A STUDY OF FACTORS AFFECTING ONLINE SHOPPING BEHAVIOR

Dr. Bhandari Jitendra[1], Amruta Kshirsagr[2], Sachin Kshirsagar[3], Praful sarangdhar[4] and Vivekanand Gaikwad[5]
MM's IMERT
profjitendra@gmail.com[1], amrutakshirsagar@mmimert.edu.in[2], sachinkshirsagar@mmimert.edu.in[3], prafulsarangdhar@mmimert.edu.in[4], vivekanadgaikwad@mmimert.edu.in[5]

ABSTARCT

Online business tends to sell a product through online channels. IT innovation has made an immense impact on online based business. In the recent past the advancements, computerized innovation, versatile and online sites turned out to be increasingly more prominent among the buyers. In this way, the large piece of the market is concentrating on online business. It changed the way shoppers are getting their products. It decreased the time, and physical exertion that individuals needed to put into shopping. Online business turned into a test for conventional trade in a method for decreasing the physical exertion and time individual spends looking for a product, additionally, purchaser can without much of a stretch look at the costs online so as to get the best buy they need. It has a few risk as well, which comes normally, as an outcome of online based shopping, such as financial, product and information risk, which are confronting online based business & what's more, still have a great deal of enhancements to be done.

***Keywords** : online shopping, consumer behavior, consumer risk.*

Literature review

Perceived Risk

The idea of perceived risk was first presented by Bauer (1960) and has been frequently used to address
different issues in customer behavior. Buying has long been viewed as a risk accepting action as buyers might not be sure of a buying decision and the results of bad choices. Mitchell (1999) characterized perceived risk as an abstractly decided desire of loss. In the online shopping, the degree of perceived risk might be amplified because of on the online buyers' restricted physical access to products and deals with sales force (Park and Stoel, 2005). An abnormal state of perceived risk obstructs buyers from receiving the Internet as a shopping channel (Alreck and Settle, 2002; Forsythe and Shi, 2003; Garbarino and Strahilevitz, 2004). Six segments of perceived risk related with shopping have been recognized as physical, social, product, convenience, monetary, and psychological risk (Peter and Tarpey, 1975). Among the six kinds of risk related with shopping, product and financial risks have been appeared to have a critical negative effect on buyers' online shopping desire (Bhatnagar and Ghose, 2004; Lu, Hsu, and Hsu, 2005). Product risk is characterized as the likelihood of the thing neglecting to meet the performance prerequisites initially planned. An abnormal state of product risk in online shopping might be relied upon because of on the online shoppers' failure to physically look at and test item quality and choices (Alreck and Settle, 2002; Garbarino and Strahilevitz, 2004). In this way, buyers' vulnerability increases with respect to a specific purchase decision with regards to online shopping. Financial risk is characterized as the probability of experiencing a fiscal loss (Horton, 1984; Sweeney, Soutar, and Johnson, 1999). Credit card misuse is an essential money related worry among numerous online consumers. Privacy/Information risk is characterized as the likelihood of having individual data disclosed as an aftereffect of online exchanges (Garbarino and Strahilevitz; 2004; Maignan and Lukas,1997). Research has discovered that protection risk is of developing worry among online consumers' (Drennan et al, 2006).Time risk is the discernment that time, accommodation, or exertion might be waste when a product bought is fixed or replaced Hanjun et al., (2004). Time risk incorporates the stress acquired during on the online exchanges, often resulting from trouble of accessibility as well as submitting requests, or deferrals accepting items, Forsythe et al., (2006). Delivery risk is characterized as the Potential loss of conveyance related with products lost, merchandise problem what's more, sent to an inappropriate spot subsequent to shopping (Dan et al., 2007). Customers fears

that conveyance will be deferred because of different conditions; the shipping company won't deliver inside the time allotment concurred with clients, or buyers fear that the product might be harmed when handled and shipped, or no legitimate bundling and taking care of during transportation (Claudia, 2012). Social risk alludes to the discernment that an item bought may result in dissatisfaction by family or fellows (Li and Zhang, 2002). It likewise alludes to the potential loss of status in buyer's social gathering due to either the inappropriateness of the item or obstruction to utilize online as a shopping channel (Stone and Gronhaug, 1993). Usually, customers attempt to get counsel or assent from others in their social life in request to lessen social risk.

