



FACTORS AFFECTING SHOPPING CART ABANDONMENT: PRE-DECISIONAL CONFLICT AS A MEDIATOR

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ABSTRACT

Purpose - This paper aims to investigate the relationship between research purpose, entertainment purpose, perceived cost, perceived risk, transaction inconvenience and shopping cart abandonment, and test whether it is mediated by pre-decisional conflict or not.

Methodology – Data of 275 respondents were collected through an online self-administered questionnaire. The respondents consisted of consumers who abandoned a shopping cart at least once in their lives. Simple linear regression analysis and multiple linear regression analysis were applied following mediation paths to test the hypothesis.

Findings- The results indicate that there is a significant relationship between research purpose, entertainment purpose, perceived cost, perceived risk, transaction inconvenience and shopping cart abandonment. This relationship is partially mediated with pre-decisional conflict.

Conclusion- The findings offer scholars a recognition of consumer motivations for shopping cart abandonment. For retailers, they provide an understanding to prevent shopping cart abandonment which means the loss of potential gain. In consumer behavior research field, this paper fills the gap by testing pre-decisional conflict which is served as a counterpart of post-purchase cognitive dissonance.

Keywords: E-commerce, online buying behavior, online shopping, pre-decisional conflict, shopping cart abandonment

JEL Codes: M30, M31, M39

1. INTRODUCTION

Together with internet revolution, conventional retailing gave its place to electronic retailing which shaped the concept of online buying behavior. According to TUIK (2017), the rate of individuals who order or buy products and services for personal use on internet has become 24,9 percent in 2017, it was 20,9 percent in 2016.

While electronic retailers offer virtual carts to assist consumers during online purchase, consumers' virtual cart use may not necessarily result in actual shopping. Consumers may use their virtual carts as an online browsing or window shopping tool rather than an actual purchase tool (Close and Kukar-Kinney, 2010).

Shopping cart abandonment is defined as, users leaving a website after they have placed items into their cart without purchasing those items (Coppola and Sousa, 2008). Further, the challenge is not only limited to enhancing value by engaging the customer and getting him to fill the shopping cart but to ensure that he does not leave without buying (Sondhi, 2017). Referred to as shopping cart abandonment, the issue is of major concern to the online retailers. At the first quarter of 2018, it was found that 75.6 percent of online retail orders were abandoned instead of purchasing (Statista, 2018).

Since shopping cart abandonment is very widespread, the purpose of the present research is to explain why it occurs. The key theoretical contribution is the development of a framework that includes “pre-decisional conflict” as a mediator, which has never been explored in this context before.

The results of this research will be useful for e-tailers and marketing professionals who can use them as a source of competitive advantage in terms of preventing their potential loss caused by shopping cart abandonment. Additionally, the researchers will be interested in gaining insight on why consumers are willing to place items into their online shopping cart, but fail to complete the order.

Therefore, the objectives of this paper are to determine whether research purpose, entertainment purpose, perceived cost, perceived risk and transaction inconvenience affect shopping cart abandonment and examine the mediating effect of pre-decisional conflict.

2. LITERATURE REVIEW

2.1. Research Purpose

Some consumers use online shopping carts as a tool for research, organization and price comparison without actually intending to purchase (Close and Kukar-Kinney, 2010; Kukar-Kinney and Close, 2010). This kind of information gathering makes shopping cart a convenient research tool. Consumers perceive the items they add on their virtual cart as products of interest that might be purchased in future. The other reason to fill the shopping cart is to wait for the prices to get lower while checking the cart from time to time. These price sensitive consumers tend to move on a different channel or leave the retailer's website permanently (Kukar-Kinney and Close, 2010; Tellis, 1986). Therefore, abandonment will more likely to occur if the visitors adopt research purpose and investigate the website to organize their wish lists. When consumers perform more organization and research with regard to items within the cart, they will think more about the quality and value of the product, and, therefore, the likelihood of an impulsive purchase will decrease (Strack, Werth and Deutsch, 2006). For these consumers, the probability of leaving the website without ordering the items they choose is quite expectable (Paden and Stell, 2010).

