
Factors affecting on-line shoppers behavior for electronic goods purchasing in Mumbai: An empirical study

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Abstract

Purpose- This paper seeks to analyze factors affecting on online shopping behavior of consumers that might be one of the most important issues of e-commerce and marketing field. However, there is very limited knowledge about online consumer behavior because it is a complicated socio-technical phenomenon and involves too many factors. This goal has been followed by using a model examining the impact of perceived risks, motivational factors and return policy on attitude toward online shopping behavior and subjective norms, perceived behavioral control, domain specific innovativeness and attitude on online shopping behavior as the hypotheses of study. To investigate these hypotheses primary research has been carried out and 100 questionnaires dispersed among four different types of respondents and stratified random sampling method was used to collect the primary data. The target respondents were online shoppers of electronic goods in Mumbai from the given four strata (ie. students, servicemen, businessmen, professionals). Respondents to the questionnaire were online shoppers of electronic goods in Mumbai which randomly selected.

To analyze and interpret the data Chi-square test and T-Test was used in order to test hypotheses of study. This study can be considered as an applied research from purpose perspective and descriptive-survey with regard to the nature and method. The study identified that financial risks and non-delivery risk negatively affected attitude toward online shopping. Results also indicated that domain specific innovativeness and subjective norms positively affect online shopping behavior. Furthermore, attitude toward online shopping positively affected online shopping behavior of consumers.

Keywords: online shopping, consumer shopping behavior, consumer's attitudes, perceived risks, B2C e-commerce.

1. Introduction

In the business to consumer (B2C) e-commerce cycle activity, consumers use Internet for many reasons and purposes such as: Searching for product features, prices or reviews, selecting products and services through Internet, placing the order, making payments, or any other means which is then followed by delivery of the required products through Internet, or other means and last is sales service through Internet or other mean (Sinha, 2010).

Online shopping behavior (also called online buying behavior and Internet shopping/buying behavior) refers to the process of purchasing products or services via the Internet. The process consists of five steps similar to those associated with traditional shopping behavior . In the typical online shopping process, when potential consumers recognize a need for some merchandise or service, they go to the Internet and search for need-related information. However, rather than searching actively, at times potential consumers are attracted by information about products or services associated with the felt need. They then evaluate alternatives and choose the one that best fits their criteria for meeting the felt need. Finally, a transaction is conducted and post-sales services provided. Online shopping attitude refers to consumers' psychological state in terms of making purchases on the Internet (Li and Zhang, 2002)

This study attempts to develop such a research to study the effects of several key factors which are identified by prior studies on online shopping behavior. The research questions are thus stated as followed.

- 1) How do perceived Risks (Risk of losing money, product risk, risk of revealing personal and financial information and non-delivery risk) impact attitude toward online shopping?
- 2) How do subjective norms, Perceived behavioral control and domain specific innovativeness impact online consumer behavior?
- 3) How does the attitude impact online consumer behavior?

The finding of this research offer a more comprehensive understanding of online consumer behavior by identifying the compound effects of various external behavioral beliefs, attitude, intentions and perceived risks, social influence, etc. Specifically, the findings provides in-depth insight into what factors drive online consumers most, how they work and what are their implications for consumers and e-commerce vendors. In general, this study enriches our knowledge of online shopping behavior from the behavioral perspective.

To meet the objectives of the research, first, we begin with a review of the literature on online shopping and factors influencing consumers' shopping behavior. This is followed by an outline of the methodological approach and the results of the study are reported. Finally, the conclusion and managerial implications are discussed.

2. Literature Review

2.1 Online Shopping and Online Stores

Compared to physical stores, online stores have many advantages: They are convenient and time saving and no more traveling and waiting in lines is needed. They are open in all time and they are accessible anytime and anywhere. These stores provide consumers with free and rich information about products and services. They also have some online tools to help consumers compare and make purchase decisions among various products and services. Hoffman and Novak (1996) indicated that interactivity is the key distinguishing feature between marketing communication on the Internet and traditional mass media. Today online consumers have more control and bargaining power than consumers of physical stores because the Internet offers more interactivities between consumers and product/service providers as well as greater availability of information about products and services. Online stores reduce transaction costs and have advantage for both consumers and vendors.