Trust

Online channel is an exceptionally new and obscure method for doing shopping. It makes the foundation of "trust" considerably increasingly troublesome and basic on the grounds that the trust influences basics to online exchanges. The online buyers want the online dealers to willingly and ready to deliver as per the purchasers' interests, to be straight forward in exchanges, and to be fit for conveying the arranged delivery as guaranteed. Online business achievement to a great extent depends on gaining and keeping up the trust and certainty of online customers. It is important to understand how risk, trust influence the purchasing made online.

Online Purchase Intention

As purchasers become increasingly acquainted with the Internet as a business platform, it is expected that they will feel increasingly satisfied to buy online. In different words, when a buyer gets more experiences with shopping on the Internet, the individual considers shopping to be as a safe activity in all terms what's more, will be bound to keep on shopping online. Numerous Online based business studies have demonstrated that consumer intentions to take part in online purchases are a note worthy indicator of purchasers' real cooperation in E-trade exchanges. The connection among planning and buying online is based on the supposition that human being endeavor to make reasonable choices dependent on the information provided to them (Pavlou and Fygenson, 2006).

Research Model

In light of the present ideas referred above, a research model is suggested to look at the impact of perceived risk (financial related risk, product risk and Information risk on online purchase Intention through Trust as appeared in Figure 1.

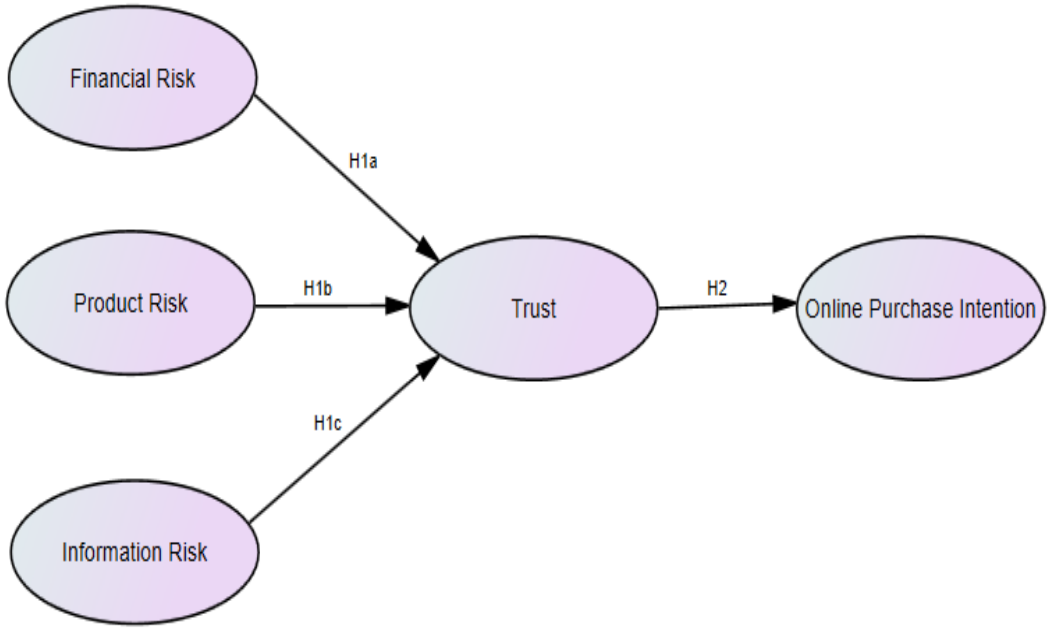

Fig.1. Research Model

Following hypothesis were developed based on the above model:

H1: Elements of Perceived Risk have an impact on Trust.

H1a: Financial Risk affects Trust.

H1b: Product Risk affects Trust.

H1c: Information Risk affects Trust.

H2: Trust has an effect on Online Purchase Intention.

This study attempted to test this model to give more knowledge on this issue.

Research Methodology

Measures

The numbers of constructs in the model were in consideration with the literature. Financial Risk, Product Risk and Information Risk, were created from Li and Zhang (2002), Hanjun et. al. (2004), Forsythe et. al. (2006), Martin and Camarero (2009), Tasi and Yeh (2010), Almousa, M. (2011), Javadi et al. (2012), Masoud, E. Y.,(2013). Trust construct estimated by Masoud, 2013. On the other hand online purchase expectation construct things were created from Javadi et al. (2012), Almousa (2011), Martin and Camarero(2009), Kim et al. (2008), Forsythe et al. (2006).

Table 1: Constructs and related items.

