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### Direct and Indirect Effects of Shopping Convenience on Online Purchase Intention: The Mediating Role of Risk

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**Abstract:** E-commerce is now the backbone for business growth and Business to Consumer e-commerce has paved the way for online shopping in the late 1990s. Online shopping is an effective method for online retailers and their consumers to perform online transactions through commercial websites. With its wide range of potential benefits, online shopping has become an attractive alternative, worldwide. Time-saving and effort minimization are the key aspects which determines shopping convenience. Policies have already been formulated to reduce the risk level. Because of these consumers are inclining towards virtual shopping. In this context, it is necessary to understand the various dimensions of online shopping convenience and perceived risk. Hence, the present study has been undertaken to evaluate the impact of online shopping convenience and perceived risk on purchase behavior. A specially designed questionnaire was administered to 116 respondents who are actively participating in the online shopping. Results indicated that high level of convenience with reduced level of risk paves way for the growth of online shopping rate.

**Keywords:** Online shopping, Shopping intention, Convenience, purchase behavior, Perceived risk

#### INTRODUCTION

Overall extension of the web and mobile phone infiltration has impressively added to the change of exchange and store transactions. Electronic business alludes to purchasing as well as selling items and administrations through the web. The remarkable development of web based business has changed the way individuals execute and convey. This massive development in the course of the most recent two decades has changed the shopping examples of Indian purchasers. Broadened culture, dialect, and legacy of India has turned into a lucrative stage for e-tailers. In nations like US and China, internet business has achieved the offers of more than 150 billion USD in income however in India it is in its earliest stages. In any case, as of late this segment has seen huge development with 66 million clients, creating the income of Rs. 81, 525 crores in 2014 (Source: IMRBI-Block 2014, All India Assessments, December 2014). On the

off chance that this striking development proceeds with, the nation's internet business advertising has been a gauge to develop at a CAGR of more than 36% amid 2015 – 2020 (Source: TechSci Research, October 2015). Eminent development has seen in customer gadgets, online travel, clothing, and extras other than the passage of online supermarkets. This development can be accounted for the expanding number of web clients and e-tailers for offering a wide assortment of items and services on the web. This is being fuelled by the flexible payment frameworks and web based shopping policies which help the purchasers to dispose of fears concerning internet shopping fakes. In this unique situation, research uncovered that web based shopping flexibility and lessening of web based shopping hazard are some of the significant elements which advance web based shopping. Subsequently, this paper went for featuring the state of mind of online buyers towards web based shopping in the light of convenience factor and perceived risk.

### **Online shopping convenience**

A standout amongst the clearest advantages of web based shopping which can't be ignored is convenience. Shoppers see comfort diversely in various settings. In India, the larger part of the online customers is the age aggregate 18-35. This era of purchasers, who are hustling with time, think that it's unfit to go and shop at physical stores. Convenience assumes its part now which brings out significant consumer base for web based shopping. For the most part, buyers feel shaky while purchasing on the web yet they too lean towards it on account of its accessibility at anyplace and anytime. As per Merriam-Webster word reference convenience can be characterized as a quality or situation that makes something easy or useful for someone by reducing the amount of work or time required to do something' or 'something (for example, a gadget) that makes you more comfortable or allows you to do things more easily.' Web based shopping enables us to decrease the danger of heading out to disconnected stores at stipulated hours, and we can fulfill things effectively just by sitting before an electronic gadget. The purchaser can shop online at his convenient time due to its 24\*7 accessibility. One more comfort of internet shopping is its capacity to buy from anyplace. Presently, online retailers have been stretching out their transportation offices even to level III urban areas. Some online retailers offer free services to gather the purchased items which are returned comfortably at doorsteps. All these comfort factors help online deals.

### **Perceived Risk in online shopping**

Web based shopping, however drawing numerous customers in light of its convenience, quickness, and offers, individuals still see it as hazardous on account of a few instabilities associated with its procedure. A portion of the risks confronted by online buyers can be data given by customers amid online buy process (card details and individual data) may not stay secure. Payment cheats may happen in some cases. While making purchases online, buyers can't get assured of the quality of products before purchase. Once in a while, broken items might be received. Despite the fact that there are many offers and rebates in the web based shopping, we cannot bargain on account of its virtual environment. In scarce, customers may not receive the items they have requested. On the off chance that online stores have no arrangement for gathering the returned products at homes, at that point, it ends up noticeably troublesome as the customer needs to courier all alone. Sometimes, the products delivered may not match the depiction gave on the retailer's site. However, another hazard is concerning the quality of the items. All these are the barricades which dissuade buyers from shopping on the web.

