Acceptance of Online Shopping as Technology and its impact on Customer Post Purchase Cognitive Dissonance

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Abstract: This research is to find out whether acceptance of online shopping as technology is based on perceived usefulness and ease of use of technology. Further, paper is exploring the role of online shopping in reducing post purchase cognitive dissonance. Statistical tools like regression analysis and t-test are applied and it is found that online shopping is reducing post purchase cognitive dissonance. Also. post purchase cognitive dissonance is significantly different in age groups, but such difference is not found between gender.

Keywords: Post purchase cognitive dissonance, Perceived usefulness, Ease of technology

1. Introduction

Shopping behavior has changed significantly post advent of COVID 19 as pandemic. Role of online shopping platforms has increased in this new world of pandemic. People are accepting online shopping rapidly to avoid facing crowded places. This behavioral change in the shopping pattern is not new, but for sure, today it is at its advanced stage. Spread of online shopping and its acceptance as a technology to solve purchase related problems has raised some new questions.

Whether online shopping will be accepted as technology of ease of use? What is perceived usefulness of the online shopping for its customers?

Technology Acceptance Model (TAM) propounded by Davis, et al., 1989 [1], has two important dimensions - Perceived usefulness and Perceived ease of use of technology, which have been used frequently by many researchers to find the acceptance of online shopping as technology [2]. No matter customer purchase from online or offline platform, his/her post purchase cognitive dissonance will always bring distress to him/her. Post purchase dissonance is a kind of psychological discomfort which prompt a person to seek help to reduce it as it is a source of gloom for the customers. Offline mode provides vents to share customers' feeling, post sales of products. Customer can meet salesman, vendor and may get assurance in the form of warranty. On the other hand, online shopping may enhance feeling of post purchase dissonance in customers. Intangible services like airline ticket booking or hotel room bookings are liked to be purchased online by the customers [3]. While offline products purchase is desirable when role of senses like touch, feel and smell is high [4]. As customers like to reduce post purchase dissonance, they may choose to purchase high involvement products like cars, jeweler etc. via offline mode over online mode [5]. Therefore, question arise, is online shopping capable of reducing post purchase dissonance of its customers?

2. Review of Literature

One of the major components of acceptance of technology is perceived usefulness, it is based upon individual perception of using technology which brings improvement in the performance of the individual [6]. Another one is perceived ease of use, which can be defined as, "the extent to which a person believes that using the system will be free of effort" [7]. Ease of using any technology depends on many factors, like efforts, time and cost involved in using a technology. Social involvement while shopping may enhance perceived usefulness whereas, technology like online shopping enhances perceived ease of use.

Customer wants easy and useful shopping; more data may confuse him, and simple choice may become a matter of deliberation. Online sources may give limited information and may restrict rationality during purchase [8]. Along with information consumers want many other attributes to take purchase decision, but more attributes more confusion to the customers, therefore many decisions are either based upon heuristics or they are taken hastily [9]. This makes purchasing difficult and customers become doubtful about their own purchase decisions [9,10]. This causes post purchase cognitive dissonance, which is a duality where customers may discover that the product, they brought is not quite the same which they wanted to purchase or maybe they feel that way [11]. When customers don't find anyone to support their choice, they may feel that they have made a wrong choice [12]. The chances of such thoughts are more during online shopping.

3. Research Methodolog

3.1 Data collection and Measure used

For measuring ease of use and perceived usefulness Davis and Gefen scale has been used and to measure post purchase cognitive dissonance, scale made by Sweeney is used. Review of literature helped us to design questionnaire. 5-point likert scale has been made and data is collected by sending questionnaire to the 200 students who have an experience of purchasing at least once using online shopping. We received 150 correct and complete responses. Reliability of selected dimension of TAM model and cognitive dissonance has been checked using Cronbach alfa, the same can be seen in the Table 1.

Table 1. Table Label

Construct	Questions	Source	Reliability
Perceived Usefulness	Purchase on internet improve my performance	David 1989 and Gefen 2003	0.90
	Internet enhance effectiveness of purchase		
	Internet help me in shopping quickly		
	Internet increase my shopping productivity		
Ease of Use	Purchase on internet is easy	David 1989 and Gefen 2003	0.89
	Use of internet to buy gives flexibility		
	Use of internet to buy gives clarity		
Cognitive Dissonance (Sub-Construct) 1.Emotional 2.Wisdom of Purchase 3.Concern over deal	I felt frustrated after purchasing online	Sweeney and Soutar, 2006	0.88
	I felt despair after purchasing online		
	I felt hollow after purchasing online		
	I wonder if I relay need this product		
	I wonder if I should have brought any thing		
	I wonder if I have made the right choice		
	I wonder if I have done right thing in buying this product		
	I feel I like a fool		
	I feel there was something wrong with the deal		

3.2 Data analysis technique

For this study, extensive use of the Statistical software known as the Statistical Package for Social Sciences (SPSS) is used to calculate various factors to know relations between variables in order to prove the hypotheses. The following tools used for the analysis and interpretation are: T-test and Regression analysis.

3.3 Hypothesis Used

H_1 : Perceived usefulness of online shopping has negative impact on the Post Purchase Dissonance.

H_2 : Ease of use of online shopping has negative impact on Post Purchase Dissonance.

H_3 : Customers' demography creates no differentiation in Post Purchase Dissonance.

H_{3a} : Customers' age creates no differentiation in Post Purchase Dissonance.

H_{3b} : Customers' gender creates no differentiation in Post Purchase Dissonance.

4. Result and Discussions

Demographic profile of the respondents shows that 67.3% of the sample is of 17-20 years of age group and majority of participants are male (66%).

Table 2. Demographic Profile of Respondents

		Frequency	Percentage
Age	17-20	101	67.33
	21-23	42	28
	25 & above	7	4.67
Gender	Male	99	66
	Female	51	34

Table 3. Hypothesis Testing

HYPOTHESIS	Variables	Beta	t-value	P Value
H_1	Perceived Usefulness	-0.191	4.70	0.00
H_2	Ease of Use	-0.649	8.04	0.00

Table 3 shows the regression model is statistically significant in estimating customer satisfaction (R^2=0.66; F=152.978;P<0.00). R^2 =0.66 explained 66.0% of variance in post purchase dissonance. The β coefficient of ease of use is -0.649 and β coefficient of perceived usefulness is -0.191. These analyses have revealed that both factors have significant negative impact on the post purchase dissonance, hence hypothesis H_1 and H_2 are supported.

Table 4 Hypothesis Testing - Demographic

HYPOTHESIS	Sig.	Mean	St. Dev.	T-test
H_{3a}	0.023	2.8836	0.34386	19.21
H_{3b}	0.665	5.7628	0.68736	34.96

Table 4 indicates that there is a significant difference between post purchase dissonance of customers across age groups. Whereas on the bases of gender there is no significant difference between post purchase dissonance of customers.

5. Conclusion

Perceived usefulness and perceived ease of use both dimensions have increased customer acceptance of online shopping. Perceived usefulness and ease of use of the online shopping has reduced post purchase dissonance of the customers. Also, these dimensions are very strong and playing significant role in reducing post purchase dissonance of the customers. It has been found that there is no difference in the post purchase dissonance of the customers across gender. While there is a significant difference in the post purchase dissonance across age groups. Specially between youth of age group 17-20 years and 25 and above years.

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