

Online Buying Behaviour and Risk Perception: An Empirical Study

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ABSTRACT

Shopping being a part and parcel of our life. From the purchase of grocery to gold customers used to have habit of searching an organized retail store or an unorganized kirana shop. These were the only options for purchase before starting of web based shopping. Web based shopping or online shopping is a recent concept which is getting acceptance at a very high pace among Indian customers. Online retailing or E-Commerce has several models, out of which one is B2C i.e. business to consumers model. This model of e-commerce have large number of merits along with few demerits. One of the demerits is risk associated with online shopping system. The focus area of this research paper is to describe the online buying behaviour of respondents. It also attempts to explore empirically the variability in online buying behaviour based on risk perception of professional from Jaipur city of Rajasthan.

Keywords: *Organized retail store; Online retailing; E-Commerce; Online buying behaviour; Risk perception; etc.*

1.0 Introduction

Nowadays, the Internet is being widely used in our daily life. The existence of the Internet brought many advantages to individuals' life. With the help of this medium, people not only can communicate, learn, entertain but also can buy products and get services. The Internet today has brought a different dimension to commercial activities. It has created whole new market both for customers as well as organizations, and has offered an alternative platform for shopping in place of traditional market.

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The advancement in information technology and increase in the usage of internet in recent years, have transformed the way goods and services are sold or purchased, resulting in exponential growth of online shopping system and online marketing. Online shopping is now not a novel phenomenon in the field of E-Business in India. Most of the companies are running their on-line portals to sell their products/services on-line. Online shopping or electronic shopping is a part of electronic commerce which allows consumers to directly buy goods or services from a seller over the internet. Michael Aldrich invented online shopping concept in 1979. With the increasing internet literacy, the prospect of web-based shopping is increasing in India. There are several models of e-commerce like B2C, C2C, B2B, G2C etc. generating revenues in Indian virtual market. The B2C models of e-commerce is also referred to as online retailing. Some of the popular online retailing companies in India are Flipkart, Snapdeal, Amazon, Myntra, Jabong, Alibaba.com and e-Bay, etc. With the growth of online shopping many offline retailers are also making available their products on online shopping sites to capture the larger portion of market. Some of underlying factors resulting in acceptance of online shopping system includes anytime and anywhere accessibility, availability of large amount of information about the merchandise, ease of comparing the products available on several websites, easy to use, discount offers and sale, etc.

2.0 Theoretical Background

The improvement and enhancement in internet services has resulted in opening of virtual market for manufacturers and customers as well. Indian Customers, like the international customers are now getting attracted towards this new virtual market resulting in increasing population of online customers. Thus the internet, which was earlier conceptualized as a tool for gathering information, now has become an important tool for conduction of business. India, today have internet users in millions out of which one half opts for online shopping and the number is rising sharply every year. There are many reasons which lie behind the shifting of customers buying patterns from offline to online mode. The facility of comparing a product with competitive products on the basis of price, colour, size and quality is one of the biggest benefits of online shopping. 24 * 7 accessibility of online market, sales promotion by means of different type of sale are some of the fascinating features which are attracting customers towards online shopping system. Besides these benefits an online buyers, shop online because of benefits like shop from anywhere, availability of variety of payment modes including cash of delivery mode. These are some of the factors building positive attitude of buyers towards web based shopping. Along with these advantages, there are some factors which influence the

attitude in negative manner too. One of the most talked about such factor is risk. Risk or Perceived risk in the context of online shopping is found to be critical predictor of attitude towards online shopping and purchase intention (Lee and Turban, 2001). Perceived risk has been found to be a key determinant in consumer behaviour and a primary factor in influencing the conversion of browsers to buyers (Mitchell, 1992; Dowling & Staelin, 1994). Zhang Lingying, Tan Wojie, Xu yingcong, Tan Genlue (2012) found the consumers' perceived risk exists in every phase of the overall purchase process from electronic mode. The concept of perceived risk to consumer behaviour research was first introduced by Bauer Raymond A. (1960). Perceived risk is a fundamental concept in consumer behaviour that implies that consumers experience pre-purchase uncertainty as to the type and degree of expected loss resulting from the purchase and use of a product. For the purpose of this study some of the definitions of perceived risk stated by various authors are summarized in **table 1**.