## THEORETICAL BACKGROUND

### Online shopping convenience

Internet shopping has been picking up significance, and many overviews have discovered that convenience assumes a key part in drawing in consumers towards web based shopping. Shopping convenience has been one of the chief inspirations underlying customer slants to receive internet shopping (Beauchamp and Ponder 2010, (Colwell, Aung, Kanetkar, & Holden, 2008);. As indicated by Forsythe, Liu, Shannon, and Gardner (2006), shopping convenience is the apparent capacity to shop irrespective of time, place and the location and without going into the store. It is measured by time spent, location and the purchasing process. Yale and Venkatesh (1986) recognized attributes of convenience as Time usage, availability, suitability, handiness. Harn, Khatib, and Ismai, (2006) contrasted the customary method for shopping and web shopping and reasoned that internet shopping is more advantageous to customers. Comfort here can be as time, attempt and stress. Beauchamp and Ponder (2010) inspect the key contrasts between in-store and online customers in light of the accompanying four sorts of retail convenience: access, search, transaction, and possession. They find that contrasted with traditional in-store shopping, purchasers see internet shopping as being more helpful for motivations behind access and search convenience, however not in the case of transaction convenience. Shopping convenience was a reliable spark that impacts the goal of potential web customers to do internet shopping (Koufaris, 2002). With internet shopping, purchasers are permitted to peruse and shop whenever needed as per their convenience without worrying about the shop service time, time zone and even about traffic stuck (Juniwati, 2014). It is obvious that customers can shop ever needed without the inconvenience with the little intrusion of other activities (Ko, Jung, Kim, and Shim, 2004). Customers can access and buy products wherever and at whatever point they need as the service is constantly accessible, 24-hour accessibility of internet shopping (McKinney, 2004). Each progression during internet shopping adds to the comfort of shopping. For example, while perusing the items that the customer need, it is easy to discover and look, it adds to search convenience (Seiders, Voss, Godfrey, & Grewal, 2007). At that point, when the item is that easy to get, it is ownership convenience. On the off chance that shopping has been done in quick time and the item has been delivered immediately, it is time convenience (Kwek, Tan, and Lau, 2010). In the setting of web services using wireless communications, Jih (2007) has extracted two dimensions, transaction convenience, and operational convenience, and has contended that the previous aspect applies an enormous impact on the customer's internet shopping expectations. Therefore moderately few studies have tended to the issue of customer perceived convenience in internet business.

### Perceived Risk

The idea of 'perceived risk' was presented by Bauer (1960). The concept of perceived risk has been conceptualized in an assortment of ways (Dowling and Staelin, 1994; Gemunden, 1985; Ingene and Hughes, 1985; Ross, 1975). Prior studies have characterized risk regarding the customers' impression of instability. The vulnerability might be the result or about the ominous outcomes of purchasing an item or service. Purchasers recognize web shopping to have higher hazard than in-store shopping (Tan, 1999; Donthu and Garcia, 1999). As indicated by Cunningham, 1967, perceived risk is multidimensional. In any case, this examination is constrained to particular dimensions of perceived risk in online circumstances.

*Delivery risk:* Delivery risk is the potential misfortune during the process of item delivery, i.e., products lost or products harmed in online transactions (Zhang & Kim, 2013). It likewise interconnected with the delay in getting the item or not at all receiving the product requested. As an online retailer, it is significant to guarantee that the goods are safe throughout the delivery process.

*Privacy risk:* Privacy risk is the potential loss of control over the consumers' details. It can influence customers' goal to make buys over the Web. If the online retailers ensure the safety of the personal data of buyers, then online sales will increase. Consequently, online organizations need to convey clearly to customers concerning the security of their own and transaction information to gain consumer confidence.

*Product performance risk:* Product performance risk is characterized as the misfortune experienced when a brand or item does not execute as expected (Horton, 1976). Product performance risk may be due to a poor choice of product because of the customers' inability to precisely judge the quality of the item on the web. The capacity to judge item or service quality online might be restricted by barricades, for example, unable to touch and feel, unable to try the item or service before buy, inexact item colors and inadequate data on quality to the customer leads to expanded product performance risk. In web based shopping, customers depend on the data and pictures that have been given on the site as item can't be touched (Jarvenpaa, Noam, and Lauri, 1999).

