultural preferences that creates a distinct gap well in need of research in the area of online shopping. This empirical paper is an attempt to understand the non-buying behavior, mainly the factors, that determine the online cart-abandonment by e-consumers in developing economies.

KEYWORDS: E-Consumers, Economies

INTRODUCTION

Electronic commerce has changed the face of business forever and is constantly transforming the shape of emerging economies as much as or more than for the emergent economies. Global E-commerce for that matter has grown 13 percent annually for the past 5 years.

The e-commerce has provided avenues for the developed markets to foray into zones of huge growth and boosting returns in developing market.

Online retail expansions through web channels is the low risk high potential reach to the e-consumers- existing and new, with a need for immediate impact having a long-term advantage.

E-commerce as it is commonly known is the use of technology to conduct financial transactions online. Any brick and mortar store can become an e-commerce business by adding a virtual storefront with an online catalog.

E-commerce may occur within and between three basic participant groups – business, government, and e-consumers .

Understanding the Flow of Operations Faced by the E Business Website Visitor

The e-consumer behavior is one of high uncertainty and unpredictability. This introduces favorable and unfavorable consequences, favorable being a successful purchase transaction and unfavorable being either a random visit or an abandoned cart with a supposed purchase intent. Foremost, there could be a scenario when a person reaches the home page (entry page) of any website and without clicking anywhere else on the page during, simply leaves the home page within the stipulated time period of a single session. This phenomenon is called Bounce Rate. Therefore, we can calculate bounce rate as the ratio of total number of visitors of only entry page in a session over the total number of visitors of the website. A bounce can occur due to various reasons like clicking a link to other website, closing the browser window,

clicking the back button to try the search again or a session timeout.

As a thumb rule, 50% bounce rate is the industry average. So, if the bounce rate for a website is above 60%, it's a sign of tension and if it is above 80%, then there certainly is a problem at our hands. A lower bounce rate means the customers are engaged whereas a high bounce rate means that the entry page is not customer engaging. An important measure is not that the bounce rate is high or low, but whether it is changing continuously or not.

Next is the cart abandonment rate. Known as virtual cart abandonment rate, we define this behavior as the visitor's placement of item(s) in the online shopping cart without making a purchase of any item(s) during that online shopping session. It is very important to study how and why consumers abandon the shopping cart.

LITERATURE REVIEW

There has been study using Critical Incident Techniques in with factors critical in creating the online purchasing experiences (OLDENBURGER et al. 2008). It has also been critical for the banking sector and from US perspective integrated model was developed understanding the effect of e-commerce in US private sector bank. (Kannabiran and Narayan 2005). (Hsu et al.) Studied the e-business use in US firms. There has been extensive research with perspective of international e-commerce among international business firms. (Xu et al. 2002). It has also been studied with a software project execution has been determining factor in E-business project success (Tiwana and McLean 2003). Challenges that India needs to address to be in competitive e-commerce are discussed by Kuthiala 2002. The internet itself as a medium has been instrumental in services business as discussed by Rahman and Bhattacharya which has eventually become symbolic green pasture for a business model like E-commerce. The need to give adequate attention to consumer and product characteristics while designing their e-marketing strategies for Indian consumer has been explored (Jain and Jain 2011). In the Asia-Pacific region, the e-business race has been lagging behind the developed countries (Javalgi et al. 2005). The benefits of e-credit in online payment system has been highlighted (Lowry 2006). The emergence of e-commerce as a core component of e-business and the roadmap for the successful implementation process of such a business has been captured by Chuang and Shaw 2005. Schwartz 2002 captured the EBay as the E-commerce bright spot with 73% bounce, a kind of phenomenon that has not yet seen the light of day on Indian soils. Tedeschi 1999 has mentioned the cart technology and raised the need to push the shopper to buyer. Deals by subscription to build a customer relation is discussed by Anne et al. 2004 with the frustrating shopping experience and the care the online shopper needs to take using such subscription deals against the malpractices of some online sites. The completely nuclear view of the shopping cart with its description and type of systems vendors were offering is described by Wilson et al. 2006. The shopping experiences online needs commitment as a key attitudinal antecedent to Web shopper loyalty (Thatcher and George 2004). Industry studies report that an average of 65.95% of online shoppers have abandoned their electronic cart in the past (Baymard Ecommerce Usability Report 2011). Different perspectives needs to be understood as to why such frequent abandonment occurs and the true intent to complete the purchase online or at a land-based store. In a conventional online shopping experience, factors such as social influences, lack of availability, high price, financial status, and time pressure play a critical role to bring about a favorable or unfavorable outcome (Howard and Sheth 1969). Online shoppers search and shop online for freedom, control or fun (Wolfenbarger and Gilly 2001).

