IRJEMS International Research Journal of Economics and Management Studies
Published by Eternal Scientific Publications
ISSN: 2583 – 5238 / Volume 3 Issue 4 April 2024 / Pg. No: 125-129
Paper Id: IRJEMS-V3I4P118, Doi: 10.56472/25835238/IRJEMS-V3I4P118

Original Article

Assessing Risk Factors Affecting Customers' Online Shopping Behavior in Thai Nguyen City, Vietnam

[1]Thi Thanh Ha Nguyen
[1]Faculty of Industrial Economics, Thai Nguyen University of Technology, Thai Nguyen, Vietnam).

Received Date: 17 March 2024 Revised Date: 25 March 2024 Accepted Date: 02 April 2024 Published Date: 21 April 2024

Abstract: *The study conducted an online survey to measure the affecting of perceived risk factors on behavior of customers in online shopping in Thai Nguyen province, Vietnam. In order to evaluate the impacts of variables on one another using various analyses, a conceptual model was employed. The outcomes of testing the hypotheses showed that consumer spending on the internet is negatively impacted by non-delivery risk, comfort risk, and product risk. Financial risk and return policy are not statistically significant and have no impact on customers' online shopping behavior at all. This research can help managers of e-commerce sites better understand the risk factors that affect consumers' shopping intentions; thereby, e-commerce sites have more effective business strategies and improve competitiveness.*

Keywords: *Risk Factors, Customers' Online Shopping Behavior, E-commerce.*

I. INTRODUCTION

The e-commerce market has been developing rapidly, becoming an important distribution channel in Vietnam. The market size is estimated to be more than 56 billion USD by 2025 (four times higher compared to the scale in 2021). Due to the retail revenue of 16.4 billion USD in 2022, a growth rate of more than 20% per year, Vietnam is ranked top five countries leading e-commerce growth rate in the world. Since the outbreak of the Covid-19 epidemic, consumers have changed their shopping habits. Instead of going to the store to choose, 85% of his customers have switched to ordering online via website, fanpage, Facebook, Zalo and e-commerce platforms where the store sells products.

The number of products purchased online by Vietnamese consumers in 2022 has increased by more than 50% compared to 2021. The number of online retailers also increased by 57% leading to an increase in total online retail sales in 2022 by nearly 3 billion USD. Vietnam also has 75% of internet users participating in online shopping with a value of 260-285 USD/person/year. The most purchased items online are: clothes, shoes, cosmetics, appliances, household appliances, electronics and technology.

Currently, Vietnam has about 100 cross-border e-commerce exchanges, 139 units owning e-commerce trading floors in which there are 41 e-commerce floors selling goods and 98 e-commerce floors providing services. This market is dominated by the four "giants" providing the largest e-commerce floor in Vietnam, namely Shopee, Lazada, Tiki and Sendo. The total revenue of these four e-commerce floors reached VND 135 trillion with a total of 566 thousand stores with 1.3 billion units of products and orders in 2022. Shopee is the largest e-commerce platform, accounting for nearly 73% of the total market share. Lazada reaches about 21%, Tiki accounts for 5%, and Sendo holds about 1% of the market share.

The change in consumer behavior from traditional shopping to online shopping is thanks to the benefits this form brings, such as a wide range of products and services to choose from, convenience and economical, discounts and offers [1], no restrictions on shopping time and space, and mental comfort creating. Social connection network [2] [3] Besides the benefits, online shopping also has some potential risks for consumers, such as financial risks [4] [5], product risk [6], [7], convenience risks [8], non-delivery risk [9] and return policies risks [10]. Numerous questions are raised: are the exchanges online sufficiently secure enough? Are the goods sold online up to the par as described? Does the customer get the products he has requested on time? Therefore, the affecting of risk perception on the online shopping behavior of customers should be considered in order to give a critical understanding of shopping behavior.

II. LITERATURE REVIEW

Developing on the basis of the Theory of Rational Action (TRA), the Theory of Planned Behavior (TPB) assumes that a behavior can be predicted or explained by other factors [11]. Research confirms that behavior is affected by 3 factors: Attitude, Social influence and perceived behavioral control. The Technology Acceptance Model (TAM model) of [12] focuses on technology artifacts or important features in checking external variables that may affect consumers' beliefs and attitudes. Perceived ease of use, perceived usefulness, personal attitude and intentional behavior of the person to actually adopt the

technology. Information system use is measured and predicted using the TAM model. Since e-commerce is a byproduct of information technology development, research on related topics in e-commerce can benefit from the survey model of factors influencing e-technology adoption.

