

# Factors Influencing on Online Shopping Attitude and Intention of Mongolian Consumers

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## ABSTRACT

*The purpose of this study was to investigate Mongolian consumer perception of online shopping, as well as the factors influencing on their attitude toward online shopping and their effect on their intention toward online shopping. Sample of this study included online shopping consumers of Mongolian. The study used e-survey to collect data with 107 (10.7%) valid data. The regression analysis was used to analysis the relationship between dependent and independent variables, and discovered mediation. The results of this study found that consumer innovativeness, perceived benefits and perceived risk are important determining factors influencing online shopping. Also the findings shown that consumer innovativeness, perceived benefits had positive impact on consumer shopping attitude, and perceived risk had a negative impact on consumer online shopping attitude. Moreover, consumer innovativeness, perceived benefits, perceived risk had an indirect effect on the intention of online shopping. The results of this study nearly supported all hypotheses.*

**Keywords:** *E-commerce, Consumer Innovativeness, Perceived Benefits, Perceived Risk, Online Shopping Attitude, Online Shopping Intention.*

## INTRODUCTION

E-commerce referred to the buying and selling of products, services, that through electronic network. Online shopping was one of the most important activities of E-commerce. Online shopping activity was broadly defined, included finding online retailers and products, searching for product information, selecting payment options, communicating with other consumers, and purchasing products or services (Cai & Cude, 2008). Many online retail outlets made a noticeable effort to reach Mongolian consumers, but most of them have suffered loss and have detracted their investment because of insufficient customer base. Therefore, the online shopping behavior of Mongolian consumers needed to reveal.

The usage of the Internet for purchasing and selling activity has changed the path to the buyer-sellers relationship. Prior studies that conducted study was focused on developed countries of their consumers' online shopping behavior and influencing factors. The online shopping behavior and intention of developing countries consumers would be the interested issue to reveal. Mongolian consumer's online shopping behavior can contribute to existing literatures of online shopping behavior.

### Purpose

This study investigated what was Mongolian consumers' online shopping behavior and influencing factors. The main objectives were: 1) the study provided the behavioral model to better understand Mongolian consumer's online shopping behaviors, and 2) the study determined the influencing factors impacted on the online shopping intentions of Mongolian consumers.

## LITERATURE REVIEW

### **E-commerce**

E-commerce referred to a wide range of online business activities for products and services (Rosen, 2000). E-commerce was the use of electronic communications and digital information processing technology doing business transactions to create, transform, and redefine relationships for value creation between or among organizations (Andam, 2003). Electronic Commerce (e-commerce) is the process of buying, selling transferring, or exchanging products, services and /or information via computer networks (Turban et al., 2008). Schneider (2008) mentioned that E-commerce includes many activities, such as business trading with other businesses and internal processes. Companies use E-commerce to support their buying, selling, hiring, planning, and other activities (Schneider, 2008). There are several major types of e-commerce are business-to-business (B2B), business to consumer (B2C), government to business (G2B), consumer to consumer (C2C), and consumer to business (C2B) (Andam, 2003; Schneider, 2008; Turban et al., 2008).

### **Consumer Innovativeness**

The concept of consumer innovativeness was connected to the new product or new service adoption process that received considerable attention (Hirschman, 1980; Midgley & Dowling, 1978; Rogers & Shoemaker, 1971). Rogers and Shoemaker (1971) defined consumer innovativeness was the degree which an individual adopted an innovation before other members of his or her social system. Hirschman (1980) defined consumer innovativeness is personality trait that relate to individual's desire to seek new stimuli. Consumer innovativeness was the degree to which an individual is relatively earlier in adopting an innovation than other members of system (Rogers, 2003). Early adopters contributed to a new product or service's initial sales, and provided important word of mouth communication about the new product to later adopters (Citrin et al., 2000).

### **Perceived Benefits**

Wu (2003) defined that perceived benefits was the consumers needs or wants the sum of online shopping advantages or satisfactions. Perceived benefits of shopping online were the consumer's subjective perception of gain from shopping online (Forsythe et al., 2006). Also Kim et al. (2008) defined perceived benefit is as a consumer's belief about the extent to which he or she will become better off from the online transaction with a certain online shopping.