2.2. Entertainment Purpose

Kukar-Kinney and Close (2010) assert that some shoppers, called experiential-driven, put items in their shopping cart just for entertainment purposes, boredom or enjoyment seeking. These shoppers mostly can not afford to buy their desired items or they do not have a real intention to buy the product at that time, therefore, when they place items in their shopping cart, they feel themselves as if they bought the items (Close and Kukar-Kinney, 2010); Mathwicki Malhotra and Rigdon, 2001; Wolfenbarger and Gilly, 2001). This stimulation and entertainment can enhance marketing effectiveness even prior to any cart use (Menon and Kahn, 2002). If browsing on a website enables an online shopper to relieve boredom and experience feelings of joy and entertainment, the consumer will find this online experience as more satisfactory (Luo, 2002). Although, these consumers may find online window-shopping enjoyable, they are not close to buying at all. Since, virtual cart abandonment is most likely to occur for hedonic consumers, their experience means a loss of potential profit for companies.

2.3. Perceived Cost

Online shopping is preferred because of many conveniences it brought to modern society. One of the advantage of e-retailing websites is their ability to sell items at relatively lower prices. Many shoppers expect e-tailers to offer price promotions or have lower prices than offline retailers (Maxwell and Maxwell, 2001). At this point, the term "mental accounting and budgeting" means the tendency of the consumer to first create category/product mental accounts by allocating a budget for it; and then secondly to evaluate every product purchase decision in the light of its acquisition cost and transaction cost (Sondhi, 2017). In case the result is negative or zero, the consumer is not likely to go through with the purchase (Festinger, 1962). Online transaction cost is known to have a significant effect on online shopping process (Wu, Chen, Chen and Cheng, 2014). Since online shoppers may be especially sensitive to the aggregate total of all items in the cart, including shipping and handling costs, tax, and other fees that raise the overall cost (Kukar-Kinney and Close, 2010; Xia and Monroe, 2004). These factors can retain a shopper who stands a step away from actual purchase. Consumers, caring for the total cost of order, make their decisions to wait until a discount or sale happen, or they search for other websites (Nelson, Cohen and Rasmussen, 2007). These consumers are inclined to leave the virtual store without buying the items and prefer brick and mortar stores because the lower price advantage of online shopping do not exist anymore (Magill, 2005).

2.4. Perceived Risk

Research has shown that exploring the concept of perceived risk related to future purchases is a useful component to understand shopping cart abandonment (Petersen and Kumar, 2009). Cho, Kang, and Cheon (2006) and Rajamma, Paswan and Hossain (2009) studied that perceived uncertainty has an effect on online shopping cart abandonment, that is, if consumers feel that the risk of buying a certain product is high, they will become more prudent about making the purchase. The most frequently cited risks associated with online shopping include financial risk, product risk, convenience, and non-

delivery risk. Consumers' feelings of high levels of uncertainty will eventually affect their actual purchase behavior (Bhatnagar, Misra and Rao, 2000). Various uncertainty or perceived risks in the context of consumer decision-making, including financial, social, psychological, performance, procedural, and privacy risks were identified by Hogarth, Michaud and Merry (1980). Among them, privacy and security of personal and financial information are the major concerns of online shoppers (Myazaki and Fernandez 2001; Park, Lennon and Stoel, 2005, Zhou, Dai and Zhang, 2007). New visitors are likely to find the online stores' privacy infringement (e.g. sharing personal information with third parties, tracking of shopping habits, being contacted without permission) and the security system (e.g. fraudulent behavior, potential for non-delivery of ordered goods) risky that might end up in a possible shopping cart abandonment (Myazaki and Fernandez, 2001).

2.5. Transaction Inconvenience

From logging onto a website to placing items into virtual cart, there are many factors that can influence online shopping process and might cause electronic shoppers leave virtual store without buying any item. One of the reasons of such behavior is transaction inconvenience. Transaction inconvenience is described as "complex shopping procedures, long registration forms to be filled up, shipping and handling charges that are not revealed until late in the purchase process, out of stock product information revealed at the checkout, technical glitches that bounce back orders and non-availability of alternative methods of payment (other than credit cards)" (Harrison-Walker, 2002; Seiders, Berry and Gresham, 2000). Consumers who experience these difficulties tend to abandon their shopping cart, as their expectations are not met. According to Harrison-Walker (2002), Consumers are likely to abort the online shopping process before performing research on products within the cart if they feel the loading speed of web pages is too slow, the transaction process is too complicated, or the quality of the goods is questionable. Rajamma et al. (2009) also showed that transaction inconvenience is a significant predictor that causes consumers' ceasing online shopping process as they expect a fast and website related convenient process (Srinivasan, Anderson and Ponnavolu, 2002).

