
A Study Investigating Relationship between Perceived Risk and Online Shopping Experience

Dr. Pawan Garga¹

Professor, HPUBS, Himachal Pradesh University, Shimla (H.P)

Ruchi Sharma²

Research Scholar, HPUBS, Himachal Pradesh University, Shimla (H.P)

ABSTRACT

The potential growth of on-line shopping has triggered the idea of understanding the ongoing on-line shopping scenario in India. This has created a need to understand how the consumers perceive online purchasing. Either consumers are just surfing online shopping websites, or actually they are going to purchase?

Answer to this question, lays in amount of perceived risk involved in any online transaction. Consumers' perceived risk has been considered as a fundamental concern of decision making process during online shopping. The objective of this paper is to find out the various dimensions of perceived risk involved in digital transactions which strengthens/ reduces the online purchase intentions depending on online shopping experience. The purpose of this paper is to investigate the relationship between perceived risk and online shopping experience. Respondents of this study belong to people residing in Shimla, Chandigarh and Mohali.

Keywords: *Online purchase intentions, perceived risk, financial risk, product risk, time risk, delivery risk, social risk, Online shopping experience*

INTRODUCTION

The Internet, which was earlier conceptualized as a tool for enquiring information, has become an important place of business these days. The Internet has developed into a new distribution channel and online transactions are rapidly increasing. Most of the companies are running their on-line portals to sell their products/services on-line.

From a buzzword to a current day reality, E-commerce in India has been experiencing remarkable growth, projected to reach \$ 17.5 billion by 2018, up from the \$ 5.3 million it achieved in 2014 (source: e-marketer, Dec 2014 dazeinfo.com) successfully changing the way people transact. People today can shop literally everywhere within minutes, be it their workplace or homes, and most importantly at any time of day.

No doubt, there are optimistic predictions for future growth of online shopping in coming years, but there are some negative aspects also, that can hinder ongoing growth. Perceived risk is one of the critical factors that can influence online purchase intention in positive or negative way (Ko *et al.*, 2004). There is high level of risk perceived by consumers in online environment rather than from traditional retail formats (Lee & Tan, 2003). Thus, we have tried to understand the basic definitions of different dimensions of risks used in this study from literature studied.

Perceived Risk

Perceived risk was first proposed in the early 1960s by Bauer (1960) in terms of uncertainty and unfavorable consequences associated with consumers' expectation. According to Mitchell (1992), perceived risk has been found to be a key determinant in consumer behavior and a primary factor influencing the conversion of browsers to buyers. Perceived risk is defined as the potential for loss in pursuing a desired outcome while engaged in online shopping or we can say it is a combination of uncertainty with the possibility of serious outcomes (Koet *al.*, 2010). Stone and Gronhaug (1993) defined perceived risk as when an individual experiences a subjective explanation of loss .

Financial Risk

Financial risk is defined as financial loss of consumers, including defect products, extra expense after purchase and the possibility of internet hackers to steal credit / debit card information. (Forsythe & Shi, 2003; Lim, 2003)

Product Risk

Product risk is the perception that a product purchased may fail to function as originally expected (Kim *et al.*2008). It is the loss incurred when a brand or product does not perform as expected on quality issues (Bhatnagar et al., 2000). Customers fear about size, color, design, quantity and quality of products while buying online.

Time risk

It includes wastage of time involves in exchanging the defected product, too slow speed involves in downloading web page and the delay in time caused by seller. (Featherman & Pavlou, 2003; Lim, 2003.) Time risk involves potential loss of time associated with making a bad purchasing decision by wasting time researching, shopping or have to replace the unexpected things. (Crespo, et al, 2009; Cunnigham,1967; Stone, R. and Gronhaug, K.1993)

Delivery Risk

It includes potential loss of delivery associated with goods lost, goods damaged and delivery sent to the wrong place by online seller (Dan et al., 2007). In general terms it means that consumers fear that delivery will be delayed due to various circumstances, online retailer is not going to deliver within time frame or goods may be damaged due to improper packaging and mishandling during transportation.

Social Risk

It includes that product bought by consumers via online mode are not favorably accepted by family, friends and social groups. (Pires, Stanton, & Eckford, 2004). Social risk means potential loss of status in one's social group as a result of adopting a product looking foolish or unpopular.

