

# RESEARCH ON FACTORS AFFECTING THE ONLINE SHOPPING BEHAVIOR OF VIETNAMESE YOUTH

NGUYEN THI VAN ANH<sup>1</sup>, HOANG THANH TUNG<sup>2</sup>, BUI THI HONG NHUNG<sup>3</sup>,  
PHAN THI THANH PHUONG<sup>4</sup>, NGUYEN THI HA GIANG<sup>5</sup> and  
NGO THI MINH ANH<sup>6</sup>

<sup>1,3</sup>PhD, University of Labour and Social Affairs.

<sup>2</sup>Associate Professor, PhD, University of Labour and Social Affairs.

<sup>4,5,6</sup>University of Labour and Social Affairs.

Email: <sup>1</sup>nguyenvananh83@ulsa.edu.vn, <sup>2</sup>hoangthanh tung15@gmail.com, <sup>3</sup>buihongnhungulsa@gmail.com,

<sup>4</sup>pttp.2873@gmail.com, <sup>5</sup>nguyenthiahagiang0205@gmail.com, <sup>6</sup>ngothiminh anh10222003@gmail.com

ORCID: <sup>1</sup>0009-0008-4703-2014, <sup>2</sup>0000-0001-7265-1708

## Abstract

The research used a combination of qualitative and quantitative methods to study the factors influencing the online shopping behavior of Vietnamese youth, based on data collected from surveying 182 young people. The research team used SMARTPLS software to process collected survey data. "Perceived behavioral control" (NTKS) has the most significant effect on the online shopping habits of Vietnamese youth (HV), with an influence level of 0.660. "Subjective norms" (CCQ) has the second most significant effect, with an influence level of 0.309. The factor "attitude" (HV) does not have enough statistical significance to say what effect it has on the dependent variable "online shopping behavior of Vietnamese youth." The factors "useful perception" (NTHI) and "perceived ease of use" (NTSD) both have a 0.590 effect on NTKS. Based on the research findings, the author proposes several strategies to enhance the online shopping habits of Vietnamese youth, with the aim of boosting production and business in this market.

**Keywords:** Influencing Factors, Online Shopping, Vietnamese Youth, Vietnam.

**JEL:** M11; M31

## 1. INTRODUCTION

Along with digital technology that is constantly developing in today's society, online shopping is increasingly popular and promises to be a vibrant market and bring high revenue to businesses selling goods. odd. Young people of generation Z have been influenced by the "digital society" since their birth, from education, entertainment, to shopping habits of generation Z associated with activities Internet-related technology.

According to statistics from VNETWORK, an information technology company, in January 2023, Vietnam had a total of 77.93 million Internet users, reaching an Internet usage rate of 79.1% of the total population.

According to Kepios analysis, the number of Internet users in Vietnam has increased by 5.3 million (7.3%) compared to 2022. However, there is still about 20.9% of Vietnam's population, which is 20,60 million people, not using the Internet by early 2023 (vnetwork, 2023).

Not only that, the number of young people using smartphones to shop online is on the rise, so e-commerce websites have designed mobile applications so consumers can shop. directly on that application with attractive discounts.

Besides, there are many choices through online shopping channels on social networks such as Facebook, Instagram, Zalo... Although there are some limitations, online shopping is becoming an inevitable trend. in the context of the 4.0 industrial revolution, when Vietnam is one of the six countries with the largest growing Internet and digital economies in and outside the region including: India, Malaysia, Philippines, Singapore, Thailand. Lan and Vietnam. The development of digital technology in the 4.0 industrial revolution has affected all aspects of life, culture - society and business, especially online business.

The entire way people interact, search for information, conduct shopping and make payment transactions in the coming time will have fundamental changes (Tran Thi Thanh Binh, 2020). With the desire to understand the factors affecting the online shopping behavior of Vietnamese youth, the research team chose the topic ***“Research on factors affecting the online shopping behavior of Vietnamese youth”*** to receive information.

Identify and describe the characteristics of young consumers in the online shopping process, as well as identify and analyze important factors affecting the online shopping behavior of young people today. From there, find suitable directions for businesses, attract the attention of authorities, and gradually create a legal corridor to prepare for the outstanding development of online shopping needs among young people.

## 2. THEORETICAL BASIS, LITERATURE REVIEW AND RESEARCH MODEL

### 2.1. Theoretical basis

#### ***Youth***

Young people are people in their youth, full of vitality, rich in creativity, quick to access technology, and good at grasping new things. Nowadays, social networks have become a trend for young people because it is a place to express their individuality and not be controlled. The development of social networking sites has shown that the need to use social networks is increasing, especially among young people. (Nguyen Thu Thao, 2021)

Young people are a group with a high level of Internet access and use, and are a potential consumer group in the future. (Le Kim Dung, 2020)

#### ***Online Shopping***

Currently, there are many different concepts about online shopping. According to the Wikipedia dictionary, Online shopping is a form of electronic commerce that allows customers to directly purchase goods or services from sellers over the Internet using a web browser (wikipedia, 2024). Meanwhile, the online Economic Times said that “When you buy a product or service through the Internet instead of going to traditional stores, it is called online shopping” (The Economic Times, 2006).

