

## An Empirical study of Predicting Consumer's Intention to Purchase Online: A Role of Theory of Planned Behavior

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*The paper aims at identifying the factors that influence consumer's intention to purchase over the internet or consumer's online purchase intention using Theory of Planned Behavior. A structured questionnaire method was used to collect the data from the individuals involved in purchasing products online from the population of Jaipur city, Rajasthan. Findings show that the independent variables in the study i.e. attitude, subjective norms and perceived behavioral control have a positive relationship with the dependent variable i.e. behavioral intention to purchase over the internet or in online shopping. Further, it also reveals that Theory of Planned behavior holds good to explain the variations in consumer's online purchase intention. The wide coverage of the area under the study could have provided with the more variations in the results as the area of study includes only one major city of Rajasthan i.e. Jaipur. Further, the factors like descriptive norms, perceived usefulness could also be used to explain the dependent variable more in detail. This study describes the various factors which influence and affect an individual's intention while purchasing things over the internet. Additionally, results of the study could also serve as an essential input for online retailers to understand the various factors affecting consumer's intention in order to gain over the competition in online market. The study includes the population of Jaipur city where no such study has been done before, to study consumer's online purchase intention taking Theory of Planned Behavior as base.*

**Key Words:** Internet, online purchase intention, theory of planned behavior

### INTRODUCTION

In present era, with the growing trend of technology and communication, internet is not only being used for networking but also as a medium of transaction for customers and has also become a dominant retailer in global marketplace. Internet has opened the doors of success for the retailers to reach out their customers with minimum of time and efforts through proper communication channels. As the internet becomes an increasingly common medium for consumer transactions throughout the world, it becomes increasingly important to

identify the factors affecting consumer adoption of e-commerce. Internet has been increasingly used for purchasing over the last few years due to more comfort and time saving feature. Online shopping provides for saving time and energy, convenience, security, privacy and greater access to information over the internet. But many times customers are unwilling to purchase online because of lack of familiarity with the process, lack of information, personal attributes, security concerns. There are many factors which affect an individual's decision to purchase online or not, which affect customer's purchase intention while shopping online. Further, as online shopping behavior differs from traditional shopping, it becomes essential for the online retailers to identify these factors in order to study their online purchase intention. Additionally, with the growing interest towards online purchase, etc.

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Online retailers have been increasingly investigating the behavior and intention of an individual while purchasing online. Most of the studies have already discussed the various models and theories to understand the determinants of customer's purchase intention while purchasing online i.e. Technology acceptance model, Theory of planned behavior (TPB) and decomposed TPB. This study focuses on understanding and explaining the consumers' online shopping intentions from the perspective of social psychology, using the well-established theory of planned behavior. In addition, it also provides for suggestions and ideas for the improvement in the approach to the customers.

## LITERATURE REVIEW

### Theory of Planned Behavior

The most important factor in theory of planned behavior is determined by individual intention to perform a behavior. The intention is expected to explain factors that influence behavior. Ajzen and Maden (1985) found that perception of control, like attitude towards the behavior and subjective norm can have an important impact on an individual's behavioral motivation. The theoretical model used in the study is established on theory of planned behavior (TPB) (Ajzen, 1991) which is an extension of theory of reasoned action (TRA) and was established for the purpose of overcoming the limitations of TRA (Fishbein and Ajzen, 1975; Ajzen and Fishbein, 1980). TPB is composed of attitude towards the behavior, subjective norm, a social factor and perceived behavioral control (PBC) (Ajzen, 1985, 1991, 2002).

## HYPOTHESES DEVELOPMENT

### Perceived behavioral control

PBC represents the control belief in TPB model for the purpose of answering the limitations of TRA, Theory of Reasoned Action (Fishbein and Ajzen, 1975; Ajzen and Fishbein,

1980), in order to face the situations in which an individual may lose control over the behavior (Ajzen, 1991, 2002).

PBC is defined as an individual's perception of ease or difficulty in performing the behavior of interest given the presence or absence of required resources and opportunities (Ajzen, 1991). An individual's performance of a particular behavior reflects their confidence in his/her ability to perform the behavior (Ajzen, 1991). PBC receives the Input from the past experience and exchange of information by friends, relatives, family and the factors which may control perceived level of difficulty in performing a behavior of interest (Ajzen, 1991). Increasing the resources (time, computer, network and money) and opportunities leads to greater perceived control of a particular behavior (Ajzen, 1991) and thus the more likely is the performance of the behavior, in this case online purchase, many researches have shown that PBC has a significant positive effect over the intention to purchase online. Thus, with the given resources the higher the confidence of his/her ability, the more likely and individual is in buying things online Hence, the hypotheses formulated are:

