Contents lists available at GrowingScience

# International Journal of Data and Network Science

homepage: www.GrowingScience.com/ijds

## Factors influencing consumers' online shopping decisions

## Dinh Hoan Nguyen<sup>a\*</sup>, Thu Thuy Luong<sup>a</sup> and Thi Phuong Diu Tran<sup>a</sup>

<sup>a</sup>Department of Economic, Academy of Finance, Vietnam CHRONICLE ABSTRACT

The technological accordation has been able means benefits as well as shellowers to the secondary
The technological revolution has brought many benefits as well as challenges to the economy,
including Vietnam. The benefits of the technological revolution are associated with the applica-
tion of technology platforms to life, the development of e-commerce has made it possible for
customers to make online shopping and helps consumers and the platform to shop online economy
has the ability to reduce procurement costs. However, the challenges of the technological revolu-
tion can make it difficult for a group of people who are not yet tech-savvy to update and grasp the
benefits that technology brings. Studying the factors affecting the online shopping decision of
consumers in Vietnam, through a survey of 200 consumers and using regression analysis using
SPSS software, the research results show that: When consumers perceive the usefulness of online
shopping, they will make purchasing decisions to satisfy their personal needs. Moreover, product
quality is the most important factor affecting consumers' online shopping decisions. Research also
confirms the usefulness of reference groups when they can advise consumers to make online shop-
ping decisions.

© 2023 by the authors; licensee Growing Science, Canada.

#### 1. Introduction

In the activities of human life, satisfying consumer interests is an urgent need (Vu et al., 2022). In particular, online shopping appears to be a modern consumption channel and has the highest ability to meet humans' consumption needs. Indeed, the development of science and technology has brought a change in technology in general and in shopping and meeting the essential needs of life. The 4.0 technology revolution with the development of the internet, implementing digital transformation has brought many opportunities in shopping, and especially online shopping (Le, 2022). Through online shopping channels, customers' choices increase, at the same time, businesses also have more opportunities to promote products and increase shopping ability, shopping costs are also reduced, making businesses more efficient and more fruitful (Yokoyama et al., 2014).

According to the theory of consumer behavior, consumers often refer to goods before making a decision to buy or not to buy. Therefore, the source of information provided to consumers becomes important and influences purchasing decisions (Yang et al., 2016). Through online shopping channels, sales businesses must invest in product promotion activities to help their products reach consumers with the fastest time and lowest cost, to help consumers make a purchase decision. In addition, Luceri et al. (2022) argued that the penetration of mobile devices has reshaped the shopping journey of consumers, attracting the attention of both scholars and practitioners, it has greatly contributed to the decisions of online shopping from the customers. In particular, due to the impact of the pandemic, the online buying decision process has become more frequent and has the opportunity to develop more widely than today.

\* Corresponding author. E-mail address; hoannd@hytc.edu.yn (D. H. Nguyen)

ISSN 2561-8156 (Online) - ISSN 2561-8148 (Print) © 2023 by the authors; licensee Growing Science, Canada. doi: 10.5267/j.ijdns.2023.3.013 The COVID-19 pandemic started at the end of 2019 and had a profound impact on socio-economic life and economic decline in most countries. Moreover, the pandemic disrupts logistics and goods movement, and affects the shopping behavior of consumers. Before consumers were able to buy goods at traditional markets directly, during the COVID-19 pandemic, consumers could not move to markets or supermarkets to buy goods, they had to make purchases through online channels. It can be said that the pandemic has increased the decision to shop online, as consumers have no better choice.

Vietnam is a developing country in Asia that has been achieving achievements in socio-economic development (Van, 2020). Consumer habits are also gradually shifting from traditional to modern buying channels. The development of the internet and e-commerce, together with a young population with a high level of consumption, and the ability to apply technology have helped Vietnam to be assessed as a country with a high level of e-commerce development. In that context, consumers' purchasing decisions in Vietnam are also partly influenced by the pandemic and other factors. For that reason, Vietnam is considered a place with relatively developed online shopping activities. However, the complete study of the specific factors affecting the decision to buy online has not been specifically studied by other authors, especially in the case of a fast developing country in Asia, which is the main reason for doing this study.