Some studies say that “Online shopping is the process by which consumers purchase goods or services via the Internet” (Hasslinger et al., 2007; Li and Zhang, 2002; MasterCard, 2008). It can be seen that the common point between the above concepts is that online shopping is the act of purchasing goods or services via the Internet. Therefore, online shopping is also known as internet shopping (Lui, 2012). This is a form of e-commerce (Ha Ngoc Thang, 2015).

Online shopping is one of the forms of e-commerce, which has become increasingly important in the development of B2C e-commerce since the late twentieth century. Online shopping is defined as a service where consumers use electronic devices connected to the Internet to make shopping transactions (Turban et al., 2006). Online transactions include behaviors such as searching for information, ordering, and paying on the Internet. (Nguyen Thu Thao, 2021)

### ***Consumer behavior***

The concept of consumer behavior according to Philip Kotler (2007): “Consumer behavior is the actions of a person purchasing and using products and services, including both psychological and social processes that occur before and after action”.

### ***Online shopping behavior***

According to research by (Li & Zang, 2002), online purchasing behavior (also known as online shopping behavior, Internet purchasing behavior) is equal to the process of buying products and services via the Internet.

Online shopping is the activity of purchasing products or services over the Internet. (Marketbusinessnews, 2004)

Online purchasing is the behavior of consumers in purchasing goods through Internet stores and Websites using online purchase transactions. (Monsuwe & et al, 2004)

Haubl and Trifts (2000) online shopping refers to purchases of goods and services made by consumers through a computer-based interface by way of computers interacting with the home's digitized stores. retail through connected consumer computer networks.

## ***2.2. Literature review***

Perceived usefulness refers to the degree to which users believe they will benefit from using an online shopping service. Chen, L & et al (2002) argued that online shopping will be perceived as beneficial. perceived as useful and effective in work if the characteristics of the online shopping system match the requirements and provide a significant value to the user. They found that perceived usefulness has a positive impact on online shoppers' decisions.

Research on online shopping behavior of northern Malaysian consumers (Lim Yi Jin & et al, 2014) found that perceived usefulness and trustworthiness are important factors affecting their online shopping behavior. consumers in northern Malaysia. The integrity and reputation of online retailers are critical in consumers' decisions to shop online because the greater a consumer's trust, the more engaged they will be in purchasing activities. shop online.

Research on online shopping behavior of consumers in Mumbai (Khan and Chavan, 2015) This study aims to analyze factors that affect consumers' online shopping behavior and is considered information. The most important news of e-commerce and marketing. However, according to the authors, there are still many limitations in knowledge about consumers' online shopping behavior because this is a complex social phenomenon and involves too many factors.

Factors influencing Hong Kong consumers' online mobile shopping intention by Ken Kin-Kiu Fong & Stanley am Sing Wong (2015). This study identifies and explores the important factors that influence consumers' behavioral intentions to use mobile commerce services in Hong Kong. Results from 390 survey respondents indicate that four key factors influence consumers' behavioral intention to use a mobile commerce service: attitudes and subjective norms of the user. or social group pressure; perceived ease of use in terms of mobile commerce and location services.

Research by Ha Ngoc Thang & Nguyen Thanh Do (2016) conducted research on factors affecting online shopping intentions of Vietnamese consumers. Research results show that consumers' beliefs, perceived risk, attitudes and perceived behavioral control affect consumers' online shopping intentions. Meanwhile, reference groups do not affect online buying intention, but attitude, belief and perceived behavioral control factors have a positive impact on consumers' online buying intention. Perceived risk is a factor that reduces customers' intention to buy online.

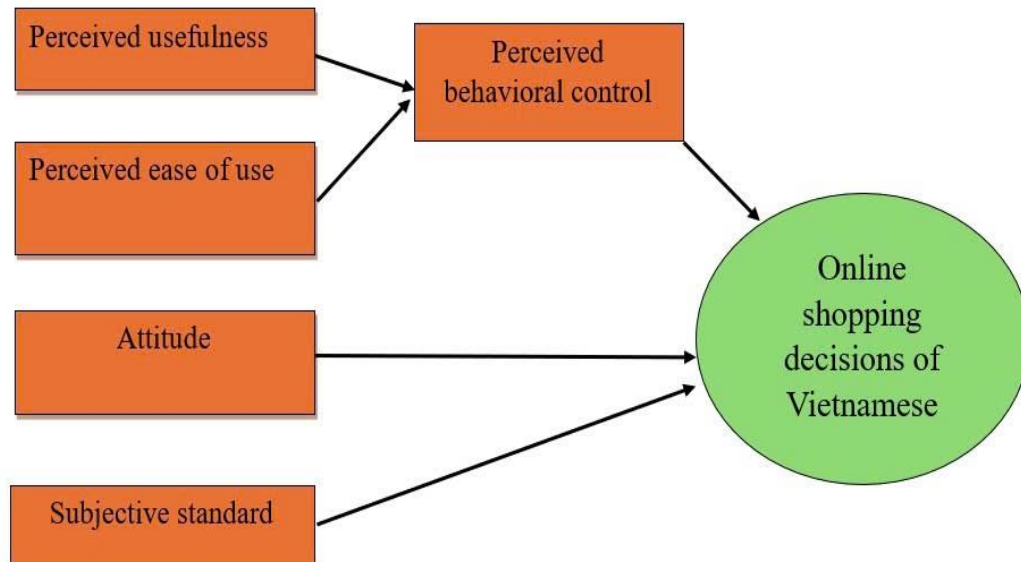
Research on factors affecting customer satisfaction when shopping online in Kon Tum City by author Nguyen To Uyen (2016). Research results of 227 customers showed that there are six factors: (1) Product characteristics, (2) Information quality, (3) Feedback, (4) Payment method, (5) Service Customer care service and (6) Product quality has a relationship with online shopping customer satisfaction. Among them, product characteristics and information quality are the two factors that have the greatest influence on online satisfaction. Research has shown that pre-purchase services have the ability to impact customer satisfaction.

