Antecedents of Perceived Risk in E-tailing and its impact on Intentions To Use, an empirical study in Indian perspective

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Abstract

Purpose: E-tailing growth trajectory is phenomenal in India and with it is Perceived Risks are escalating. Thus, inspite of predicted voluminous upsurge in online shopping sales by 2020, Perceived risks might have detrimental effects on the buying behavior of digital consumers. This is a consumer centric study which intends to explore and analyze the antecedents of Perceived Risk in Indian contexts and its relationship with Intentions to Use E-tailing.

Design/Methodology/Approach: To delve information, primary data collection is done through a well structured questionnaire where EFA, CFA and SEM are applied to confirm the factors and test the hypothesis. SPSS 25 and AMOS 24 version softwares are used to analyze the data. 230 respondents of Western U.P filled the questionnaire.

Findings: Results confirmed the seven dimensions of Perceived Risk in E-tailing in Indian context and seven hypotheses were accepted. However there is not enough evidence to support eighth hypothesis, the relationship between Perceived Risk (PR) and Intensions to use (ITU) this relationship is rejected.

Research Limitation & future Research- The survey for this study was limited to Delhi NCR urban region on a small sample size. Also this study measures perceived risk for all type of products. Hence for better results and generalization, the same study could be repeated for bigger sample size and geographical area and most important could be product specific study as the intensity of perceived risk could vary with the type of product.

Originality/ value- Perceived risks in E-tailing had been studied both in unidimensions and multidimensions and confirmed its existence. However there is no predefined scale of Perceived risks so far and it varies from market to market, culture to culture and product to product. Thus thus this research becomes very much

relevant as it gives insight about Indian consumers numerous Perceived Risk factors in E-tailing and its impact on Intentions to Use.

Paper type: Research paper
Keywords: E-tailing, Perceived Risk, EFA, CFA, SEM

1. Introduction

E-tailing, synonym to B2C E-commerce transactions is expanding steadily in India. The credit lies in its growing internet penetration which is predicted to reach to 829 million users by 2021 from 481 million in December 2017. The E-commerce revenue is also predicted to reach US$ 120 billion in 2020 from US$ 39 billion in 2017, the annual growth rate of 50% which is highest in the world. (IBEF report 2018). It is undoubtedly the biggest explosion in the country occupying remarkable global retail ranking. With the proliferation of low cost smart phones, growing middle class and demographic dividend, India is projected to be fastest growing and emerging Asian market. It is expected to become the world's third-largest consumer economy, reaching to US$ 400 billion in consumption by 2025, according to a study by Boston Consulting Group.

India is now a potential market for e-tailing with low economic and moderate political risk (IBEF, June, 2018) .This digital transformation is possible due to the cumulative effort of Internet, information & communication Technology, telecom companies, moble wallet companies e.t.c. It has given birth to this extensive shopping channel providing enormous benefits to customers over traditional retail. As per Balasubramanian, Bronnenberg & Peterson,1998, Swaminathan, Lepkowska-White, & Rao, 1999,the Internet is a source of pool of information, a mode of fast communication, a transaction medium, and service provider of 24*7 online shopping experience. It empowers the consumers to look for products & services extensively, get particular information, to do comparisons, place or change order if required and can also get the feedback without actually going to a physical retail outlet. (Hoffman & Novak, 1996). However inspite of these multiple benefits, consumers hesitate to do online shopping. This disinclination is associated with some types of risks in consumer's mind.

2. Motivation to Research

According to Cox and Rich, 1964, Perceived Risk refers to the nature and extent of risk in contemplating a purchase decision. It is the extent to which purchases done using web are perceived risky and create fears in the minds of the customer due to their probability of occurrence. Thus there is a dire need to first know the dimensions of those Perceived Risk factors in Indian contexts and measure them. Many authors have noted and pinpointed a negative relationship between perceived Risk and online shopping. (Bhatnagar, Misra and Rao (2000), Wells and Featherman (2004), and Jain and Kanungo (2004). Chang (2005) predicted perceived risk in online transactions as a major barrier to E-tailing. Miyazaki and Fernandez (2001),Corbitt and Van Canh (2005) and have noted and observed that the growth of E-commerce is blocked by Consumer Risk perceptions. Thus this study becomes very much relevant and feasible to measure the varied Perceived Risk factors in Indian culture hich may have detrimental impact on buying decisions.