Bagdoniene and Zemblyte (2009) found the main reasons that Lithuanian consumers shop to online are the convenience, product variety, purchase surrounding, information, and brand. Forsythe et al. (2006) identified that the four dimensions of perceived benefits of online shopping were shopping convenience, product selection, ease/comfort of shopping, and hedonic/enjoyment. Shopping convenience was an important dimension of perceived benefits, particularly in the online shopping context. Product selection was defined as the availability of a wide range of products and product information to support consumer decision making with an important benefit of online shopping (Forsythe et al., 2006). Ease/comfort of shopping was thought of as avoiding the physical and emotional hassles of shopping in other channels (Forsythe et al., 2006). Hedonic/enjoyment was defined as to do with the fun and excitement experience by trying new experiences, custom designing products, etc. (Forsythe et al., 2006).

### **Perceived Risk**

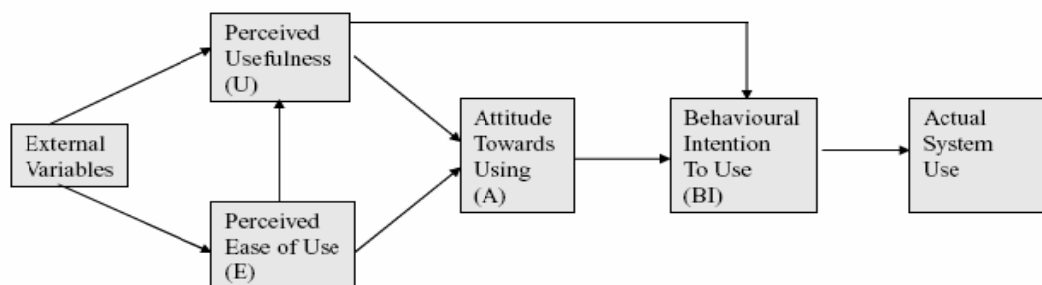
Perceived risk was consumer's perceptions of the uncertainty, and advised consequences of buying a product or service (Dowling & Staelin, 1994). Forsythe and Shi (2003) defined perceived risk in online shopping as the subjectively determined expectation of loss by an Internet shopper. Pavlou (2003) defined perceived risk as consumers' subjective fear of suffering a loss in pursuit of a desired outcome. Perceived risk is a consumer's belief about the potential uncertain negative outcomes from the online transaction (Kim et al., 2008). Perceived risk considered as the main barrier to online shopping (Bhatnagar et al., 2000; Kau et al., 2003; Forshyte & Shi, 2003; Kim et al., 2008). Bhatnagar et al. (2000) found that perception of risk significantly decreases the likelihood that an individual will purchase goods or services online.

Researchers classified various types of perceived risk, such as the risk dimensions typically considered were economic risk, privacy risk, personal risk, and performance risk (Jarvenpaa & Todd, 1996). Bhatnagar et al. (2000) classified two types of risk that were product category risk and financial risk. Vijayasathy (2003) mentioned two dimension of perceived risk including privacy risk and security risk. Consumer personal information and their browsing and shopping habits can be captured online, and the potential opportunity for misusing information may elevate the degree of privacy risks to unacceptable levels (Vijayasathy, 2003). Vijayasathy (2003) defined security was the extent to which a consumer believes that making payments online is secure.

### Online Shopping Attitude

Attitude was a predisposition to behave in a consistently favorable or unfavorable way to product, service, or method of conducting commerce (Schiffman & Kanuk, 2000). Vijayasathy (2003) defined attitude as the extent which a consumer likes online shopping, and considered it to be a good idea. Understanding consumer attitudes toward online shopping can help marketing managers predict the online shopping rate and evaluate the future growth of online shopping (Wu, 2003).

Davis (1989) proposed that the technology acceptance model (TAM) explain the potential user’s adopt or use of new information system (IS) or new information technology (IT). TAM was based on the theory of reasoned action (TRA) (Fishbein et al., 1975, 1980). It assumed that user acceptance of technology can be explained two primary beliefs, including perceived ease of use and perceived usefulness, as determinants of attitude towards using and intentions to use, shown as Figure 1.