In the online shopping context, consideration occurs as a shopper places an item(s) of interest into their cart. Some shoppers may place items under consideration in their cart as a wish list, a way to bookmark the product, casual intent, or to obtain total cost. Hence, shoppers may use their cart to help taper options to a consideration set to be evaluated further.

The survey of related studies reveals that there is very limited research in the online non-buying behaviour in context of emerging e-marketplace, Indian online consumers with their cultural influences being our frame of reference. Given the huge potential of the developing market at home and a distinct and typical socio-cultural taste, there is a need to address this existing gap in research in the area of online shopping and that holds the rationale of the study at hand. I through this study intend to study key drivers of online cart-abandonment by e-consumers for this non-buyer behavior in developing economies.

Hypotheses Development

- Based on our literature review, the likely hypotheses that I would consider would be:
- **H1:** The more an e-consumer uses an online cart with casual intent (out of boredom or for fun), the more likely he/she is to abandon it.
- **H2:** The more an e-consumer uses the online cart for experiential shopping, the more likely he/she is likely to abandon it.
- **H3:** The more an e-consumer looks for promotions/discounts and price advantage, the more likely he/she is to abandon their online cart.
- **H4:** The more an e-consumer is concerned about the total cost of the order, the more likely he/she is likely to abandon it.

Data Collection

To test the proposed hypotheses, I intend to conduct an online survey. Surveys intend to represent the real world data and have samples of 100 respondents. The survey contains questions about various factors hypothesized to be linked to shopping cart abandonment, measures of the frequency of online cart abandonment, frequency of buying items in the cart from a land-based store, general questions about consumer online behaviors and demographic characteristics.

A pilot testing would be done with a few respondents to determine the reliability of the survey questionnaire.

Further the main study with adults who shop online is intended to be done. The sample selected would maybe equal representative of both the genders and have age spread across respondents older than 40, between 31 to 40 years old and that between 21–30 years.

The measures were adapted for independent variables from the literature. Inter correlations tests between the factors would be done to test a significantly low value of correlation.

I would be doing a factor analysis to determine the theoretical constructs. Finally SEM or regression modeling would need to be done for the theoretical conceptual model.

Cronbach Alpha Computed Through SPSS for DV and All Ivs per the Hypotheses

DV Online cart abandonment, Cronbach Alpha = **0.648**

Table 2

Inter-Item Correlation Matrix			
	Do you place items in the online shopping cart with intent to purchase them immediately or leave them without buying?	Do you shop online with intent to purchase during a single Internet session?	How often do you purchase online?
Do you place items in the online shopping cart with intent to purchase them immediately or leave them without buying?	1.000	.426	.382
Do you shop online with intent to purchase during a single Internet session?	.426	1.000	.333
How often do you purchase online?	.382	.333	1.000

H1 Entertainment value IV1, Cronbach Alpha = **0.703**

Table 3

Inter-Item Correlation Matrix			
	Do you select and place items in the shopping cart just to alleviate boredom?	Do you select and place items in the shopping cart as a bookmark for future buying?	Do you use the shopping cart as a wishlist for myself?
Do you select and place items in the shopping cart just to alleviate boredom?	1.000	.247	.402
Do you select and place items in the shopping cart as a bookmark for future buying?	.247	1.000	.664
Do you use the shopping cart as a wishlist for myself?	.402	.664	1.000

H2 Using the cart as a research and organizational/experiential tool IV2, Cronbach Alpha = **.832**