3. Research Question and Objectives

Perceived Risks or real risks do exist with E-tailing having website as a interface and internet which is open for all. Thus the important research Question which this study would cater to is:
  What are the possible Perceived Risk factors in E-tailing in Indian contexts and its impact on Intensions to Use E-tailing?
The objectives of the study to get answers to the research question are:-
- To explore the varied Perceived Risks factors of E-tailing through extant Literature Review in Indian contexts
- To empirically test, analyze and confirm the antecedents of Perceived Risks.
- To analyze the impact of Perceived Risks on Intentions to Use

4. Literature Review

Doolin (2004) defined e-tailing as the sale of product and services to individual customers online. According to Turban et al. (2006, 83), E-tailing is "retailing conducted online, over the internet. Risk is a subjective feeling hence defined differently by different authors differently. According to Bauer (1960), risk is a mix of uncertainty and seriousness of outcome. Peter and Ryan (1976) defined risk as the expectation of losses linked with purchase which becomes inhibitor to purchase behaviour. Risk is defined as the trustor's belief about the likelihood of gains and losses (Mayer et al., 1995; Pavlou, 2003; Warkentin et al., 2002).Simply it is the perceived uncertainty in using a product or service due to its negative outcome.

Corbitt and Van Canh (2005) stated that 50% of online users do not purchase online due to high perceived risk. According to Verhagen, Tan, & Meents, 2004 it is pertinent to weaken these perceived risks in consumer's mind, in order to retain existing customers and attract new ones. In fact, Verhagen et al. (2004) reported that 49% of the online purchase services are accounted to trust and risk. Biswas & Biswas, 2004, expressed that medium over web is the reason of perceived risk in online shopping associated with security and transaction reliability. Andrews & Boyle, 2008 in their study said that consumers continue to perceive online shopping risky due to internet usage despite of significant B2C diffusion. Forsythe et al. (2006) found that individuals who buy less frequently are impacted negatively with internet purchase; conversely J. Wang et al. 2010 found that innovative consumers perceive less risk in purchasing on internet. Shopping cart abandonment is majorly done due to Perceived risk in e-transactions and inconvenience caused in shopping online. (Rajamma, R. K., Paswan, A. K. & Hossain, M. M., 2009). It has been found that perceived risk reduces users' intentions to exchange information and complete transactions (Pavlou, 2003).

Different authors have given different dimensions of Perceived risks. According to Lee, M.K.O. & Turban, E. (2001), perceived risk is divided into two categories. The first one is risk related to products/services, and it included losses related to Functional, financial, time, opportunity and product. The second risk is related to online transactions, and includes privacy, security and non-repudiation risk.

Dr. Suresh A. M. & Shashikala R. (2011), came with 6 main factors of perceived risk in online shopping in Indian context. They are performance, monetary time, source and psychological risks. Their research revealed that customers perceive higher performance and monetary risks as compared to other risk factors. Liebermann, Y., & Stashevsky, S. (2002), talked about nine main perceived risks in their study they were: 1) Stealing of credit card;(2) Personal information sharing; (3) Violence and Pornography; (4) enormous advertising on internet; (5) Reliability of information; (6) Lacking of physical contact; (7) Non-delivery of Internet products purchased; (8) Missing of human touch in internet purchases; and (9) Addiction of Internet usage. They also concluded that demographics have a impact on perceived Risks.

Miyazaki, A. D., & Fernandez, A. (2001), revealed in their study six facets of risk in e-commerce transactions. They are: 1) Privacy – infringement by online retailers; 2) System security – Third-party fraudulent behavior; 3) Security–fraudulent behaviour of online retailers; 4) Inconvenience of online shopping; 5) No concerns; and 6) Miscellaneous (nonsense and uncategorized response. Senecal 2000, Borchers 2001 & Bhatnagar et al. 2000 suggested that product, financial, privacy and security risks are significant. According to Forsythe and Shi (2003) perceived risk specific to the Internet context has four dimensions i.e Product Performance, financial, time/convenience, and psychological risks. Al Ghamdi, R., Nguyen, A., & Jones, V. (2013), revealed in their study that generally e-users perceive the risks such as lack of product inspection/trial by hand, credit card usage reluctance, in-store shopping preference e.t.c. Steven Glover and Izak Benbasat (2011), explained in their study that product/service inefficiency, misuse of information and missing of product benefit are some of the perceived risk in e-commerce. The meaning of different dimensions of perceived risks is discussed below:-

Product/Performance Risk: It is the possibility that the purchased products do not perform as expected or used only for short period of time (Jacoby & Kaplan, 1972; Lim, 2003). This risk is intense because Consumers cannot physically see and touch the product (**Liebermann & Stashevsky, 2002**).

Financial Risk:-It is the possibility of monetary loss arising from online shopping (Jacoby & Kaplan, 1972). It could be in the form of shipping charges (Turner, 1999), hidden charges (krartz, 2003).Purchasing problematic or unsatisfactory product is also a form of financial loss (Lim, 2003).

Social Risk:- It is the possibility that perceptions of the people will be affected by an individual's online purchasing behavior (Lim, 2003).Also that online shopping might affect the thinking of others about purchaser and consumers' shopping behavior might not be accepted by other members of society.