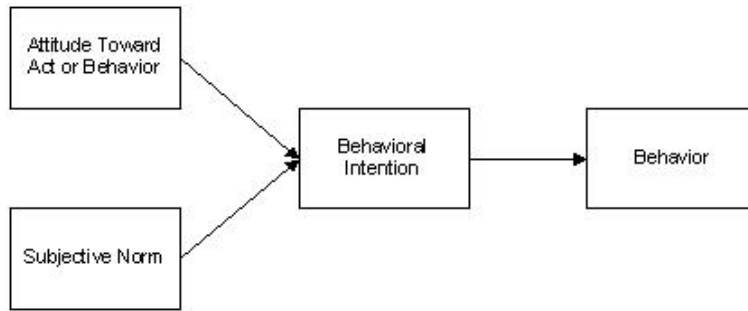
**Figure 1: Technology Acceptance Model**

*Note. From "Perceived usefulness, perceived ease of use, and user acceptance of information technology," by F. D. Davis (1989), MIS Quarterly , 13 (3), p. 318-339.*

The TAM had shown that a consumer’s attitude towards using an information technology impacts the actual usage of the system. Attitude referred to the degree which a person has a favorable or unfavorable evaluation or appraisal of the behavior (Ajzen, 1991). Jarvenpaa and Todd (1997) found that online shopping benefits were positively associated with attitude and intentions toward online shopping.

### Online shopping Intention

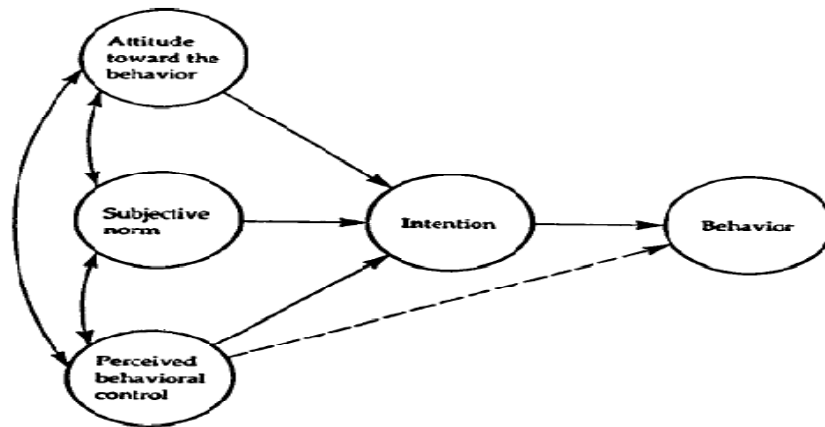
Shopping intention does not equate to actual purchase behavior, it has been demonstrated that measures of purchase intention do possess predictive usefulness (Jamieson & Bass, 1989). Fishbein and Ajzen (1975, 1980) developed the theory of reasoned action (TRA), shown as Figure 2. Theory of reasoned action proposed that behavioral intention was a function of attitude toward behavior and subjective norms. The Theory of Reasoned Action (TRA) proposes that people form intentions to adopt a behavior or technology based on their beliefs about the consequences of adoption.



**Figure 2: Theory of Reasoned Action**

Note. From "Belief, attitude, intention, and behavior: An introduction to theory and research," by M. Fishbein and I. Ajzen (1975), Addison-Wesley, USA.

The Theory of Planned Behavior (TPB) (Ajzen 1985, 1991) extended the Theory of Reasoned Action (Fishbein & Ajzen 1975) to posit that attitude toward a behavior, subjective norm, and perceived behavioral controls are the prior of intention to perform a behavior, shown as Figure 3.



**Figure 3: Theory of Planned Behavior**

Note. From "The theory of planned behavior," by I. Ajzen (1991), *Organizational Behaviour and Human Decision Process*, 50, p. 179-211.

Ajzen and Fishbein (1980) demonstrated that behavior can be predicted by intentions, and that intentions were determined by attitude and subjective norms. Intentions represent the strength of an individual's plans to perform a specific behavior. Also the main factor in the theory of planned behavior was the individual's intention. Intentions were assumed to capture the motivational factors that influence a behavior. Consumers were indications of how hard people were willing to try, of how much of an effort they were planning to exert, in order to perform the behavior (Ajzen, 1991).