Table 1: Some Contemporary Definitions of Perceived Risk

Author, Year	Definition
Ko et al., 2004	Perceived risk is defined as the potential for loss in pursuing a desired outcome while engaged in online shopping; it is a combination of uncertainty with the possibility of serious of outcome.
Kim et al., 2008	Perceived risk is defined as a consumers' belief about the potential uncertain and negative outcomes from the online transaction.
A. M. Hassan, 2006	In context of online shopping, perceived risk is defined as "the expectations of any loss or any negative consequences as a result of online shopping".
Adobor, 2005	Perceived risk is defined as "the amount that would be lost if the consequences of an act were not favorable, and the individual's subjective feeling of certainty that the consequences will be unfavorable.
Linda C. Ueltschy, 2004	In the psychology literature, perceived risk has been described as consisting of a set of possibly interrelated components: financial, performance, physical, psychological, social, and time and convenience, yielding a separate measure of overall perceived risk.
G. Pires, 2004	In the online context, perceived risk is defined as "the expectation of any loss or any negative consequences as a result of online shopping".

Perceived risk at the time of Bauer was considered to be a two-dimensional construct (i.e., uncertainty and negative consequences) but in present time it is measured as a multidimensional construct including risk of physical loss, financial loss,

psychological loss, time loss, performance risk, and social risk. (Lawrence F. Cunningham, 2004). Various authors at different instances of time have explained different number of sub dimensions of perceived risk few of which are presented in Table 2. From table 2 it could be concluded that perceived risk in context of online shoppers includes physical loss, financial loss, psychological loss, time loss, performance risk, and social risk, privacy leakage risk.

Table 2: Sub Dimensions of Perceived Risk

Author, year	Sub dimensions of perceived risk
Zhang, L., Tan, W., Xu, Y. and Tan, G., 2012	Time risk, quality risk, delivery risk, health risk and after sales risk, social risk, economic risk, privacy risk,
S. D'Alessandro et al.2012	Privacy concern, security practices used by the seller.
Mohamed, A. , 2011	Five dimensions of perceived risk are- Performance risk, time-loss risk, social risk, psychological risk, and source risk.
Martin and Camarero, 2009; Tasi and Yeh, 2010; Imousa, 2011; Javadi <i>et al.</i> ,	Financial risks, product risk, convenience risk, health risk, quality risk, time risk, delivery risk, after-sale risk, performance, psychological, social, and privacy risk, website design style and characteristics, and trust in the web site affect significantly online consumers' purchasing behaviour
Michel Laroche, 2004	Different types of risk exist, namely, financial, performance, time, physical, psychological, and social risks.
Forsythe and Shi 2003	They have proposed that private risk, product risk and the risk of unknown origin would impact on the online shopping and could explain the barriers of online shopping.
Lee and colleagues 2001	According to Lee and colleagues two main categories of perceived risk emerge in the process of online shopping. The first is the perceived risk associated with product/service and includes functional loss, financial loss, time loss, opportunity loss, and product risk. The second is the perceived risk associated with context of online transactions, and includes risk of privacy, security, and nonrepudiation.

Source: Compiled from Literature review

3.0 Research Problem

Online shopping has been a growing phenomenon in all corners of the world, in particular amongst countries possessing highly developed infrastructure available for

marketing activities through the internet. Today, internet is not only a networking media, but also a global means of transaction for customers. Over the past few years internet usage has grown rapidly and it has become a common means for information transfer, services and trade. When talking about online shopping many benefits of its attract customers towards this new mode of shopping. But at the same time one distracting factor which comes to mind is risk associated with the system. Perceived risk is one of the important area associated with online shopping system. In the online shopping context, the level of perceived risk may be magnified due to limited physical access to products and sales personnel [Forsythe and Shi 2003; Park and Stoel 2005], thereby discouraging shoppers from purchasing via the Internet [Alreck and Settle 2002; Forsythe & Shi 2003; Garbarino and Strahilevitz 2004]. Cox and Rich (1964) found the specific explanation of perceived risk followed Bauer's theory that uncertainty and adverse consequences are two factors included by the perceived risk

As per the theory of consumers' perceived risk, customers will perceive risk when they face

uncertainty and potentially undesirable consequences as a result of online shopping. In order to explore more about perceived risk associated with online shopping extensive literature review has been conducted which is represented below.