Author Tran Thi Hong Hanh (2017) in researching factors affecting the online shopping behavior of household appliances, female office workers in Hanoi, chose to consider four factors that impact shopping decisions. Online household appliances for female office workers in Hanoi include: (1) Convenience; (2) Price and brand; (3) Responsiveness of the website; (4) Risks when shopping online. These four factors were selected by the author on the basis of inheritance, synthesis and development from previous research.

Research on the relationship between online service quality, trust and online shopping intention by Vu Thi Tuong Vi (2017) analyzed the impact of factors of online service quality on consumer trust. client. Measuring the influence of trust on online shopping intention. The study has synthesized the following factors: aesthetic interface, technology, and financial security in online service quality that affect trust and online shopping intention. Explore the differences between customer groups in terms of trust relationship with online shopping intention.

### 2.3. Research models, hypotheses and scales

#### Research models



**Figure 1: Proposed research model**

#### Research hypothesis

*Hypothesis H1: Attitude towards online shopping (TD) has a positively correlated impact on online shopping behavior (HV)*

*Hypothesis H2: Subjective norms (CCQ) have a positively correlated impact on online shopping behavior (HV)*

*Hypothesis H3: Perceived behavioral control (NTKS) has a positively correlated impact on online shopping behavior (HV).*

*Hypothesis H4: Perceived usefulness of online shopping (NTHI) has a positive correlation with perceived behavioral control (NTKS).*

*Hypothesis H5: Perceived ease of use of online shopping (NTSD) has a positive correlation with perceived behavioral control (NTKS).*

**Table 1: Basis for forming variables and factor scales in the model**

Coding	Observed variable	Source
<b>1. Perception of usefulness</b>		
NTHI1	Use of online shopping services is useful for information search	Chen, L. -D., Gillenson, M. L. and Sherrell, D. L., (2002)
NTHI2	Using online shopping services helps save time	
NTHI3	Using online shopping services helps save costs	
NTHI4	Using online shopping services in general and shopping online has many benefits	

2. Perceived ease of use		
NTSD1	Users can easily search for products and information	Davis and Arbor (1989)
NTSD2	Users easily interact with websites	
NTSD3	Easily learn how to shop online	
3. Subjective norms		
CCQ1	My friends and colleagues advise me to shop online	Ajzen and Fishbein (1975)
CCQ2	News and advertising influence my online shopping decisions	
CCQ3	Social networks influence my online shopping decisions	
CCQ4	Information from the government influences my online shopping decisions	
4. Perceived behavioral control		
NTKS1	I have all the necessary resources to shop online	Ajzen, Fishbein (1975)
NTKS2	I can make online purchases myself	
NTKS3	I have all the necessary knowledge and abilities to shop online	
5. Attitude towards online shopping		
TD1	Online shopping is safer than traditional shopping	Davis, F. D. (1989)
TD2	Online shopping is healthier than traditional shopping	
TD3	Online shopping is more environmentally friendly than traditional shopping	
6. Behavior with online shopping		
HV1	I have the necessary resources to shop online	Ajzen (1991)
HV2	I can make online purchases myself.	
HV3	I have all the necessary knowledge and abilities to shop online	

*Source: Compiled by the research team*

### 3. RESEARCH METHODOLOGY

Based on theory and research overview, the research team included in the model 5 factors affecting the online shopping behavior of Vietnamese youth: Attitude towards online shopping, subjective norms, perception of control. behavioral control, perceived ease of use, perceived usefulness, and the dependent variable is online shopping behavior of Vietnamese youth.

The research team developed a survey form and conducted a random test survey for 10 students. The preliminary survey results help the authors complete the survey questionnaire. The official survey questionnaire was conducted by the research team on a large scale via google forms with the target generation group Z in Vietnam, via zalo, facebook... with the link. ([https://docs.google.com/forms/d/e/1FAIpQLSeblwGCSmnuM\\_DOLAHdv4sJLqaWKbqPdr e5xfs\\_C-Pw8Q8ZGA/viewform](https://docs.google.com/forms/d/e/1FAIpQLSeblwGCSmnuM_DOLAHdv4sJLqaWKbqPdr e5xfs_C-Pw8Q8ZGA/viewform))

The survey includes the following contents:

- \* General introduction to the survey
- \* Question about Vietnam's online shopping market
- \* Trends in using/shopping for online products
- \* Question section about factors affecting young people's online shopping behavior, 6 question sections corresponding to 6 factors in the research model.



