

# Privacy Risk and Online Shopping Behaviour: A Case of Indore City

**Dr. M. Vasim Khan**

Asst. Professor, School of Economics, Devi Ahilya University, Indore  
Email : m.vasim.khan@gmail.com

## ABSTRACT

Despite the rising trend of online shopping, majority of consumers still perceive online shopping as a source of risk and uncertainty. Consumers' perceived risk has been considered as a fundamental concern of decision making process during online shopping. Thus, in order to know the perceived privacy risk in online shopping among the professionals of Indore city, this research paper is articulated. The results show that perceived privacy risk has negative impact on frequency of online purchase. Hence, this study has an important managerial implication; it provides marketers with the importance of consumers risk perception in order to adopt adequate risk-reduction strategies in the internet shopping environment.

**Keywords:** Online Shopping, Privacy Risk, E-buyers; Professionals.

## Introduction

In this epoch of globalization, internet has been evolved into a worldwide accessible marketplace for exchanging commercial information and totally changed the way of shopping. Consumers now-a-days prefer to shop online. Despite the rising trend of online shopping, majority of consumers still perceive online shopping as a source of risk and uncertainty. In an online shopping environment, as compared to an existing traditional shopping place, greater risk and less trust are expected because of the fact that there is huge difficulty in evaluating a product as there are no visual or tangible indications related to the quality of the product nor face-to-face interaction with sales personnel, and the purchase is affected by security and privacy issues (Laroche et al., 2005). Therefore, it is assumed that people may feel a certain degree of risk when purchasing a product through the Internet. These risk factors may be related to security of credit cards information or may be concerning about disclosing of personal information or concerned about quality of the product without physically examining the products or it may be regarding delivery issues whether it would be delivered on time at right place (Pallab, 1996).

Although, consumer buying decisions are highly affected by the opinions and decisions of others, even consumers greatly rely on advice of other people when they make potential purchase decisions. Especially when the level of risk during a purchase is noticeable (Gershoff & Johar, 2006) which in the case of online shopping is very high. Consumers are motivated to expand information via word-of-mouth relations when they feel they are satisfied or unsatisfied with a product/service. Hence, consumers' perceived risk has been considered as a fundamental concern of decision making process during online shopping. In order to know the perceived risks regarding financial information and its role in shaping online shopping behaviour of professionals of Indore city, this research paper is articulated. The study has an important managerial implication; it provides marketers with the importance of consumers risk perception in order to adopt adequate risk-reduction strategies in the internet shopping environment.

## Literature Review

Financial risk is well-defined as the degree of uncertainty that a consumer is willing to accept when making a financial transaction (Grable 2000). In the e-commerce environment, purchasing by consumers has thus far been dominated by products that carry lower levels of financial risk—such as books, music, clothing, and

travel (Kiang & Chi 2001). In addition to it (Bart et al. 2005) found that lower costs products are well understood and usually entail less information searching by consumers, resulting in lower levels of perceived financial risk. This suggests that online consumers may have lower levels of financial risk tolerance as they seem resistant to engage in transactions with higher levels of perceived financial risk.

Many empirical research has demonstrated that online retailers who offer lower prices do not attract more business (Lee-Kelley et al. 2003; Brynjolfsson & Kahin 2000); indeed, it has been shown that price sensitivity among online consumers is actually less than it is among offline consumers (Degeratu et al. 2000). Further to this, Reichheld and Scheffer (2000) concluded that, although price provides an indicator of financial risk, greater consideration needs to be given to the nexus between price and other service and relational factors. Institutional risk, on the other hand, refers to the extent to which exchange uncertainty is the result of retailer-specific differences in the way that they protect the consumer against security and operational problems (Grabner-Krauter 2002).

Previous research has largely failed to examine Electronic Markets and the impact of retailer differences in particular, whether these differences account for variances in the impact of perceived risk on consumer behavior in the online marketplace. It is perhaps noteworthy that the only identified study that has examined the impact of firm differences on financial risk in online retail (Cao & Gruca 2004) found that firm-level heterogeneity accounted for 93% of the variance in their model. Hence, in order to know the impact of privacy risk in online shopping among the professionals of Indore city, this research paper is articulated.

### Methodology Adopted

In order to know perceived privacy risk and its impact over e-shopping behaviour, this research paper is presented. This study is exploratory in nature and purely based on the primary data collected from professionals of Indore city through a survey. Indore is chosen as study area, since it is the commercial capital of Madhya Pradesh and also considered as an educational hub. The city has a huge business potential, the consumers here are well educated and having a good purchasing power which in turn significantly contributes to the online business. The sample size is 300, in which survey captured professionals using online shopping of Indore city, surveyed professionals consist of Doctors, Chartered Accountants, Engineers of Indore. The sampling techniques adopted in this context were Stratified convenience sampling and snowball sampling.