### Online shopping attitude and Intention

The researchers (Teo, 2001; Wu, 2003; Chiu et al., 2005; Vijayasathy, 2003; Chang et al., 2008; Laohapesang, 2009) had extensively adopted or based on the theory of planned behavior (TRP) (Ajzen, 1985, 1991) and the technology acceptance model (TAM) (Davis, 1989) to explain or predict consumer online shopping attitude, and online shopping intention. Chang et al. (2005) observed six studies of attitude toward online shopping and all studies showed attitude toward online shopping significant positive impact on online shopping intention and behavior.

Vijayasathy (2003) conducted a study to examine consumer shopping intentions and augment technology acceptance model. The study results indicated that positive associated with the consumers' online shopping attention and online shopping attitude. Donthu and Garcia (1999) found that consumer innovativeness positively influenced online shopping behaviors and online shopping intention, the direct effects being mediated by attitude. Goldsmith (2002) study indicated that consumer innovativeness positively influenced on the online shopping attitude.

## METHODOLOGY

### Theoretical Framework

Based on the literature, this thesis proposed the research framework, as shown in Figure 4. This theoretical framework included six components: 1) consumer innovativeness (McKnight et al., 2002), 2) consumer demographics (Joines et al., 2003), 3) perceived benefits (Forsythe et al., 2006), 4) perceived risk (Vijayasathya, 2003), 5) online shopping attitude (Vijayasathya, 2003), and 6) online shopping intention (Vijayasathya, 2003).

In this study, consumer's innovativeness was measured using five consumer innovativeness questions. (McKnight et al., 2002). Perceived benefits was focused on four benefits, namely, 1) shopping convenience 2) product selection 3) ease/comfort of shopping 4) hedonic/enjoyment. (Forsythe et al., 2006). Perceived risk was focused on two risk, namely, 1) privacy risk 2) security risk (Vijayasathya,2003). Attitude toward online shopping and online purchase intention developed by Vijayasathya ( 2003).



**Figure 4: Theoretical Framework**

### Sampling Plan

The sample was limited registered consumers of online stores in Mongolian. Study randomly selected consumers of www.tedy.mn online store in Mongolian.

### Instrumentation

According to theoretical framework, the study developed 29 item questionnaires. The questionnaire comprised from items related to consumer innovativeness, perceived benefits, perceived risk, online shopping attitude, and online shopping intention. All the measurement items were adopted from prior studies (McKnight et al., 2002; Vijayasathya, 2003; Forsythe et al., 2006).

The five-part, self-report survey was used to collect data. Part 1 was measured consumer innovativeness with five item questions, and developed by McKnight et al. (2002). Part 2 was measured perceived benefits with eight item questions, and developed by Forsythe et al. (2006). Part 2 with four dimensions of perceived benefits were developed by Forsythe et al. (2006), including 1) shopping convenience, 2) product selection, 3) ease/comfort shopping, and 4) hedonic/enjoyment. Part 3 with two dimensions of perceived risk were developed by Vijayasathya (2003), including 1) privacy risk, 2) security risk. Part 4 measured online shopping attitude and developed by Vijayasathya (2003). Part 5 measured online shopping intention was developed by Vijayasathya (2003), shown in the Table 1. In the Table 1 The Cronach's alpha was greater than 0.7, the reliability was acceptable.

**Table 1: Reliability of the Study**

Dimension	Number of items	Cronbach's alph
<b>Consumer innovativeness</b> (McKnight et al.2002)	5	0.73
<b>Perceived benefits</b> (Forsythe et al.2006)		
Convenience	4	0.91
Selection	4	0.78
Ease/Comfort of Shopping	4	0.90
Enjoyment/Hedonic	4	0.91
<b>Perceived risk</b> (Vijayasathya 2004)		
Privacy risk	2	0.89
Security risk	2	0.85
<b>Attitude</b> (Vijayasathya 2003)	2	0.93
<b>Intention</b> (Vijayasathya 2003)	2	0.94

## Data Analysis

The study used a web-based survey to collect data. The data were analyzed using the SPSS 16.0 statistical package. The study used regression analysis to test data.

## RESULTS

The study received 178 surveys responds. There were 71 invalid data and removed, and ended up 107 (10.7 percent rate) valid data, as shown in Table 2.

