

## Determinants of e-shopping intentions: An Empirical Study

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### Abstract

*The paper explores the commonly held belief the e-tailers that the youth living large cities do their e-shopping (online shopping) based on their awareness of brands and prior online shopping experience. The paper presents briefly the literature relevant to the study and based upon which a conceptual framework driven by three basic dimensions – brand awareness, prior online shopping experience and trust in online transactions has been proposed.*

*The empirical study uses a questionnaire to ascertain what determines the online purchase intentions of students of National Capital Territory of Delhi, India. Three Hypotheses pertaining to the three dimensions enumerated above have been tested using and observed to be statistically significant. The tests used are Principal Component Factor Analysis and Multiple Regression. Sample size: 383; Confidence level: 95% and Margin of Error:5%.*

**Key terms:** e- shopping, e-purchase intention, brand awareness, prior e-shopping experience

### 1.0 Introduction

The e-tailers perceive that younger generation, particularly the college students of larger cities are influenced in their decisions of on-line shopping by their awareness of brands (brand knowledge) and prior e-shopping experience and hence they increasingly allocate higher advertising budgets to enhance the brand equity of their products. The paper attempts to ascertain the perception of e-tailers among the students of National Capital Territory of Delhi. The student population is estimated to be over five lakhs in the region.

### 2.0 Literature Review

The brief literature review pertaining to the relevant aspects of the study is presented below:

#### 2.1 E-Purchasing Intention

E- Purchase intention represents “what we think we will buy” (Blackwell et al., 2001, p. 283). Furthermore, “the theory of reasoned action suggested that consumer behaviour can be predicted from intentions that correspond directly in terms of action, target and context to that consumer behaviour” (Ajzen and Fishbein, 1980). E-purchase intention of e-buyers will help in establishing and strengthening the consumer’s intention to carry out purchase oriented buying behavior (Salisbury, Pearson, Pearson and Miller, 2001).

Laroche, Kim and Zhou (1996) concluded, “Variables such as consideration in buying a brand and expectation to buy a brand can be used to measure consumer purchase intention.” Based on the argument of Pavlou (2003), “online purchase intention is the situation when a customer is willing and intends to become involved in online transaction. Purchase intention is the final consequence of a number of various factors in an online shopping context “(Ling et al., 2010).

#### 2.2 Brand Awareness/ Brand Knowledge

A uniquely assigned name, symbol, trademark, package design that assist in creating a distinctive identification of any tangible or intangible products/services is termed as “brand” (Aaker, 1991). Many people opine that brand name is the name of website or e-seller but in online tailoring, it is the trust. This trust helps in strengthening buyers’ decision to purchase goods from e-sellers (Ward and Lee, 2000). In the absence of sufficient information about any product or service, this brand name becomes the deciding factor of the decision “to buy or not to buy” (Hsu, Lai & Chen, 2007). In other words, when buyers are unsure about their purchase, they opt something which is recognizable (Jacobs & de Klerk, 2007), one they are knowledgeable about, one which is popular, well-known or has a strong

reputation (Mitchell & Boustani, 1992). A brand is thus “a powerful heuristic cue for evaluations and choice decisions because they often signal intangible offering properties that must otherwise be learned through experience” (Delgado & Hernandez-Espallardo, 2008). This contention has been empirically confirmed to also apply to the online environment by Chen and He (2003) and Su (2008) who concluded in his study that the chances of purchase increases in proportion to the consumer's brand knowledge of a particular online retailer.

### 2.3 Prior E-Shopping Experience

Howard and Sheth (1969) opined that confidence is one of the biggest determinant of buyer's buying intention. They further opined that higher confidence reduces the risk factor. Thus, there is a direct association of confidence and purchase intentions Bennett and Harrell (1975). According to Elliot and Fowell (2000), concluded that prior shopping experience helps in building confidence, hence drives the growth of internet shopping.

#### 2.3.1 Trust in E-shopping (online) transactions

“E-trust is a necessity when it comes to online shopping” (McCole and Palmer, 2001). The intangibility nature of online shopping increases the risk, which can be neutralised only by developing trust, which ultimately reduces risk. (Pavlou, 2003). E-trust is must to be developed amongst buyers especially when personal financial and non-financial data is shared (Egger, 2006). E-trust is a perceived notion of risk and benefits. If benefits tends to be more and risk factor reduces, the buyer urges to buy the product from online platform (Teo and Liu, 2007). “Numerous studies have concluded that the higher consumer online trust will result in higher customer online purchase intention” (Verhagen et al., 2006; McKnight et al., 2002; Lim et al., 2006; Ling et al., 2010). Thus, we propose the following conceptual framework for the study (Figure 1):