**H1a:** *Capabilities to shop online significantly affect PBC*

**H1b:** *Control over shopping online significantly affect PBC*

**H1c:** *Availability of knowledge, resource and ability to buy online significantly affect PBC*

### Subjective norm

Subjective norm is a concept originated from TRA which deals with the impact of social background or societal pressure on an individual which reflects in their behavioral intention (Fishbein and Ajzen, 1975). Subjective norm is defined as the individual's perception of the chances or possibility to approve or disapprove a particular behavior by the referent group or individuals (Fishbein and Ajzen, 1975; Ajzen, 1991). Subjective norms directly determine the

behavioral intention (Fishbein and Ajzen, 1975), TPB, (Ajzen, 1991) and DTPB (Taylor and Todd, 1995). An individual would perform a behavior under significant social pressure or influence, even if he or she is not in favor performing that behavior (Venkatesh and Davis, 2000). There have been a mixed results showing the significant effect of subjective norms on purchase intention, out of which some have shown no significant relationship between subjective norms and intention (Davis *et al.*, 1989; Mathieson, 1991; Chau and Hu, 2001; Lewis *et al.*, 2003) whereas some other studies have shown significant relationship between subjective norm and intention (Taylor and Todd, 1995; Venkatesh and Davis, 2000; Teo and Pok, 2003, Ramayah *et al.*, 2003, 2004; Ma'ruf *et al.*, 2003; Yuliharsi, 2004; Chan and Lu, 2004;). The literature support that subjective norms to have significant effect on intention to use internet to purchase. Thus, the hypothesis proposed is:

**H2a:** *Expectations of reference groups to shop online significantly affect Subjective norms*

**H2b:** *Approval of reference group to shop online significantly affect subjective norms*

**H2c:** *Reference group's opinion to shop online significantly affect subjective norms*

## Attitude

Attitude have always been considered as an important construct to guide a future behavior or cause of intention leading to a particular behavior. Attitude is defined as an individual's positive or negative feeling of performing a particular behavior (Fishbein and Ajzen, 1975). The two components of attitude include, attitude towards physical object (internet, computer) and attitude towards behavior or performing particular action (using internet for shopping) (Ajzen, 1987, Ajzen and Fishbein, 2005). In the field of internet purchasing, the more positive an individual's attitude is, the more likely is the behavioral intention and performance of the behavior. Many studies have shown the

significant effect of attitude towards intention. Hence, the proposed hypotheses is:

**H3a:** *Benefits to shop online positively affect Attitude towards online shopping*

**H3b:** *Opinion to shop online positively affect Attitude towards online shopping*

**H3c:** *Idea to shop online positively affect Attitude towards online shopping*

## Behavioral intention

Intention is defined as the perception of an individual towards performance of a particular behavior (Fishbein and Ajzen, 1975). TRA (Fishbein and Ajzen, 1975; Ajzen and Fishbein, 1980) states that intention is predicted by attitude and subjective norm. Later as an extension of TRA, the TPB (Ajzen, 1985, 1991, 2002) and the DTPB (Taylor and Todd, 1995) intention is determined by attitude towards the behavior, subjective norm and the degree of PBC. When behavior is under the individual's control, intention can significantly predict the actual behavior (Ajzen, 1988).