In addition to the introduction, the remainder of this study consists of four parts. Section 2 discusses previous studies. Section 3 deals with data collection and research methods. Section 4 discusses the results and finally the general conclusion of the study in section 5.

## 2. Literature review

Yokoyama et al. (2014) studied a number of social factors that significantly influence daily purchasing decisions, and perceived social risk (i.e. disagreement of others) is an important factor. in preventing consumers from buying. However, the neural basis for consumer perception of social risk remains unexplored, and this new study clarifies the neural processes involved. A total of 26 volunteers were scanned while they assessed the intention to buy the product (the purchase intention task) and their prediction of others disagreeing to own the product (the social risk task) and using functional magnetic resonance imaging (fMRI). In addition, fMRI data from the purchase intention task was used to identify brain regions involved in social risk perception during purchase decision making using subjective social risk ratings to analyze parameter modulation products. Furthermore, the authors discussed whether there was a difference between the participants' purchasing decisions and their explicit assessment of social risk, related to cognitive-related neural activity social risk. Therefore, the subjective social risk rating was used for the parametric modulation analysis on the fMRI data from the social risk task. The purchase intention task analysis revealed a significant positive correlation between social risk ratings and activity in the anterior lobe, an area of the brain that is considered part of an emotion-associated network. Social risk task analysis revealed a significant positive correlation between social risk ratings and activity in the temporal parietal junction and the medial prefrontal cortex, known as the hypothalamic region of the brain mind. The results showed that the previous approach treats consumers' social risks implicitly to remind consumers not to buy socially unacceptable products, while related regions to ToM handle that risk explicitly when considering the disagreement of others. These findings may be helpful in understanding the mental processes involved in purchasing decisions.

Yang et al. (2016) assessed that online buying is seen as an important source of information that allows online shoppers to evaluate the quality of products/services. An important function of reviews is to reduce the risk and uncertainty perceived by online buyers regarding the purchase of a product. There are many aspects of assessment that can influence perception of risk. This study examines the effect of social consensus in product reviews, as expressed by the balance and volume of reviews, on risk perception, uncertainty, attitude, and intention on online shopper's next purchase, using a quasi-experimental design and online questionnaire. The results show that four risk concerns are suggested as good predictors of the overall risk of online shoppers in e-commerce; Perceived risk is a major determinant of online shoppers' buying attitudes, thereby determining their purchase intention. However, no significant causal effect was found between perceived uncertainty and purchase intention.

Inman and Nikolova (2017) argued that continuous innovation and technology are important factors in helping retailers create a sustainable competitive advantage. In particular, shopper-driven technology plays an important role in increasing revenue and reducing costs. The authors discuss a number of retail technologies that have stood out in the recent past as well as those that are just beginning to gain traction. Additionally, the authors present a shopper-centric decision strategy that retailers can use when considering a new shopper-driven technology. The authors argue that new technology provides value by increasing revenue through (a) attracting new shoppers, (b) increasing the share of volume from existing shoppers, or (c) obtaining a larger consumer surplus or reducing costs through reducing the labor load on shoppers. Importantly, the study's framework incorporated shoppers by looking at their perceptions of fairness, value, satisfaction, basic trust, commitment, and loyalty, and assess the company's ability to enter market technology to their personal privacy. These perceptions then mediate the impact of technology on shopper behavioral responses, such as retail patronage intent and WOM communication. The study also examined consumers' perceptions of retailers are influenced by new shopper-directed technologies and that these responses mediate behavioral intentions, which in turn drive ROI of new technology.