2.6. Pre-Decisional Conflict

Although cognitive dissonance theory which provides a basis for explaining conflicting attitudes, beliefs and behaviors happening in post-purchase phase (Festinger, 1957), it does not explain consumers' hesitation before purchase. However, defining consumers' feelings after decision are less important than exploring factors that lead to purchase decision (Oshikawa, 1970). During the process of conflict resolution, consumers would make a decision of choosing one course of action from a set of alternative courses of action (Bross, 1965). In online shopping case, this hesitation between buying and non-buying decision might cause a pre-decisional conflict which might possibly lead to shopping cart abandonment. This hesitation or delay is defined by Cho, Kang and Cheon (2006) as "postponing or deferring product purchases by having additional processing time before making final product-purchase decisions on the Internet". They tested three types of online hesitation: overall shopping hesitation, shopping cart abandonment, and hesitation to click the final payment button. At this point, Huang, Korfiatis and Chang (2018) suggest that hesitation at checkout will mediate the relationship between emotional ambivalence and mobile shopping cart abandonment. This mediating effect might cause consumers feel hesitant and abandon their shopping cart.

2.7. Shopping Cart Abandonment

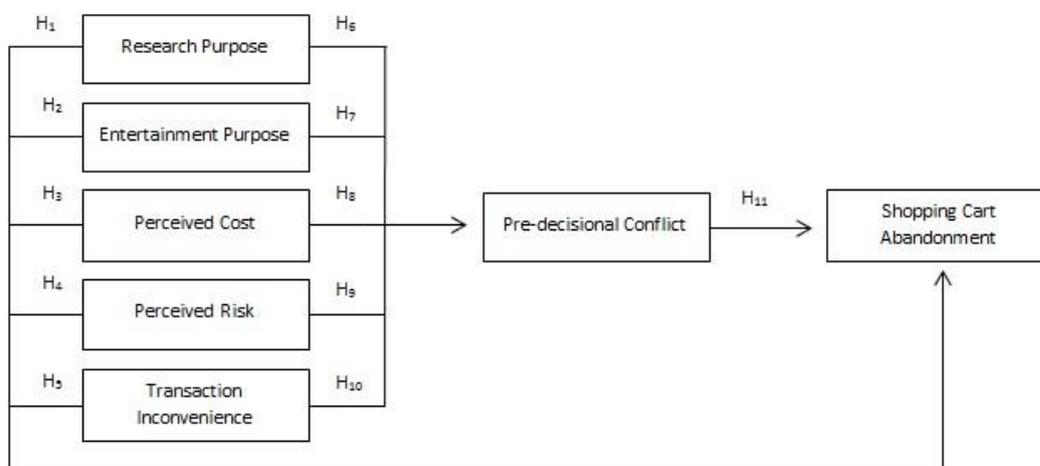
Shopping cart abandonment has been defined as the act of the consumer filling his virtual shopping basket with items of interest but leaves the portal without completing the purchase (Rewick, 2000). Li (2005) conducted a study and identified three factors explaining shopping cart abandonment at retail websites: consumers lacking of purchase intention, promotional stimuli that lead other websites and too much comparison process. Krithika and Rajini (2017) stated out that hedonic motivation is the major predictor for online shopping cart abandonment, not utilitarian motivation. Kukar-Kinney and Close (2010) show that the factors influencing consumer online search, consideration, and evaluation play a larger role in cart abandonment than factors at the purchase decision stage. Kukar-Kinney and Close (2010) investigated reasons for why consumers place items in their carts including, securing online price promotions, obtaining more information on certain products, organizing shopping items, and entertainment.

2.8. Conceptual Framework and Hypotheses Development

The conceptual framework of this study aims to make a connection between research purpose, entertainment purpose, perceived cost, perceived risk, transaction inconvenience and shopping cart abandonment. Although there are many inputs that are targeted to manipulate consumers to buy products online, there must be a phase where all these initiatives lead to a hesitation feeling that will eventually prevent an actual purchase and result in shopping cart abandonment. Therefore, the framework examines the mediating effect of pre-decisional conflict to understand the process leading to possible shopping cart abandonment. There is still much to be investigated in the field of shopping cart abandonment. The researches that

have been mentioned above prepared the ground for developing a conceptual framework. After reviewing the relative literature, conceptual framework and formulated hypotheses are presented in Figure 1.