2.2 Perceived Risks

Perceived risk refers to the nature and amount of risk perceived by a consumer in contemplating a particular purchase decision (Cox and Rich, 1964). The most frequently cited risks associated with online shopping include financial risk (e.g., is my credit card information safe?), product risk (e.g., is the product the same quality as viewed on the screen?), convenience (e.g., Will I understand how to order and return the merchandise?), and non-delivery risk (e.g., What if the product is not delivered?) The level of uncertainty surrounding the online purchasing process influences consumers' perceptions regarding the perceived risks (Bhatnagar *et al.*, 2000). The higher the perceived experience risk, the consumer may shift to brick-and-mortar retailer for the purchase of the product. Whereas, the lower the perceived risk, the higher the propensity for online shopping (Tan, 1999). Risks perceived or real, exist due to technology failure (e.g., breaches in the system) or human error (e.g., data entry mistakes).

2.3 Attitude

Attitude reflects the individual's favorable or unfavorable feeling towards performing a behavior. Previous research has revealed attitude towards online shopping is a significant predictor of making online purchases (Yang *et al.*, 2007) and purchasing behavior (George, 2004; Yang *et al.*, 2007). Since the mid-1970s, the study of consumer's attitudes has been associated with consumer purchasing behavior research. According to the model of attitude change and behavior (e.g.,

Fishbein and Ajzen, 1975), consumer attitudes are affected by intention. When this intention is applied to online shopping behavior, the research can examine the outcome of the purchase transaction. Attitude is a multi-dimensional construct. One such dimension is the acceptance of the Internet as a shopping channel (Jahng, Jain, and Ramamurthy, 2001).

2.4 Perceived Behavioral Control

Perceived Behavioral Control refers to consumers' perceptions of their ability to perform a given behavior. Theory of Planned Behavior (TPB) allows the prediction of behaviors over which people do not have complete volitional control. Perceived behavioral control reflects perceptions of internal constraints (self-efficacy) as well as external constraints on behavior, like availability of resources. It has been found that the Planned Behavioral Control (PBC) directly affects online shopping behavior (George, 2004) and has a strong relationship with actual Internet purchasing (Khalifa and Limayem, 2003).

2.5 Domain Specific Innovativeness

Domain Specific Innovativeness (DSI) is "the degree to which an individual is relatively earlier in adopting an innovation than other members of his system" (Rogers and Shoemaker 1971, p. 27). While the Internet and online shopping offers consumers a wide breadth and depth of product offerings, it also requires them to go outside their normal shopping routine. Online shoppers need to learn new technology skills in order to search, evaluate and acquire products. Adoption of online shopping is depiction of individual's innovative characteristic (Eastlick, 1993). Adopting a new technology is a function of one's attitude towards it (Moore and Benbasat, 1991). It is expected that person's domain specific innovativeness has a propensity to shop online.

2.6 Subjective Norms

A comprehensive understanding must be made of the website's design and support in order to match its consumers' information gathering and purchasing behaviors. The visual stimuli and communication through text and sound can positively or negatively affect consumers' online desires and actions (Vijayasathy and Jones, 2000).

Subjective norms capture the consumers' perceptions of the influence of significant others (e.g., family, peers, authority figures, and media). It is related to intention because people often act based on their perception of what others think they should be doing. Subjective norms tend to be more influential during early stages of innovation implementation when users have limited direct experience from which to develop attitudes (Taylor and Todd, 1995). It is during this stage of attitudinal development that online retailers can influence shoppers' propensity for purchasing behaviors (Yu and Wu, 2007).