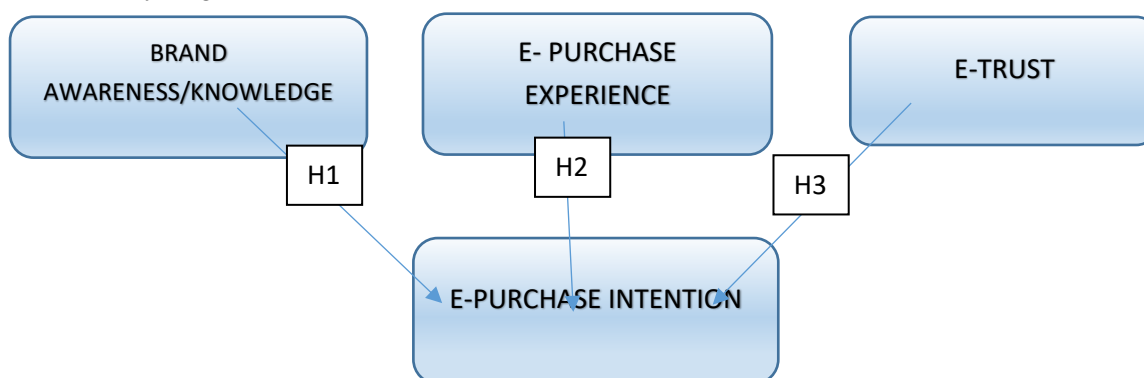


Figure 1. A Conceptual framework for On-line Purchase Intention

### 3.0 Research Methodology

An empirical method of research has been adopted for the study and the details are presented below: Based on the literature presented earlier, the following three Hypotheses are formulated:

#### 3.1 Hypotheses

*H1: Brand Awareness/knowledge is positively associated to customer e-purchase intentions.*

*H2: Prior e-purchase experience is positively associated to customer e-purchase intentions.*

*H3. E-trust is positively associated to customer e-purchase intentions.*

#### 3.2 Research Instrument (Questionnaire)

A questionnaire has been designed consisting of sections namely first and second. The “section first” being questions based on basic demographics like gender, age and education level of respondents. The second section consists of 23 items based on three independent constructs namely Brand Knowledge, Prior online purchase experience & Trust in On-line purchasing and one dependent construct i.e. E-purchase Intentions. The multiple item scale is sourced from different validated studies. . The independent variables of construct Brand Knowledge are sourced from the studies of Chen and He (2003) and Hassan et al. (2006); e-Purchase Experience are adopted from Kim et al. (2004) Brunelle and Lapierre (2008); e-Trust variables are adopted from Chen and Barnes (2007). The dependent

variable that is namely E-purchase Intention is adopted from the study of Chen and He (2003) and Hassan et al. (2006). The scale is based on “Likert five-point scale” starting from 1 that represents “strongly disagree” to 5 that means 5 “strongly agree”.

### 3.3 Sample size

Population: University Students of National Capital Territory Delhi

Sample: “383 at 95% confidence level and 5% Margin of Error as per sample size calculator”

The study is based on college students of National Capital Territory of Delhi. As per the report of IAMAI 2015, majority of e-shoppers in India are of young age groups. Youth on one hand is categorised as heavy internet users and on other hand believed to be brand conscious and purchase conscious. Thus, college students are considered as ideal sample of study. For collected the responses, an online survey form was framed and shared through social media, e-mails and other internet based platforms. A total of 238 responses were received out of which, 226 were considered apt for the study. The 12 responses were not considered ideal for study due to missing values and other reasons. “In studies where large variance (i.e. above 25 percent) is expected to be explained, a sample size of 80 would be sufficient for a regression model having up to 20 predictors” (Field, 2005). Further, the sample size 100 justifies the condition of exploratory factor analysis. Thus, 226 meet both the criteria and are suitable for further study.

## 4.0 Results and Discussions

### 4.1 Respondents demographic profile:-

The demographics of respondents are mentioned below:-

Table 1. Demographics of Respondents

Demographic Variables		Freq.	%
Gender	Males	119	52.6
	Females	107	47.4
Age	15-<20 Years	78	34.5
	20- <25 Years	124	54.9
	25-<30 Years	18	7.9
	Above 30 Years	6	2.6
Education	Graduate or equivalent Degree	96	42.5
	Post Grad or equivalent Degree	118	52.2
	Doctoral Students	12	5.3

### 4.2. Reliability Analysis

“Reliability analysis is done to ensure the consistency of the instrument and helps in assessing the suitability of a measure (Cavana, Delahaye and Sekaran, 2001)”. Cronbach’s alpha test was run in SPSS 22.0 to assess the reliability. The result is depicted in table 5.2, as per the result received .829 is far more in comparison to 0.7 thus accepted for the study as stated by Cavana et al. (2001). Hereby, confirming the reliability of scale.