Measurement	Construct
Online shopping is costly affair.	Financial Risk
My card details might get stolen during online shopping.	
Conventional method of buying is less risky as compared to online buying.	
I may not get the actual product as shown in the picture on website.	
Online shopping companies are not trust worthy.	
Products available products are generally of low quality.	Product risk
I can't get the feel of product while buying online.	
In case of garments or foot wears it is not possible to take trial before buying, hence so chances of misfit are more.	
There may be a difference between the expected quality and actually received product quality while buying online.	
During online buying there is always a chance of losing personal information to some other party.	Information risk
Online companies generally sale customers data for their benefit.	
Most of the time website from where we purchase product is not secure.	
Most of the time detail product information is not available on website.	
Online site from where products are purchased are generally more trustworthy.	Trust
Online company generally keeps their promise for timely delivery of product.	
I am satisfied with the experience of online site from where I generally buy my products.	
I get what I have ordered online in good condition and quality.	
I feel comfortable for buying online products.	Online Purchase intention
I get more options to select from during online buying.	
I get the opportunity to buy what is not available in the local market.	
I get everything online that suits to my requirements and style.	
I get more options during online shopping for making payment.	
Buying online is a quick and effortless task as compared to conventional method of shopping.	

All items were estimated utilizing a five-point Likert scale going from 1= Strongly Agree to 5= Strongly Disagree.

Table 2: Demographics of Sample used for research:

		f	%
Gender	Male	279	39
	Female	431	61
Marital status	Married	373	53
	Single	337	47
Education	Higher school	7	1
	Graduate	374	53
	Post Graduate	277	39
	Ph.D.	52	7
Income level	Up to 2.5 lakh/annum	117	16
	2.51 to 5 lakh/annum	186	26
	5.1 to 7.5 lakh/annum	207	29
	7.51 to 10 lakh/annum	73	10
	10.1 to 15 lakh/annum	36	5
	Above 15 lakh	91	14

Information were gathered from 723 online buyers. Convenience sampling method was used for data collection. The respondents were expected to review their online purchase done from the online buying platforms. Respondents with missing information were dropped and 710 units were utilized for testing the model. IBM SPSS 22.0 and AMOS program were utilized to analyze the information. An aggregate of 431 (61.0%) of the member were female what's more, 279 (39.0%) of the member were male. The dominant part of the respondent were Graduated (92%) and single (47%). Ages of the sample were between18 to 55 with 31.31 mean and standard deviation 7.18.

Data Analysis

Factor Analysis

The purpose of the factor analysis is to discover the sets of variables that are exceptionally interrelated, known as factors (Hair et al., 1998). Factor analysis is one to inspect the correlation between the observed variables and the exactly determined constructs' or to make sense of regardless of whether with various arrangements of information, the equivalent constructs determined in the previous investigations can be determined as well. Hence, in this study, factor analysis is done to discover how many variables the respondents forms in the constructs and whether they see them correlated to in the first information with which the scale was created and furthermore to see regardless of whether the inferred constructs in this study affirms the presence of hypothetically created construct. To study the sampling adequacy, Keiser-Meyer-Olkin (KMO) and Bartlett's test of sphericity was conducted. KMO demonstrated that the information utilized in the examination is a homogenous collection of observed variables and there exists a correlation between's variables. The lower limit for KMO that is commonly settled upon is 0.50 (Hair et al., 1998). Bartlett's test on the other hand gives the statistical significance of the inter correlation between variables (Hair et al., 1998). The estimation of p in this study was settled upon is 0.05. KMO and Bartlett's tests in this study are seen as acceptable for every one of the five constructs in the study and tables for each factor study for the expected concepts are shown in the next segments. Factor Analysis results are shown in Table 3. Kaiser-Meyer-Olkin measure of examining sample adequacy and Bartlett trial of sphericity tests were performed before factor analysis. Result of the tests were acceptable. Variables with eigen values over one were held (Hair et. al., 1998). Total variance explained was 58.94%. To test the internal consistency of variables, Cronbach's alpha was calculated. The constructs were named as "Information Risk", "Product Risk" and "Financial Risk". Reliabilities for components were from 0.785 to 0.823, which shows agreeable degrees of internal consistency.

Table 3: Factor Analysis

Factor	items	Factor loading	Variance (%)	Cronbach Alpha
Financial Risk	FR1	0.765	48.134	.811
	FR2	0.894		
	FR3	0.842		
	FR4	0.746		
	FR5	0.698		
Product Risk	PR1	0.642	39.562	.785
	PR2	0.813		
	PR3	0.795		
	PR4	0.689		
Information Risk	IR1	0.741	37.591	.823
	IR2	0.768		
	IR3	0.864		
	IR4	0.759		
Trust	T1	0.694	52.112	.792
	T2	0.871		
	T3	0.795		
	T4	0.652		
Online Purchase Intention	OPI1	0.812	57.783	.813
	OPI2	0.715		
	OPI 3	0.682		
	OPI 4	0.642		
	OPI 5	0.712		
	OPI 6	0.761		

All constructs KMO and Bartlett test of sphericity tests were satisfactory.