In the study of Yang et al. (2020), natural hedging is widely recognized as a measure to reduce risks to adverse environmental changes such as mountain hazards. This is also a type of service that targets customers with decisions and intentions to buy insurance. The willingness to buy (WTP) of rural households for mountainous hedging may be influenced by their perception of risk. Notably, individuals often behave according to prospect theory under uncertain threats of mountain hazards. This paper uses survey data (N = 348) from the four counties with the most severe mountain hazards in the Three Gorges Reservoir Region, China. Partial least squares structural equation modeling (PLS-SEM) was used to verify 13 proposed hypotheses based on prospect theory. The results show that: (1) Risk perception can be divided into five aspects, that is, Probability factor (perception of the possibility of risk occurrence); Controlled factor (belief in people's efforts to survive the risk); The element of fear (anxiety or stress when suffering a disaster); The element of experience (hazard experiences); and Unknown Factor (disaster-related ignorance). (2) The unknown factor, the control factor, the probabilistic factor, and the experience factor have a significant influence on WTP. However, the fear factor did not affect WTP. (3) The five dimensions of risk perception have a significant direct impact on each other. These results support the hypothesis that people have limited information processing capacity and help to better understand the influence of risk perception on insurance purchasing decisions.

Dan-Yang et al. (2021) asserted that shopping plays an important role in consumers' daily activities. However, only a few studies analyze the effect of this factor on consumer patience. The authors conducted four studies, including two field studies, to investigate the impact of shopping with companions (e.g., friends and colleagues) on purchasing decisions for goods, that is, there is reference information through the group to the purchase decision. The authors found that consumers put more effort into shopping with friends and colleagues by spending more money and being willing to wait longer for a product. This effect can be explained by three mediating factors: positive emotions, negative emotions, and perceived values, where hedonic and social values, unlike utilitarian values, play an essential mediator. This study sheds light on the underlying psychological processes involved in purchasing decisions shaped by travel companions. Retailers should encourage shopping with companions to increase sales and retain customers.

Luceri et al. (2022) argued that the penetration of mobile devices has reshaped the shopping journey of consumers, attracting the attention of both scholars and practitioners. Over the past two decades, a wide variety of cross-disciplinary empirical studies have been conducted on the fundamental factors of mobile shopping behavior. The authors provide and test a comprehensive framework for both the primary drivers of consumer adoption and continued intention to use mobile devices to make purchases. To this end, the authors conducted a meta-analysis, which integrated findings from the literature and applied structural equation modeling. The study builds on existing theories (Technology Acceptance Model, Theory of Planned Behavior, and Unified Theory of Technology Acceptance and Use) and provides an in-depth understanding on the variables that shape mobile shopping behavior. Based on 207 articles, with 228 studies, 4,354 effect sizes, total sample size of 68,944 shoppers, the authors' findings show that mobile shopping is influenced by variables reflecting the evolution of technological innovation and thus improve the functionality and convenience of mobile devices (previous digital experience and ubiquity). On the management side, based on these findings, the authors offer a future research agenda and key implications for companies to develop a successful marketing strategy throughout the customer journey of mobile goods. Companies should focus on both convenience and pleasure variables to stimulate first-time mobile intention. In addition, to increase the intention to continue using mobile devices to shop, they improve customer satisfaction, through enjoyment, ease of use and the three quality aspects of the mobile channel.

Khaled (2022) harnesses the power of information technology that has become a core driver of business transformation and growth, especially Internet-enabled technologies. It is an obvious fact that the trend of shopping on the Internet is sweeping through developed countries and is still in the development stage in developing countries. The Covid-19 pandemic has triggered a wave of online shopping, leading to a dramatic increase in online business activities in both developed and developing cultures. This study intends to study the adoption dynamics of Internet shopping during the Covid-19 pandemic era. The present study recognizes that trust is an important prerequisite for mitigating the confounding effects associated with the uncertain, unsafe and ambiguous nature of Internet shopping technology. Certainly, a trusted Internet shopping environment will put individuals on a less difficult task to initiate online transactions. To achieve the objectives of this study, the influence of perceived risk, Internet shopping anxiety, gender on trust and intention, and the moderate impact of cultural differences on with a trust-intent relationship. A questionnaire was developed using validated measurement items from previous research. A convenience form was used to collect data through a self-administered questionnaire. Experimental data consisting of 215 valid data sets were analyzed using WarpPLS software. Perceived risk, Internet shopping anxiety, and gender were found to have an experimental effect on trust and intention except for perceived risk which showed a negligible correlation with behavioral intention. Cultural differences, except for the masculine-feminine aspect, negatively modulate the trust-intent relationship as suggested in this study.