*Time risk:* Time risk alludes to the loss of time experienced because of trouble in searching, trouble in finding the product, in placing the product order, in finding proper sites and delay in accepting items (Forsythe et al., 2006). Time risk can likewise allude to the time required by shoppers to purchase the item and time to acquire it. It is the condition where buyers lose their time when settling on poor purchasing choice.

Consumers see a larger amount of hazard when shopping on the Web. Studies have demonstrated that consumers see higher dangers in non-store shopping groups, for example, phone shopping (Cox and Rich, 1964), mail order (Spence et al., 1970), catalog (Reynolds, 1974), direct sales (Peterson et al., 1989), and catalog showroom (Korgaonkar, 1981). We expand this flood of research on the part of the perceived risk in non-conventional retailing to the most recent improvement - online stores.

Having recognized the part and significance of perceived risk and shopping comfort, the present study endeavors to dissect the impact of perceived risk and shopping convenience on online purchase intention.

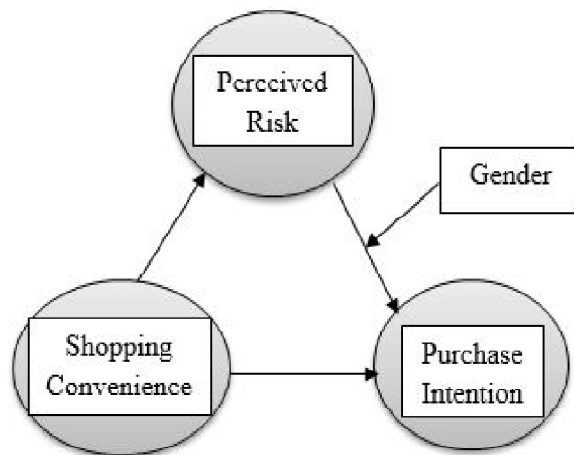


Figure 1: Proposed Model

The broad objective is to study the influence of shopping convenience and perceived risk on online purchase intention.

### **HYPOTHESES FORMULATED**

- H1: There is a direct significant positive relationship between shopping convenience and purchase intention.  
H2: The relationship between shopping convenience and purchase intention is mediated by perceived risk.  
H3: The indirect influence of shopping convenience on purchase intention via perceived risk is moderated by gender H3a) Males H3b) Females.

### **METHODOLOGY OF THE STUDY**

**Research Approach:** The research approach is empirical.

**Tools employed in the study:** An instrument specific to the context with a total of 29 items was adapted. Responses of each of the item were measured on a five-point Likert scale, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The instrument starts with statements about online shopping convenience followed by perceived risk from an online transaction, purchase intention followed by personal details of respondents like age, gender, Qualification, occupation, Online shopping experience.

**Sample size and data collection:** Data was collected from 116 respondents from Visakhapatnam, the major city of Andhra Pradesh and convenience sampling was used for the study. Data was analyzed using Hayes PROCESS MACRO for SPSS 2.16.3.

**Measures:** To measure online purchasing intention, we first asked participants to indicate how many electronic products they purchased each year. To measure online shopping convenience and risk Forsythe (2006) scale was adopted. For measuring online purchase intention, (Kim, Xu, & Gupta, 2012) scale was selected. All items were measured on a five-point scale. The reliability of the scale was acceptable with Cronbach alpha of 0.759.

### **DATA ANALYSIS AND RESULTS**

To test indirect effects and moderating effect, we used the SPSS macro model 14 developed by Preacher and Hayes (2013), which is based on the nonparametric bootstrapping procedure outlined by Preacher and Hayes (2009). Indirect effects were considered significant at  $p < .05$  when the 95% confidence interval (CI) for the indirect effect did not include zero.

As predicted in hypothesis 1, shopping convenience was positively associated with purchase intention. Shopping convenience negatively related to perceived risk indicates that with the increase of convenience, consumer perception of risk decreases. Perceived risk negatively relates to intention indicating lower the risk the intention to purchase is more. Hypothesis 2 was supported, i.e., Perceived risk mediates the link between shopping convenience and purchase intention. Results indicate that gender plays as a moderator on the relationship between perceived risk and purchase intention. Only for females moderating effect can be seen. Bootstrapping with 10000 samples provides the effects, 95% bias-corrected confidence intervals, and p-values for the indirect and the interaction effects. The results show that convenience explains a substantial proportion of variance ( $R^2=.55$ ;  $F(4,111)=34.0727$ ,  $p<.001$ ). All direct and indirect effects are statistically significant ( $p<.01$ ), and their confidence intervals did not include zero (Table 2).