In addition to some selected questions, the survey uses 5-point Likert questions (from 1 to 5) for the majority of questions. Observed variables are inherited from previous studies. Among them, 1. “Strongly disagree”; 2. “Disagree”; 3. “Normal”; 4. “Agree”; 5. “Totally agree”

### Data analysis

Quantitative research method was conducted to process research data collected from a survey of young people in Vietnam (those under 30 years old). The structural regression equation has the general form:

$$HV = a*TD + b*CCQ + c*NTKS$$

$$NTKS = e*NTHI + f*NTSD$$

SMARTPLS software is used to test hypotheses and evaluate the impact of factors.

#### Step 1: Evaluate the measurement model

Evaluating the measurement model is based on considering the values of scale reliability, quality of observed variables, convergence and discrimination.

#### Step 2: Evaluate the structural model

After evaluating the measurement model to meet the requirements, evaluate the structural model through impact relationships, path coefficients, the overall coefficient determining R squared, and the impact coefficient f squared.

From the secondary and primary data collected, the research team processed, created tables, and drew graphs for comparison and analysis to answer research questions and clarify the goals set out in the study. posts.

## 4. RESEARCH RESULTS

### 4.1. Description of survey participants

The number of ballots collected from the survey was 182, of which 174 were valid. Of the 174 respondents, 50 were male (29%), 119 were female (68%), and 5 did not want to be specific (3%). Regarding age, of the 174 respondents, 140 people were aged from 18 to under 22 years old (80.5%), accounting for the highest percentage, 28 people were aged between 22-30 years old (16.1%). %, and 6 people are under 18 years old (3.4%).

Of the 174 respondents, 144 of them had a college/university education (82.8%), 19 of them had a high school education (10.9%), and 11 of them had a college degree. Educational level is postgraduate (6.3%).

Of the collected questionnaires, 174 people responded, 38 people had a monthly income of less than 1 million VND (21.8%), 71 people had a monthly income from 1 to less than 5 million VND (40.8 %), 33 people have monthly income from 5 to less than 10 million VND (19%), 23 people have monthly income from 10 to 20 million VND (13.2%), and 9 people have monthly income from 20 million VND or more (5.2%).

This shows that online shopping is a familiar behavior for young people today with a variety of income levels. Online shopping is no longer strange to young people today. Of the 174 respondents, 170 of them knew about online shopping, accounting for 97.7%, and 4 of them did not know about online shopping, accounting for 2.3%.

Therefore, the analysis of factors affecting online shopping behavior will include 170 answer sheets.

## 4.2. Results of testing the research model

### 4.2.1. Results of assessing the quality of observed variables in the measurement model

Check the quality of observed variables

After running the model for the first time, the quality of observed variables is evaluated through the outer loadings. The quality of observed variables affecting online shopping behavior is shown in Table 2.

**Table 2: Outer loadings of factors affecting online shopping behavior of Vietnamese youth**

	CCQ	HV	NTHI	NTKS	NTSD	TD
CCQ1	0.809					
CCQ2	0.909					
CCQ3	0.912					
CCQ4	0.756					
HV1		0.937				
HV2		0.944				
HV3		0.923				
NTHI1			0.899			
NTHI2			0.874			
NTHI3			0.836			
NTHI4			0.903			
NTKS1				0.924		
NTKS2				0.929		
NTKS3				0.920		
NTSD1					0.933	
NTSD2					0.941	
NTSD3					0.924	
TD2						0.876
TD3						0.879
TD1						0.866

Source: Test results of the research team

Results from Table 2 show that the outer loadings of all the total variable correlation coefficients of the variables affecting the online shopping behavior of Vietnamese youth (all > 0.7) (Hair & et al, 2016) shows that the observed variables are meaningful.



### Test the reliability of the scale

Evaluate the scale reliability of factors affecting the online shopping behavior of Vietnamese youth on SMARTPLS through two main indices:

Cronbach's Alpha and Composite Reliability (CR).

**Table 3: Reliability coefficient (Cronbach's Alpha) and composite reliability of factors affecting the online shopping behavior of Vietnamese youth**

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
CCQ	0.870	0.895	0.911	0.721
HV	0.928	0.928	0.954	0.874
NTHI	0.901	0.905	0.931	0.771
NTKS	0.915	0.915	0.946	0.854
NTSD	0.925	0.926	0.952	0.870
TD	0.845	0.847	0.906	0.764

*Source: Testing results of the research team*

According to Table 3, after analyzing and testing the reliability using Cronbach's Alpha coefficient of the factor, the results are: Subjective norm (CCQ) reached 0.870; Online shopping behavior of Vietnamese youth (HV) reached 0.928; Perceived usefulness (NTHI) reached 0.901; Perceived behavioral control (NTKS) reached 0.915; Perceived ease of use (NTSD) reached 0.925; Attitude towards online shopping (TD) reached 0.845. Thus, all scales satisfy the condition  $> 0.7$  ( DeVellis, 2012) and do not violate any rules for eliminating variables, so no variables are eliminated and are acceptable in terms of reliability.

The Composite Reliability (CR) of all observed variables is also  $> 0.7$  (Bagozzi & Yi, 1988) (Table 3). Therefore, the scale is reliable, has analytical significance and is used in subsequent factor analysis.