Psychological Risk:- It is the possibility of suffering from emotional stress because of his/her buying behavior (Jacoby & Kaplan, 1972; Lim, 2003). Shopping online could give feelings of disappointment, shame or frustration for buyers when his/her purchase does not fit well with their self-image or self-concept (Forsythe & Shi, 2003).

Privacy, Safety and Security: - It is the possibility that online retailers might use, and distribute information about consumers and their behaviors (Federal Trade Commission, 1998). It includes unauthorized sharing of personal information, undesired e-mails from online retailers to consumers' email boxes, and undisclosed monitoring of shopping behavior (Miyazaki & Fernandez,2001). By using Cookies and tracking software, Web vendors are able to identify Internet users' click and-Viewing patterns, which are useful in profiling and targeting individual consumers (Milne et.al., 2000). Security risk involves fraudulent behavior by the online retailer" (Miyazaki & Fernandez, 2001).

Time/Convenience Risk:- It is the possibility of losing time and convenience when shopping online due to experiences of difficulty in navigating websites, order submission, and looking for appropriate websites.(Forsythe & Shi, 2003).According to Lim,2003, it includes the waiting time for the product/s arrival (Lim, 2003) and as per Turner,1999, the time retailer takes in returning an unsatisfactory product is also a time risk. Time is also wasted by weak search engines as it leads to overloading of product related information which hinders the convenience of the customer as well (Forsythe & Shi, 2003).It is difficult for the sales assistant to tailor information for individual customer in time or conveniently.(Swinyard & Smith, 2003).

Non-delivery Risk: - It relates to the fear of delivery not on time or receiving a damaged product or delivery of product done at wrong address.
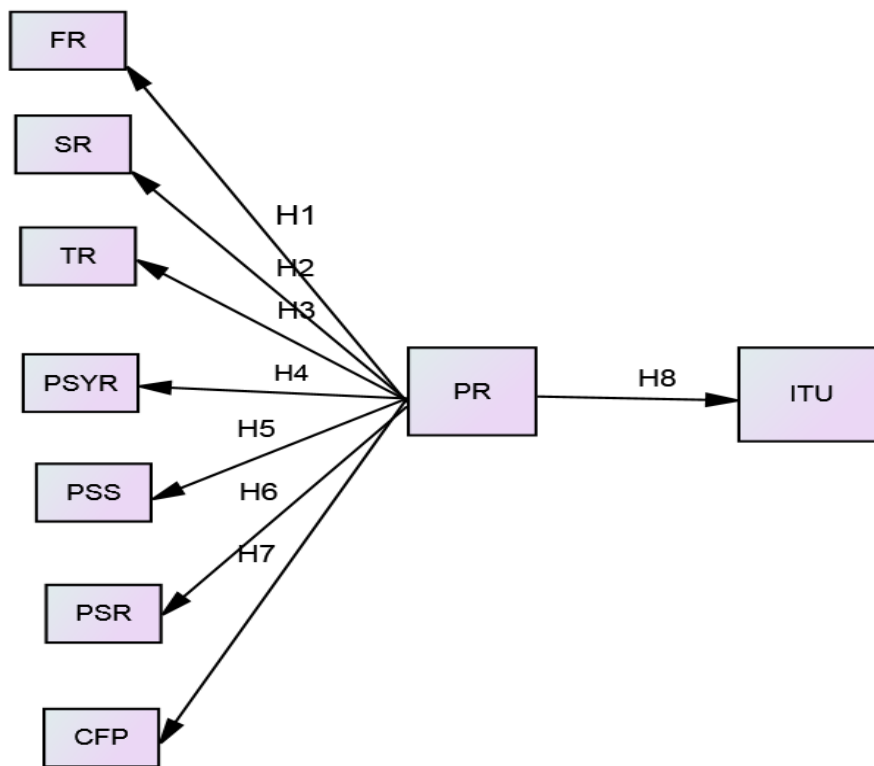
Cyber Fraud Perception Risk: - It is a person's interpretation that online transactions are vulnerable to money loss. (Warr, 2000). Albrecht et al. (2011, p. 7) defined fraud as an individual's inappropriate ways used to achieve benefits from others. According to Chuck, 2002, e-commerce is highly prone to frauds and it is increasing. The frauds are happening from both parties end, i.e the vendors and the customers.(Clough, 2010, p. 185). Below Table 1 summarises the dimensions measured in this study which are studied by different researchers in different contexts.

