

Factors Influencing Online Purchase Behaviour of Customers in Tier III Cities of India - A Factor Analysis Approach

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ABSTRACT

Today, Internet has developed to a highly competitive market. The size of e-commerce market in India is worth around Rs 9,500 crore, out of which the pure play online shopping market is worth Rs 1,300 crore. While online shopping globally is growing at around 8-10%, in India the growth rate is upwards of 30%. With the growing importance of the online retail industry in India, it becomes imperative for web retailers and Internet marketers to understand the determinants of online purchase behaviour of customers to understand what is important to the Indian online customer. The main purpose of the research is to understand various factors affecting the behaviour of customer while purchasing in India. This research uses primary data collected through survey of 220 online shoppers. The findings of the study indicate that customer online purchase behaviour is significantly related to eight factors. As per the results of the study, it is found that convenience, perceived usefulness of medium, Internet expertise, product risk, security risk, convenience risk, non-delivery risk, and return/ shipment policy are the eight dominant factors which influenced the decision of customers while purchasing online. The framework of the research enhances understanding of the factors affecting customer online shopping behaviour, helps in profiling typical Indian online shoppers and may help e-marketers developing more specific marketing strategies to increase e-commerce sales

Keywords: Online Purchase Behaviour, Online Shopping, E-Shopping, E-Retailing, E-Commerce

INTRODUCTION

Today we are living in the 'e-era'. Internet has changed almost everything and has become an integral part of our lives. Year 2014 has been a monumental one for Internet in India. According to a research report by IAMAI and IMRB, by December 2014, the number of Internet users in India has crossed 300 million. The growth in number of Internet users in India is remarkable. It took 10 years for India to grow from 10 million to 100 million Internet users and another 3 years to go from 100 million to 200 million. While the journey from 200 million to 300 million users took less than two years and the next 100 million users will be added in less than 18 months as expected of now.

With the rapid development of new information technologies, increasing adoption and usage of Internet by customers, the Internet is fast becoming an important new channel of commerce in a range of businesses that cannot be neglected any more. This robust growth in Internet penetration and usage will disrupt existing business models specifically the retail formats.

One of the Internet business applications that has received much attention in the last few years is Online Shopping. Shopping is still a popular pastime of customers but shopping in a traditional brick & mortar retail formats like mom & pop stores & malls is growing less popular. More and more Indians are opting for online purchase through virtual stores that exist in cyberspace by using computer, mobile, television, tablets, and other electronic devices with in a fraction of minutes.

The e-commerce industry in India that was non-existent a few years ago is today worth \$5 billion. There are 35 million Indians who buy variety of products online. This number will reach around 100 million by 2016, according to a recent research by Forrester Consulting and Google.

There is a huge opportunity for e-retailers as the average annual growth of this market is estimated around 70% by Internet and Mobile Association of India. The number of online buyers is expected to increase to approximately 100 million users transacting online by 2016. Today, an Indian shopping online may do two to three transactions per month. In just another two to three years as the market

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grows and matures, the average online shopper could be doing four to five transactions per month.

If, as expected, online retailing proves to be a success and is accepted by the Indian consumers, it would mean some changes in the way of doing business for the manufacturers and retailers. To remain competitive, these manufacturers and retailers must decide how to react to the new opportunities. Online retailers will be successful only if they provide value to the consumers; hence, Internet marketers should understand the customers' expectations and intentions regarding Internet shopping.

LITERATURE REVIEW

Many recent studies have investigated the feasibility of electronic commerce from the manufacturer or the retailer's side (Berthon, Leyland & Watson, 1996; Breitenbach & VanDoren, 1998; Hoffman & Novak, 1996; Jones & Biasiotto, 1999; Murphy, 1998; Peterson, Balasubramanian & Bronnenberg, 1997; Reynolds, 1997). But relatively few have focused on this issue from the consumers' perspective. Jarvenpaa and Todd (1996) conducted research on consumer reaction to electronic shopping on the World Wide Web (WWW). They related the reactions of consumers to the factors of product perception, shopping experience, customer service, and perceived consumer risk. With regards to product perceptions they found that consumers were impressed by the breadth of stores but disappointed with the depth of merchandise offered. Shopping experience was found to be generally enjoyable, time and effort saving by the consumers but the goal directed shopping was reported as difficult. Customer service was not very satisfactory for many of the respondents. The study also reported perceived risks as being a barrier to shopping on the Internet.