### Convergence

According to the data analysis results in Table 3, the average variance extracted index AVE (Average Variance Extracted) of the factor: Subjective norm (CCQ) reached 0.721; Online shopping behavior of Vietnamese youth (HV) reached 0.874; Perceived usefulness (NTHI) reached 0.771; Perceived behavioral control (NTKS) reached 0.854; Perceived ease of use (NTSD) reached 0.870; Attitude towards online shopping (TD) reached 0.764. Thus, the average variance extracted index AVE (Average Variance Extracted) of all variables is  $> 0.5$  (Hock & Ringle, 2010), which shows that the model satisfies the convergence conditions.

### Discriminant Validity

Results in Table 4 of Fornell-Larcker indicators of the model research factors affecting: Subjective standards (CCQ); Online shopping behavior of Vietnamese youth (HV); Perceived usefulness of online shopping (NTHI); Perceived behavioral control of online shopping (NTKS); Perceived ease of use (NTSD); Attitudes toward online shopping (TD) are discriminant because all on-diagonal AVE square root values are higher than their off-diagonal

values. Therefore, in terms of discriminant validity, the two criteria including the cross-loading coefficient and Fornell and Larcker's criteria have satisfied the conditions.

**Table 4: Fornell-Larcker criteria of the model to research factors affecting the online shopping behavior of Vietnamese youth**

	CCQ	HV	NTHI	NTKS	NTSD	TD
CCQ	0.849					
HV	0.781	0.935				
NTHI	0.799	0.847	0.878			
NTKS	0.754	0.869	0.871	0.924		
NTSD	0.711	0.823	0.872	0.836	0.933	
TD	0.611	0.515	0.575	0.559	0.444	0.874

*Source: Testing results of the research team*

### Function value f2

The function value f2 represents the influence of the structure (factor) when removed from the model. The f2 values correspond to 0.02, 0.15, and 0.35, corresponding to small, medium, and large influence values (Cohen, 1988) of the exogenous variable. If effect size  $< 0.02$ , it is considered to have no influence.

**Table 5: Summary table of f2 values**

	CCQ	HV	NTHI	NTKS	NTSD	TD
CCQ		0.174				
HV						
NTHI				0.384		
NTKS		0.871				
NTSD				0.115		
TD		0.005				

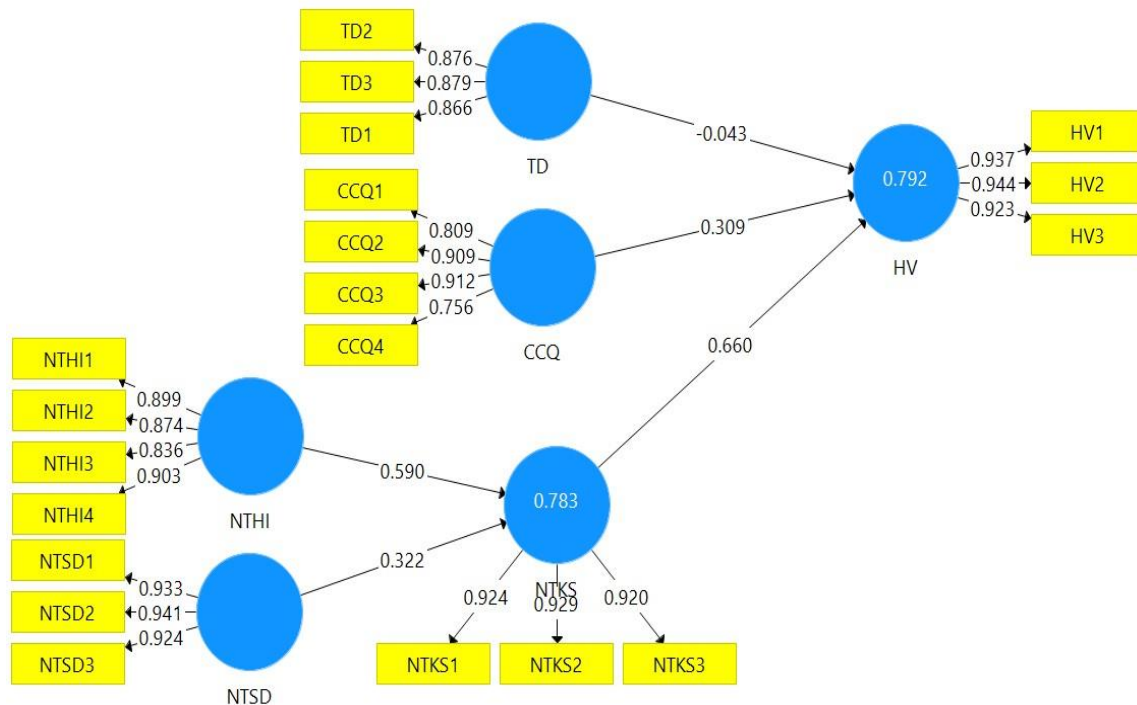
*Source: Testing results of the research team*

In this model, in Table 5 we see the f2 value of the factors: Perceived usefulness of online shopping (NTHI) reached  $0.384 > 0.35$  (with a large impact); Perceived behavioral control of online shopping (NTKS) reached  $0.871 > 0.35$  (with a large impact); Factors: Subjective norm (CCQ) reached 0.174 ( $0.15 < f2 < 0.35$ , medium impact); Perceived ease of use (NTSD) reached 0.115 (with  $0.02 < f2 < 0.15$ , with a small impact); Attitude towards online shopping (TD) (0.005) with  $f2 < 0.02$  is considered to have no influence on behavior.