Figure 1: Conceptual Framework of Factors Affecting Shopping Cart Abandonment: Pre-Decisional Conflict as a Mediator



H₁: There is a significant relationship between research purpose and shopping cart abandonment.

H₂: There is a significant relationship between entertainment purpose and shopping cart abandonment.

H₃: There is a significant relationship between perceived cost and shopping cart abandonment.

H₄: There is a significant relationship between perceived risk and shopping cart abandonment.

H₅: There is a significant relationship between transaction inconvenience and shopping cart abandonment.

H₆: There is a significant relationship between research purpose and pre-decisional conflict.

H₇: There is a significant relationship between entertainment purpose and pre-decisional conflict.

H₈: There is a significant relationship between perceived cost and pre-decisional conflict.

H₉: There is a significant relationship between perceived risk and pre-decisional conflict.

H₁₀: There is a significant relationship between transaction inconvenience and pre-decisional conflict.

H₁₁: There is a significant relationship between pre-decisional conflict and shopping cart abandonment.

3. DATA AND METHODOLOGY

Convenience sampling as a type of non-probability sampling was used for the objectives of this study for the reason that convenience sampling allows researchers to gather basic information rapidly and efficiently (Sekaran, 2000).

A self-administered online questionnaire was distributed through e-mail based groups, forums and social media. At the beginning of questionnaire, the respondents were asked whether they abandoned a shopping cart at least once in their lives. The people, who answered negatively to this question, were eliminated. Only the participants who had shopping cart abandonment experience were chosen for the study. At the end, 275 completed questionnaires were obtained. Since, all the questions in the survey were compulsory to answer; no questionnaire was excluded. All the data was statistically tested and analyzed on SPSS 22. The measurement of the survey items was done with five-point Likert scale from 1 (strongly disagree) to 5 (strongly agree).

The questionnaire consisted of 34 questions in total and it was divided into three parts. In part one, the items about independent variables (research purpose, entertainment purpose, perceived cost, perceived risk and transaction inconvenience) were placed. In part two, the items about mediating variable (pre-decisional conflict) and dependent variable (shopping cart abandonment) were presented and in part three, respondents were asked about their socio-demographic characteristics. Table 1 represents the study variables, item numbers and sources of adapted scales.

Table 1: Scales Used in Research

No	Variable	Number of Items	Reference
1	Research Purpose	4	Close and Kukkar-Kinney (2010)
2	Entertainment Purpose	4	Close and Kukkar-Kinney (2010)
3	Perceived Cost	3	Xu and Huang (2015)
4	Perceived Risk	5	Rajamma, Paswan and Hossain (2009)
5	Transaction Inconvenience	4	Rajamma, Paswan and Hossain (2009)
6	Pre-decisional Conflict	5	Cho et al. (2006); Wong and Yeh (2009)
7	Shopping Cart Abandonment	3	Sondhi (2017)

4. FINDINGS AND DISCUSSIONS

4.1 Sample Profile

The majority of the respondents were male (57%), aged between 18-30 (38%), single (63%), undergraduate (43%), employed for wages (37%) and have a monthly income between 3001-4000 TRY (27%).

Table 2: Socio-Demographic Characteristics of Respondents

Socio-Demographic Variable		Frequency	Percentage
Gender	Female	118	43
	Male	157	57
		275	100
Age	Under 18	19	7
	18-30	106	38
	31-40	85	31
	41-50	54	20
	51-60	9	3
	Above 60	2	1
		275	100
Marital Status	Single	174	63
	Married	101	37
		275	100
Education Level	Less than high school graduate	4	1
	High school graduate	71	26
	Undergraduate	118	43
	Graduate	61	22
	Post-graduate	21	8
		275	100
Employment Status	Employed for wages	102	37
	Self-employed	57	21
	Out of work	27	10
	Student	89	32
		275	100
Monthly Income	1000 TRY or less	51	18
	1001-2000 TRY	35	13
	2001-3000 TRY	52	19

3001-4000 TRY	74	27
4001-5000 TRY	33	12
5001 TRY and above	30	11
	275	100

4.2. Descriptive Analysis

As shown in Table 3, the means of six variables are above the average level (3 out of 5). The highest mean (4.13 out of 5) and the lowest standard deviation (0.57) are related to the variable of pre-decisional conflict; the lowest mean (3.17 out of 5) and the highest standard deviation (0.69) are related to the variable of transaction inconvenience.