#### 3. Data and Methodology

#### 3.1. Model and hypothesis

In this study, in addition to the model of Yang et al. (2020), and other previous studies, the author proposes a theoretical research model, shown in Fig. 1 below:

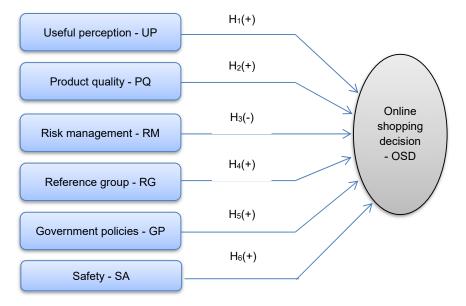


Fig. 1. Research model

Perceived usefulness of online shopping: it is the convenience of online shopping that consumers can perceive and from which they decide to use online shopping. The usefulness can be expressed in the variety of product and service choices, and the rich and diverse information. The usefulness can manifest in the convenience and ease of access when shopping online and increases the ability of consumers to make a purchase decision. The fact that usefulness is also associated with speed, convenience and reduced cost of shopping, can have many options for goods, compare one product with another, and make a decision on online shopping

## Hypothesis H1: Perceived usefulness has a positive influence on consumers' online shopping decision.

Product quality, showing that a product meets the requirements of design and requirements for internal quality in general and is eligible for circulation in the market. On the online shopping channel, because consumers do not have the ability to touch, hold and hold the product directly, they can only observe the product in the internet space. So when a product creates the trust of consumers, it is easier for the product to be selected in the shopping basket of consumers. It is easier for consumers to make product selection decisions when shopping online. It can be said that the higher the quality of the product, the more trust it will create for consumers and thereby create more consumer attachment to the product, as well as the high probability that the product will be selected. Low product quality can hardly create trust for customers and hence customers will not prioritize choices. In short, product quality has a positive effect on customers' ability to make purchasing decisions.

### Hypothesis H<sub>2</sub>: Product quality has a positive effect on consumers' online shopping decisions.

Risk management capabilities. As a result, risks are possible occurrences during the shopping process, and especially on online shopping platforms, the possibility of risks may come from the possibility of wrong manipulation or when the system fails in the process of shopping purchasing process, exposes consumers to risks and loss of property. Thus, when consumers are fully aware of the risks when shopping online, they have the ability to manage risks and thereby have the ability to improve risk awareness and make purchasing decisions online becomes safer.

## Hypothesis H3: Perceived risk when shopping online has a negative impact on consumers' online purchasing decisions.

Reference group: A group of people who influence the formation of customers' attitudes, perceptions and behaviors towards a product, brand or business. Usually, online shoppers often consult friends, family, colleagues, the mass media, or refer to certain channels before making a shopping decision. It can be said that the experiences of other people and reference groups can affect consumers' trust in online shopping. The reference group can advise consumers to choose online shopping in an appropriate way to best meet the interests of consumers. Usually, the reference group also has a relatively large impact on the online shopping decision.

#### Hypothesis H4: Reference group has a positive influence on consumers' online shopping decisions.

Government policies. In the 4.0 technology revolution that is happening rapidly around the world, it has brought many opportunities for countries, especially the development of online shopping. In fact, the development of e-commerce depends heavily on government policies. When the government encourages development through tax or subsidy policies, it can help the economy transform digitally and develop online shopping. In recent times, Vietnam also has solutions to encourage the development of e-commerce in general and online shopping in particular, which has made Vietnam an ideal destination for firms and consumers to access various services on e-commerce.