4.0 Literature Review

For the purpose of exploring the research problem more several research papers have been reviewed related to the theme of present work. Arshad, et al. (2015) in their study has proved that there is positive relationship between perceived risk and online buying behaviour. They also have proved that lower perceived risk directly link to the positive online buying behaviour. Varma, & Agarwal (2014) have found in their study that the biggest concern for homemakers regarding online buying is about return policy. Kumar & Dange (2014) in their study have revealed that risk perception is a big barrier in the way of online shopping. Masoud (2013) has studied about the effect of perceived risk on online shopping in Jordan. Author have found that the financial risk, product risk, delivery risk, and information security risk negatively affect online shopping behaviour.

5.0 Research Gap

The purpose of conducting literature review is to find out gap between the researches already done and the areas where researches could be conducted in same field of study in present time. The above literature review suggests that researches related to

perceived risk of online shopping have been conducted in past. But there are very few evidences of the research related to variability in behaviour of customers because of perceived risk associated with online shopping system.

6.0 Objectives of the Study

For the purpose of this study, based on literature review and research gap identified, below mentioned objectives and hypothesis have been stated.

- To explore the online shopping behaviour of urban working professionals.
- To identify the factors influencing the perception of customers towards the risk associated with online shopping.
- To analyse the variability in perceived risk on the basis of selected attributes of online shopping behaviour of urban working professionals.

7.0 Hypotheses of the Study

H₀₁: There is no variability in factors identified based on online shopping expertise of respondents.

H₀₂: There is no variability in factors identified based on online shopping frequency of respondents.

8.0 Research Methodology

To meet the said objectives of the study, a sample of 100 working professionals from Jaipur city was taken using snow ball sampling method. This study was conduct with reference to B2C model of e-commerce focusing on online retailing of products only. The primary data for the study was collected through a questionnaire consisting of questions related to demographic profile, online shopping behaviour and risk associated with online shopping system.

9.0 Analysis and Interpretation

9.1 Analysis of demographic profile of respondents

The demographic profile of the respondents is summarized in Table 3. Among the respondents 86 percent were female and remaining were male which suggests that online shopping mode is accepted by both gender in city. With reference to age of respondents it is observed that awareness and utilization of online shopping phenomenon

is common among all age groups ranging from 21 to 50 years but maximum customers falls under the age group of 26 – 30 years (40 percent).

Table 3: Demographic Profile of Respondents

Demographic Variables		No. of Respondents	Frequency (%)
Gender	Male	14	14.0
	Female	86	86.0
	Total	100	100
Age	21-25	15	15.0
	26-30	40	40.0
	31-35	31	31.0
	36-40	10	10.0
	41-45	1	1.0
	46-50	3	3.0
	Total	100	100
Education	Professional qualification	73	73.0
	Upto University	27	27.0
	Total	100	100
Marital Status	Married	77	77.0
	Single	23	23.0
	Total	100	100
Income	1 lakh - 4 lakh	76	76.0
	More than 5 lakh	19	19.0
	Less than 1 lakh	5	5.0
	Total	100	100
Type of Family	Joint family	51	51.0
	Nuclear family	44	44.0
	Extended family	5	5.0
	Total	100	100

Source: Primary data

Education for online shopping is mandatory but type of education doesn't matter for having online shopping experience i.e professionally qualified (73 percent) as well as non-professionally (23 percent) qualified people both are found using online shopping mode for making purchases. Marital status wise, both married (77 percent) and unmarried (23 percent) respondents are found using online shopping system. Online

shopping phenomenon is found to be most popular among service professionals having income ranging from 1 lakh to 4 lakh rupees per annum (76 percent). Online shopping in spite being new concept, is found getting acceptance among all type of Indian families but the proportion of joint families (51 percent) in highest sample taken.