Table 3: Descriptive Statistics

No	Variable	Number of Items	Mean	Standard Deviation
1	Research Purpose	4	3.62	0.61
2	Entertainment Purpose	4	3.73	0.64
3	Perceived Cost	3	3.60	0.62
4	Perceived Risk	5	3.24	0.58
5	Transaction Inconvenience	4	3.17	0.69
6	Pre-decisional Conflict	5	4.13	0.57
7	Shopping Cart Abandonment	3	3.87	0.59

4.3. Factor Analysis

According to the results of factor analysis that was run with 29 items, seven factors appeared. The highest standardized factor loading belonged to pre-decisional conflict factor with a score of 0.876, while the lowest standardized factor loading belonged to perceived cost factor with a value of 0.656. Since all factor loading are above 0.60, they are accepted as high scores of validity.

Table 4: Results of Factor Analysis

Construct items	Standardized factor loadings
Research Purpose	0.739
I use the shopping cart as a form of information gathering.	0.756
I use the shopping cart to get more information on the product	0.601
I use the shopping cart as a shopping research tool.	0.854
I place items in the cart because I am curious about the price.	0.745
Entertainment Purpose	0.641
I select and place items in the shopping cart when I am bored.	0.873
I select and place items in the shopping cart to entertain myself.	0.502
I find placing items in the shopping cart enjoyable.	0.590
I select and place items in the shopping cart for fun	0.602
Perceived Cost	0.656
The discount for goods is too small.	0.859
Shipping fees for the goods are too high.	0.933
There is no sales promotion for the product I want to buy.	0.832
Perceived Risk	0.855
I was afraid that someone might steal my personal information.	0.905
I was worried that someone might steal my credit card number.	0.965

I was worried that the company might misuse my information.	0.836
I was worried about dealing with a company unknown to me.	0.872
I suddenly got suspicious of the site.	0.773
The online shop did not promise secure transaction.	0.784
Transaction Inconvenience	0.802
The online shop required me to register before making a purchase.	0.945
The order forms were very lengthy.	0.912
I got logged off in the middle (for some reason) and had to go through the entire process of completing information again.	0.699
Technical glitches in the site made the transaction difficult.	0.685
Pre-decisional Conflict	0.876
I hesitate to complete the checkout stage for selected items while shopping.	0.781
It takes some time for me to click the final payment button to purchase products.	0.856
I think twice at the checkout stage for a purchase.	0.881
I spend some time deciding whether to press the payment button.	0.979
I wait awhile thinking about whether to finish the checkout process for items in the final payment stage.	0.883
Shopping Cart Abandonment	0.862
I sometimes abandon my shopping cart.	0.937
I sometimes put an item in my shopping cart but do not buy in the same internet session.	0.799
I sometimes close the web page or log off the internet without buying the items in my shopping cart.	0.850

The results of KMO and Bartlett Bartless's Test of Sphericity reveal that the variables shown in Table 4 are adequate for minimum required value of Kaiser-Meyer-Olkin (0.6) and value of Bartlett's Test of Sphericity (sig. at 0.005) (Kaiser, 1970). For that matter, the sample size is widely accepted and there are enough correlations among variables.

Table 4: KMO and Bartlett Bartless's Test of Sphericity for Factors

No	Variable	KMO Value	Bartlett's Test of Sphericity, significant
1	Research Purpose	0.780	0.000
2	Entertainment Purpose	0.773	0.000
3	Perceived Cost	0.834	0.000
4	Perceived Risk	0.825	0.000
5	Transaction Inconvenience	0.855	0.000
6	Pre-decisional Conflict	0.856	0.000
7	Shopping Cart Abandonment	0.867	0.000

4.4. Reliability Analysis

Sekaran (2000), Cronbach's Alpha value; less than 0.60 is poor, between 0.60 and 0.80 is acceptable, and above 0.80 is good for reliability. Chronbach's Alpha values calculated for research variables in Table 5 are above 0.8 and this indicates that the survey instrument is highly reliable to measure seven variables.