3. Objective of the study

Primary objective

1. To study motivational factors affecting online shopping behavior of electronic goods.

Secondary objectives

1. To measure the impact of factors in motivating or demotivating online shopping of electronic goods.
2. To examine the influence of an individual's domain specific innovativeness on online shopping behavior of electronic goods.
3. To identify effects of perceived risks on buyers attitude towards online shopping of electronic goods.
4. To understand the role of subjective norms to influence buyers attitude towards online shopping of electronic goods.

4. Hypothesis of the study

H1-Planned Behavioral Control has negative effect on online shopping behavior of an individual.

H2- The risk of losing money, fear of revealing personal and financial information, fear of nondelivery of order has negative effect on attitude towards shopping online.

H3- Attitude of consumer towards online shopping significantly effects their online shopping behavior.

H4-Individual's Domain Specific innovativeness has a positive effect on online shopping of electronic goods.

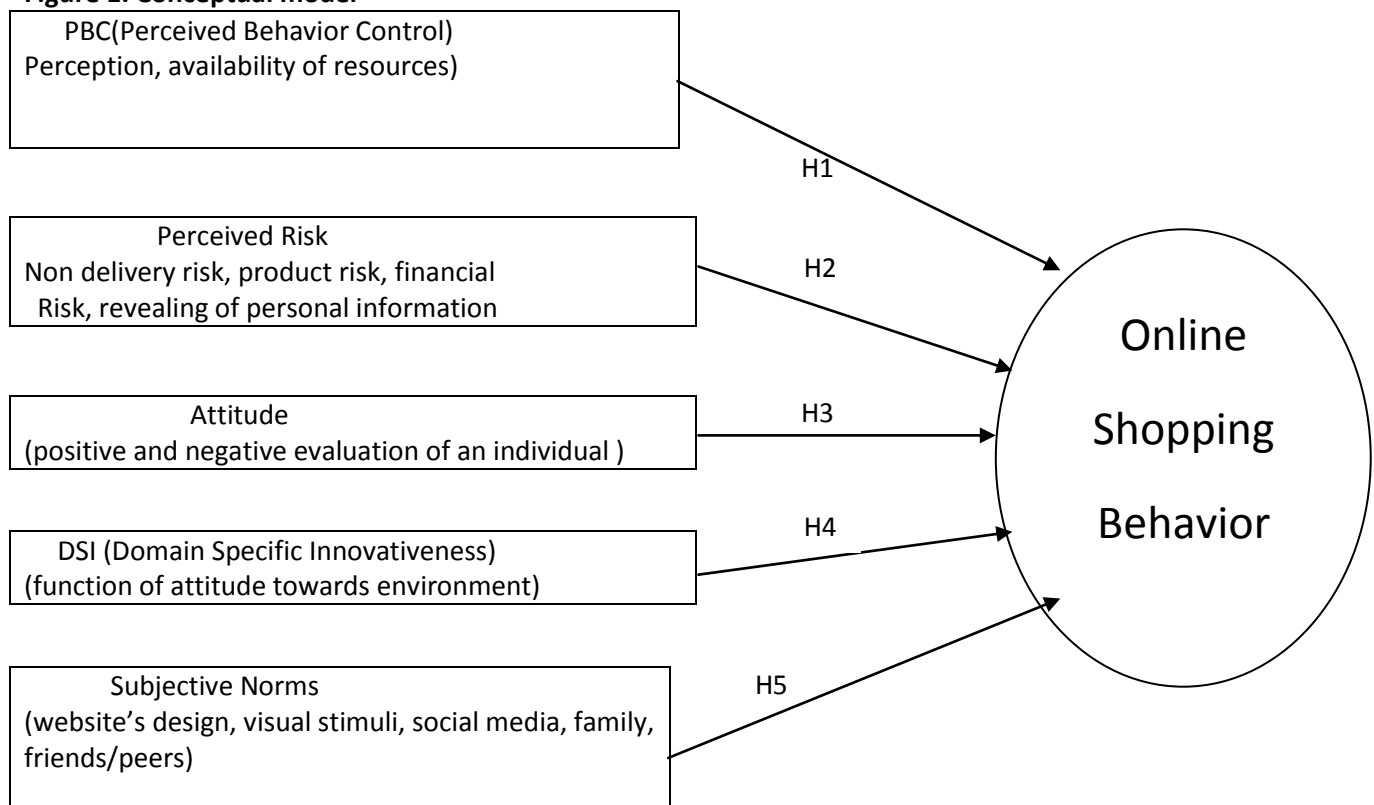
H5-Subjective norms, friends/peer groups, family and social media have positive effect on online shopping.