Online Shopping Experience

The shopping experience in the cyber world is quite different from conventional stores. Effort, life style compatibility, playfulness have been mentioned (Baty and Lee, 1995; Goldsmith, 2000; Hoffman and Novak, 1997); social interaction was added by Jarvenpaa and Todd (1996-97). Effort is the amount of time and energy spent in locating merchandise and making purchase decisions. Life style compatibility considers the consumers' life style and shopping habits. Playfulness refers to feelings of fun in website navigation when purchasing. Social interaction means the interaction with people when shopping on the web, such as joining discussion groups, soliciting user experiences etc. However, convenience (in inquiring, in ordering), consistency (between expected and actual product/service), and playfulness were identified as the most salient factors in Taiwan's online shopping (Cheng, 2000).

REVIEW OF LITERATURE

Thakur, S. and Srivastva, M.(2015) studied perceived risk in terms of time, performance, social, security and privacy risk associated with online shopping. In India, time, performance and social risk plays a dominant role in influencing online shopping intentions where as security risk and privacy risk do not play a major role in online buying intentions.

Liu, et. al.(2003) explored study " Perceived benefits, perceived risk, and trust: influences on consumers' group buying behavior" among 578 young and well educated buyers under age 20-40 years old in China and it was founded that in online group buying behavior, perceived risk have no significant influence in online market. Although, perceived risk is common issue in online shopping, but online group buying behavior reduced the impact factor of perceived risk associated with online purchasing.

Cunningham, et.al.(2005) founded in their study that performance, social, physical and financial risk (different dimensions of perceived risk) followed a dynamic pattern throughout consumer buying process. Out of all dimensions of risks, performance risk was dominant in 4 stages out of five stages of consumer buying process. In purchase stage, financial risk was dominant. Physical risk was evidenced in information search stage, alternative evaluation and post-purchase. Alternative evaluation stage was influenced by social risk.

Hong, Z. and Yi, L. (2012) investigated the role of perceived risk on consumer online buying decision in their study, “Research on the Influence of Perceived Risk in Consumer Online Purchasing Decision.”. The study explored perceived risk in terms of financial risk, time risk, performance risk, psychological risk, physical risk and delivery risk. The study recommended that financial risk was dominant during the consumer online buying decision phase. Even after purchasing the product through online mode, service, psychological and private risk were dominant. Also, customer’s viewpoint was that e-retailers traced their purchasing behavior. Performance risk influence their online buying decision after discount/ video and audio stimulation/pushing messages. Thus e-retailers are devising strategies to reduced perceived risk, so that loyalty in online environment can be created.

Tsiakis, T. (2012) conducted descriptive study on “Consumers’ issues and concerns of perceived risk of information security in online framework: The Marketing Strategies”to explore the influence of perceived risk in online shopping scenario on consumer buying intentions. The study defined perceived risk in terms of performance, social, financial, psychological, time and physical risk. The author stressed up on consumer’s concern over security risks associated with online environment. It was founded that financial security (credit information) as well as non-financial security (personal information) were two important issues that shapes consumer’s perception about online buying decision.

Ling, T. and Guangwen, R.(2002), explored/examined the different types of perceived risk in their study, “ Research on the Perceived Risk of consumer in e-business.” The results founded that product function risk was bigger risk perceived by online behavior. Similarly, out of eight dimensions of perceived risk (i.e. financial, function, time, physical, social, psychological, service and privacy risk), the online shopper have higher concern with regards to function, psychology and financial risk.

Masoud, Y., E.(2013), has explored the perceived risk in his paper “The effect of perceived risk on online shopping in Jordan ” in context of online environment. The author has studied six dimensions of perceived risk (i.e. financial risk, product risk, time risk, delivery risk, information security risk, social risk) and investigated the impact of perceived risk on online shopping intentions. It was revealed that increase in financial risk, product risk, delivery risk and information security risk, result in decreasing online purchase intentions. Further, it was interpreted that perceived time risk and social risk have no significant impact on online purchase intentions.

Cheng, F., Liu, T., and Wu, C.(2013) in their paper, “ Perceived risks and risk reduction strategies in online group-buying” investigated the relationship between perceived risks and risk reduction strategies in online group buying context. The five dimensions of perceived risk (i.e. financial, performance risk, social risk, time risk and privacy risk) were taken in to consideration. The focus was to study the impact of appropriate reduction strategies on different dimensions of risk. It was founded that risk reduction strategies such as money back guarantee, store image and payment security help in reducing/ minimizing financial risk. Similarly, strategies such as brand loyalty, word of mouth marketing, and money back guarantee schemes, brand image and distribution of free sample, etc help in reducing performance risk. Shopping experience and website reputation result in minimizing time risk.