Lee (2002) integrated TAM and TPR risk perception theory in an empirical study in both the US and Korea to explain the adoption of e-commerce [13]. The study results indicate that perceived ease of use and perceived usefulness are significant, while perceived risk related to products/services online transactions must be reduced. Our study uses the TPR risk perception theory to analyze the factors affecting customers' online shopping behavior.

Online shopping behavior can be defined as the purchasing of goods or services online by using an electronic trading platform or e-commerce platform [14]. Through online shopping, customers are flexible in purchasing goods or services that match their demands. Compared to traditional retail business, shopping online leads to several risks that customers have to face [15]. Perceived risks mean the attitude of customers toward online shopping services, which make them dissatisfied or inconvenient with the services [16], [17].

A) Model and Hypotheses

There are numerous factors of perceived risks affecting customers' online behavior when they do online shopping. Financial risk: The risk of online safety and security in using banking transactions, personal information and payment may exceed the real price of goods [18]. Product risk: The customer may get damaged products caused by shipping or lower quality than the description of the product. Unauthentic goods is another matter of concern [19]. Convenience risk: convenience risk happens when the customers find it difficult to search for goods, pre-examine goods, cancel orders and return goods [20]. Non-Delivery risk: customers may not get goods because of untrusted shippers, as well as cannot have access to the delivery schedule so goods may not be delivered on time [21]. Return Policy Risk: Customers often worry about unclear return policies, return fees, the Inconvenience of paying back money, and complicated return procedures [22]. The research model and hypotheses are presented in Figure 1 and Table 1.

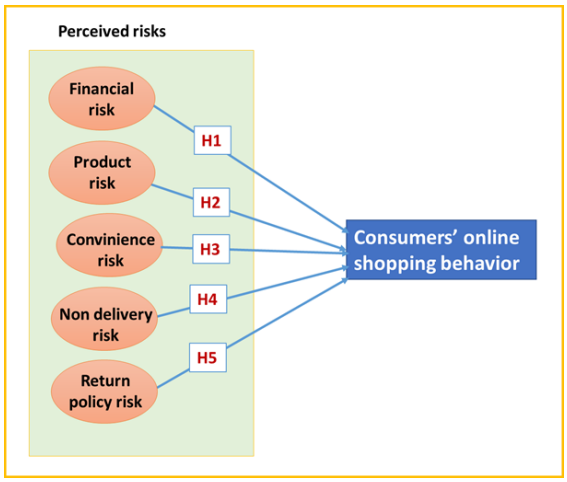

Figure 1: Research model

Table 1: Hypotheses

Hypothesis	Variable	Direction of affecting
H1	FR	Negative
H2	PR	Negative
H3	CR	Negative
H4	ND	Negative
H5	RP	Negative

B) Methodology

The target population of the study is internet users in Thai Nguyen City, Vietnam. Using the convenient sampling method of non-probability sampling techniques, the sample size of the study targeted 350 respondents. 350 questionnaires were randomly sent to the customers of online shopping stores in Thai Nguyen through Google Forms. The questionnaire was designed with a five-point Likert scale to assess the attitude and perception of customers in Thai Nguyen City towards risk factors affecting their behavior in online shopping. The questionnaire is divided into two parts. Part one includes questions on the perceived risk in customers' online shopping behavior, and part two collects respondents' demographic characteristics.

Cronbach's Alpha is used to estimate the internal consistency or reliability of a set of scales. To measure how suited the data is for factor analysis, KMO and Bartlett's Test Kaiser-Meyer-Olkin are used. The Confirmatory Factor Analysis (CFA) allows for estimating correlational relationships between different variables. The study also uses correlation analysis to estimate the linear relationship between two variables. Finally, a regression analysis is the final step to evaluate relationships between variables.

III. RESULTS AND DISCUSSION

A) Demographic Information

A total of 350 questionnaires were delivered to 350 online shopping customers, of which 295 responses were valid and reliable for analyzing and processing, which is equivalent to 84.3% data collected. The demographic profile of 295 respondents is shown in table 2. The table shows that 58.3% of online shopping customers are female, and 41.7% are male, confirming that female customers prefer online shopping rather than male ones. The group aged between 21 to 29 and 30 to 39 account for the highest percentages at 38% and 30.8%, while the one below 20 and above 50 constitute not more than 10%. Of the total, the age groups between 21 to 49 are the main target customers of online shopping. The percentage of respondents who have the qualification of PhD, master, or bachelor is 2.0%, 3.7%, 3.7%, and 45.8%, respectively. More than half of the respondents are married. 66.7% are from lower income (below VND 10 million per month). 69.8% are employed, while 30.2% are students, housewives. Nearly half of respondents often shop online once a month. Online shopping twice a month accounts for 32.9%, and more than twice a month constitutes 22%.