A study by Kunz (1997) on Internet shopping found that online shoppers are opinion leaders, innovators, and domain specific to the Internet. The study also found that men are more likely to purchase via the Internet, and those who intend to shop online are likely to be young. People living in large metropolitan areas are less likely to shop online as compared to those living in suburban areas of small metropolitan populations. This research also summarised the findings of previous studies on what store characteristics of catalog, in-home, and Internet shopping influence consumers' choice of alternate shopping mediums. According to Kunz (1997), If consumers perceive the medium will 1) save them time, 2) be convenient to use/ patronise, 3) provide merchandise with good value for the price, 4) provide merchandise of good quality, 5) involve low

risk, 6) provide customer satisfaction, while 7) offering credit accounts and accepting charge cards, they will be more likely to choose that alternative shopping medium. Another research conducted by Donthu & Garcia (1999) for consumer characteristics related to online shopping, it was found that consumers who seek convenience & variety do more shopping online. They also found that such people are also more innovative and spontaneous.

In a study by, Siu and Cheng (2001) it was found that economic benefits, product availability, security risk are also important factors in classifying online shoppers.

Consumer intention can be predicted by utilizing Fishbein's behavioural intention model. A few studies have used this model to predict intentions and to identify high-intention and low-intention consumers (Johansson & Nebenzahl, 1987; Shim & Drake, 1990). Shim and Drake concluded that attitudinal component and normative belief were similarly important in predicting electronic shopping intention, not taking into account the motivation to comply. They also developed a profile of the potential users of electronic shopping in terms of shopping habits, computer ownership and usage, mail order purchase experience, and demographics. The differences in characteristics of high-versus low-intention consumers were also analysed. They were found to be different in terms of five factors of shopping habits, computer usage, mail order purchase experience, and some demographics.

Zhou *et al.* (2007) discovered that customer traits, Internet self-efficacy, prior online shopping experience, shopping orientations, economic benefit perception, risk perception are some of the factors affecting online shopping acceptance of customers.

Phau and Sui (2000) found in a study that products that make use of hypermedia advantages (such as audio CDs & art pieces) of Internet can be suitably marketed online. They also found that products that are purchased more frequently can be sold easily online. In a survey done by Forrester Research (2013), the top selling product categories over Internet are software, books, music, computer hardware & electronics, apparels, toys & video games and flowers.

One feature of products & services i.e. product intangibility was also found to be a key factor in determining the online purchase frequency (Phau and Sui, 2000). Past studies have found that price of a product is a major factor affecting customer decision to shop online (Jarvenpaa and Todd, 1996; Phau and Sui, 2000). Many Previous researchers have proposed that website quality can directly affect customer satisfaction and lead to purchase intention (e.g. Bai, Law, & Wen, 2008; Chen and Cheng, 2009).

In another study by Channel Intelligence, 2003 it was found that, consumers marked price (89%), return policy (78%), ease of buying process at the retailer's site (76%), reputation of the retailer (73%), and shipping rates and methods (65%) as the most important criteria when selecting an online retailer.

As highlighted above, many studies have shown that product type, characteristics, safety of transactions, ease of using technology & its adaptation, and customer characteristics are important when it comes to online purchase behaviour of customer. Still there is a dearth of empirical studies performed on Indian customers for determining the customer acceptance of online shopping and this is the reason that e-marketers are facing difficulty in correctly identifying the target customers and design appropriate marketing mix strategies. In order to overcome this limitation, this research is done to examine how different factors like customer characteristics, product characteristics, website quality and services affect customer purchase behaviour while shopping online in India.

RESEARCH OBJECTIVES

The main purpose of the research is to understand the behaviour of customer while purchasing online and to identify various factors on online purchase behaviour of customers in India.

Following are the objectives of research:

- To study the online purchase behaviour of customers in India.
- Identifying and assessing the impact of various drivers that influence an individual customer's purchase decisions in an online shopping context.

RESEARCH HYPOTHESIS

On the basis of literature review, following hypothesis was formulated:

H0: The variables are not correlated with the population.

H1: The variables are correlated with population.

RESEARCH METHODOLOGY

Population & sample

Findings of previous researches showed that the youth are the main buyers who use the Internet to buy products online. So, as the universe of this study, the researcher

considered higher education students and their teachers in Bareilly and Moradabad districts who used the Internet for different purposes and were above the age of 18 years. A self-administered questionnaire was developed and was distributed to 250 students of selected institutes, out of which the useable questionnaire were 220 only. Sampling technique can be described as convenient cum purposive sampling. The collected data was analysed with the help of Statistical Package for Social Sciences (SPSS18.0) for windows. Factor analysis is the main tool that was considered for data analysis.