### 4.2.2. Results of assessing the level of influence using the structural model

#### Evaluate influence relationships

The relationship and level of influence of factors affecting the online shopping behavior of Vietnamese youth on SMARTPLS is shown by Figure 2.



**Figure 2: Factors affecting online shopping behavior of Vietnamese youth**

*Source: Testing results using SMARTPLS by the research team*

The results of Bootstrap analysis to evaluate the influence relationships are shown in Table 6. Accordingly, the variables:

Perceived usefulness of online shopping (NTHI); Perceived ease of use (NTSD) affects the factor Perceived behavioral control (NTKS), these factors have Pvalue < 0.05.

Subjective norm (CCQ); Perceived behavioral control of online shopping (NTKS) has an impact on “Online shopping behavior of Vietnamese youth (HV)”, these factors have P Values < 0.05; Attitude towards online shopping (TD) has P Values > 0.05, which reflects that this factor is not statistically significant enough to show a relationship that positively affects people’s online shopping behavior. Vietnamese youth (Hypotheses H2, H3, H4, H5 are accepted). (Hypothesis H1 is not accepted).

**Table 6: Path Coefficient of the structural model (Path Coefficient)**

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
CCQ => HV	0.309	0.303	0.075	4.111	0.000
NTHI => NTKS	0.590	0.587	0.106	5.575	0.000
NTKS => HV	0.660	0.662	0.060	11.043	0.000
NTSD => NTKS	0.322	0.327	0.120	2.686	0.007
TD => HV	-0.043	-0.039	0.049	0.878	0.381

*Source: Testing results using SMARTPLS by the research team*

The test results in table 6 show that with 95% reliability, “Perceived behavioral control” (NTKS) has the strongest influence on the online shopping behavior of Vietnamese youth (HV), the level of influence is 0.660; The factor “Subjective Norms” (CCQ) has an influence of 0.309 on the HV variable.

The factor “Useful perception” (NTHI) with an influence of 0.590 on NTKS; the factor “Perceived ease of use” (NTSD) has an influence of 0.322 on NTKS;

The factor “Attitude” does not have enough statistical significance to conclude about its influence on the dependent variable “Online shopping behavior of Vietnamese youth” (HV).

Thus, we have the regression equation as follows:

$$HV = 0.309*CCQ + 0.660*NTKS$$

$$NTKS = 0.590*NTHI + 0.322*NTSD$$

#### ***Evaluate the overall coefficient of determination R2 (R square)***

The results of PLS Algorithm analysis give the R2 value, reflecting the level of explanation of the independent variable for the dependent variable. The **R2** index measures the overall coefficient of determination (R-square value), which is an index to measure the degree of model fit of the data (the model’s explanatory ability). According to Hair & et al (2010), R-square values are suggested at 0.75, 0.50 or 0.25.

**Table 7: Explanation coefficient of the independent variable for the dependent variable (R Square)**

	R Square	R Square Adjusted
HV	0.792	0.789
NTKS	0.783	0.780

*Source: Testing results of the research team*

Results from table 7 show that variable (HV) has R2 equal to 0.792 and adjusted R2 equal to 0.789, variable (NTKS) has R2 equal to 0.783 and adjusted R2 equal to 0.780, so the independent variables CCQ and NTKS in the solution model explains 79.2% of the variation in the HV variable, and the NTHI and NTSD variables explain 78.3% of the variation in the NTKS variable.

#### ***Reliability index rating (SRMR)***

Standardized Root Mean Square Residual (SRMR): This index indicates the suitability of the research model. According to Hu & Bentler (1999), normally a suitable model will have an SRMR value of less than 0.08.

**Table 8: Standardized Root Mean Square Residual (SRMR) reliability index**

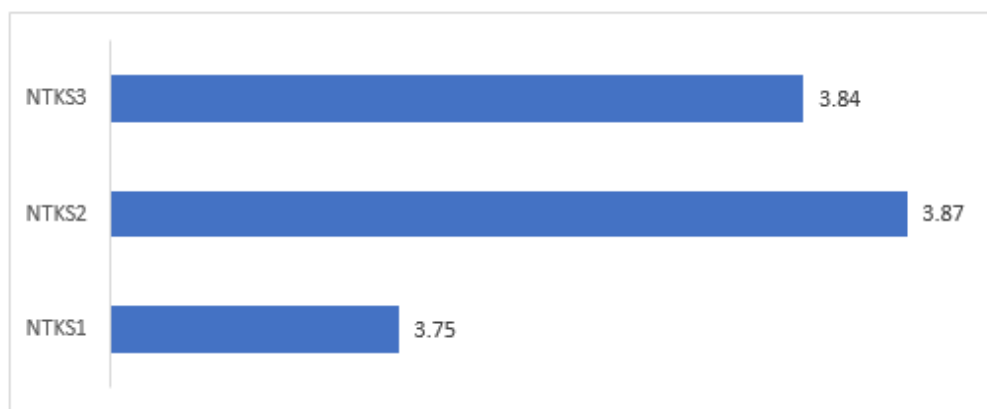
	Saturated Model	Estimated Model
SRMR	0.056	0.061

*Source: Testing results of the research team*

Through the SRMR research results in Table 8 of the research model is 0.056, smaller than 0.08. Therefore, this model is suitable for data analysis.