H6- Having conducive user interface, flexibility have positive effect on online shopping of electronic goods.

5. Conceptual Model

The model was developed to examine the online shopping behaviors of Indian consumers. This model examines (1) the relationship between perceived risks, return policy, service, and attitudes towards online shopping and (2) the influence of an individual's domain specific innovativeness (DSI), attitude, subjective norm and planned behavior (PBC) toward online shopping.

Figure 1. Conceptual model



Independent variable

Dependent variable

6. Research Methodology

6.1 Scope of the study

The study involves different types of online shoppers based on frequency in business to consumer (B2C) market segment. The respondents involved in this research study were selected from Mumbai with the condition of having experience in online shopping.

6.2 Population and sample size

The population of this study includes online shoppers in Mumbai who have purchased different products from online shopping sites. The sample method adopted was stratified random sampling. It involves a sample units of 100 experienced online shoppers of electronic goods in Mumbai from (ie. students, servicemen, businessmen, professionals).

6.3 Data collection

The current study understands factor affecting online shoppers behavior for electronic goods purchasing. Primary data was collected with a self administered questionnaire from online shoppers in Mumbai. Secondary data was collected from articles in e-journals related to online shopping. QUOTA Sampling technique was used to identify people having internet shopping experience.

6.4 Survey instrument

A structured questionnaire was developed with five point rating scale with ranging from strongly agree to strongly disagree on website variables such as website design, customer service, security, reliability towards online shopping. It was developed with discussion of experts ,online shoppers and literature review.

6.5 Statistical tools

Data analysis was done using statistical package for social science (spss) version18.0 for the data gathered through structured questionnaire. In order to test the study's hypothesis, Chai-square Test and T-test were used to analyze effect of independent variable on dependent variables.

7.Data Analysis and Results

Interpretation for hypothesis

7.1 Hypothesis

H1- Planned Behavioral Control has significant effect on online shopping behavior of an individual.

H0- Planned Behavioral Control has no significant effect on online shopping behavior of an individual.

Online shoppers perception about net payment; low reliability on online stores; hacking of personal information; lack of resources with shoppers were not significant at the 0.05 level and is not supported; so will reject H1 and accept H0. (Refer following tables)

Table: a) Problem with net payment.

Chi-Square Test of determinants of

| | Value | Df | Asymp. Sig. (2-sided) |
|--------------------|----------|----|-----------------------|
| Pearson Chi-Square | 2.291(a) | 4 | .682 |

b) Low reliability

Chi-Square Tests

| | Value | df | Asymp. Sig. (2-sided) |
|--------------------|----------|----|-----------------------|
| Pearson Chi-Square | 9.114(a) | 4 | .058 |

c) Possibility of hacking personal information

Chi-Square Tests

| | Value | df | Asymp. Sig. (2-sided) |
|--------------------|----------|----|-----------------------|
| Pearson Chi-Square | 8.487(a) | 4 | .075 |

d) Lack of resources with me

Chi-Square Tests

| | Value | df | Asymp. Sig. (2-sided) |
|--------------------|----------|----|-----------------------|
| Pearson Chi-Square | 1.311(a) | 4 | .859 |

H2- The risk of losing money, fear of revealing personal and financial information, fear of non delivery of order has negative effect on attitude towards shopping online.

H0- The risk of losing money, fear of revealing personal and financial information, fear of non delivery of order has no effect on attitude towards shopping online.