Type of Risk	Authors
Product Performance /Physical Risk	McCorkle,1990,Swinyardand Smith (2003), Naiyi (2004), Forsythe *et al.* (2006),Chen & Chang, 2012, 2013, Hu, 2012, Lee, M.K.O. & Turban, E. ,2001, Dr. Suresh A. M. & Shashikala R. (2011), Steven Glover and Izak Benbasat (2011), Swinyard and Smith (2003), Javadi *et al.* (2012).
Financial Risk	Dr. Suresh A. M. & Shashikala R. (2011), Chen & Chang, 2012, 2013, Hu, 2012, McCorkle,1990, Borchers 2001 & Bhatnagar et al. 2000, Forsythe *et al.* (2006),
Social Risk	Naiyi (2004), Forsythe *et al.* (2006), Chen & Chang, 2012, 2013, Hu, 2012, Javadi *et al.* (2012), Zhang *et al.* (2012).
Psychological Risk	McCorkle,1990, Dr. Suresh A. M. & Shashikala R. (2011), Forsythe *et al.* (2006).

Privacy, Security and System Risk	Lee, M.K.O. & Turban, E. (2001), Miyazaki, A. D., & Fernandez, A. (2001), Borchers 2001 & Bhatnagar et al. 2000, Steven Glover and Izak Benbasat (2011), Swinyard and Smith (2003), Javadi *et al.* (2012).
Time/Convenience Risk	Miyazaki, A. D., & Fernandez, A. (2001), Swinyard and Smith (2003),Naiyi (2004) .
Cyber Fraud Perception Risk	Warr (2000), Reisig et al. (2009).

Table 1 : Dimensions of Perceived Risks

5. Conceptual Model

Figure 1

Where

PSR - Product/Service Risk	**FR** - Financial Risk	**CFP**-Cyber Fraud Perception Risk
PSYR - Psychological Risk	**TR**-Time/Convenience Risk	**PR**- Perceived Risks
SR-Social Risk	**PSS**-Privacy Safety and Security Risk	**ITU**-Intentions To Use

6. Hypothesis Formulation

H1: PSR has a significant positive relationship with PR
H2: FR has a significant positive relationship with PR
H3: TR has a significant positive relationship with PR
H4: PSYR has a significant positive relationship with PR
H5: PSS has a significant positive relationship with PR
H6: SR has a significant positive relationship with PR
H7: CFP has a significant positive relationship with PR
H8: PR has a significant positive relationship with ITU

7. Methodology

7.1. Sample and Data Collection

This study is descriptive quantitative research. Survey method is chosen for the research which is done through a well structured questionnaire. In multivariate research, the sample size should be 5 to 10 times the variables in the study to have 10% and 5% margin error respectively (Hair et al., 1998). The variables for this research are 26, hence for optimum results minimum sample required is 260 for 5% error margin and 130 sample is required for 10% error margin. Non-probability Convenience sampling method was used for data collection which is based on the subjective judgement of the researcher. As the study is on online shopping, the questionnaire was made on Google form, link posted on Facebook, Whatsapp and also sent directly through e-mail to respondents of different age groups, gender, qualification e.t.c. This ensured increased probability of online shoppers as the means of communication confirmed their technology efficiency and access to internet. Also some questionnaire was given personally to few respondents. The data collection took nearly two months .The sample population was from parts of Western U.P and Delhi NCR region. The constructs were taken from previous studies and few items were added to make the study comprehensive in Indian contexts. These additions were done on the basis of some experiences, informal opinions, concerns for E-tailing and also referred from sources online like ET Retail.com, IBEF.com e.t.c, to better articulate the perceived risk constructs. Finally the questionnaire was administered to 300 respondents from which 270 responded and finally 230 questionnaires were appropriate for the study. However out of 230, just 161 respondents shop online. Thus, the real respondents of the study were these 161 to whom questions were asked related to perceived risks in online shopping. Rest 69 respondents were asked the reason(s) for not shopping online. The measurement of constructs was on five-point Likert-scale.

7.2 Demographic Summary and other Results

7.2.1   Total Respondents   = 230
7.2.2   Respondents who shop online   = 161 (70%)
7.2.3   Respondents who do not shop online   = 69 (30%)

7.2.4 Since when Respondents have been shopping online.

S. No.	Time	No. of Respondents	%
1.	Less than 1 year	29	18.0
2.	1 - 3 years	54	33.5
3.	3 - 5 years	55	34.2
4.	5- 10 years	17	10.6
5.	More than 10 years	6	3.7
Total		161	100

Table 2

7.2.5 Is shopping online better than offline shopping?

S. No.	Response	No. of Respondents	%
1.	Yes	101	62.7
2.	No	25	15.5
3.	Can't Say	35	21.7
Total		161	100

Table 3

7.2.6 Does Respondents feel some level of risk while shopping online?

S. No.	Response	No. of Respondents	%
1.	Yes	98	60.8
2.	No	45	28
3.	Can't Say	18	11.2
Total		161	100

Table 4

7.2.7 Average Yearly amount spent for online shopping.

S. No.	Response	No. of Respondents	%
1.	<12,000	79	49.1
2.	<12,000 - < 36,000	50	31.1
3.	<36000 - <60,000	15	9.3
4.	< 60,000 - < 84,000	4	2.5
5.	< 84,000 - < 1,20,000	6	3.7
6.	>1,20,000	7	4.3
Total		161	100