**Table 1**  
**Model Summary Coefficients for the Conditional Process Analysis**

<i>Antecedent</i>	<i>Consequent</i>							
	<i>M (Risk)</i>			<i>Y (Purchase Intention)</i>				
	<i>Coefficient</i>	<i>SE</i>	<i>P Value</i>	<i>Coefficient</i>	<i>SE</i>	<i>P Value</i>		
X (Convenience)	a	-0.7884	0.1149	0.000	c <sup>1</sup>	0.7784	0.974	0.0000
M (Risk)					b <sub>1</sub>	-0.7985	0.1817	0.0000
V (Gender)					b <sub>2</sub>	-1.0468	0.3007	0.0007
M×V					b <sub>3</sub>	0.4232	0.1138	0.0003
Constant	i <sub>1</sub>	5.5112	0.4309	0.000	i <sub>2</sub>	2.8786	0.6394	0.0000
		R <sup>2</sup> = .2922				R <sup>2</sup> = 0.5511		
		F(1,114) = 47.0661, P < 0.001				F(4,111) = 34.0727, P < 0.001		

**Table 2**  
**Direct and Indirect effects of Variables under Study**

<i>H1 : Direct effect of shopping convenience on purchase intention</i>						
<i>Effect</i>	<i>SE</i>	<i>t</i>	<i>p</i>	<i>LLCI</i>	<i>ULCI</i>	<i>Supported</i>
.7784	.0974	7.9924	.0000	.5854	.9714	Yes
<i>H3 : Conditional Indirect effects of shopping convenience on purchase intention at the values of moderator</i>						
<i>Mediator</i>						
	<i>Gender</i>	<i>Effect</i>	<i>SE</i>	<i>LLCI</i>	<i>ULCI</i>	<i>Supported</i>
H3a: Risk	Female	.2959	.0742	.1552	.4455	Yes
H3b: Risk	Male	-.0377	.0758	-.1843	.1157	No

LLCI = Lower Level Confidence Interval.

ULCI = Upper Level Confidence Interval.

## DISCUSSION

This study aimed to test the mediation effect of perceived risk on the relationship between shopping convenience and purchase intention. This study contributes to the growing literature on electronic shopping in important aspects. It shows that how shopping convenience relates positively to purchase intention of electronic shopping and elucidates the mediating process that explains this relation. Additionally, it demonstrates how convenience reduces the risk perceived by individuals on an online purchase, which, in turn, promotes purchase intention among consumers. Consumers perception of high levels of shopping convenience reduces the risk perception which in turn promotes online sales. Noticeably, we did not get full mediation between shopping convenience and purchase intention via perceived risk. The significant direct relationship between shopping convenience and purchase intention implies partial mediation. Further research is needed to understand the mechanism of other mediators of the convenience and purchase intention link. Conditional indirect effects are found significant for males. Finally, the overall moderated mediation model showed significant variance (55 %) in purchase intention. In the effect size computation, convenience was found to be an important factor that promotes purchase intention in the electronic shopping domain.

## IMPLICATIONS

The theoretical importance of the present research is three fold. First, perceived risk is found to mediate the relationship between shopping convenience and purchase intention. Secondly, we examined the role of perceived risk as a mediator of the relationship between shopping convenience and purchase intention. This finding suggests that online shopping attracts greater risk because of its virtual nature. Consumers still perceived risk with online shopping. This finding is significant because previous studies (Forsythe et al., 2006) have shown various types of risks seen by consumers in a virtual environment. Online shopping attracts many consumers because of its convenience, but at the same time, unpredictable nature of e-stores hinder consumers from doing online shopping. This study contradicts the previous research in the interaction effects. Prior studies found interaction effect for both, unlike this study. Females are very much inclined towards risk, unlike males. Higher the risk lower the purchase intention for females whereas there is no interaction effect for males. This study offers insights for academicians in e-commerce research, and online stores have to implement risk reduction strategies for gaining extensive online consumer base.

## LIMITATIONS

The study design is cross sectional, and the sample size is small. Results may vary with large sample size. The present study also has prospects for future research. The process model can be tested with a longitudinal design. Another scope for future research is the partial mediation effect seen in the proposed model. So, there exists a high possibility of other mediators that could be included in these paths. The future researcher may also analyze this model using parallel mediation concept, including other mediators. The three path mediation analysis showed that the perceived risk mediated the relationship between shopping convenience and purchase intention.

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