Questions were asked on Likert Scale, in which the questions related to the privacy risk were asked on five point neutral centric likert scale, whereon 1 shows strongly disagree and last value 5 represents strongly agree. However, the frequency of purchase was asked on six point non-neutral centric scale whereon 1 shows very frequently, 5 denotes very rarely and last value six indicates never. In order to know the impact of parameters of privacy risk over frequency of purchase, Categorical Regression Model is employed using SPSS 22, since all the questions are falling under the ordinal scale. This regression model is regressed through the origin that is to say the value of intercept is dropped from the model. As the value of intercept signifies when both the parameters will be nullified or zero so what would be the mean value of  $Y_i$ , but here the nullified value of both the parameters lies at the point three on likert scale, while the zero or never is represented by the 6 on likert scale in case of frequency of purchase, hence the addition of intercept in the model does not make sense logically, hence dropped from the final regressed model. Mathematically, the model can be written as

$$Y_i = \beta_1 X_1 + \beta_2 X_2 + \mu_i$$

Where  $Y_i$  is dependent variable Frequency of doing E-shopping, and  $X_1$  and  $X_2$  are independent variables risk related to bank details and risk of personal information, while  $\mu_i$  is residual. Wherein, frequency of doing purchase is parameter to measure the online shopping behavior, while two other questions reflect level of perceived privacy risk.

### Privacy Risk and Online Shopping Behaviour

Table 1 reports the correlations value among the privacy risk and online shopping behaviour. It can be clearly seen that, all the values are positive and more than eighty per cent, showing the high level of association among the perceived risk factor and frequency of doing e-shopping. Most worthy and mentioning point here, is the increasing frequency of doing e-purchase means consumer is moving towards never or vary rarely from very frequently and increasing the level of perceived risk shows the consumer is going towards confirmation from negation. That is to say, the positive correlations values are presenting that as e-shoppers feel and perceive the privacy risk in e-buying he would decide not to prefer shop online.

<b>Table 1: Correlations</b>			
	<b>Frequency of E- Shopping</b>	<b>Risk of Bank Details</b>	<b>Risk of Personal Information</b>
<b>Frequency of doing E-Shopping</b>	1.00		
<b>Risk of Bank Details</b>	0.89	1	
<b>Risk of Personal Information</b>	0.86	0.92	1.00
<i>Author's calculation</i>			

In order to know the magnitude impact of privacy risk factors over frequency of e-shopping, categorical regression model is employed and presented below in table 2 to 4. The value of R<sup>2</sup> is 0.80 showing that privacy perceived risk is having 80 per cent power of determination in determining the frequency of e-purchase. Hence, it can be concluded that perceived financial risk is crucial in increasing or decreasing the frequency of purchase over e-shopping sites.

<b>Table 2: Model Summary</b>					
R	R Square	Adjusted R Square	Change Statistics		Durbin-Watson
			R Square Change	Sig. F Change	
.89	<b>0.80</b>	0.80	0.84	0.00	2.2
<i>Author's calculation</i>					

This value is found significant at one per cent level of significance, since the value of significance is .00 which is less than .05. Though, the values of correlation is coming out to be as high as 90 inferring that there is chance of multicollinearity, as the regression model is selected categorical so the problem can be avoided. The value of adjusted R square shows true power of determination after adjusting the problem of multicollinearity. Here the value of R square and adjusted-R square is the exactly same deducing there is no multicollinearity in the model.

<b>Table 3: ANOVA</b>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2511.37	2	1255.69	596.21	.000
	Residual	627.63	298	2.11		
	Total	3139.0	300			
<i>Author's calculation</i>						

Here the following table 4 reports the unstandardized and standardized coefficients values of predictors. The coefficient value of risk regarding bank details parameter is 0.71 revealing that as e-buyers find that bank details may be mistreated, so his/her e-shopping frequency will be retarded by 0.71, meaning that his/her e-shopping frequency reduces since the value 1 shows very frequently while 5 and 6 represents very rarely and never respectively and in both the privacy risk parameter 1 shows negation i.e. strongly disagree while 5 shows strongly agree. That is to say, increasing in perception about bank details mistreatment reduces the frequency of purchase over e- shopping by 0.71 point on likert scale.

<b>Table 4: Coefficients</b>							
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations	
	B	Std. Error	Beta			Zero-order	Partial
<b>Risk of Bank Details</b>	0.71	0.07	0.65	9.8	0	0.89	0.50
<b>Risk of Personal Info</b>	0.27	0.07	0.26	3.8	0	0.86	0.22
Dependent Variable: Frequency of doing E- Shopping							
Linear Regression through the Origin							
<i>Author's calculation</i>							

Similarly, if the e-shoppers feel that his or her personal information may be disclosed to third party, so, his or her frequency of purchase over e-shopping will slide by 0.27 point on likert scale rating. The impact of risk regarding bank details mistreatment is about two and half times more than the perception of personal information risk. Both the parameters are significant at one per cent level of significance, meaning that researcher is 99.99 per cent sure in saying that perceived privacy risk is crucial in determining the frequency of purchase.

**Conclusion**

This study analyses impact of privacy risk on e-shopping behaviour among 300 professionals of Indore city. Based on categorical regression analysis, this study found that perceived privacy risk is vital and having 80 per cent power in determining the frequency of e-purchase. The impact of perceived risk regarding mistreatment of bank details and personal details on the frequency of purchase over e-shopping is found negative. In totality, both the perceived financial risk factors reduce the frequency of purchase over e-shopping. Hence, e-shops should take care of pricing and extra charges because these both are pecuniary in nature and most crucial in deciding the overall demand. In this way, the overall demand and e-commerce gets affected. The study thus has an important managerial implication; it provides marketers with the importance of consumers risk perception in order to adopt adequate risk-reduction strategies in the internet shopping environment.

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