#### Hypothesis H<sub>5</sub>: The government policies have a positive impact on consumers' online shopping decisions.

Safety: many consumers are often concerned about the security of personal information, the security of card/bank account information that may affect their online shopping decisions. Indeed, when consumers shop online, they must disclose some personal information such as phone numbers, bank account numbers, work addresses, or home addresses. Personal information is for some reason disclosed to third parties and their use of this information may disturb many customers. In general, in today's modern life, the issue of security and keeping personal information becomes more and more necessary and that makes customers when participating in online shopping often consider before deciding to do the online shopping. In the case of increased safety of consumers, it will make them feel more confident when shopping on online platforms.

#### Hypothesis H<sub>6</sub>: The safety of e-commerce websites has a positive impact on consumers' online shopping decisions.

## 3.2. Data collection and methodology

The data source used in this study was a survey of people who have shopped online in the past. The data source is collected in Hanoi city, which is the economic center of Vietnam and at the same time where online shopping is relatively popular and developed. The study generated 210 votes, collected 202 votes, after correcting for errors, the number of usable votes was 200, and was completely satisfied for the analysis of factors affecting the purchasing decision online (Bui & Tran, 2022). In this study, we used the regression estimation method by SPSS software. Specifically, we analyze the scale and scale reliability through Cronbach's alpha analysis. Research on factor discovery analysis, to identify scales that are likely to have an impact. And finally, the study carried out an estimated regression analysis to find out the level of impact of each factor on the online shopping decision in the case of Vietnam.

### 4. Results

Through the data of 200 surveys of people who have participated in online shopping in recent times, the study uses SPSS software to analyze descriptive statistics of the survey sample. Table 1 below presents the survey's information, including: age of the survey group, gender, education level, area of residence, and some other information. The descriptive statistics are as follows:

#### Table 1

About the survey		
Years old	Quantity	Ratio %
20 years and under 20 years	90	45.00%
21 - 30 years old	55	27.50%
31 - 40 years old	40	20.00%
41 years and above	15	7.50%
Total	200	100.00%
Education level	Quantity	Ratio %
Master and above	15	7.50%
University	98	49.00%
College	56	28.00%
Vocational training	22	11.00%
Others	9	4.50%
Total	200	100.00%
Gender	Quantity	Ratio %
Male	110	55.00%
Female	90	45.00%
Total	200	100.00%
Place of living		
Hoan Kiem, Ba Dinh	60	30.00%
Cau Giay, Ha Dong	58	29.00%
Other urban districts	45	22.50%
Other rural districts	37	18.50%
Total	200	100.00%

Table 1 shows that most of the survey respondents are young, this reflects the shopping characteristics in Vietnam because the younger generation is more proficient in updating and applying information technology. They easily access new forms of shopping. While the elderly are often more difficult to access technology, not many people have access to online shopping. In terms of education level, most of the survey respondents graduated from university or college, which reflects that this subject has better knowledge and ability to grasp technology than other groups of subjects. Regarding gender, the sample is 55% male and 45% female, relatively equal in terms of gender. Regarding the place of residence, most of the subjects in the survey group live in the city center. The next step, we perform scale reliability analysis based on Cronbach's alpha analysis. In case the scale is reliable when the Cronbach's alpha coefficient must be greater than 0.6, otherwise, when the Cronbach's alpha coefficient is less than 0.6, it is confirmed that the scale is not reliable. Based on the reliability analysis, the results are shown in Table 2 below:

## Table 2

Scale analysis

стт	Scale		Cronbach's alpha		
511	Scale	Number of scales	-		
1	Useful perception	4	0.789		
2	Product quality	6	0.778		
3	Risk management	5	0.798		
4	Reference group	4	0.765		
5	Government policies	5	0.799		
6	Safety	6	0.785		