## 5. DISCUSSION

Among the 6 factors considered, there are 4 factors at the 5% significance level (95% confidence level) showing that they have an influence on the online shopping decisions of Vietnamese youth. Among them: “Perceived behavioral control” (NTKS) has the strongest influence on the online shopping behavior of Vietnamese youth (HV), an influence level of 0.660, meaning when perceived behavioral control increases by 1 units, online shopping behavior increased by 0.660 units; The factor “Subjective Norms” (CCQ) has an influence of 0.309 on the HV variable, meaning that when subjective norms increase by 1 unit, online shopping behavior increases by 0.309 units. The factor “Useful perception” (NTHI) has an influence of 0.590 on NTKS, meaning that when NTHI increases by 1 unit, NTHI increases by 0.590 units; The factor “Perceived ease of use” (NTSD) has an influence of 0.322 on NTSD, meaning that when NTSD increases by 1 unit, NTSD increases by 0.322 units. The factor “Attitude” does not have enough statistical significance to conclude about its influence on the dependent variable “Online shopping behavior of Vietnamese youth” (HV). “Perceived behavioral control” (NTKS) has the strongest influence on the online shopping behavior of Vietnamese youth (HV).



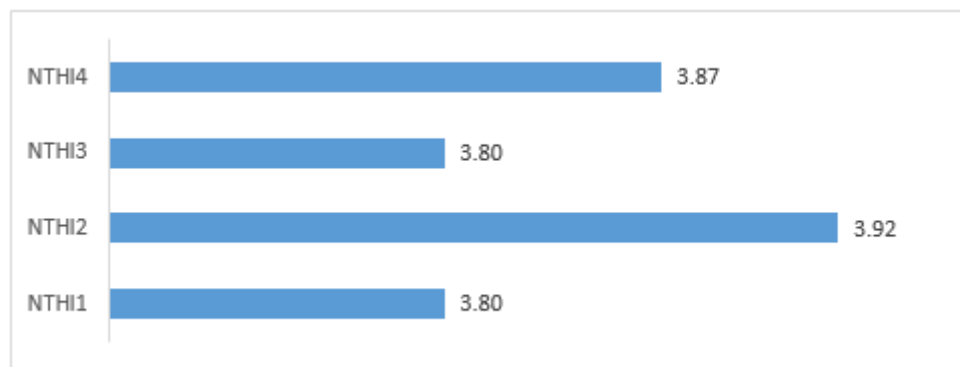
**Figure 3: Average value of the variable “Perceived behavioral control”**

*Source: Compiled and calculated from survey results*

With the factor “**Perceived behavioral control**”, 3 observed variables “I have enough necessary resources to buy goods online” NTKS1, “I can make online purchases myself.” NTKS2 and “I have all the necessary knowledge and abilities to buy goods online” NTKS3, were both rated “Agree” by survey participants, showing that perceived behavioral control greatly influences behavior. online shopping behavior of Vietnamese youth. This shows that young people realize that they have enough necessary resources to shop online, the online shopping process is simple, convenient and time-saving, and can make online purchases themselves. , they will feel more comfortable and be more likely to engage in online shopping.

This factor includes the ease of finding products, comparing prices, and completing transactions. Young people tend to be more familiar with technology and the internet, and have the necessary knowledge and abilities to shop online, leading to them having a greater sense of control when shopping online. The ability to use technology competently increases confidence in your ability to self-manage online transactions. When young people feel confident and in control of the online shopping process, they tend to shop more. Therefore, the factor of perceived behavioral control has a clear impact on the online shopping behavior of Vietnamese youth.

The factor “Perceived usefulness” (NTHI) is a factor that affects perceived behavioral control (NTKS).



**Figure 4: Average value of the variable “Perceived usefulness”**

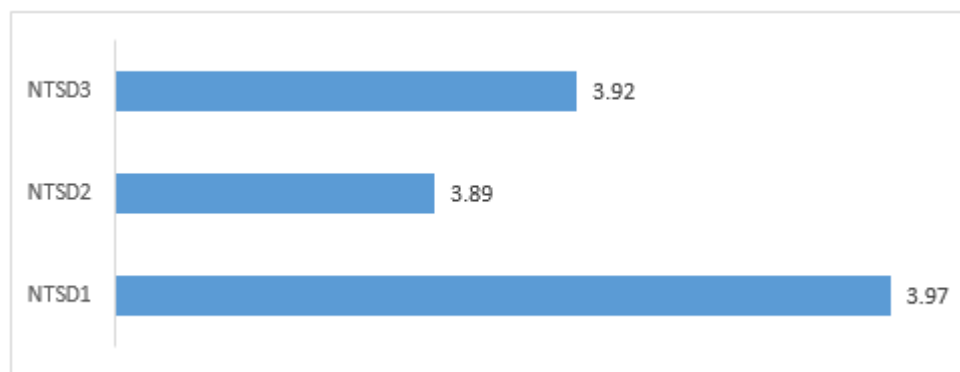
*Source: Compiled and calculated from survey results*