Table 4

Inter-Item Correlation Matrix		
	Of your overall shopping (in a store, on the Internet, via catalog or by mobile device), how often do you only research products online and not buy?	If you visit Internet stores 5 times, how many times do you visit with an intention to buy immediately?
Of your overall shopping (in a store, on the Internet, via catalog or by mobile device), how often do you only research products online and not buy?	1.000	.729
If you visit Internet stores 5 times, how many times do you visit with an intention to buy immediately?	.729	1.000

H3 Wait for a lower/sale price IV3, Cronbach Alpha = **0.618**

Table 5

Inter-Item Correlation Matrix			
	Do you place items in the cart to check out the delivery options, payment options and stock availability?	Do you place items in the shopping cart because they are on sale?	Do you place items in the shopping cart because the Internet retailer offers free shipping?
Do you place items in the cart to check out the delivery options, payment options and stock availability?	1.000	.311	.385
Do you place items in the shopping cart because they are on sale?	.311	1.000	.354
Do you place items in the shopping cart because the Internet retailer offers free shipping?	.385	.354	1.000

H4 Concern about the costs of the order IV4, Cronbach Alpha = **0.668**

Table 6

Inter-Item Correlation Matrix		
	Do you select and place items in the shopping cart to compare prices?	Do you place items in the cart because you are curious about the price and other details of the product?
Do you select and place items in the shopping cart to compare prices?	1.000	.502
Do you place items in the cart because you are curious about the price and other details of the product?	.502	1.000

REGRESSION ANALYSIS

Testing the Hypothesis

- In order to test the hypothesis we first organized the data collected from the survey responses in the form columns with the use of the 5-point intent scale named:
- Tendency to abandon the shopping cart during online shopping - (DV)
- Entertainment value - (IV1)
- Using the cart as a research and organizational tool/experiential shopping tool - (IV2)
- Wait for a lower/sale price - (IV3)
- Concern about the costs of the order - (IV4)
- Correlation matrices between the IVs:

Table 7

Correlations					
		IV1(Entertainment value)	IV2(Using the cart as a research and organizational tool/experiential shopping tool)	IV3(Wait for a lower/sale price)	IV4(Concern about the costs of the order)
IV1(Entertainment value)	Pearson Correlation	1	.236*	.192	.382**
	Sig. (2-tailed)		.026	.072	.000
	N	89	89	89	89
IV2(Using the cart as a research and organizational tool/experiential shopping tool)	Pearson Correlation	.236*	1	-.019	.076
	Sig. (2-tailed)	.026		.858	.481
	N	89	89	89	89
IV3(Wait for a lower/sale price)	Pearson Correlation	.192	-.019	1	.293**
	Sig. (2-tailed)	.072	.858		.005
	N	89	89	89	89
IV4(Concern about the costs of the order)	Pearson Correlation	.382**	.076	.293**	1
	Sig. (2-tailed)	.000	.481	.005	
	N	89	89	89	89
*. Correlation is significant at the 0.05 level (2-tailed).					
**. Correlation is significant at the 0.01 level (2-tailed).					

To test the hypothesis we performed regression on the “Tendency to abandon the online shopping cart” with independent variables figured in our hypothesis statement.

After performing regression in SPSS we receive the following output:

Table 8

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.368 ^a	.135	.094	.794111		
a. Predictors: (Constant), IV4(Concern about the costs of the order), IV2(Using the cart as a research and organizational tool/experiential shopping tool), IV3(Wait for a lower/sale price), IV1(Entertainment value)						
Anova ^b						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.378	4	2.095	3.321	.014 ^a
	Residual	53.602	85	.631		
	Total	61.980	89			
a. Predictors: (Constant), IV4(Concern about the costs of the order), IV2(Using the cart as a research and organizational tool/experiential shopping tool), IV3(Wait for a lower/sale price), IV1(Entertainment value)						
b. Dependent Variable: DV(Tendency to abandon the shopping cart during online shopping)						

Table 9

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.615	.174		3.526	.001
	IV1(Entertainment value)	.023	.082	.032	.285	.776
	IV2(Using the cart as a research and organizational tool/experiential shopping tool)	.123	.058	.222	2.117	.037
	IV3(Wait for a lower/sale price)	.080	.110	.078	.725	.470
	IV4(Concern about the costs of the order)	.038	.017	.237	2.172	.033
a. Dependent Variable: DV(Tendency to abandon the shopping cart during online shopping)						