9.2 Analysis of online buying behaviour

The next section of questionnaire is consists of questions related to online buying behaviour of respondents which are analyzed on the basis of descriptive statistics. One question in this segment is related to ranking of advantages of online shopping which was analyzed on the basis of mean as shown in Table 4. On analyzing the responses of respondents it is revealed that brand choice is the most preferred advantage followed by time saving as second most preferred advantage for which the working people of Jaipur prefer to shop online among all the advantages of online shopping.

Rest of the questions in this segment are related to online buying behaviour of shoppers which are analyzed on the basis of percentage as shown in Table 5. On analyzing these questions it is found that majority of online shoppers (52 percent) are having little experience of online shopping and shop once in a month online if not more. This is an indication of increasing acceptance of online shopping medium as well as ease of performing online shopping transaction. It is also observed that online shopping medium is getting acceptance for purchase of all type of products from grocery to jewelry but most commonly purchased products are mobiles (53 percent), clothes (65 percent), accessories (64 percent), educational items (50 percent). Majority of online shoppers while making online purchase decision never visit the offline stores to check the product. This indicates about increasing reliability of customers on online shopping front irrespective of its intangibility feature. Even if online shopping is getting acceptance by urban people but still people don't want to take much risk in terms of money spent on online shopping. Majority of respondents were found to spend money ranging from rupees 1000 to rupees 5000 as minimum amount and rupees 5000 to rupees 10,000 as maximum amount on online purchase.

Table 4: Ranking of Advantages of Online Shopping

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Brand Choice	100	1.00	6.00	2.7600	1.46419
Latest information	100	1.00	6.00	3.8300	1.45682
Time saving	100	1.00	6.00	3.0900	1.61492
Discount	100	1.00	6.00	3.9184	1.77423
Accessibility	100	1.00	6.00	3.3000	1.72621
Convenience	100	1.00	6.00	4.0600	1.80247

Source: SPSS Output

Table 5: Respondents Online Buying Behaviour

Online shopping behaviour indicators	Options	No. of Respondents	Frequency (%)
Online shopping expertise	Beginner	20	20.0
	Buyer with little experience	52	52.0
	Highly experienced buyer	28	28.0
	Total	100	100
Online shopping frequency	Once in a month	40	40.0
	Once in three month	22	22.0
	Once in six month	13	13.0
	Once in a year	8	8.0
	Rarely	17	17.0
	Total	100	100
Preference for shopping through online medium for different categories of products	Groceries	5	5.0
	Cosmetics	19	19.0
	Electronic items	49	49.0
	Computers	21	21.0
	Mobiles	53	53.0
	Books & stationary	40	40.0
	Clothes	65.0	65.0
	Accessories	64.0	64.0
	Jewelry	22.0	22.0
	Footwear	45	45.0
	Kitchenware	42	42.0
	Home furnishing products	45	45.0
	Furniture	5	5.0
	Baby Diapers & wipes	35	35.0
	Toys	42	42.0
	Educational Items & games	50	50.0
Visit to offline retail store before doing online shopping	Yes	26	26.0
	No	74	74.0
	Total	100	100
Minimum amount spent on online shopping in last six months	Less than 1000	17	17.0
	1000 – 3000	27	27.0
	3000 – 5000	26	26.0
	5000 – 10,000	12	12.0
	More than 10,000	18	18.0
	Total	100	100
Maximum amount spent on online shopping in last six months	Less than 1000	20	20.0
	5000 - 10,000	40	40.0
	10,000 - 20,000	23	23.0
	More than 20,000	17	17.0
	Total	100	100

Source: SPSS output

9.3 Perception of risk and online buying behaviour

The study of perceived risk associated with online shopping system is the another focus area of this research paper. For achievement of said purpose two questions have been designed related to perceived risk. In one question respondents were asked to rank the sub dimension of perceived risk in ascending order and another question is designed on likert scale on which exploratory factor analysis was applied. The result of ranking by respondents (Table 6) have shown that majority of respondents have maximum “fear about value of product” which they will receive through online purchase i.e. they have fear that its value may be less than what they have paid for it. Secondly they have “fear of financial loss” i.e. whatever money they are paying through online payment mode will reach to the correct person or account or not.