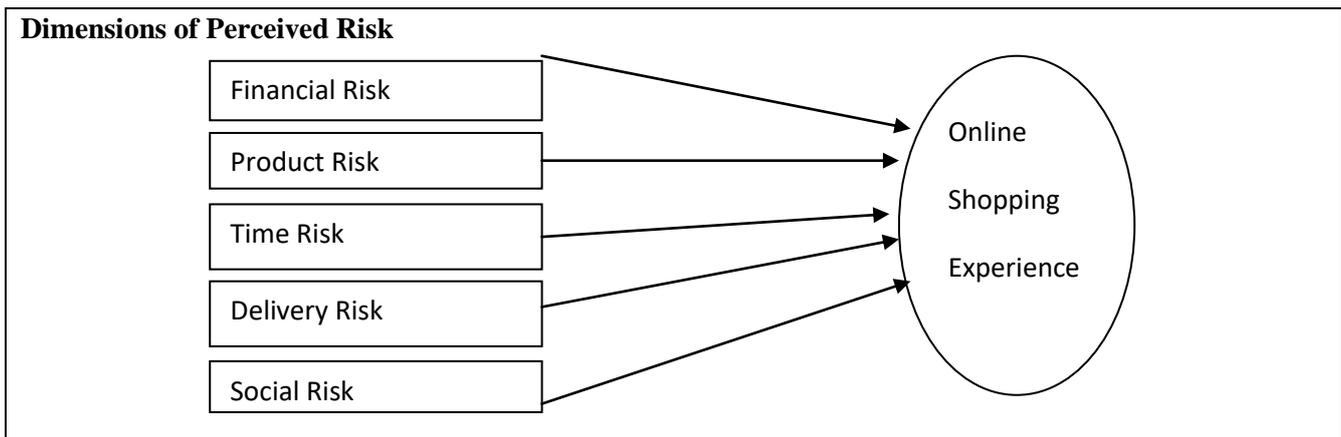
Suresh, A.,M. and Shashikala, R.(2011), investigated the different dimensions of perceived risk in their study , “ Identifying factors of consumer perceived risk towards Online Shopping in India” among 90 respondents in Bangalore (India). The factor analysis supported that monetary, performance, time, social, source and psychological risks constituted the overall perceived risk. From Indian perspective, monetary and performance risk have highest significant impact on reducing online shopping intentions, whereas, social and psychological risk have least impact on online shopping intentions.

OBJECTIVES OF THE STUDY

1. To find out the different types of perceived risks involved in online shopping.
2. To study the significant relationship between perceived risk and online shopping experience.

Conceptual Model:

The given below model (Masoud, 2003) was used to examine the effect of perceived risks on online purchase intentions of Indian consumers particularly from Shimla, Chandigarh and Mohali.



Hypothesis:

- H1: Financial risk has negative influence on online shopping experience.
H2: Product risk has negative influence on online shopping experience.
H3: Time risk has negative influence on online shopping experience.
H4: Delivery risk has negative influence on online shopping experience.
H5: Social risk has negative influence on online shopping experience.

RESEARCH METHODOLOGY

To study the significant relationship of perceived risk and online shopping experience, a study was conducted among the online shoppers in selected cities of India, namely Chandigarh, Mohali and Shimla.

A structured questionnaire was designed specifically for this study. To design this questionnaire, focused group discussion was conducted among the online shoppers which consist of academicians, students, industrialists, etc. They were asked to give their views related with risks associated with online shopping. With the help of literature available, various types of perceived risk i.e. financial, product, delivery, time, social risk were identified.

All items were assessed on five point Likert-type scale (1 – “Strongly Disagree” and 5 – “Strongly Agree”). Questionnaire was divided into two main parts. The first part consisted of items related to demographic profile of respondents. Second part of the questionnaire consisted of other items based on review of literature studied. For the validity part, questionnaire was given to experts to check the content validity. In the beginning there were thirty five items on the scale, out of which seven items were removed while doing the content analysis. Then, remaining twenty eight items were included in final questionnaire.

Reliability of the questionnaire was established by calculating the value of Chronbach alpha (following table) by circulating the questionnaire among fifty experts. It came out to be .905, offering good reliability to questionnaire.