Source: SPSS

Table 2 presents the results of reliability analysis of the scale through Cronbach's alpha analysis. The results show that all scales achieve the reliability level, because Cronbach's alpha coefficient is greater than 0.6 and satisfy the conditions of reliability analysis. Through the results, it can be confirmed that the selected variables in the estimated model are suitable and are the basis for the next analysis. Along with Cronbach's alpha analysis, the study carried out an exploratory factor analysis (EFA). EFA analysis of independent variables and dependent variables by principal components and Varimax rotation and both showed that the scales satisfy the constraints of EFA analysis. The KMO coefficient is 0.910 and greater than 0.5, while the extracted variance is 78.234% and greater than 50%, so the results are reliable. The study performed correlation analysis to evaluate the possibility of multicollinearity in the model, the results are as follows in Table 3:

## Table 3

Correlation matrix

UP.3241.000.531.214.156.432PQ.234.5311.000.124.142.186RM.124.214.1241.000.352.216RG.610.156.142.3521.000.316	
UP.3241.000.531.214.156.432PQ.234.5311.000.124.142.186RM.124.214.1241.000.352.216RG.610.156.142.3521.000.316	SA
PQ.234.5311.000.124.142.186RM.124.214.1241.000.352.216RG.610.156.142.3521.000.316	246
RM.124.214.1241.000.352.216RG.610.156.142.3521.000.316	348
RG .610 .156 .142 .352 1.000 .316	240
	120
	053
GP .112 .432 .186 .216 .316 1.000 .	231
SA .246 .348 .240 .120 .053 .231 1	000

Source: SPSS

Table 3 shows that the correlation coefficient between the pairs of variables is less than 0.8, the largest correlation coefficient is 0.531 for the pair of variables PQ and UP and also less than 0.8, so there is no possibility of multicollinearity in the model regression figure. Through the correlation analysis, it is suggested that the study can achieve the best results and there is no bias for the phenomenon of multicollinearity.

#### Table 4

Regression results

Variable		Unstandardized coef- Standardized co		Standardized coef-		<b>C</b> :-	Multicollinearity	
	variable	Beta	S.E	Beta	- t	Sig		VIF
	cons	1.011	.221		5.110	.000		
	UP	.167***	.043	.178	4.121	.000	.787	1.270
	PQ	.381***	.048	.410	3.918	.000	.865	1.156
1	RM	076	.045	088	0.298	.921	.889	1.124
	RG	.124*	.049	.148	1.866	.048	.798	1.253
	GP	0.313	.043	.413	0.167	1.12	.732	1.366
	SA	.044	.038	.098	1.211	.153	.756	1.322

The research results can be explained as follows:

## 588

Source: SPSS

First, perceived usefulness has a positive impact on online shopping decisions. That is, when consumers perceive the usefulness of online shopping, they will immediately make an online shopping decision. This poses for businesses that need to increase the usefulness of online shopping by investing in website systems and customer care, creating convenience for customers so that they feel trust in the image of online shopping. This investment process requires businesses to have depth in brand management and implementation of appropriate business strategies and have a strong financial foundation and timely and appropriate customer orientation.

Second, product quality has the most important influence on online purchasing decisions. With traditional shopping, consumers can see, hold, or try the product, so they can fully assess the quality of the product. However, for online shopping, consumers cannot directly contact the product, so they are often skeptical about the quality of the product. This requires product suppliers to constantly improve product quality, and at the same time, e-commerce development is associated with customer care, giving customers confidence in the quality of products and about the online shopping system. When businesses have the ability to create trust for customers, they are often willing to promote online shopping decisions.