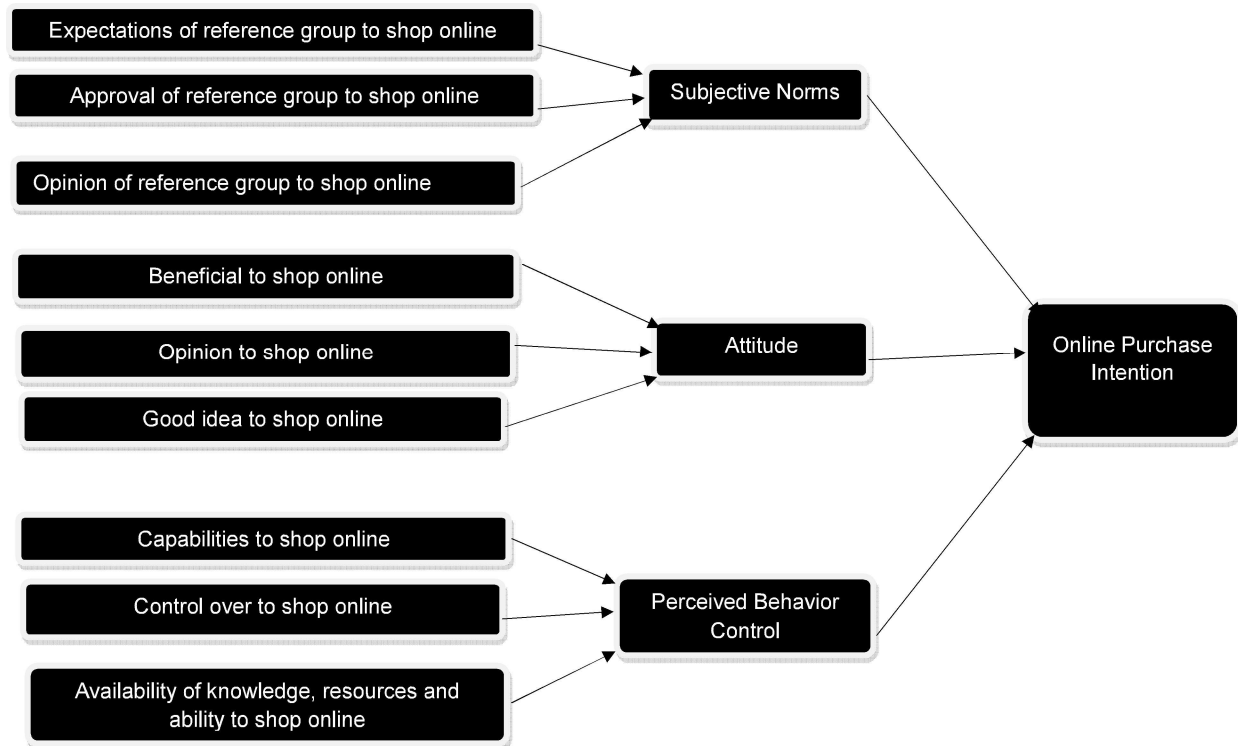
## Research Model

On the basis of the above literature and the discussion the research framework is shown in the below figure.

## RESEARCH METHODOLOGY

### Sample and Procedure:

The study was conducted with the aim of examining the effect of different factors which affect the different deciding variables of online purchase intention i.e. Attitude, Subjective norms and perceived behavioral control etc. For that purpose, a descriptive study was conducted to examine that how an individual's perception differs from each other on the different factors affecting their online purchase attitude, subjective norms and perceived behavioral control which will determine their online purchase intention.



To fulfil the purpose of the study and to test the hypotheses the data was collected from both the primary and secondary sources. Primary data was collected through structured questionnaires. The questionnaires were distributed to the individuals of the residents of Jaipur city who are engaged in online purchase. A total of 100 responses were obtained from 180 questionnaires. From the 180, the final response rate of 55 percent whereas secondary source will include internet, journal, newspapers and magazines and published literature on the selected domain.

**Pretest:** Pre-test ensures researcher that the factors considered in the questionnaire were apt for the requirement of the study. Pre-test involved 20 respondents to ensure that the questions are understandable and clear by the actual respondents. Moreover, to examine the reliability of the questionnaire Cronbach alpha was used for 100 samples with value of 0.681, which has consistency among the questions framed.

**Variables and Measurement:** Various instruments were obtained from literature and were modified for the purpose of adapting internet for purchasing online. The study included various items for the purpose of studying the different determinants of purchase intention in the context of online shopping i.e. Attitude, Subjective norms and perceived behavioral control, on the basis of theory of planned behavior. Responses were measures using five point Likert type scale fixed by “strongly disagree” (1) to “strongly agree” (5) with “neutral” as a middle point.

## DATA ANALYSIS AND INTERPRETATION

### Demographic Profile

The total 150 forms were distributed online with the response rate of 66% which means total 100 filled up forms were obtained. Out of which 40 reported to be females and rest 60 were males. The average age of the respondents was in the range of 25-30 class interval with the 40% of

the total responses. The level of education was masters and above with the highest percentage with 59% of the total. Majority (48%) of the respondents reported to be servicemen followed by 35% of businessmen and the average income between Rs. 20,000-40,000. Out of the total 45% of the respondents reported to use internet more than 4 hours a day and around 37% of them reported to purchase at least once a month.

**TABLE 1**  
**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
Attitude	.802a	.654	.567	.37324
Subjective Norms	.867a	.752	.721	.48276
PBC	.839a	.703	.692	.77746

a. Predictors: (Constant)

**TABLE 2**  
**ANOVA<sup>b</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1(Attitude)	Regression	3.496	1	3.496	4.667	.036a
	Residual	10.762	70	.154		
	Total	30.200	71			
2(SN)	Regression	34.752	1	34.752	59.325	.000a
	Residual	14.111	24	.587		
	Total	30.200	25			
3(PBC)	Regression	99.498	8	12.437	74.473	.000a
	Residual	10.862	65	.167		
	Total	30.200	73			

Source: Field Survey

b. Predictors: (Constant), using online shopping is beneficial, positive opinion in online shopping, online shopping is a good idea, reference group's expectation for online shopping, approval of reference group to shop online, reference group's opinion to shop online, Capabilities to shop online, control over the online purchase, resources, knowledge and ability to buy things over the internet.