**Table 2: Statistics Frequencies of Samples**

N	Frequency		Percentage
	Invalid Sample	71	39.9%
Valid Sample	107	60.1%	
Total	178	100%	

### H1: Consumer innovativeness has a positive impact on consumer online shopping attitude.

Regression analysis was used to measure the influence of consumer innovativeness on attitude toward online shopping. As shown in Table 3, the regression analyzed the relationship between consumer innovativeness and online shopping attitude was significant ( $p < 0.01$ ). The adjusted  $R^2$  indicated that consumer innovativeness as a whole explained 6.7% (.067) of the variance in attitude toward online shopping. To analyze the individual predictors t-statistics ( $t = 2.942$ ,  $p < 0.01$ ) and  $\beta$  coefficient (0.276) found to be significant. The result found that wake positive relationship exists between attitude toward online shopping and consumer innovativeness. Therefore, H1 was supported.

**Table 3: Regression Analysis for Consumer Innovativeness**

Model	$R^2$	Adjusted $R^2$	Unstandardized coefficient		Stand.coeff	t
			B	Std.error	Beta	
Consumer innovativeness	0.076	0.067	0.289	0.098	0.276	2.942**

Notes: \* $p < 0.05$ ; \*\* $p < 0.01$

### H2: Effect of type of perceived benefits (shopping convenience) on online shopping attitude.

Regression analysis was used to measure the effect type of perceived benefits (shopping convenience) on online shopping attitude. As shown in Table 4, the regression analyzing the attitude toward online shopping was significant ( $p < 0.01$ ). The adjusted  $R^2$  indicated that effect of type of perceived benefits (shopping convenience) as a whole explained 35.8% (.358) of the variance in online shopping attitude. To analyze the individual predictors, t-statistics ( $t = 7.653$ ,  $p < 0.01$ ) and  $\beta$  coefficient (0.598) found to be significant. The result found that type of perceived benefits (shopping convenience) positive effect on online shopping attitude. Therefore, H2 was supported.

**Table 4: Regression Analysis for Perceived Benefits (Shopping Convenience)**

Models	$R^2$	Adjusted $R^2$	Unstandardized coefficient		Stand.coeff	t
			B	Std.error	Beta	
Convenience	0.598	0.358	0.759	0.099	0.598	7.653**

Notes: \* $p < 0.05$ ; \*\* $p < 0.01$

### H3: Effect of type of perceived benefits (product selection) on online shopping attitude.

Regression analysis was employed to examine the effect of types of perceived benefits (shopping selection) on online shopping attitude. The regression analyzing was significant ( $p < 0.01$ ). The adjusted  $R^2$  indicated that effect of type of perceived benefits (product selection) as a whole explained 61.7% (.617) of the variance in online shopping attitude. To analyze the individual predictors, t-statistics ( $t = 13.10$ ,  $p < 0.01$ ) and  $\beta$  coefficient (0.788) found to be significant. The result found that type of perceived benefits (shopping selection) positive effect on online shopping attitude, as shown in Table 5. Consequently, H3 was supported.

**Table 5: Regression Analysis for Perceived Benefits (Product Selection)**

Models	R <sup>2</sup>	Adjusted R <sup>2</sup>	Unstandardized coefficient		Stand.coeff	t
			B	Std.error	Beta	
Selection	0.620	0.617	0.714	0.055	0.788	13.100**

Notes: \* $p < 0.05$ ; \*\* $p < 0.01$

#### H4: Effect of type of perceived benefits (ease/comfort) on online shopping attitude.

Regression analysis was used to measure the effect of type of perceived benefits (ease/comfort shopping) on online shopping attitude. In Table 6, the F value (109.9) for the regression analyzing was significant ( $p < 0.01$ ). The adjusted R<sup>2</sup> indicated that effect of type of perceived benefits (ease/comfort) as a whole explained 50.7% (.507) of the variance in attitude toward online shopping. To analyze the individual predictors, t-statistics ( $t = 10.488$ ,  $p < 0.01$ ) and  $\beta$  coefficient (0.715) found to be significant. The result found that type of perceived benefits (ease/comfort shopping) positive effect on attitude toward online purchasing. Therefore, H4 was supported.