Reliability statistics of Perceived Risk items :

Cronbach's Alpha	Cronbach' alpha based on standardized items	No. of items
.905	.905	22

Adoption of question details and reliability analysis of perceived risk and online purchase Intentions:

S.no.	Dimensions of Percieved Risk	Cronbach's Alpha	Cronbach's Alpha based on Standardized items	Nof items
1	Financial risk	.777	.776	5
2	Product risk	.773	.775	5
3	Time risk	.746	.748	4
4	Delivery risk	.794	.797	5
5	Social risk	.726	.727	3
6	Online shopping experience	.864	.869	6

Table 1

Sampling and data collection

Sample was collected randomly from the respondents who consist of academicians, students, industrialists, people employed in IT and banking sector who shop online. In total 500 questionnaires were circulated among the target audience via online and offline mode. A Google form was attached on social networking sites (Facebook and WhatsApp groups) and respondents were asked to devote their valuable time for this study. A total of 262 responses were received online. Out of all questionnaires received back via offline mode, only 158 were found suitable to be included in the study. Thus a total of 420 responses were included in this study. The sampling procedure used for this study was convenient sampling. Data collection was completed on 28th march 2017.

Demographic profile of respondents:

Variable		Frequency	Percentage
Gender	Male	184	43.8
	Female	236	56.2
Age	Below 18 years	2	.5
	18-30 years	361	86
	30-45 years	52	12.4
	Above 45 years	5	1.2
Education	Secondary	4	1
	Higher secondary	2	.5
	graduate	134	31.9
	Postgraduate	253	60.2
	others	27	6.4
Income per month	Less than 5000	77	18.3
	5000-10000	43	10.2
	10000-25000	107	25.5
	25000-50000	142	33.8
	Above 50000	51	12.1
Expenditure per month spending online	Less than 1000	106	25.2
	1000-3000	209	49.8
	3000-5000	63	15.0
	Above 5000	42	10.0

Table 2

RESULTS AND DISCUSSIONS

Tools Used

The study developed five hypotheses to investigate the relationship between perceived risk and online shopping experience which further leads to online purchase intentions and in order to test them SPSS-linear regression was used. Bootstrapping was used to find the most dominant item among six items of dependent variable i.e. online shopping experience. 3rd item (it is easy to get access to online website) was found to be most dominant (highest mean 4.17) in this study. Thus we, tried to find out the correlation between dependent variable and several sub constructs of perceived risk .

Descriptive Statistics

		Statistic	Bootstrap ^a			
			Bias	Std. Error	95% Confidence Interval	
					Lower	Upper
Performance of online shopping portals is according to my expectations.	N	420	0	0	420	420
	Minimum	1				
	Maximum	5				
	Mean	3.64	.00	.04	3.56	3.72
	Std. Deviation	.825	-.002	.032	.760	.884
My overall experience with online shopping portals has been wonderful	N	420	0	0	420	420
	Minimum	1				
	Maximum	5				
	Mean	3.73	.00	.04	3.65	3.81
	Std. Deviation	.810	-.001	.031	.752	.871
It is easy to get access to online Website	N	420	0	0	420	420
	Minimum	1				
	Maximum	5				
	Mean	4.17	.00	.04	4.10	4.25
	Std. Deviation	.731	-.002	.030	.669	.788
I find online shopping portals user friendly	N	420	0	0	420	420
	Minimum	1				
	Maximum	5				
	Mean	4.06	.00	.04	3.99	4.14
	Std. Deviation	.790	-.002	.031	.727	.847
Searching on online shopping portal is easy	N	420	0	0	420	420
	Minimum	1				
	Maximum	5				
	Mean	4.09	.00	.04	4.02	4.17
	Std. Deviation	.798	-.002	.036	.725	.869
Valid N (listwise)	N	420	0	0	420	420

Table 3

ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	44.948	22	2.043	4.539	.000 ^b
Residual	178.709	397	.450		
Total	223.657	419			

a. Dependent Variable: It is easy to get access to online Website

b. Predictors: (Constant), Financial risk, Product risk, Time risk, Delivery risk, Social risk