Structural model and path Analysis

Since the objective of the research was to look at how the measurements of perceived risk deals with the online purchase intention through trust, a basic model was tried. Chi-square test measurements
are generally very sensitive to sample size (Hair et. al. 1998; Hoyle 1995), hence in this research; Goodness of Fit Index (GFI), Comparative Fit Index (CFI), Tucker Lewis Index (TLI) and Root Mean Square error Approximation (RMSEA) were considered. There is no standard for adequate GFI and AGFI, but the, general guideline is GFI more prominent than 0.90 and AGFI more prominent than 0.80 (Lattin, Carroll, and Green, 2003) and, RMSEA estimations of 0.08 or less have been
considered as demonstrative of adequate fit. The test result of the path analysis demonstrated satisfactory fit of the model x^2 (339) = 691.237, p=0.000; GFI=0.917, CFI=0.927, TLI=0.913, RMSEA=0.0473).

Table 4: Path Analysis Result

Path	Std. Coefficient	t value	*P* value
IR→ Trust	0.517	7.109	0.000
FR→ Trust	-0.186	-3.142	0.002
PR→ Trust	0.184	5.115	0.001
Trust→ Online Purchase decision	0.570	7.119	0.000

Information Risk has a considerable impact on Trust (β=0.517, *p* = 0.000). Financial Risk has a negative effect on Trust (β= - 0.186, *p* = 0.002). Product Risk affects Trust (β=0.184, *p* = 0.001). On the other hand, Trust strongly affects Online Purchase Intention (β=0.570, *p* = 0.000). Thus based on the statistical analysis H1a, H1b, H1c and H2 were accepted.

Conclusion

In light of the outcomes and findings supported by the study conducted and the past data regarding similar study came out with the suggestive inputs for decision making. To start with, this research gives brand promoters a significant knowledge to include sufficient risk minimizing strategies for the online shopping condition. Secondly, comparable with the related study on financial perceived risk and the data security (Bhatnagar, Ghose, 2004; Lu, Hsu, and Hsu, 2005), cash transactions and data security needs to be focused because financial perceived risk and data security, as indicated customer view of risk had more influence on their ability to shop on the Internet. Present study has discovered that perceived influence insecurity among online purchasers (Drennan et al, 2006). In one study it was found that more than 69% of US Internet customers would restrict their online purchase in light of concerns identified with the security of their own data. Online retailers must develop a system that would improve security and protection to propel individuals to purchase online, or motivate to use or utilize special kind of payment card for online shopping which is isolated from the buyers banking record, or utilizing other installments technique that doesn't require disclosure of secured information of buyers financial data, for example, cash on delivery (COD) etc. so that buyer need not be stress over losing their banking financial details. Also, advertisers should urge to limit the apparent product risks, especially in their endeavors to propose more data about products to cope up to the vulnerability related with customers' failure to deal with the product, for example, utilizing virtual images on 3D pictures to explain product includes, giving graphs, material components, parts and giving product comparison. This data empowers purchasers to build up a progressively complete thought of the quality and outward appearance of the product.

References

1. Alreck, P., and Settle, R., (2002)"Gender effects on Internet, catalogue and store shopping", Journal of Database Management, 9(2), 150-162,.
2. Almousa, M.,(2011) "Perceived Risk in Apparel Online Shopping: A Multi-Dimensional Perspective",Canadian Social Science, 7(2), 23-31.
3. Bhatnagar, A., andGhose, S.,(2004)"Segmenting consumers based on the benefits and risks of Internet shopping", Journal of Business Research, 57, 1352-1360,.
4. Bauer, R. A.,(1960) "Consumer behavior as risk taking. In D.F. Cox (Ed.), Risk taking as information handling in consumer behaviour", Boston: Graduate School of Business Administration, Harvard University, 23-33,.
5. Claudia, I.,(2012) "Perceived Risk when Buying online", Economics Series, 22(2), 63-73,.
6. Dan, Y., Taihai, D., and Ruiming, L.,(2007) "Study of Types, Resources and Their Influential Factors of Perceived Risks in Purchase Online", Journal of Dalian University of Technology, 28 (2), 13-19,.
7. Drennan, J., Mort, G. S., & Previte, S., (2006) "Privacy, Risk Perception, and Expert Online Behavior: An Exploratory Study of Household End Users", Journal of Organizational and End User Computing, 18(1), 1-22,.
8. Garbarino, E. and Strahilevitz, M., "Gender differences in the perceived risk of buying online and the effects of receiving a site recommendation", Journal of Business Research, 57, 768-775, 2004.