Table 2: Demographic Characteristics

Respondent demographics	Frequency	%
Gender		
Female	171	58.3
Male	124	41.7
Age		
< 20	16	5.4
21-29	112	38.0
30-39	91	30.8
40-49	64	21.7
>50	11	3.7
Education		
PhD	6	2.0
Master	11	3.7
Bachelor	135	45.8
Non-university	143	48.5
Marital status		
Married	168	56.9
Single	127	43.1
Income		
< VND 10 million	197	66.8
≥ VND 10 million	98	33.2
Professional		
Employment	206	69.8
Unemployment	89	30.2
Online shopping frequency		
Once a month	133	45.1
Twice a month	97	32.9
More than twice a month	65	22.0

B) Reliability Test

The estimated values of Cronbach's Alpha are used to check the reliability and internal consistency of the variables. Table 3 shows the values of Cronbach's Alpha of six variables are in the range between 0.75 to 0.92, which shows high reliability. It can be concluded that the scale is reliable, and the observed variables have good explanatory meaning for the Online Shopping Behavior (OSB) factor.

Table 3: Reliability Test

Variables	Number of Items	Factors	Cronbach's Alpha
FR	3	FR1) Payment exceeds the real price of goods FR2) Unsecured personal information FR3) Unsecured business transaction	.81
PR	3	PR1) Damage of goods PR2) Lower quality than the description PR3) Unauthentic goods	.75
CR	4	CR1) Inconvenience of good pre-examining CR2) Inconvenience of searching for goods CR3) Inconvenience of order cancellation CR4) Inconvenience of returning goods	.87
ND	3	NDR1) No delivery of goods NDR2) Untrusted shipper NDR3) No access to the delivery schedule	.83
RP	4	RPR1) Unclear return policy RPR2) Return fee RPR3) Inconvenience of paying back money RPR4) Complicated return procedures	.92
OSB	5	OSB1) Financial risk affection on OSB OSB2) Product risk affection on OSB OSB3) Convenience risk affection on OSB OSB4) Delivery risk affection on OSB OSB5) Return policy affection on OSB	.89

C) EFA Test

KMO test result = 0.842 > 0.5 with Sig of 0.000 < 0.05 (5%), showing that factor analysis is appropriate. Total variance extracted = 60.64% (> 50%) met the requirements and said that the groups of factors explained 60.64% of the variability of the data. This shows that the EFA analysis results are completely appropriate.

Table 4: KMO test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0,842
Bartlett's Test of Sphericity	Approx. Chi-Square	2457,635
	df	250
	Sig.	0,000

D) Regression Analysis

According to the linear regression results presented in Table 5, the significance level of the model is very small (Sig = 0.000) compared to the 5% significance level, so the regression model is set appropriately, adjusted R^2 value = 0.397 which means 39.7% of the variation in customers' online behavior is explained by factors included in the model, the remaining factors are other factors that have not been researched. Based on the statistical significance of each variable and the results of estimating the impact coefficient of each factor, it shows that there are 3 statistically significant factors (Sig. < 0.01), and they all have a negative relationship with OSB. The impact factors include PR, CR and ND. The remaining factors, FR and RP, are not statistically significant and have no impact on OBS at all.

Table 5: Regression results

		B	S.E.	Wald	df	Sig.
Step 1[a]	FR	-0.156	0.333	0.000	1	0.576
	PR	-1.395	0.317	17.484	1	0.000
	CR	-0.970	0.318	8.413	1	0.002
	ND	-0.992	0.368	6.542	1	0.006
	RP	0.291	0.266	1.078	1	0.247
	Constant	7.834	1.370	29.416	1	0.000
Sig.				0.000		
-2Log Likelihood				177.592		

LR chi^2	82.050
Cox and Snell R^2	0.266
Nagelkerke R^2	0.397

IV. CONCLUSION

The study conducted an online survey to measure the effect of risk factors perceived by the customers doing shopping online in Thai Nguyen province, Vietnam. In order to evaluate the impacts of variables on one another using various analyses, a conceptual model was employed. The hypothesis testing results showed that attitudes toward online buying behavior are negatively impacted by Product Risk (PR), Convenience Risk (CR), and return Policy Risk (RP). The financial risk is insignificant, explained by the fact that almost every online retail payment method in Vietnam is Cash on Delivery (COD), where the recipient pays for a good at the time of delivery rather than using credit. Therefore, financial risk is not significant in Vietnam's online shopping context. Return policy is also not a matter of concern because almost all e-commerce sites have a policy of 7 to 14 days after purchase to exchange or return unless noted in their exceptions. Customers can arrange for a scheduled collection from their homes to return products for free. The purchase amount, any relevant taxes, and any fees will be reimbursed to the original payment method upon receipt of the required receipt. With a greater understanding of the risk variables influencing consumers' shopping intents, online shopping site managers will be able to develop more competitive and successful business plans.