Table 5

7.2.8 Age category of Respondents

S. No.	Response	No. of Respondents	%
1.	Below 18 yrs.	5	49.1
2.	18 yrs-30 yrs.	88	31.1
3.	30 yrs-45 yrs.	59	9.3
4.	45 yrs.-60 yrs.	8	2.5
5.	60 yrs. and above	1	3.7
Total		161	100

Table 6

7.2.9 Profession of Respondents

S. No.	Response	No. of Respondents	%
1.	Student	71	44.1
2.	Professional	25	15.5
3.	Govt./private service	42	26.1
4.	Business	4	2.5
5.	Homemaker	15	9.3
6.	Unemployed	2	1.2
7.	Retired	1	.6
Total		161	100

Table 7

7.2.10 Qualification

S. No.	Response	No. of Respondents	%
1.	9th or 10th Standard	4	44.1
2.	11th or 12th Standard	3	15.5
3.	Graduate	66	26.1
4.	Masters	47	2.5
5.	PhD	33	9.3
6.	Other	8	1.2
Total		161	100

Table 8

7.2.11 Marital Status

S. No.	Response	No. of Respondents	%
1.	Married	79	49.1
2.	Single	82	50.9
Total		161	100

Table 9

7.2.12 Summary of Reasons for not shopping online (overall 69 respondents & multiple reasons)

S. No.	Response	No. of times option selected
1.	No Internet connection	5
2.	Don't Know how to Use	15
3.	Off line shopping is better than online shopping	24
4.	Friend/family shops for me	31
5.	No trust on quality /brand sold	40
6.	Other	30

Table 10

7.3   Statistical Analysis

SPSS 22 and AMOS 24 versions are used to analyze the conceptual framework. To verify the items of the factors taken for the study first exploratory factor analysis (EFA) was applied. Kaiser-Meyer-Olkin (KMO) and Bartlett's test of sphericity were used to test the adequacy of factor analysis by providing the statistical probability of having significant correlations among some of the variables. Bartlett test is sensitive to large sample size for detecting correlations among variables (Hair et al., 1998).

The KMO results are all acceptable and significant for the Bartlett test at 0.00 levels. Factor Loadings are all above the acceptable level of 0.4 .AVE values must be more than 50% and all Eigen values should be more than 1 (Hair et al.,1998). Table 2 below summarises the KMO, Bartlett test, factor loadings, Eigen value and Average Variance explained (AVE) of the formative variables of the study.

S. No	Item	KMO	Eigen Value	AVE (%)
1	PSR1	.690	2.037	67.9%
2	PSR2			
3	PSR3			
4	FR1	.656	1.889	62.9%
5	FR2			
6	FR3			
7	TR1	.772	2.523	63.0%
8	TR2			
9	TR3			
10	TR4			
11	PSYR1	.656	2.189	72.9%
12	PSYR2			
13	PSYR3			
14	PSYR4			
14	SR1	.674	2.044	68.13%
15	SR2			
16	SR3			
17	PSS1	.703	2.168	72%
18	PSS2			
19	PSS3			
21	CFP1	.701	2.091	69.7%
22	CFP2			
23	CFP3			
24	ITU1	.685	2.082	69.3%
25	ITU2			
26	ITU3			

Table 11: Results of KMO, Eigen values and AVE%

7.4   Measurement Model: Validity and Reliability

The measurement model i.e CFA is used to examine the validity and reliability. Reliability which is the measure of internal consistency of the construct's items (Hair et al., 1998; Sekaran and Bougie, 2003) were accessed through Cronbach alpha coefficient value which should range from .713 to 887(Nunnally,1978). Validity is the extent to which an instrument measures what is supposed to measure correctly (Hair et al., 1998; Sekaran and Bougie, 2003). Convergent validity is measured by three components: Factor Loadings whose values must be 0.5 or above(Hair et al., 2008), Average Variance Extracted (AVE) whose acceptable limit is 0.50 and above (Fornell & Larcker,1981) and composite reliability (CR) which should be 0.6 or above (Bagozzi & Yi, 1988). . Hence after evaluating EFA, it was found that some items showed low loading (below 0.40) or cross loadings. Therefore, those low loaded items and cross loadings items were eliminated for more accurate results (Hair et al., 2008). It can be summarized that the theoretical model represents an adequate validity (convergent) and reliability. Table 11 highlights the details:-