9. Forsythe, S., Liu, C. Shannon, D. and Gardner, L.,(2006)"Development of a Scale to Measure the Perceived Benefits and Risks of Online Shopping", Journal of Interactive Marketing, 20(2), pp.55-75,.
10. Hair, Jr. F. Joseph, Anderson, E. Rolph, Tatham, L. Ronald, and Black, C. William., (1998) "Multivariate Data Analysis", Upper Saddle River, NJ: Prentice Hall Inc.,.
11. Hanjun, K., Jaemin, J., JooYoung, K. and Sung Wook, S.,(2004) "Cross-Cultural Differences in perceived Risk of Online Shopping", Journal of Interactive Advertising,4(2), 20-29,.
12. Hoyle, R. H.,(1995) "The structural equation modeling approach: Basic concepts and fundamental issues. In Structural equation modeling: Concepts, issues, and applications", R. H. Hoyle (editor). Thousand Oaks, CA: Sage Publications, Inc., 1-15,.
13. Horton, R. L.(2004),"The structure of perceived risk: Some further progress", Academy of Marketing Science, 4(4), 694-716,.
14. Javadi, M., Dolatabadi, H. Nourbakhsh M. Poursaeedi, A., and Asadollahi, A., (2012)"An Analysis of Factors Affecting on Online Shopping Behavior of consumers", International Journal of Marketing Studies; 4(5), 81-98,
15. Kim, D., Ferrin, D. and Rao, J., (2008)"A trust-based consumer decision-making model in electronic
16. commerce: The role of trust, perceived risk, and their antecedents", Decision Support Systems, 44,544–564,
17. Lattin James, Carroll J. Douglas and Green E. Paul., (2003)"Analyzing Multivariate Data", Pasific Grove, CA: Brooks/Cole Thomson Learning,.
18. Li, N., and Zhang, P.,(2002) "Consumer online shopping attitudes and behavior: An assessment of research", Information Systems proceedings of Eighth Americas Conference,.
19. Lu, H. P., Hsu, C. L., and Hsu, H. Y., (2005)"An empirical study of the effect of perceived risk upon intention to use online applications", Information Management and Computer Security, 13 (2/3), 106-120,.
20. Maignan, I., Lukas, B. A.,(1997) "The nature and social uses of the Internet: A qualitative investigation", The Journal of Consumer Affairs, 31 (2), 346-371,.
21. Martin, S. and Camarero, C., (2009)"How perceived risk affects online buying", Online Information Review, 33(4), 629-654,.
22. Masoud, Y. E.,(2013) "The Effect of Perceived Risk on Online Shopping in Jordan", European Journal of Business and Management, 5(6), 76-87,.
23. Mitchell, V. W., (1999)"Consumer perceived risk: conceptualizations and models", European Journal of Marketing, 33 (1/2), 163-176,
24. Park, J. H., & Stoel, L., (2005)"Effect of brand familiarity, experience and information on online apparel purchase", International Journal of Retail and Distribution Management, 33 (2/3), 148-160,.
25. Pavlou, P. and Fygenson, M.,(2006) "Understanding and Predicting Electronic Commerce Adoption: An Extension of the Theory of Planned Behavior", MIS Quarterly, 30(1), 115–143,.
26. Peter, J. P. and Tarpey, L. X., (1975)"A comprehensive analysis of three consumer decision strategies", Journal of Consumer Research, 2, 29-37,.
27. Stone, R.N., and Gronhaug, K., (1993)"Perceived risk: Further considerations for marketing discipline", European Journal of Marketing, 27(3), 39–50,12,.
28. Tasi, Y. and Yeh, J.,(2010) "Perceived risk of information security and privacy in online shopping: A study of environmentally sustainable products", African Journal of Business Management, 4(18), 4057-4066,.
29. Sweeney, J. C., Soutar, G. N., & Johnson, L. W.,(1999) "The role of perceived risk in the quality-value relationship: A study in a retail environment", Journal of Retailing, 75 (1), 77-93,.