Table 6: Ranking of Sub Dimension of Perceived Risk Associated with Online Shopping System

Statistics							
	Risk of Financial Loss	Risk of Privacy Leakage	Risk of Non Delivery of Product	Risk of delivery of Lower Value Product	Risk of delivery of Wrong Product	Risk of unawareness of Return Policy	Risk of low Trust on Return Policy
Valid cases	100	100	100	100	100	100	100
Mean	3.5521	3.7474	4.0417	3.0612	3.6354	4.4688	5.2872
Std. Deviation	1.81728	2.00514	1.97839	1.84344	1.85880	1.90817	1.88156
Minimum	1.00	1.00	1.00	1.00	1.00	1.00	.00
Maximum	7.00	7.00	7.00	7.00	7.00	7.00	7.00

Source: SPSS output

10.0 Result of Exploratory Factor Analysis

In order to judge perception of buyers regarding risk associated with online shopping system exploratory factor analysis was applied on the responses provided by respondents for the question designed on likert scale. The respondents were asked to rate eight risk related variables, using a 5-point Likert scale, which ranged from *strongly disagree* to *strongly agree*. The inter-item consistency reliability of these eight variables was tested before factor analysis was carried

out. The result for Cronbach’s Alpha test was .856. Thus, the scale is reliable. Moreover, the results of both the KMO (.806) and Bartlett’s test of sphericity (.000),

also indicate that it was appropriate to apply the exploratory factor analysis techniques to this data set. With principal components analysis and an eigen value of 1.00 as the deciding criterion, Varimax rotation

yielded two factors that explained 65.00 % of the matrix variance. The result of exploratory factor analysis, reliability analysis and KMO and Bartlett's test of sphericity is shown in Table 7 below.

Table 7: Rotated Factor Matrices of Factors of Perceived Risk Associated with Online Shopping system

Variables	Factor 1	Factor 2
Risk of Non delivery of Products	.694	
Risk of delivery of Wrong product	.849	
Risk of delivery of low value product,	.851	
Risk of low trust on product return policy of online retailers.	.637	
Fear of financial loss		.860
Fear of privacy leakage		.850
Variation explained by each factor	50.009 %	15.001 %
Total Variation explained by all factor	65.00%	
Cronbach's Alpha	0.856	
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	0.086	
Bartlett's Test of Sphericity		
Approx. Chi-Square	313.184	
Df	28	
Significance	0.00	

Source: SPSS output –Result of Factor Analysis

The table represents the result of exploratory factor analysis applied on eight variables related to risk perception of online shopping. It resulted in extraction of two factors namely product related and fear factor. The variables under each factor is presented below.

Factor 1: Product Factor: It includes

- Risk of Non delivery of product,
- Risk of delivery of Wrong product,
- Risk of delivery of low value product,
- Risk of low trust on product return policy of online retailers.

Factor 2: Fear Factor: It includes

- Fear of financial loss
- Fear of privacy leakage

10.1 Result of empirical analysis and interpretation

For achievement of third objective of the study, two hypotheses have been formulated based on the objective. For testing these hypotheses Kruskal Wallis test has been used. As exploratory factor analysis has yielded two factors so both the null hypotheses were tested for each of the factor. In first instance testing is done for product factor and then for fear factor. Online shopping expertise and online buying frequency of respondents are the parameters taken representing buyers online buying behaviour.