Table 5: Reliability of Research Variables

No	Variable	Number of Items	Cronbach's Alpha
1	Research Purpose	4	0.821
2	Entertainment Purpose	4	0.829
3	Perceived Cost	3	0.859
4	Perceived Risk	5	0.887
5	Transaction Inconvenience	4	0.889
6	Pre-decisional Conflict	5	0.901
7	Shopping Cart Abandonment	3	0.857

4.5. Mediation Paths

4.5.1. Step 1

In step 1 (hypotheses H₁, H₂, H₃, H₄, H₅) shopping cart abandonment was regressed on research purpose, entertainment purpose, perceived cost, perceived risk and transactional inconvenience and the relationship was positive, statistically significant ($\beta=0.836$, $p<0.01$) and the model accounted for 86.2% of the variation. This supported the first condition for testing the effect of mediation. These hypotheses tested the direct relationship between research purpose, entertainment purpose, perceived cost, perceived risk and transactional inconvenience and shopping cart abandonment.

As shown in Table 7, there was a statistically significant multiple linear relationship between research purpose, entertainment purpose, perceived cost, perceived risk and transactional inconvenience and shopping cart abandonment ($\beta=0.836$, $B=0.019;0.305;0.498;0.576;0.598$, $p<0.05$), hence the study accepted hypotheses H₁, H₂, H₃, H₄, H₅. The significant influence of research purpose, entertainment purpose, perceived cost, perceived risk and transactional inconvenience on shopping cart abandonment was high as the model accounted for 86.2% variability ($R^2 = 0.862$). In another saying, it is possible to predict shopping cart abandonment with transaction inconvenience, perceived risk, perceived cost, entertainment purpose and research purpose respectively.

Table 6: Model Summary of Shopping Cart Abandonment

Model	R	R Square	Adjusted R Square	F	Sig (F)
1	0.836	0.862	0.872	56.163	0.000

Predictors: (Constant): Independent variables (Research Purpose, Entertainment Purpose, Perceived Cost, Perceived Risk, Transaction Inconvenience)

Dependent Variable: Shopping Cart Abandonment

Table 7: Regression between Research Purpose, Entertainment Purpose, Perceived Cost, Perceived Risk, Transaction Inconvenience and Shopping Cart Abandonment

Variables	Std. Beta	t value	Sig.
Research Purpose	0.109	2.826	0.001
Entertainment Purpose	0.305	3.487	0.003
Perceived Cost	0.498	3.556	0.002
Perceived Risk	0.576	4.514	0.002
Transaction Inconvenience	0.598	3.840	0.001

4.5.2. Step 2

In step 2 (hypotheses H₆, H₇, H₈, H₉, H₁₀) pre-decisional conflict was regressed on research purpose, entertainment purpose, perceived cost, perceived risk and transactional inconvenience and the relationship was positive, statistically significant ($\beta=0.809$, $p<0.01$) and the model accounted for 87.3% of the variation. This supported the second condition for testing the

effect of mediation. These hypotheses tested the direct relationship between research purpose, entertainment purpose, perceived cost, perceived risk and transactional inconvenience and pre-decisional conflict.

As shown in Table 9, there was a statistically significant multiple linear relationship between research purpose, entertainment purpose, perceived cost, perceived risk and transactional inconvenience and pre-decisional conflict ($\beta=0.809$, $B=0.210;0.288;0.548;0.499;0.556$, $p<0.05$), hence the study accepted hypotheses H₆, H₇, H₈, H₉, H₁₀. The significant influence of research purpose, entertainment purpose, perceived cost, perceived risk and transactional inconvenience on pre-decisional conflict was high as the model accounted for 87.3% variability ($R^2 = 0.873$). In another saying, it is possible to predict pre-decisional conflict with transaction inconvenience, perceived cost, perceived risk, entertainment purpose and research purpose respectively.

Table 8: Model Summary of Pre-Decisional Conflict

Model	R	R Square	Adjusted R Square	F	Sig (F)
1	0.809	0.873	0.863	79.026	0.000

Predictors: (Constant): Independent variables (Research Purpose, Entertainment Purpose, Perceived Cost, Perceived Risk, Transaction Inconvenience)

Dependent Variable: Pre-decisional Conflict

Table 9: Regression between Research Purpose, Entertainment Purpose, Perceived Cost, Perceived Risk, Transaction Inconvenience and Pre-Decisional Conflict

Variables	Std. Beta	t value	Sig.
Research Purpose	0.210	3.733	0.004
Entertainment Purpose	0.288	4.116	0.001
Perceived Cost	0.548	4.545	0.000
Perceived Risk	0.499	3.824	0.000
Transaction Inconvenience	0.556	4.581	0.001

4.5.3. Step 3

In step 3 (hypothesis H₁₁) shopping cart abandonment was regressed on pre-decisional conflict and the relationship was positive and statistically significant ($\beta=0.827$, $p<0.01$) and the model accounted for 84.8% of the variation. This supported the third condition for testing the effect of mediation. This hypothesis tested the direct relationship between pre-decisional conflict and shopping cart abandonment.