**Table 6: Regression Analysis for Perceived Benefits(Ease/Comfort)**

Models	R <sup>2</sup>	Adjusted R <sup>2</sup>	Unstandardized coefficient		Stand.coeff	t
			B	Std.error	Beta	
Ease/comfort	0.511	0.507	0.634	0.060	0.715	10.488**

Notes: \* $p < 0.05$ ; \*\* $p < 0.01$

#### H5: Effect of type of perceived benefits (hedonic/enjoyment) on online shopping attitude.

Regression analysis was employed to examine the effect of type of perceived benefits (hedonic/enjoyment) on online shopping attitude. As shown in Table 7, the regression analyzing was significant ( $p < 0.01$ ). The adjusted R<sup>2</sup> indicated that effect of type of perceived benefits (hedonic/enjoyment) as a whole explained 59.7% (.597) of the variance in attitude toward online shopping. To analyze the individual predictors, t-statistics ( $t = 12.565$ ,  $p < 0.01$ ) and  $\beta$  coefficient (0.755) found to be significant. The result found that type of perceived benefits (hedonic/enjoyment) positive effect on online shopping attitude. Therefore, H5 was supported.

**Table 7: Regression Analysis for Perceived Benefits (Hedonic/Enjoyment)**

Models	R <sup>2</sup>	Adjusted R <sup>2</sup>	Unstandardized coefficient		Stand.coeff	t
			B	Std.error	Beta	
Enjoyment/Hedonic	0.600	0.597	0.815	0.065	0.755	12.565**

Notes: \* $p < 0.05$ ; \*\* $p < 0.01$

#### H6: The perceived risk (privacy risk) has a negative impact on online shopping attitude.

Regression analysis was employed to examine the privacy risk on online shopping attitude. As shown in Table 8, the regression analyzing was significant ( $p < 0.01$ ). The adjusted R<sup>2</sup> indicated that privacy risk as a whole explained 17.5% (.175) of the variance in attitude toward online shopping. To analyze the individual predictors, t-statistics ( $t = -4.86$ ,  $p < 0.01$ ) and  $\beta$  coefficient (-0.427) found to be significant. In summary, the result found that privacy risk negative impact on online shopping attitude. Therefore, H6 was supported.

**Table 8: Regression Analysis for Privacy Risk**

Models	R <sup>2</sup>	Adjusted R <sup>2</sup>	Unstandardized coefficient		Stand.coeff	t
			B	Std.error	Beta	
Privacy risk	0.183	0.175	-0.470	0.097	-0.427	-0.486**

Notes: \* $p < 0.05$ ; \*\* $p < 0.01$

#### H7: The perceived risk (security risk) has a negative impact on online shopping attitude.

Regression analysis was used to measure the security risk on online shopping attitude. As shown in Table 9, the regression analyzing was significant ( $p < 0.01$ ). The adjusted R<sup>2</sup> indicated that security risk as a whole explained 33% (.33) of the variance in attitude toward online shopping. To analyze the individual predictors, t-statistics ( $t = -7.298$ ,

$p < 0.01$ ) and  $\beta$  coefficient (-0.580) found to be significant. The result found that security risk negative impact on attitude toward online purchasing. Therefore, H7 was supported.

**Table 9: Regression Analysis for Security Risk**

Models	R <sup>2</sup>	Adjusted R <sup>2</sup>	Unstandardized coefficient		Stand. coeff	t
			B	Std.error	Beta	
Security risk	0.337	0.330	-0.561	0.077	-0.580	-7.298**

Notes: \* $p < 0.05$ ; \*\* $p < 0.01$

**H8: Consumer attitudes have a positive direct impact on online shopping intentions.**

Regression analysis was used to measure the influence of consumer attitude on online purchase intention. As shown in Table 10, the regression analyzing the relationship between online shopping attitude and intention was significant ( $p < 0.01$ ). The adjusted R<sup>2</sup> indicated that consumer attitude as a whole explained 69.9% (.699) of the variance in online shopping intention. To analyze the individual predictors t-statistics ( $t = 15.604$ ,  $p < 0.01$ ) and  $\beta$  coefficient (0.836) found to be significant. The result found that consumer attitude positive direct influence on online purchase intention. Consequently, H8 was supported.