Table 4

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.873	.184		26.426	.000
	Risk of money is involved in online shopping	-.043	.039	-.066	-1.095	.274
	My credit card number may not be secure	-.025	.038	-.039	-.671	.502
	I might get overcharged if I shop online	-.033	.039	-.047	-.837	.403
	I may not get the product I want	.039	.045	.055	.855	.393
	Online shopping portals cannot be trusted	.010	.043	.013	.220	.826
	I might not get what I order through online portals	-.079	.048	-.113	-1.634	.103
	It is hard to judge the quality of product over internet	.024	.047	.033	.510	.610
	I can't touch and examine the actual product	.026	.049	.034	.524	.601
	I think size may be a problem with purchased items	-.037	.037	-.055	-.980	.327
	I cannot try products before buying them	.053	.041	.075	1.287	.199
	Buying a product online involves waste of time	-.015	.042	-.021	-.354	.723

It is difficult to find relevant websites	-0.115	.040	-0.168	-2.874	.004
If I shop online I cannot wait till the product arrives	.060	.035	.088	1.705	.089
It is complicated to place an order	-0.147	.049	-0.201	-2.977	.003
I might not receive the product which I have ordered online	.026	.048	.037	.533	.594
I think delivery may be sent to wrong address	-0.058	.050	-0.080	-1.160	.247
Products may not be delivered on time	-0.003	.039	-0.005	-.085	.932
It is not easy to cancel orders once placed	.052	.036	.084	1.423	.156
The goods returned may take long time to settle	-0.003	.038	-0.004	-.070	.944
Product purchased online may not be liked by family	-0.012	.046	-0.017	-.268	.789
I believe online shopping affect the perception of people about me	-0.028	.041	-0.039	-.688	.492
Products bought online may not be favorably accepted by relatives or friends	-0.042	.047	-0.058	-.899	.369

a. Dependent Variable: It is easy to get access to online Website

Table 5

Model Summary^b

Model	R	R square	Adjusted R square	Std. Error of the Estimate
Financial risk	.287	.082	.071	.704
Product risk	.262	.069	.058	.709
Time risk	.406	.165	.157	.671
Delivery risk	.325	.106	.095	.695
Social risk	.267	.071	.064	.707

a. Predictors :(constant)

b. Dependent variable: It is easy to get access to online website

Table 6

The entire four hypotheses are supported as shown in table 4 and table 5:

Hypothesis 1: It was well supported financial risk influences negatively the online shopping experience. Higher the financial risk; lower will be the online purchase intentions. 28% of respondents considered financial risk as important factor in deciding about online shopping.

Hypothesis 2: It was supported that Product risk has negative correlation with online shopping experience. Higher the product risk, lesser will be the online purchase intentions. 26 % of respondents considered product risk as an important factor in deciding about online shopping.

Hypothesis 3: “Time risk has negative influence on online shopping experience” it was well supported. 40 % of respondents considered time risk as an important deciding factor in shaping up online purchase intentions.

Hypothesis 4: “Delivery risk has negative influence on online shopping experience” it was well supported. 32 % of respondents considered delivery risk as second most deciding factor in shaping up online purchase intentions, depending up on online shopping experience.

Hypothesis 5: “Social risk has negative influence on online shopping experience” it was also supported. 26 % of respondents considered social risk as an important factor in shaping up online purchase intentions depending up on online shopping experience.

Findings confirmed that each dimension of perceived risk and overall perceived risk will negatively affect online shopping experience.

CONCLUSION

Thus in order to gain competitive edge in meeting goals in online environment, retailers should focus on methods that can reduce the perceived risk among online shoppers. Focus should be on increasing trust, providing timely delivery, privacy and security in online transactions. It will further leads to online satisfaction and online loyalty.

LIMITATIONS OF THE STUDY

- This study clearly did not include all variables relate to perceived risk. Thus other variables like performance risk, psychological risk and after sales risk can be examined in future researches.
- This study didn't examine the moderating effects of buyer traits and experience in the relationship between perceived risks and online purchase intentions.
- The results can't be generalized because of small sample size.
- The impact of demographic factors of respondents has not taken in to consideration. It can bring new findings in future study.