**TABLE 3**  
**Coefficients<sup>a</sup>**

	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	T	Sig.
<b>1. (Constant) Attitude</b>	6.139	2.808		2.186	.030
online shopping is beneficial	.124	.059	.132	1.831	.049
Positive opinion about online shopping	.231	.061	.227	3.782	.000
Online shopping is a good idea	.232	.051	.242	4.546	.000
<b>2. (Constant) Subjective Norms</b>	12.321	3.174		3.881	.000
Reference group's approval for me to shop online	.321	.058	.357	5.534	.000
Reference group's opinion for me to shop online	.335	.070	.337	4.785	.000
Reference group's expectation from me to shop online	.046	.053	.52	.867	.000
<b>(Constant) PBC</b>	8.342	3.231		2.581	0.000
Capabilities to shop online	.273	.045	.103	6.066	0.000
Control over to shop online	.134	.062	.132	2.161	.039
Resources, knowledge and ability to buy things over the internet	.221	.048	.257	4.604	.000

Source: Field Survey

a. Dependent Variable: AVE2



## RESULTS & RESEARCH FINDINGS

For the purpose of predicting the behavior of a dependent variable from the different independent variables, multiple regression analysis was used. The study included three dependent variables i.e. Attitude, Subjective norms and Perceived Behavioral Control, which are the determinants of online purchase intention. The study will include the various independent factors which affect the determinants of online purchase intention based on theory of planned behavior.

Output **Table 1** is the model summary table which provides the  $R$ ,  $R^2$ , adjusted  $R^2$ , and the standard error of the estimate, which shows that how well a regression model fits the data set. The study provided for the different values of Attitude, subjective norms and PBC which depicts that good level of prediction. The value of .654, .752 and .703 explains that 64.4%, 75.2% and 70% of the total variability in dependent variable (purchase attitude, SN and PBC respectively) is explained by the independent variable (identified factors).

**Table 2** gives the results for the statistical significance in which the F- ratio examines whether the overall regression model is a good fit for the data. As per the output table the independent variables (identified factors) significantly predict the dependent variable (purchase attitude, SN and PBC),  $p < .0005$  (i.e., the regression model is a good fit of the data).

**Table 3** shows the estimated model coefficients for testing statistical significance of each independent variable. The  $t$ -value and corresponding  $p$ -value are located in the “ $t$ ” and “Sig.” columns, respectively. If  $p < .05$ , we can conclude that the coefficients are statistically significant. The results of table 3 shows that since all the independent factors significantly affect the three dependent variables under the study i.e. Attitude, Subjective and PBC which leads to accepting the three hypotheses under the study.

The important contribution of the study is to construct an integrated theoretical model which aimed at examining the effect of different identified factors on online purchase intention by using Theory of planned behavior as base model of purchase intention. The study provided how these factors influence the predictors of purchase intention (Attitude, Subjective norms and Perceived behavioral control) in online shopping. The theoretical framework explains the 64%, 75% and 70% of the total variability in the determinant of purchase intention i.e. Attitude, Subjective norms and PBC respectively. The study included three major hypotheses for prediction the online purchase intention and all three of them were accepted. The different variables studied under Attitude were benefits, opinion and idea to shop online. Further Subjective norms included expectation, opinion and approval of reference group to shop online and PBC included capabilities, control and resources, knowledge required to shop online. The results showed that all the factors significantly affect the determinants of online purchase intention i.e. Attitude, Subjective norms and PBC and cause variability in purchase intention as well.

Further, the theory of planned behavior supports the relationship of attitude, subjective norms and PBC to study the impact of these determinants to predict the online purchase intention based on the literature. The literature supports the positive relationship between purchase intention determinants (attitude, subjective norms and PBC) and purchase intention. The study focusses on developing the different e-commerce models and helping e-tailors to understand consumer's buying intention in electronic marketplace in order to improve upon their business.

## LIMITATIONS & FUTURE RESEARCH

The study covers only Jaipur as area of study which does not generalize the results in the context of the other population as the purchase intention

may differ across the demographic, cultural and other factors in different population. Since these determinants explain only around 70% of the variability in purchase intention, remaining percentage of variability can be explained by studying more independent variables other than discussed in the study.

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