S. No	Item	variable	Cronbach Alpha	Factor Loadings	AVE	CR
1	PSR1		.690	.641		
2	PSR2	PSR		.743	.519	.762
3	PSR3			.771		

4	FR1	FR	.656	.646	.518	.762
5	FR2			.736		
6	FR3			.772		
7	TR1	TR	.772	.737	.508	.804
8	TR2			.661		
9	TR3			.771		
10	TR4			.678		
11	PSYR1	PSYR	.656	.869	.586	.847
12	PSYR2			.848		
13	PSYR3			.869		
14	PSYR4			.691		
14	SR1	SR	.674	.686	.53	.772
15	SR2			.688		
16	SR3			.807		
17	PSS1	PSS	.703	.855	.588	.809
18	PSS2			.759		
19	PSS3			.676		
21	CFP1	CFP	.701	.771	.545	.782
22	CFP2			.76		
23	CFP3			.682		
24	ITU1	ITU	.685	.630	.593	.811
25	ITU2			.832		
26	ITU3			.832		
27	PSR	PR	.926	.56	.522	.9
28	FR			.95		
29	TR			.70		
30	PSYR			.78		
31	SR			.81		
32	PSS			.77		
33	CFP			.65		

Table 12: Reliability and validity Results -Cronbach Alpha, AVE, CR and Factor Loadings

PR (Perceived Risk) is a second order variable, hence discriminant validity of its items (PSR, FR, PSYR, TR, SR, PSS and CFP) will not be calculated as correlation exits between them**.** Discriminant validity describes how different are the constructs which is ensured when square root of AVE of each construct is higher than the correlation between the constructs (Chin, Gopal, & Salisbury, 1997).Below Table 12 shows results of discriminant validity between PR and ITU. The diagonal values are the square Root of AVE values PR and ITU and the other term is the correlation between PR and ITU.

PR	**.754**	ITU
ITU	.085	**0.77**

Table13: Results of Discriminant validity

7.5 Structural Model: Testing of Hypothesis

After Confirmatory Factor Analysis (CFA) next step is to test the hypothesis using SEM (Structure Equation Modeling) to verify the relationship between observable variables and latent variable. (Jöreskog et al., 2000).Below table 12 summarizes the hypothesis testing results where it shows that PSR, FR, TR, PSYR, PSS, SR and CFP all have a positive and significant relation with PR i.e they are its antecedents. However there is not enough evidence to accept the significant relation between PR and ITU, the hypothesis is rejected

Hypothesis	Relationship	Esitmate	β Value	T value	P value (significant at.001)
H1	PSR<--- PR	.969	.557	5.845	*** (Accepted)
H2	FR<--- PR	1	.954		***(Accepted)
H3	TR<--- PR	1.520	.697	6.741	***(Accepted)
H4	PSYR<--- PR	1.172	.777	6.518	***(Accepted)
H5	PSS<--- PR	1.539	.768	7.874	***(Accepted)
H6	SR<--- PR	1.541	.809	7.828	***(Accepted)
H7	CFP<--- PR	1	.651	5.845	***(Accepted)
H8	ITU <--- PR	-.148	-.085	-.918	.359 (Rejected)

Table 14: Hypothesis testing Result

Above result shows that Perceived Risks very much exists in consumer mindset but due to its enormous benefits it is not deterring consumers from going shopping online.

7.6   Model Fitness Result

Below table 13 summarizes the Model Fitness values which show complete model fit.