INSTRUMENT DEVELOPMENT

The data was gathered through a self-administered structured questionnaire. The questionnaire was divided into two parts. The variables were identified with the help of the literature review. The first part of the questionnaire included questions about demographic profile of the respondents. The second part of the questionnaire included variables that may affect online purchase behaviour of individuals. All the variables were required to be marked on a Likert scale in the range of 1 - 5, where 1 presented strongly agree and 5 represented strongly disagree. The questionnaire was pre-tested among a group of students and academicians. The suggestions received from them were incorporated and the revised questionnaire was then floated for data collection during December 2014 to January 2015.

Data Analysis

The results of the survey are shown in two sections. In the first section, the demographic profile of the respondents is represented. The second section provides the result of the Factor Analysis.

DATA ANALYSIS AND RESULTS

Demographic Characteristics

Table 1 exhibits the demographic characteristics of the respondents considered for the study. It can be observed that majority of the respondents were males (54.5%) with age between 20-29 years. As far as marital status was concerned, majority of the respondents were single (probably because they were students). Most of the respondents were students while rests were salaried employees. The income of majority of respondents was found to be below Rs. 20,000 because most of them were students and was getting pocket money only.

Table 1: Demographic Characteristics

Variables	Categories	Frequency (N = 220)	Percentage
Gender	male	120	54.5
	female	100	45.5
Age	under 20	60	27.3
	20-29	80	36.4
	30-39	40	18.2
	40-49	40	18.2
Marital Status	single	140	63.6
	married	80	36.4
Occupation	student	140	63.6
	salaried employee	80	36.4
Monthly income	below 20K	100	45.5
	20 K- 30K	60	27.3
	30K- 50K	60	27.3

Source: Primary data

Online Shopping Behaviour

Table 2 shows the online shopping behaviour of the respondents. It can be observed that majority of the respondents do online shopping. The mostly purchased category of goods online is 'Apparels' followed by 'Electronic goods'. Majority of the people prefer to purchase goods from Flipkart. Most of the respondents make online purchase once a month. However, the method of payment adopted by majority of the respondents is cash on delivery (COD).

Table 2: Online Purchase Behaviour

Variable	Responses	Frequency (N= 220)	Percentage
Category of Goods purchased	Clothing	90	40.9
	Electronics goods/Mobile	80	36.4
	Books/ CDs	26	11.8
	Others (cosmetics & jewelry, etc.)	24	10.9
Websites used for online shopping	Flipkart	80	36.4
	Amazon	60	27.3
	Jabong	20	9.1
	Home Shop 18	40	18.2
	Snapdeal	20	9.1
Online Purchase Frequency	Once a week	80	36.4
	Once a month	100	45.5
	Once in two months	40	18.2
Payment Method	Credit Card	40	18.2
	Debit Card	40	18.2
	Cash on delivery	100	45.5
	Net Banking	40	18.2

OTHER RESULTS

Testing of Hypothesis 1

Consumer expectations and perception towards online shopping were examined in terms of perceived usefulness and perceived risk. In order to identify the underlying dimensions in the perceptions of key drivers influencing the online shopping behaviour of customers, an Exploratory Factor Analysis using SPSS for windows was conducted. The respondents were asked to rate 33 online shopping variables using 5-point Likert scale, which ranged from 'strongly agree' to 'strongly disagree'. The inter-item consistency reliability of these 33 variables was tested before factor analysis was carried out. The result of Cronbach's alpha test is shown in Table 3.

Table 3: Reliability Statistics

Cronbach's Alpha	N of Items
.706	33

Since the value of Cronbach's alpha was 0.706 which is well above the recommended 0.5 level, the reliability test results are positive.

In order to test whether it was appropriate to apply the exploratory factor analysis technique to this data set, we used the Kaiser-Meyer-Olkin (KMO) test as a measure of sample adequacy, and to test the sphericity of the data set we used Bartlett's test of sphericity. The results of the tests are shown in Table 4.

Table 4: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.753
Bartlett's Test of Sphericity	Approx. Chi-Square	4542.461
	df	528
	Sig.	.000

The value of KMO score in the table is 0.753 which is well above the recommended value of 0.5. Similarly, the results of Bartlett's test indicate a high Chi-square value of 4542.461 and the significance is 0.000 which is less than 0.5. Hence the null hypothesis is rejected and H1 is accepted.