10.1.1 Assessment of variability in product factor based on e shopping expertise and e buying frequency of respondents

In order to access the variability in product factor based on online shopping expertise and online buying frequency of buyers, the null hypothesis stated are as follows-

H₀₁: There is no variability in Product factor based on online shopping expertise of respondents.

H₀₂: There is no variability in Product factor based on online buying frequency of respondents.

On application of Kruskal Wallis test, the p – value was found to be 0.036 and 0.013 for online shopping expertise and online buying frequency respectively. Both of these values are less than 0.05. Thus it indicates that null hypothesis is rejected. Thus the interpretation drawn is that there exists variability in product factor with the different categories of online shopping expertise and online buying frequency of buyers.

10.1.2 Assessment of Variability in Fear Factor based on Online shopping expertise and Online buying frequency of respondents

For assessment of variability in fear factor, following hypothesis are stated -

H₀₁: There is no variability in Fear factor based on online shopping expertise of respondents.

H₀₂: There is no variability in Fear factor based on online buying frequency of respondents.

The p value obtained on application of K test was 0.182 and 0.036 for online shopping expertise and online buying frequency respectively. Since the value 0.182 is greater than 0.05 so the null hypothesis (H₀₁) is accepted. It suggests that there exist no

variability in fear factor based on online shopping expertise status of buyers. In case of H_{02} since the p value is less than 0.05 so it is rejected. It indicates that their exist variability in fear factor along with different buying frequency of buyers.

Table 8: Result of Hypotheses Testing

	F1 (Product Factor)			Alternate Hypothesis	F 2 (Fear Factor)			Alternate Hypothesis
	Chi-Square	df	Asym p. Sig.		Chi-Square	df	Asym p. Sig.	
Online Shopping Expertise	10.277	4	0.036	Accepted	3.408	4	0.182	Rejected
Online Buying Frequency	12.623	4	0.013	Accepted	10.277	4	0.036	Accepted

Source: SPSS output

11.0 Discussion and Conclusion

Online shopping has travelled from being a novel concept to a widely accepted phenomenon in Indian market. The study has revealed that it has been accepted by both the gender of society along with people of age group ranging from 21 to 50 years of age. E shopping has become a matter of substance for people who are married along with those who are not. It has also highlighted that people having income up to 4 lakh per annum are making use of online stores to a greater extend. Review of literature has shown that there are several factors which affect the online buying behaviour of people along with risk as one of the prominent factor. Risk as a variable affecting online buying behaviour can be classified as into two factors i.e. product factor and fear factor as per the findings of this study. Empirical findings of the study depicted that online buyers with different buying frequency have difference in their perception towards the product related risk associated with online shopping system. But with reference to product related factor, there exist variability in behaviour based on online shopping expertise but not in case of fear factor. Thus the interpretation drawn is, expertise in online shopping has no impact on financial risk and privacy leakage risk associated with online shopping system.

12.0 Managerial Implications and Limitations

Indian market has huge potential for the growth of virtual shopping fronts. For encashment of this potential, marketers are required to apply such strategies which not

only will attract the potential buyers but also build their trust on the system. This study not only provides a proof about acceptance of online shopping system by working professionals but also brings to light one of the concern area due to which people are hesitating from indulging themselves in online shopping. Risk aversion by building trust is the ultimate mantra for converting a prospective e shopper into a confirm e buyer. Presently e-tailers are trying to attract their customers by means different type of sale and discount offers. This only is not sufficient. Along with this they have to work on devising strategies for reducing risk as well for staying in market in long term. Along with marketers, this work will also help academicians to enhance their knowledge relating to the field of online consumer behaviour. Every research work has some limitations. One of the limitation of this work is, it is conducted in Jaipur city with a very small sample size of working professionals. Thus the result of the study may not be generalized for bigger sample.