Fear of non delivery of order; product risk; financial risk and revealing of personal information were significant at the 0.05 level hence will accept H2 and reject H0.(Refer following tables)

T-Test**Group Statistics**

| | Hours spent in e-shopping | N | Mean | Std. Deviation | Std. Error Mean |
|----------------|---------------------------|----|---------|----------------|-----------------|
| Perceived Risk | 1-5 hours | 42 | 44.3810 | 8.26085 | 1.27468 |
| | More than 5 hours | 58 | 41.0000 | 8.30768 | 1.09085 |

Independent Samples Test

| t-test for Equality of Means | | | |
|------------------------------|-------|----|-----------------|
| | t | df | Sig. (2-tailed) |
| Perceived Risk | 2.013 | 98 | .047 |

H3- Attitude of consumer towards online shopping significantly effects their online shopping behavior.

H0- Attitude of consumer towards online shopping has no significant effects on their online shopping behavior.

Determinants of attitude have significant at 0.05 level; so will accept the H3 and reject H0.

(Refer following tables)

T-Test**Group Statistics**

| | Hours spent in e-shopping | N | Mean | Std. Deviation | Std. Error Mean |
|------------------------|---------------------------|----|---------|----------------|-----------------|
| Attitude to E-shopping | 1-5 hours | 42 | 94.4048 | 12.80636 | 1.97606 |
| | More than 5 hours | 58 | 98.8103 | 13.24858 | 1.73962 |

Independent Samples Test

| | t-test for Equality of Means | | |
|------------------------|------------------------------|----|-----------------|
| | T | df | Sig. (2-tailed) |
| Attitude to E-shopping | -1.664 | 98 | .099 |

P=0.0495 (1-tail test).

Those who use less have lower attitude score.

H4- Individual's Domain Specific innovativeness has a positive effect on online shopping of electronic goods.

H0- Individual's Domain Specific innovativeness has a no effect on online shopping of electronic goods.

Effect of domain specific innovativeness towards online shopping on on-line shopping behavior was significant at 0.05 level. Thus will accept H4 and reject H0.(Refer following tables)

Chi-Square Tests

| | Value | df | Asymp. Sig. (2-sided) |
|--------------------|-----------|----|-----------------------|
| Pearson Chi-Square | 37.021(a) | 12 | .000 |

There is a difference in influence in purchase between education groups (P=0.000 i.e. < 0.001).

H5- Subjective norms, friends/peer groups, family and social media have positive effect on online shopping behavior of shoppers.

H0- Subjective norms, friends/peer groups, family and social media have no effect on online shopping behavior of shoppers.

Effect of subjective norms; friends/peers groups family and social media was not significant at 0.05 level; so will reject H5 and accept H0.(Refer following tables)

Chi-Square Tests

| | Value | df | Asymp. Sig. (2-sided) |
|--------------------|----------|----|-----------------------|
| Pearson Chi-Square | 2.949(a) | 3 | .400 |

Occupation influences sources of knowledge (P=0.043). Though Internet is a major source but Students and service persons get informed by Mobile phones and Professionals and Business get information from Friends and Peers.

H6- Having conducive user interface, flexibility have positive effect on online shopping of electronic goods.

H0- Having conducive user interface, flexibility and has no effect on online shopping of electronic goods.

Conducive user interface; flexibility in large number of competing outlet; can easily track order and multiple payment options were significant at 0.05 level. Hence will accept H6 and reject H0.(Refer following tables)

a) Large number of competing outlet

| | Value | Df | Asymp.Sig (2-sided) |
|--------------------|--------|----|---------------------|
| Pearson Chi-Square | 12.110 | 4 | .017 |

b)Can easily track my order**Chi-Square Tests**

| | Value | df | Asymp. Sig. (2-sided) |
|--------------------|-----------|----|-----------------------|
| Pearson Chi-Square | 17.048(a) | 4 | .002 |

c)Multiple payment options**Chi-Square Tests**

| | Value | df | Asymp. Sig. (2-sided) |
|--------------------|----------|----|-----------------------|
| Pearson Chi-Square | 9.761(a) | 3 | .021 |

8. Managerial Implications

Based on the results and findings, this study identifies the following implications. First, based on the results and findings of this study, retail companies should start taking measures to eliminate risk factor and build trust in this form of retail. The retail managers should sway consumers through different platforms like social networking sites, ads, promotions, online only discounts etc. to let people cross the threshold and start buying because Indian consumers are still comfortable with brick and mortar format as they appreciate friendly approach of salesman and social element of shopping, which has been found as important element in shopping .