Table 5 represents the factor analysis of the 33 variables and the communalities associated with them. Eight factors were extracted from all the variables. Depending on the characteristics, these factors were named as convenience,

Extraction Method: Principal Component Analysis

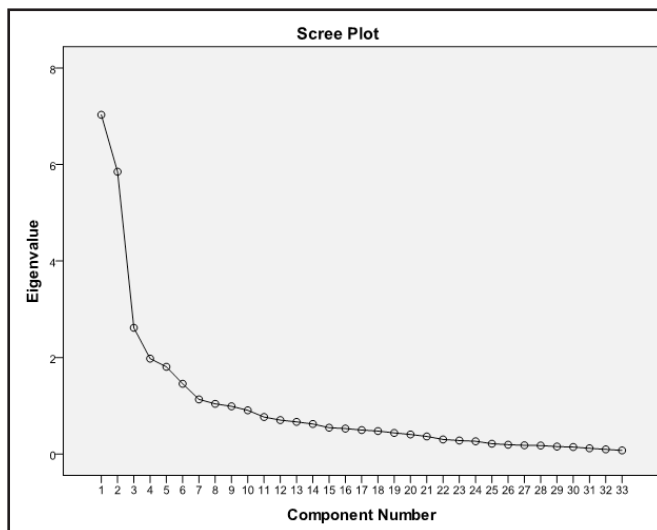
These eight factors account for the 69.43% of the variation in the total variance of all 33 variables.

Furthermore, the internal consistency was found to be good for the attributes; the results of Cronbach's alpha for the eight factors are represented in Table 6. As shown in the table, all values are well above the recommended value of 0.5. This scale can be considered good.

Table 6: Reliability Statistics

Factors	Cronbach's Alpha	No. of Items
1: Shopping Convenience	.576	7
2: Perceived usefulness of medium	.767	7
3: Internet expertise	.720	2
4: Product Risk	.528	3
5: Security Risk	.625	3
6: Convenience Risk	.841	6
7: Non- Delivery Risk	.841	2
8: Return/ Shipment policy	.573	3

A scree plot is a plot of eigen values against the number of factors in order of extraction. As shown in Fig. 1, it indicates that there are eight factors which have eigen values greater than one based on 33 variables.

**Fig. 1: Scree Plot**

With the above results, it can be concluded that the variables are correlated with the population and can be explained as eight different factors namely convenience,

perceived usefulness of the medium, Internet expertise, security risk, product risk, convenience risk, non-delivery risk, and return/ shipment policy.

DISCUSSION AND PRACTICAL IMPLICATIONS

The results of the study indicate that convenience, perceived usefulness of medium, Internet expertise, product risk, security risk, convenience risk, non-delivery risk, and return/ shipment policy are the eight dominant factors which influenced the decision of higher-education students/ teachers in Bareilly & Moradabad districts to shop online. These factors explain 69% of the total variance which indicates that students are engaged in online shopping because of the convenience of shopping and various advantages of Internet medium. The element of risk in terms of delivery of products, safety in payments through credit card, doubt in quality of product delivered, fear of misuse of personal information, and return policy of goods etc. influenced young student's decision to purchase products online.

Based upon the above discussion, it can be recommended that marketers must give a thought to various risks mainly, security risk and convenience risk when they design their online selling strategy. Marketers can provide web assurance service that improves the reliability of information provided on the website. Marketer may also focus on improving the reputation of their online shopping portals; it can help them in building the customer confidence in the website and reduce the convenience risk. Also the online retailers need to ensure easy and inexpensive return policy for the consumers to shop online.

LIMITATIONS AND SCOPE FOR FURTHER RESEARCH

The study was aimed to meet all the objectives and ultimately all objectives were met, but still a few limitations were identified in the course of the study. The study was focused on the higher education students and teachers in two districts and this could limit the generalisation of findings and references to entire section of online customers. However, this creates an ideal opportunity to consider more diverse demographic group of respondents. Another limitation was the use of limited number of variables in the study. Researchers can use more variables such as, website design, service quality, trust, shopping motives etc. to explore consumer behaviour towards online shopping.

CONCLUSION

Though online shopping is very common outside India, its growth in Indian market, which is a large customer market, is still not in line with the global market. According to India B2C E-Commerce Report 2013, e-tailing accounts for less than 1 percent of the overall retail market in India in 2012. While it accounts for over 5 percent if the total retail market in China and 10% in the UK and the US. This shows that only a small fraction of Internet users in India are currently online shoppers. The reason could be that it is not the technology but the way customers feel about high-tech purchasing that is holding back the development of the industry. Hence, this is imperative that marketers understand the depth of customer intentions for this medium of retailing.

It can be concluded on the basis of study that online shopping is gaining popularity among people of young generation. People have hesitations in doing online shopping due to security concerns, non-delivery risk, convenience risk and complex return policies of the e-retailer. At the same time people are resistant to change because of technological complexity in making online purchase. Companies involved in online retailing should focus on building trust-worthy relationship between producers and customers.

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