The study conducted in Thai Nguyen City causes the limitation of the study in terms of sample representation. Similar research should be scaled up to a larger sample to strengthen the results and to help e-commencers develop their online business policies to attract more customers by improving online purchasing services.

V. REFERENCES

[1] Forsythe, S., Liu, C., Shannon, D., & Gardner, L. C.: Development of a scale to measure the perceived benefits and risks of online shopping. Journal of Interactive Marketing, 20(2) (2006) 55-75.

[2] Arnold, M.J. and Reynolds, K.E.: Hedonic Shopping Motivations. Journal of Retailing, 79 (2003) 259-268.

[3] Nguyễn Minh Hà, Bùi Thành Khoa: Lợi ích tinh thần cảm nhận khi mua hàng trực tuyến. Tạp chí Khoa học Trường Đại học Mở Thành phố Hồ Chí Minh, 14(1) (2020) 3-20.

[4] Lê Thị Chi, Lê Thị Kim Anh, Nguyễn Thị Hồng Nguyên: Những tiện ích và rủi ro từ mua sắm trực tuyến trong bối cảnh dịch bệnh Covid -19 ở nước ta hiện nay. Tạp chí Công Thương, số 1 tháng 1 (2021).

[5] Franco, C.E. and Bulomine, R.S.: Advantages and Challenges of E-Commerce Customers and Businesses: In Indian Perspective. International Journal of Research, 4 (2016) 7-13.

[6] Alreck, P., & Settle, R. B.: Gender effects on Internet, catalogue and store shopping, Journal of Database Marketing & Customer Strategy Management, 9(2) (2002) 150-162.

[7] Dastane, O., Jalal, B. M., Ifwan, M., & Selvaraj, K.: Assessment of extended ES-Qual Model in an M-commerce setting. International Journal of Management, Accounting and Economics, 5(12) (2018) 923-954.

[8] Saprikis, V., Chouliara, A., & Vlachopoulou, M.: Perceptions towards online shopping: Analyzing the Greek university students' attitude. Communications of the IBIMA (2010).

[9] Kok Wai Tham et al.: Perceived Risk Factors Affecting Consumers' Online Shopping Behavior. Journal of Asian Finance, Economics and Business, 6(4) (2019) 249 – 260.

[10] Haider, A., & Nasir, N.: Factors affecting online shopping behavior of consumers in Lahore, Pakistan. Journal of Management Engineering and Information Technology, 3(6) (2016) 9-14.

[11] Fishbein, M., & Ajzen, I.: Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research. Reading, MA: Addison-Wesley (1975).

[12] Davis, F. D.: Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology, MIS Quarterly, VOL.13 (3) (1989) 319-340.

[13] Lee, P. M.: Behavioral model of online purchasers in e-commerce environment. Electronic Commerce Research, 2(1-2) (2002) 75-85.

[14] Liang, T. P., & Lai, H. J.: Electronic store design and consumer choice: An empirical study. In Proceedings of the 33rd Annual Hawaii International Conference on System Sciences (2000).

[15] Lee, K. S., & Tan, S. J.: E-retailing versus physical retailing: A theoretical model and empirical test of consumer choice. Journal of Business Research, 56(11) (2003) 877–885.

[16] Masoud, E. Y.: The effect of perceived risk on online shopping in Jordan. European Journal of Business and Management, 5(6), 76-87 (2013).

[17] Zheng, L., Favier, M., Huang, P., & Coat, F.: Chinese consumer perceived risk and risk relievers in E-shopping for clothing. Journal of Electronic Commerce Research, 13(3) (2012) 255-274.

[18] Abrar, K., Naveed, M., & Ramay, M. I.: Impact of perceived risk on online impulse buying tendency: An empirical study in the consumer market of Pakistan. Journal of Accounting & Marketing, 6(3) (2017).

[19] Cunningham, L. F., Gerlach, J. H., Harper, M. D., & Young, C. E.: Perceived risk and the consumer buying process: Internet airline reservations. International Journal of Service Industry Management, 16(4) (2005) 357-372.

[20] Forsythe, S., Liu, C., Shannon, D., & Gardner, L. C.: Development of a scale to measure the perceived benefits and risks of online shopping. Journal of Interactive Marketing, 20(2) (2006) 55-75.

[21] Masoud, E. Y.: The effect of perceived risk on online shopping in Jordan. European Journal of Business and Management, 5(6) (2013) 76-87.

[22] Haider, A., & Nasir, N.: Factors affecting online shopping behavior of consumers in Lahore, Pakistan. Journal of Management Engineering and Information Technology, 3(6) (2016) 9-14.