Regressing further on two IVs 2 and 4:

Table 10

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.357 ^a	.128	.108	.788293		
a. Predictors: (Constant), IV4(Concern about the costs of the order), IV2(Using the cart as a research and organizational tool/experiential shopping tool)						
Anova ^b						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.918	2	3.959	6.371	.003 ^a
	Residual	54.062	87	.621		
	Total	61.980	89			
a. Predictors: (Constant), IV4(Concern about the costs of the order), IV2(Using the cart as a research and organizational tool/experiential shopping tool)						
b. Dependent Variable: DV(Tendency to abandon the shopping cart during online shopping)						

Table 11

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.711	.131		5.422	.000
	IV2(Using the cart as a research and organizational tool/experiential shopping tool)	.122	.055	.222	2.209	.030
	IV4(Concern about the costs of the order)	.042	.016	.267	2.664	.009
a. Dependent Variable: DV(Tendency to abandon the shopping cart during online shopping)						

- From the above output we can interpret that, the regression was significant, but only a very small variance in the tendency to abandon the online shopping cart can be explained by the variance in the other . From the coefficients table we can infer that the independent variable 2 and 4 is bordering on the lines of being significant.
- The regression equation that can be formed to explain the relation between the dependent and independent variable is:
- Tendency to abandon the online shopping cart = 0.711 +.122* Using the cart as a research and organizational tool/experiential shopping tool+0.042* Concern about the costs of the order
- Hence we can comment that the hypothesis, that use of the cart as a research and organizational tool/experiential shopping tool and concern about the costs of the order increases the tendency to abandon the cart, cannot be rejected.

RESULTS AND DISCUSSIONS

- The study undertaken offers both important theoretical contributions and valuable managerial implications for online-based retailing.
- With a tested theoretical model of the determinants of online shopping cart abandonment, we work towards an explanation of “non-buyer behavior” in an online shopping context. The study brings to knowledge by identifying consumers’ tendencies to place items in the cart for reasons other than immediate purchase, specifically for research and organization and for the entertainment value. The initial inhibitors that the online environment had carried in terms of the buying process, issues such as online privacy and security, are less vocal today.

Managerial Implications for Online Retailers

Organizational use of cart Online cart abandonment lowers shopping transaction conversion rates or may imply a non-consumer friendly site. It is also used as a measure of consumer dissatisfaction, making an assumption that the abandoned items represent a lost sale. However, with our findings, we ascertain consumers often leave items in their cart for reasons other than dissatisfaction with the product, the online retailer or the purchase process. There is tendency as part of online consumer behavior that online shoppers are accustomed to using their cart as an organized place to hold or store their desired items, a wish list, and as a tool to track prices for a possible later purchase. Online cart abandonment does not necessarily mean that the consumer will never make the purchase; rather, consumers may decide to delay their purchases or purchase decisions. Thus, even abandoned carts serve as a source of useful information for both consumers and retailers.

Many consumers use their online cart as a tool to help gather information prior to visiting a traditional, land-based store.

Concern about price and overall cost Another important driver of cart abandonment is the concern about the total cost of the order. These findings further highlight that items left in the cart may not necessarily represent a lost sale, but rather an opportunity to make the sale in the future by sending a promotional offer to the consumer, providing lower or free shipping on the item(s), or sending a reminder email about the items when the price has been lowered.

LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

While the present study offers important contributions to both theory and practice, we recognize some limitations. First, we employed a sample from a diverse population

Based on online shoppers in India as a developing economy. In terms of further study, the model can be determined across other fast emerging developing economies with their own economical dynamics and consumer preferences in certain geographies and determine how to satisfy online shoppers across the world. Further research also include studying in depth the process of using the cart as an organization tool in order to capture different motivations for consumer shopping cart use. as a guide for more work on this relatively significant We hope that this current study reflects, yet under-studied consumer non-buyer behavior driving the unit economics of the emerging e-commerce markets in developing economies.

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