Table 2. Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.829	.829	23

4.3. Validity

For analysing the construct validity, Principal component factor analysis is adopted (Cavana et al. (2001). The statistical test of KMO and Bartlett's Test was done . The value for KMO was 0.785 which is much higher than acceptable "value of 0.6". Thus, it reflects data sets are highly acceptable for factor analysis. (Kim and Mueller, 1978). "The p=0.00 reflects that the data does not produce an identity matrix (George and Mallery, 2003)". "Bartlett's test of sphericity" also showed an acceptable level and hence the instrument was apt for further analysis. Further, the principal component analysis resulted in the extraction of four factors. All the four factors resulted in the eigen-values greater than 1.0. The 4-factor scale accounts for 64.08% of the total variance. The test was run in SPSS 22.0 using VARIMAX procedure. The results showed factor loading above 0.5 also there is no overlapping items and the items can be easily clubbed as per the constructs, hence justifying the conditions of validity.

Table 3. Principal Component Factor Analysis

Construct Name	Items	Factor Loadings	Reliability*
Brand Knowledge	B1	.702	.909
	B2	.803	
	B3	.751	
	B4	.727	
	B5	.846	
E-Purchase Experience	PE1	.771	.897
	PE2	.779	
	PE3	.663	
	PE4	.799	
	PE5	.744	
E-Trust	T1	.830	.908
	T2	.872	
	T3	.735	
	T4	.785	
	T5	.761	
	T6	.894	
	T7	.721	
E- Purchase Intentions	PI1	.856	.864
	PI2	.877	

	PI3	.670	
	PI4	.778	
	PI5	.579	

\* Cronbach's Alpha Values

#### 4.4 Multiple Regression Analysis:

Regression Test was run to the independent variables that are Brand Knowledge, E-Purchase Experience and E-trust and E-purchase Intention as dependent variable.

Table 4. Regression Analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.835 <sup>a</sup>	0.696	0.692	.426

a. Predictors: (Constant), Brand Knowledge, E- Purchase Experience and E-trust

Table 5. ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	91.674	3	30.559	168.484	.000 <sup>b</sup>
	Residual	40.265	222	.180		
	Total	131.938	225			

a. Predictors: (Constant), Brand Knowledge, E-Purchase Experience, E-Trust

b. Dependent Variable: e-purchase Intention

Table 6. Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.691	.217		-3.187	.002
	Brand Knowledge	.491	.052	.418	9.457	.000
	Prior online purchase experience	.418	.046	.388	9.030	.000
	Online Trust	.255	.047	.235	5.399	.000

a. Dependent Variable: E-purchase Intention

The tables depicts that the observed and predicted values of e-purchase intention i.e. dependent variable correlated with 0.835 alpha value. The std. error of estimate is .426. ANOVA results 91.674, residual 40.265 and total value refers 131.938.

#### 4.5 Hypothesis Discussion

H1: Brand knowledge is positively associated to customer e-purchase intention.

Brand Knowledge B is 0.491; t is 9.457, and sig. value 0.000. Significant value 0.000 is lesser than 0.05.it refers that the independent variable Brand Knowledge positively influences e-purchasing intention. Thus, H1 is tested and it is accepted.

H2: E- purchase experience is positively associated to customer e-purchase intention.

Prior e-purchase experience B value 0.418, t- value 9.030 and sig. 0.000. Sig. value 0.000 is lesser than 0.05. which reflects that the independent variable that is e-purchase experience has positive influence on e-purchasing intention. So, H2 is tested and it is accepted.

H3. E-trust is positively associated to E-purchase intention of buyers. E-trust B valued 0.255, t- valued 5.399 and sig. is 0.000. Sig. value 0.000 is lesser than 0.05 which reflects that the independent variable e- trust positively influence e-purchasing intention. Thus, H3 is positive and it is accepted.

### Conclusion:

The study validates the common belief of the e-tailers that the brand awareness (knowledge), prior e-shopping experience and the trust in on-line transactions do influence the e-shopping intentions of the young students of NCT Delhi. However, the results of the study are to be taken with a pinch of salt, as the effect sample size is 60% of the required sample size for statistical significance (226 as compared to 383) which corresponds to a Margin of Error of 6.5 percent instead of targeted 5 percent.

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