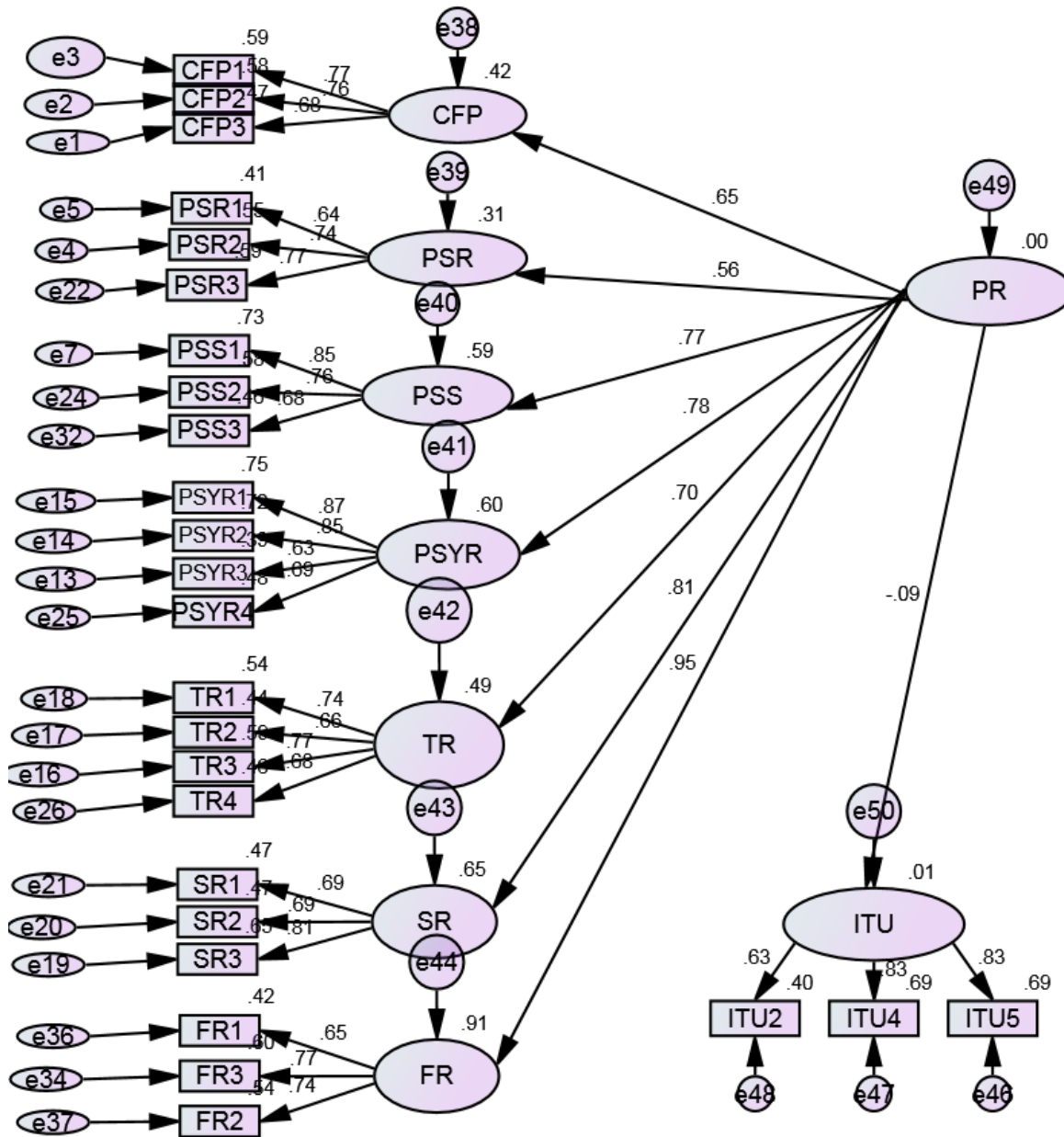| S.No	Fit Measures	Value	Recommended Value (Ullman, 2001; Schumacker and Lomax, 2004)
1.	$\chi 2$ (Chi-Square)	450.532	
2.	DF (Degree of Freedom)	291	
3.	CMIN/DF	1.548	<5
4.	GFI (Goodness of Fit Index)	.838	>.8
5.	TLI (Tucker-Lewis Index)	.902	>.8
6.	IFI (Incremental Fit Index)	.914	>.8
7.	RMSEA (Root Mean Square Error of Approximation)	.059	<.08

Table 15: Model Fitness Results

Figure 2 Confirmed Model with Standardized estimates

8. Practical Implication

India is transforming due to digitalization and so are consumers. Thus it becomes the responsibility of the online marketers, sellers, intermediaries, regulatory bodies and others related directly/indirectly with E-tailing to make and maintain risk free environment. This would help in winning consumer trust and loyalty. Consumers of online shopping today are not only from metro towns and tier 1 cites but also from tier 2 and

tier 3 cites due to unavailability of branded products in offline stores. Infact digitalization is also penetrating in rural India and hence potential market for online shopping. Thus there lie enormous opportunities to be en-cashed which would contribute in generating employment and increased economic growth.

9. Social Implication

Risk is a subjective feeling and the marketers have already realized the power of E-Word of mouth and social networking. Therefore it is pertinent to mitigate these perceived risk factors from consumer's mind to attract and retain customers.

10. Conclusion

Seven dimensions of Perceived Risk in E-tailing are identified and confirmed in this study. But results have proved that these perceived risks have no relation with Intentions to Use in Indian contexts. The sample population was urban educated class who feel less risk doing shopping online in comparison to the enormous benefits those e-tailing offers.

11. Limitation of the Study and scope for further Research

Actually this study was done on a small sample size and geographical area that too urban and generalized for all product/services and not for any particular industry/company or product. The potency of perceived risk factors may vary with the type of product/service bought and also who is buying the product. The rural area which is the major chunk of the Indian population and where digitalization is in the nascent stage has not been touched so far. Thus there lies enormous scope for further study in terms of area, product/service, demography e.t.c to get better meaningful insight of the subject matter.