As shown in Table 11, there was a statistically significant simple linear relationship between pre-decisional conflict and shopping cart abandonment ($\beta=0.827$, $B=0.605$, $p<0.05$), hence the study accepted hypothesis H₁₁. The significant pre-decisional conflict on shopping cart abandonment was high as the model accounted for 84.8% variability ($R^2 = 0.848$). In another saying, it is possible to predict shopping cart abandonment with pre-decisional conflict.

Table 10: Model Summary of Shopping Cart Abandonment

Model	R	R Square	Adjusted R Square	F	Sig (F)
1	0.827	0.848	0.838	88.473	0.000

Predictors: (Constant): Independent variable (Pre-decisional Conflict)

Dependent Variable: Shopping Cart Abandonment

Table 11: Regression between Pre-Decisional Conflict and Shopping Cart Abandonment

Variable	Std. Beta	t value	Sig.
Pre-decisional Conflict	0.605	4.682	0.001

4.5.4. Step 4

The success of the first three conditions for mediation testing lead to the conduct of the final test in line with hypothesis H₁₁. Shopping cart abandonment was regressed on research purpose, entertainment purpose, perceived cost, perceived risk, transaction inconvenience while controlling for the effect of pre-decisional conflict to check for the significance of the resultant R² change and coefficients for research purpose, entertainment purpose, perceived cost, perceived risk, transaction inconvenience. Statistical insignificance would imply full mediation otherwise, it would be partial (Baron and Kenny, 1986; Shaver, 2005). Pre-decisional conflict was loaded into block two in SPSS 22 program to control for its effect. Both the R change (R²= 0.013) and the coefficients (β = 0.381;0.395;0.503;0.664;0.592) were statistically significant (p<0.05) indicating partial mediation. Results are shown in Table 4. The study accepted H₁₁.

The bigger beta coefficient related to perceived risk (β = 0.664) compared to that of pre-decisional conflict (β = 0.609) in step 4 implies that, other factors constant, consumers probably place slightly more emphasis on perceived risk. However, online retailers need to advance improvements in both perceived risk and pre-decisional conflict as both mostly influence shopping cart abandonment.

Table 12: Model Summary of Shopping Cart Abandonment

Model	R	R Square	Adjusted R Square	R Square Change	F Change	Sig Change (F)
1	0.827	0.848	0.838	0.848	88.473	0.000
2	0.848	0.861	0.851	0.013	89.175	0.000

Predictors: (Constant): Independent variables (Research Purpose, Entertainment Purpose, Perceived Cost, Perceived Risk, Transaction Inconvenience)

Mediating Variable: Pre-decisional Conflict

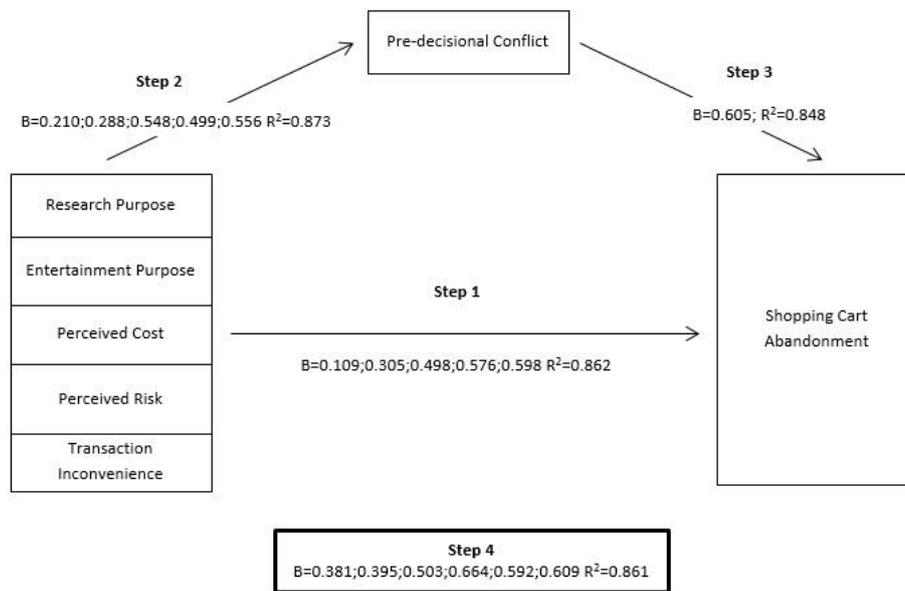
Dependent Variable: Shopping Cart Abandonment