In addition, they need to make website user- friendly and less intriguing. It should encourage online consumers to spend time exploring the site and comparing prices online, provide detail product information and member discounts The results also suggest that after-sales operations like, dispute settling and delivery, should be carried out promptly and quickly so that consumer would build faith in the system. During the process of purchasing, online agents can help customers and simplify the purchasing procedure to give a feeling of friendliness of salesman or demonstrate how to purchase with clear text, images or examples.

Second, because of perceived lack of secured transaction (financial risk), retailers should introduce a mechanism that would improve safety and privacy to motivate people to buy online. Customers should not be worry about losing their financial details and their credit card information. Using Secure Sockets Layer (SSL) protocol for payment pages will secure the web page from disclosure of credit card information.

Third, the impact of subjective norms on online shopping behavior proposes that online retailers should use word-of-mouth marketing for getting their website known to consumers. This method could be one of the most effective method among other tools and methods of advertising.

Finally, based on the study's results that consumers were worried and unsure about delivery of their orders (non-delivery risk), online retailers should provide the insurance for shoppers that they ordered items and make sure that the products will definitely be delivered to them. They can achieve this goal by providing certain certificate from authorities and governmental organizations that allow them to sell goods from internet and assure customers that the retailer is rendering the job legally, so customers will buy from them with more confident and will not be worry about the delivery of their orders anymore.

9. Limitations

Every research has limitations. Limitations of this study are:

- 1) As we discussed before, there are many factors affecting on online shopping behavior. But in this study because of time constraints we didn't examined all factors influencing on online shopping behavior.
- 2) Because of using questionnaire as data gathering tools, the respondents may not answer the questions exactly according to what they think and behave.
- 3) In this research because of time and cost constraints we examined factors affecting on online shopping behavior of consumers in Mumbai. It is obvious that is other countries people have different characteristics and behaviors. Then result of this study may have lack of generalizability to other countries.
- 4) Statistical society of this study was online stores selling electronic goods. So development of statistical society to other stores with different products and services decrease the limitation of study.
- 5) The methodology of this study for analyzing the data may not be able to fully assess the online shopping behavior of consumers based on discussed variables.

10. Findings

In this study we examined some factors affecting on online shopping behavior of consumers. A conceptual model was used in order to assess the effects of variables on each other using Chi-Square Tests . Results of hypotheses testing indicated that financial risk and non-delivery risk has negative effect on attitude toward online shopping behavior. That is, e-retailers should make their website safer and assure customers for delivery of their products. has Positive effect on attitude toward online shopping on online shopping behavior of consumers indicate that considering attitude variables make a substantial contribution in online shopping. Also, subjective norms have positive effect on shopping behavior. This means the more people suggest e-buying to each other, the more this buying method will be popular among people. This makes necessary the use of word of mouth marketing for retailers. Domain specific innovativeness has positive effect on online shopping behavior. This means that marketing specialists should target this society in their marketing strategy formulation for better effectiveness of their marketing program.

11. Recommendations

For future studies Suggests that:

- 1) In this research few factors have only been tested on online shopping behavior. Researchers can examine other factors affecting on online shopping behavior with extensive researches.
- 2) By extending this study to other cities , we can reach to better results and understanding about online shopping behavior of people.
- 3) We used only 100 sample units for our statistical society. By assessing better sites like Amazon.com we can reach to better and more reliable society for research.
- 4) Including cultural factors in model could show better dimension of online shoppers.

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