Appendix

A. Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
CFP	<---	PR	1.000				
PSR	<---	PR	.969	.219	4.416	***	par_17
PSS	<---	PR	1.539	.276	5.586	***	par_18
PSYR	<---	PR	1.172	.233	5.037	***	par_19
TR	<---	PR	1.520	.296	5.139	***	par_20
SR	<---	PR	1.541	.277	5.570	***	par_21
FR	<---	PR	1.969	.337	5.837	***	par_22
ITU	<---	PR	-.148	.161	-.918	.359	par_25
CFP3	<---	CFP	1.000				
CFP2	<---	CFP	1.061	.140	7.572	***	par_1
CFP1	<---	CFP	1.134	.149	7.617	***	par_2

			Estimate	S.E.	C.R.	P	Label
PSR2	<---	PSR	1.000				
PSR1	<---	PSR	.882	.129	6.812	***	par_3
PSS1	<---	PSS	1.000				
PSYR3	<---	PSYR	1.000				
PSYR2	<---	PSYR	1.408	.167	8.409	***	par_4
PSYR1	<---	PSYR	1.491	.175	8.517	***	par_5
TR3	<---	TR	1.000				
TR2	<---	TR	.572	.074	7.754	***	par_6
TR1	<---	TR	.852	.099	8.591	***	par_7
SR3	<---	SR	1.000				
SR2	<---	SR	.856	.104	8.200	***	par_8
SR1	<---	SR	.894	.109	8.177	***	par_9
PSR3	<---	PSR	.881	.118	7.438	***	par_10
PSS2	<---	PSS	.943	.097	9.761	***	par_11
PSYR4	<---	PSYR	1.087	.149	7.278	***	par_12
TR4	<---	TR	.684	.086	7.950	***	par_13
PSS3	<---	PSS	.735	.085	8.629	***	par_14
FR3	<---	FR	1.000				
FR1	<---	FR	.803	.102	7.900	***	par_15
FR2	<---	FR	.917	.101	9.084	***	par_16
ITU5	<---	ITU	1.000				
ITU4	<---	ITU	.909	.107	8.476	***	par_23
ITU2	<---	ITU	.797	.106	7.513	***	par_24

B. Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
CFP	<---	PR	.650
PSR	<---	PR	.559
PSS	<---	PR	.768
PSYR	<---	PR	.777
TR	<---	PR	.698
SR	<---	PR	.809
FR	<---	PR	.953
ITU	<---	PR	-.085
CFP3	<---	CFP	.682
CFP2	<---	CFP	.760
CFP1	<---	CFP	.771
PSR2	<---	PSR	.743
PSR1	<---	PSR	.641
PSS1	<---	PSS	.855
PSYR3	<---	PSYR	.628
PSYR2	<---	PSYR	.848
PSYR1	<---	PSYR	.869
TR3	<---	TR	.771
TR2	<---	TR	.661
TR1	<---	TR	.737
SR3	<---	SR	.807
SR2	<---	SR	.688
SR1	<---	SR	.686
PSR3	<---	PSR	.771
PSS2	<---	PSS	.759

			Estimate
PSYR4	<---	PSYR	.691
TR4	<---	TR	.678
PSS3	<---	PSS	.676
FR3	<---	FR	.772
FR1	<---	FR	.646
FR2	<---	FR	.736
ITU5	<---	ITU	.832
ITU4	<---	ITU	.832
ITU2	<---	ITU	.630

C.   Questionnaire

		Product/ Service Risk (PSR)
PSR1		I received damaged product
PSR2		I received counterfeit (duplicate) product
PSR3		I received expired or about to expire product
		Financial Risk (FR)
FR1		Debit/ Credit card/ mobile wallet/ net banking information could be misused by shopping website or third party
FR2		There are hidden cost in the name of shipping charges, fast delivery e.t.c
FR3		I resist buying expensive product online because of higher risk involved
		Time/convenience Risk (TR)
TR1		I did not get timely delivery of product/service as promised
TR2		The product ordered is delivered at wrong address
TR3		Time is wasted in surfing the website, doing comparisons, understanding details of product, form filling and other formalities.
TR4		Even after payment, I did not receive the product / service from the website I shopped
		Psychological Risk (PSYR)
PSYR1		I feel uneasy buying online due to no clear policy of guarantee/ warranty of products
PSYR2		I feel uneasy buying online due to no clear guidelines of after-sale service
PSYR3		I miss the hospitality as in physical store
PSYR4		Money refund procedures are time consuming and complex
		Social Risk (SR)
SR1		I feel the online products becomes common which affect my social image/esteem
SR2		There are chances of disapproval of product from the friends and family bought online

SR3		There are chances of buying untrendy products or model which is against my social image
		Privacy, Security and System Risk (PSS)
PSS1		There is always a risk of website getting hacked
PSS2		My privacy is disturbed by constant mailers & messages sent by marketers online without my prior permission
PSS3		My personal data sharing among shopping websites harms my privacy without my prior permission
PSS4		I can loose money due to technical failure of the website during online payment
		Cyber Fraud Perception
CFP1		Frauds are common in buying product/services online
CFP2		I doubt Online vendors act in customer's best interest [Adapted from Lee and Turban's (2001)]
CFP3		I doubt Internet vendors are competent in servicing customer **[Adapted from Lee and Turban's (2001)]**

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