Table 13: Regression between Research Purpose, Entertainment Purpose, Perceived Cost, Perceived Risk, Transaction Inconvenience, Pre-decisional Conflict and Shopping Cart Abandonment

Variables	Std. Beta	t value	Sig.
Research Purpose	0.381	4.650	0.001
Entertainment Purpose	0.395	3.283	0.000
Perceived Cost	0.503	4.075	0.004
Perceived Risk	0.664	6.359	0.001
Transaction Inconvenience	0.592	4.777	0.000
Pre-decisional Conflict	0.609	5.183	0.000

Figure 2 shows a diagrammatic summary of the results for mediation testing.

Figure 2: Summary Results of Mediation Effect Testing



This study's results are based on user experiences of shopping cart abandonment. The research revealed that research purpose, entertainment purpose, perceived cost, perceived risk and transaction inconvenience are the five major factors that lead online shoppers to abandon their shopping cart. This significant relationship is mediated by pre-decisional conflict. These findings are in accordance with Close and Kukar-Kinney (2010) that consumers use shopping carts as a research and organization tool, so they do not have a real intention to buy and leave the website without buying anything. However, the findings related to entertainment purpose contrasted with Close and Kukar-Kinney (2010)'s study. Although, their findings proved that there is a significant relationship between these two factors, entertainment purpose decreases the frequency of online shopping cart use, rather than increases. However, there are studies that reached the same positive result of current study pointing out that, entertainment purpose of consumers induce them to buy at a later session or via another channel (Kukar-Kinney and Close, 2010). The results concerning transaction inconvenience are confirming Coppola and Souse (2008) as website design affects shopping cart abandonment. However, according to Xu and Huang (2015)'s study, transaction inconvenience does not influence shopping cart abandonment directly or indirectly. In addition, they found that perceived cost and perceived risk had an indirect effect on cart abandonment which was affirmed in current study, too. The findings of this research also support Rajamma, Paswan and Hossain (2009)'s findings showing that it is possible to predict shopping cart abandonment with transaction inconvenience, perceived risk and perceived waiting time. The results confirming the mediating effect of pre-decisional conflict are compatible with Cho, Kang and Cheon (2006)'s paper explaining that college students are more likely to drop product items off their online shopping carts if they comparison shopping to get a better idea of prices charged at different websites or physical retail stores, or feel websites are unreliable, require too much personal information or have confusing checkout processes. Additively, Huang, Korfiatis and Chang (2018) had similar results asserting that emotional ambivalence amplifies consumers' hesitation at the checkout stage, leading to cart abandonment.

5. CONCLUSION

In this study, all of eleven hypothesis have been accepted. It can be concluded that research purpose, entertainment purpose, perceived cost, perceived risk and transaction inconvenience have a significant effect on shopping cart abandonment. This significant relationship is mediated by the variable of pre-decisional conflict. It is revealed that external factors are highly effective in predicting shopping cart abandonment. All of these five external variable are ended up in pre-decisional conflict first, and then consumers choose to stop browsing the website without buying their desired items.

This paper creates an important recognition that shopping cart abandonment is closely connected with pre-decisional conflict which serves as a counterpart of cognitive dissonance. It is mainly about pre-purchase hesitation which will form a dissatisfaction in consumers' mind and divert them to abandon their shopping cart. This is an important academic insight that needs to be explored and tested further to assess the phenomenon related to consumer behavior better. Practically, it provides implications for marketing professionals to find out new ways to convert browsing to buying. Discovering online shoppers' motivations to use a shopping cart and possible reasons to abort the purchase in the process might help them to

prevent a potential loss of profit. Thus, improving the external factors concerning relevant website or virtual shop itself can be effective tools to overcome this obstacle.

While the present study offers important contributions to both theory and practice, it has some limitations. First, the sample consists of a relatively small population, future studies should be conducted with a larger sample to determine the generalizability of findings. Second, self-reported survey data was used for this study. It would create a broader view if it were measured with a virtual shop's real click-stream data. Third, this study only covers external factors affecting shopping cart abandonment, further studies should also rely on internal factors to get a thorough picture of this phenomenon.

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