REFERENCES

1. Ko, H., Jung, J., Kim J., and Shim, S.W. (2004), “ Cross-cultural differences in perceived risk of online shopping”, *Journal of Interactive Marketing*, Vol. 4 No.2 ,pp.20-29.
2. Bauer, R.A. (1960), “Consumer behaviour as a risk taking- in dynamic marketing for a changing world”, *American Marketing Association*, pp. 389-398
3. Mitchell, V.W.(1992), “ Understanding consumer's behavior : Can perceived risk theory help ?”, *Management Decision*, Vol.30 No.3,pp.26-31.
4. Stone, R.N. and Gronhaug, K. (1993), “ Perceived risk: Further considerations for the marketing discipline ”, *European Journal of Marketing*, Vol.77 No.2, pp. 203-220
5. Forsythe, S.M., and Shi, B.,(2003), “ Consumer patronage and risk perceptions in Internet Shopping”, *Journal of Business Research*, Vol.56 No.11, pp. 867-875.
6. Lim, N., (2003), “Consumers' perceived risk: sources versus consequences”, *Electronic Commerce Research and Applications*, Vol.2 No.3, pp. 216-228.
7. Featherman, M. S., and Pavlou, P.A.(2003), “ Predicting e-services adoption : A perceived risk facets perspective”, *International Journal of Human – Computer Studies*, Vol.59 No.4, pp. 451-474.

8. Pires, G, Stanton, J., and Eckford, A. (2004), “Influences on the perceived risk of purchasing online”, *Journal of Consumer Behaviour*, Vol.4 No.2, pp.118-131.
9. Crespo,H., Bosque, R. and Salmones, M.(2009), “ The influence of perceived risk on internet shopping behavior: a multidimensional perspective”, *Journal of Risk Reseach*, Vol. 12 No.2, pp. 259-277.
10. Cunningham, S.M.(1967), “ The major dimensions of perceived risk in risk taking and information handling in consumer behavior”, *MA: Harvard University Press ed. D.F.Cox*, pp. 451-474.
11. Yu, D., Dong, T. and Liu, R.(2007), “ Study of types, Resources and their influential factors of Perceived risks in purchase online”, *Journal of Dalian University of Technology*, Vol. 28 No.2, pp. 13-19.
12. Kim, D., Ferrin, D. and 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*, Vol 44 , pp.544-564.
13. Bhatnagar, A., Misra, S., and Rao, H.R. (2000), “ On Risk, convenience, and internet shopping behavior: association for computing machinery”, *Communications of the ACM*, Vol. 43 No.11, pp.98-110.
14. Rakhi Thakur and Mala Srivastava,(2015), “ A study on the impact of consumer risk perception and innovativeness on online shopping in India”, *International Journal of Retail and Distribution Management*, Vol.43 No. 2 pp.148-166.
15. Ankit Kesharwani and Shailendra Singh Bisht,(2012), “The impact of trust and perceived risk on internet banking adoption in India”, *International Journal of Bank Marketing*, Vol.30, Iss. 4, pp. 303-322
16. Liu, T. M., Brock, L. J., Shi, C. G., Chu, R. and Tseng, T.(2013), “ Perceived benefits, perceived risk, and trust”, *Asia Pacific Journal of Marketing and Logistics*, Vol. 25, Iss 2,pp. 225-248.
17. Cunningham, F.L., Gerlach , H.J., Harper, D. M. and Young, E.C.(2005), “ Perceived risk and the consumer buying process: internet airline reservations”, *International Journal of Service Industry Management*, Vol.16, No.4, pp.357-372.
18. Hong, Z. and Yi, L. (2012), “ Research on the Influence of Perceived Risk in Consumer Online Purchasing Decision”, *Physics Procedia*, Vol.24, pp. 1304-1310.
19. Lim, N. (2003), “Consumers’ perceived risk: sources versus consequences”, *Electronic Commerce Research and Applications*, Vol.2, pp. 216-228.
20. Tsiakis, T. (2012),“Consumers’ issues and concerns of perceived risk of information security in online framework: The Marketing Strategies”, *Procedia-Social and Behavioral Science*, Vol.62, pp.1265-1270.
21. Masoud, Y., E.(2013), “The effect of perceived risk on online shopping in Jordan ”, *European Journal of Business and Management*, Vol.5 No.6,pp.76-87.
22. Cheng, F., Liu, T., and Wu, C.(2013), “ Perceived risks and risk reduction strategies in online group-buying”, *Proceedings of 2013 International Conference onTechnology Innovation and Industrial Management 29-31 may 2013, Phuket, Thailand*.
23. Suresh, A., M. and Shashikala, R.(2011),“ Identifying factors of consumer perceived risk towards Online Shopping in India”, *3rd International Conference on Information and Financial Engineering IPEDR*, Vol.12, pp.336-341.