**Table 10: Regression Analysis for Online Shopping Attitude and Online Shopping Intention**

Model	R <sup>2</sup>	Adjusted R <sup>2</sup>	Unstandardized coefficient		Stand. coeff	t
			B	Std.error	Beta	
Attitude	0.699	0.696	0.882	0.057	0.836	15.604**

Notes: \* $p < 0.05$ ; \*\* $p < 0.01$

**DISCUSSION**

The general purpose of this study was to examine Mongolian consumers' online shopping behavior and intention, and determined influencing factors. The study was examined that consumer' perceptions of online shopping and the factors influenced on online shopping attitude in Mongolian. The results of this study supported nearly all hypotheses. The study findings that consumer innovativeness, perceived benefits, and perceived risk are important determining factors influencing on consumer online shopping attitude and online shopping intention. This study found that consumer innovativeness had a positive influenced on online shopping attitude. In turn, online consumers were innovators in Mongolian.

The study found that perceived benefits positively influenced on online shopping attitude. Online shopping consumers of Mongolian agreed that online shopping was more convenient. Perceived benefits were the major motivation factor for online consumers in Mongolia. The findings suggest that online stores need to provide more convenience, wider selection of products and a more easily navigable website in order to attract online consumers and motivate them to make purchases.

The study found perceived risk negatively influenced on attitudes toward online shopping. Privacy risk was associated with personal information and personal information includes their statement data. The study results confirmed earlier studies revealed that perceived risk was a major barrier to shopping online. Mongolian consumers mistrust online stores' ability for protecting their personal information.

This study found that consumer innovativeness had a positive influenced on online shopping attitude, and Mongolian online shoppers are an innovator. The perceived benefits positively influenced on attitude toward online shopping, and the main reasons that Mongolian consumers shop online was perceived benefits. In turn, Mongolian consumers accepted that online shopping was more convenience, product selection, ease/comfort, and hedonic/enjoyment compared to other channel shopping.

This study found that perceived risk negative influenced on attitude toward online shopping. Perceived risk was that the most majority barrier for consumers didn't shop online in Mongolia. This study found that online shopping attitude directly positive influenced on online shopping intention.



## Limitations and Future Research

The study respondents only from Mongolians who shop online that might limit on cultural differences in the shopping behaviors. Future research need to focus on a larger section of Mongolian consumers, and using different models to exam factors.