Third, the research results also confirm the positive impact of the reference group on online buying behavior and especially online purchase decisions. Indeed, e-commerce has just developed in recent years, not only in Vietnam but also in many other countries around the world, online shopping has only appeared in a few years, so this form has not been popular among consumers, especially long-term consumers living in rural areas. To decide to do online shopping, they often consult with reference groups to consider their evaluations of online shopping. Therefore, businesses need to strengthen communication about online shopping for social objects, attract consumers to buy online and it is evident that they have an accurate assessment of online shopping and they can finally communicate to potential customers who have never purchased online.

#### 5. Conclusions

The 4.0 technology revolution has brought many economic and social benefits in many countries, including Vietnam. The technological revolution has developed the e-commerce industry and has since promoted online shopping. Vietnam is a country with a young population, high consumption, and high income, so it seems to be a potential place to develop e-commerce. A study of over 200 observations in the capital Hanoi, where e-commerce and online shopping is assessed, through quantitative analysis using SPSS software, the research results show that when consumers perceive the usefulness of online shopping then they will decide to shop online. Moreover, product quality is the most decisive factor affecting consumers' online shopping decisions. Research also suggests that the people around have an influence on consumers' online shopping decisions.

#### References

- Bui, T.K., & Tran, T.H. (2022). The influence of social media marketing activities on customer loyalty: A study of ecommerce industry. *International Journal of Data and Network Science*, 7(1), 175–184
- Dan-Yang, G., Liu, S., Dai, Y., Liu, Y., Wang, X. & Huang, H. (2021). Greater patience and monetary expenditure: How shopping with companions influences purchase decisions. *Journal of Retailing and Consumer Services*, 63, 102665.
- Inman, J. J. & Nikolova, H. (2017). Shopper-Facing Retail Technology: A Retailer Adoption Decision Framework Incorporating Shopper Attitudes and Privacy Concerns. *Journal of Retailing*, 93(1), 7-28.
- Khaled, M. S. F. (2022). Internet shopping in the Covid-19 era: Investigating the role of perceived risk, anxiety, gender, culture, and trust in the consumers' purchasing behavior from a developing country context. *Technology in Society*, 70, 101992, https://doi.org/10.1016/j.techsoc.2022.101992.
- Le, L.G. (2022). Factors affecting the behavior of using personal financial services at commercial banks. *Review of Finance*, 2(5), 31-33.
- Luceri, B., Bijmolt, T.H.A., Bellini, S., & Aiolfi, S. (2022). What drives consumers to shop on mobile devices? Insights from a Meta-Analysis. *Journal of Retailing*, 98(1), 178-196, https://doi.org/10.1016/j.jretai.2022.02.002.
- Yang, J., Sarathy, R., & Lee, J. (2016). The effect of product review balance and volume on online Shoppers' risk perception and purchase intention. *Decision Support Systems*, 89, 66-76, https://doi.org/10.1016/j.dss.2016.06.009.
- Yang, F., Tan, J. & Peng, L. (2020). The effect of risk perception on the willingness to purchase hazard insurance A case study in the Three Gorges Reservoir region, China. *International Journal of Disaster Risk Reduction*, 45, 101379, https://doi.org/10.1016/j.ijdrr.2019.101379.
- Yokoyama, R., Nozawa, T., Sugiura, M, Yomogida, Y., Takeuchi, H., Akimoto, Y, Shibuya, S. & Kawashima, R. (2014). The neural bases underlying social risk perception in purchase decisions, *NeuroImage*, 91, 120-128, <u>https://doi.org/10.1016/j.neuroimage.2014.01.036</u>.
- Van, C. (2020). Human capital, capital structure choice and firm profitability in developing countries: An empirical study in Vietnam. Accounting, 6(2), 127-136.
- Vu, D.D., Nguyen, M.C., Dinh, Q.T., Doan, T.H., & Dang, T.V. (2022). Research on factors affecting students' intention to use digital banking services. *Review of Finance*, 2(4), 33-36.





 $\odot$  2023 by the authors; licensee Growing Science, Canada. This is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC-BY) license (http://creativecommons.org/licenses/by/4.0/).