References

- Adobor, H. (2005). Trust as sensemaking: the microdynamics of trust in interfirm alliances. *Journal of Business Research*, 58.3 (2005): 330-337.
- Alreck, P., & Settle, R. B. (2002). Gender effects on Internet, catalogue and store shopping. *Journal of Database Marketing & Customer Strategy Management*, 9(2), 150-162.
- Almousa, M. (2011). Perceived risk in apparel online shopping: A multi-dimensional Perspective. *Canadian Social Science*, 7(2), 23.
- Arshad, A., Zafar, M., Fatima, I., & Khan, S. K. (2015). The impact of perceived risk on online buying behaviour. *International Journal of New Technology and Research*, 8, 13-18.
- Cox, D. F., & Rich, S. U. (1964). Perceived risk and consumer decision-making: The case of telephone shopping. *Journal of Marketing Research*, 32-39.
- Cunningham, L. F., Gerlach, J., & Harper, M. D. (2004). Assessing perceived risk of consumers in Internet airline reservations services. *Journal of Air Transportation*, 9(1).

D'Alessandro, S., Girardi, A., & Tiangsoongnern, L. (2012). Perceived risk and trust as antecedents of online purchasing behaviour in the USA gemstones industry. *Asia Pacific Journal of Marketing and Logistics*, 24(3), 433-460.

Delbaere, K., Close, J. C., Brodaty, H., Sachdev, P., & Lord, S. R. (2010). Determinants of disparities between perceived and physiological risk of falling among elderly people: cohort study. *Bmj*, 341, c4165.

Forsythe, S. M., & Shi, B. (2003). Consumer patronage and risk perceptions in Internet shopping. *Journal of Business research*, 56(11), 867-875.

Garbarino, E., & Strahilevitz, M. (2004). Gender differences in the perceived risk of buying online and the effects of receiving a site recommendation. *Journal of Business Research*, 57(7), 768-775.

Hassan, A., M., (2006). Conceptualization and measurement of perceived risk in online shopping. *Marketing Management Journal*, 16(1), 138-147.

Kim, D., J., Ferrin, D., L., & Rao, J. (2008). A trust-based consumer decision-making model in electronic commerce: The role of trust, perceived risk, and their antecedents. *Decision Support Systems*, 44(2), 544-564.

Ko, H., Jung, J., Kim J., Shim, S., W. (2004). Cross-cultural differences in perceived risk of online shopping. *Journal of Interactive Advertising*, 4(2), 20-29.

Kumar, V., & Dang, U. (2014). A study on perceived risk in online shopping of youth in Pune: A factor analysis. *Acme Intellects International Journal of Research in Management, Social Sciences & Technology*, 8(8), 1-9.

Laroche, M., McDougall, G. H., Bergeron, J., & Yang, Z. (2004). Exploring how intangibility affects perceived risk. *Journal of Service Research*, 6(4), 373-389.

Lee, M. K., & Turban, E. (2001). A trust model for consumer internet shopping. *International Journal of Electronic Commerce*, 6(1), 75-91.

Masoud. E. Y. (2013). The effect of perceived risk on online shopping in Jordan. *European Journal of Business and Management*, 5(6), 76-88.

Park, J., Lennon, S. J., & Stoel, L. (2005). On-line product presentation: Effects on mood, perceived risk, and purchase intention. *Psychology & Marketing*, 22(9), 695-719.

Pires, G., Stanton, J., & Eckford, A. (2004). Influences on the perceived risk of purchasing online. *Journal of Consumer Behaviour*, 4(2), 118-131.

San Martín, S., & Camarero, C. (2009). How perceived risk affects online buying. *Online Information Review*, 33(4), 629-654.

Varma, I. G., & Agarwal, R. (2014). Online buying behaviour of homemakers in western suburbs of Mumbai and social media influence. *IOSR Journal of Business and Management*, 16(8), 42-65.

Zhang, L. & et al. (2012). Dimensions of consumers' perceived risk and their influences on online consumers' purchasing behaviour. *Communications in Information Science and Management Engineering*, 2(7), 8-14.

Zhang, L., Tan, W., Xu, Y., & Tan, G. (2012). Dimensions of Perceived Risk and Their Influence on Consumers' Purchasing Behaviour in the Overall Process of B2C. In *Engineering Education and Management* (pp. 1-10). Springer, Berlin, Heidelberg.