## REFERENCES

- Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In K. J. & B. J, Action Control: From Cognition behavior (11-39). Springer Verlag: New York.
- Ajzen, I. (1991). The theory of planned behaviour. *Organizational Behaviour and Human Decision Process* , 50, 179-211.
- Ajzen, I., & Fishbein, M. (1980). Understanding attitudes and predicting social behaviour. Prentice-Hall: New Jersey.
- Andam, Z. R. (2003). E-commerce and E-business. E-ASEAN Task Force.
- Bagdoniene, L., & Zemblyte, J. (2009). Online shopping motivation factors and their effect on Luthuanian consumers. *Economics & Management* , 1 (1).1-9.
- Bhatnagar, A., & Ghose, S. (2004). Segmenting consumers based on the benefits and risks of Internet shopping. *Business Research* , 57 (12), 1352-1360.
- Bhatnagar, A. Mirsa, S., & Rao, R. H. (2000). On risk, convenience, and Internet shopping behavior. *Communications of the ACM* , 43 (11), 98-105.
- Cai, Y., & Cude, B. J. (2008). Online shopping. In *Handbook of Consumer Finance Research*. Springer.
- Chang, H. H., & Chen, S. W. (2008). The impact of online store environment cues on purchase intention trust and perceived risk as a mediator. *Online Information Review* , 32 (6), 818-841.
- Chang, M. K., Cheung, W., & Lai, V. S. (2005). Literature derived reference models for the adoption of online shopping. *Information & Management* , 42 (4), 543-559.
- Chiu, C.M, & Chang, C.C. (2009). Determinants of customer repurchase intention in online shopping. *Online Information Review* , 33 (4), 761-748.
- Chiu, Y.B., Lin, C.P., & Tang, L.-L. (2005). Gender differs: assessing a model of online purchase intentions in e-tail service. *International Journal of Service Industry Management* , 16 (5), 416-435.
- Citrin, A. V., Sprott, D. E., Silverman, S. N., & Stem, D. E. (2000). Adoption of Internet shopping: the role of consumer. *Industrial Management* , 100 (7), 294-300.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly* , 13 (3), 318-339.
- Donthu, N., & Garcia, A. (1999). The Internet shopper. *Advertising Research* , 39 (1), 52-58.
- Dowling, G. R., & Staelin, R. (1994). A model of perceived risk and intended risk-handling activity. *Journal of Consumer Research* , 21 (1), 119-34.
- Fishbein, M., & Ajzen, I. (1975). Belief, attitude, intention, and behavior: An introduction to theory and research. Addison-Wesley: Boston.
- Forsythe, S. M., & Shi, B. (2003). Consumer patronage and risk perceptions in Internet shopping. *Business Research* , 56 (11), 867-875.
- Forsythe, S., Liu, C., Shannon, D., & Gardner, L. C. (2006). Development of a scale to measure the perceived benefits and risks of online shopping. *Interactive Marketing* , 20 (2), 55-75.
- Hirschman, E. (1980). Innovativeness novelty seeking and consumer creativity. *Consumer Research* , 7 (3), 283-295.
- Jamieson, L.F., & Bass, F.M. (1989). Adjusting stated intention measures to predict trial purchase of products: a comparison of models and methods. *Journal of Marketing Research*, 26, 336-45.
- Jarvenpaa, S. L., & Todd, P. A. (1996). Consumer reactions to electronic shopping on the world wide web. *International Journal of Electronic Commerce* , 1 (2), 59-88.
- Jarvenpaa, S. L., & Todd, P. A. (1997). Is there a future of retailing on the Internet? In A. Peterson, *Electronic marketing and the consumers* (139-154).
- Joines, L. J., Scherer, W. C., & Scheufele, A. D. (2003). Exploring motivations for consumer web use and their implications for e-commerce. *Consumer Marketing* , 20 (2), 90-108.
- Kau, K. A., Tang, E. Y., & Ghose, S. (2003). Typology of online shoppers. *Journal of Consumer Marketing* , 20 (2), 139-156.
- Kim, D. J., Ferrin, D. L., & Rao, R. H. (2008). A trust-based consumer decision-making model in electroniccommerce: The role of trust, perceived risk, and their antecedents. *Decision Support Systems* , 44 (2), 544-564.
- Laohapensang, O. (2009). Factors influencing Internet shopping behaviour: a survey of consumers in Thailand. *Journal of Fashion Marketing and Management*, 13 (4), 501-513.

- Lee, D., Park, J., & Ahn, J. (2001). On the explanation of factors affecting e-commerce adoption. Proceedings of the 22nd International Conference on Information Systems, (109-120).
- McKnight, H. D., Choudhury, V., & Kacmar, C. (2002). Developing and validating trust measures for e-commerce: an integrative typology. *Information Systems Research* , 13, 334-359.
- Midgley, F. D., & Dowling, R. G. (1978). Innovativeness: The concept of its measurement. *Consumer Research* , 2 (4), 229-242.
- Pavlou, A. P. (2003). Consumer acceptance of electronic commerce: integrating trust and risk with the technology acceptance model. *Electronic Commerce* , 7 (3), 101-134.
- Rogers, E. M. (2003). *Diffusion of Innovations*. The Free Press: New York.
- Rogers, M. E., & Shoemaker, F. F. (1971). *Communication of Innovations: A Cross-cultural Approach*. The Free Press: New York.
- Rosen, A. (2000). *The E-commerce Question and Answer Book*. USA: American Management Association.
- Schiffman, L. G., & Kanuk, L. L. (2000). *Consumer Behavior 7th Edition*. Prentice Hall: New Jersey.
- Schneider, G. P. (2008). *E-Business*. Course Technology, Cengage Learning.
- Teo, T. (2001). Demographic and motivation variables associated with Internet usage activities. *Internet Research: Electronic Networking Applications and Policy* , 11 (2), 125-137.
- Turban, E., King, D., McKay, J., Marshall, P., Lee, J., & Viehland, D. (2008). *Electronic commerce : A Managerial Perspective*. Prentice Hall: New Jersey.
- Vijayarathy, L. R. (2003). Predicting consumer intentions to use on-line shopping: the case for an augmented technology acceptance model. *Information & Management* , 41 (6), 747-762.
- Wu, S.I. (2003). The relationship between consumer characteristics and attitude toward online shopping. *Marketing Intelligence & Planning* , 21 (1), 37-44.