With the factor “Perceived usefulness”, 4 scales “Using online shopping services is useful for finding information” NTHI1, “Using online shopping services helps save time.” NTHI2 and “Using online shopping services helps save costs” NTHI3, “Using online shopping services in general and online shopping has many benefits” NTHI4 were all participated by participants. The survey’s rating at “Agree” shows that perceived usefulness greatly affects perceived behavioral control and thereby affects the online shopping behavior of Vietnamese youth. This shows that young people often have a fast pace of life and want to save time. They find online shopping an effective way to quickly search and purchase products without having to travel to a physical store. This creates a feeling of usefulness, motivating them to choose online shopping over traditional methods. Awareness of the variety of products and services available on online shopping platforms is an important factor. Young people can find everything from clothes, cosmetics, home appliances to technology products with a wide variety of choices, which increases the usefulness of online shopping. Many online shopping platforms offer promotions, discount codes, and exclusive offers that are hard to find in brick-and-mortar stores. The ease of access and use of these offers increases feelings of usefulness and encourages young people to engage in online shopping. Perception of convenience in flexible payment methods (e-wallet, credit card, bank transfer) and door-to-door delivery service is an important factor.



Vietnamese youth, with their dynamism and access to technology, increasingly prefer online shopping methods. They appreciate factors such as convenience, efficiency, and access to rich information that these platforms provide. When young people realize that online shopping brings more convenience and efficiency, they are more likely to choose this method. The factor of perceived usefulness has a great impact on the online shopping decisions of Vietnamese youth.

“Perceived ease of use” (NTSD) is a factor that affects perceived behavioral control (NTKS).



**Figure 5: Average value of the variable “Perceived ease of use”**

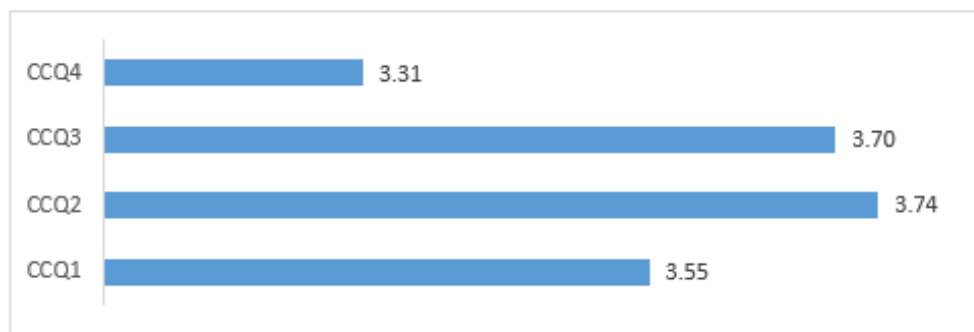
*Source: Compiled and calculated from survey results*

With the factor “Perceived ease of use”, 3 observed variables “Users easily find products and information” NTSD1, “Users easily interact with websites.” NTSD2 and “Easy to learn how to shop online” NTSD3, were both rated at “Agree” by survey participants, showing that perceived ease of use greatly affects people’s online shopping decisions. Vietnam Youth. This shows that the simpler and easier to understand the interface of online shopping websites and applications, the more attractive they are to young people. When finding products, viewing product details, and making transactions becomes easy, young people feel comfortable and are more likely to return to using the platform. The less complicated the steps from choosing a product to payment are, the easier it is for young people to accept and carry out shopping transactions. A clear, concise, frictionless online shopping process will increase the feeling of ease of use and promote shopping decisions. Online shopping platforms that provide clear usage instructions, quick and effective customer support through chatbots, online customer service or instructional videos will make it easier for users to navigate. Get familiar with and use the platform’s features. Effective product search and filtering features make it easy for young people to find what they need quickly. The ability to search for products based on multiple criteria such as price, brand, customer reviews, increases ease of use and improves the shopping experience.

When online shopping platforms provide an easy user experience, quick shopping process, effective customer support, and integration of convenient payment methods, young people will tend to choose and use them. Use these platforms more. The factor of perceived ease of use has

a great impact on perceived behavioral control, thereby affecting the online shopping behavior of Vietnamese youth.

The factor “Subjective Norms” (CCQ) is a factor that affects the online shopping behavior of Vietnamese youth.



**Figure 6: Average value of the variable “Subjective norm”**

*Source: Compiled and calculated from survey results*

“Subjective norms” are the next factor affecting the online shopping behavior of Vietnamese youth. With 3 observed variables “My friends and colleagues advise me to shop online” CCQ1, “News and advertising influence my online shopping decision” CCQ2 and “Social networks influence My online shopping decision” CCQ3 was rated “Agree” by survey participants. The remaining scale “Information from the government affects my online shopping decision” CCQ4 was rated at “Normal” by survey participants. This shows that subjective norms have a significant impact on the online shopping behavior of Vietnamese youth. Partly because factors such as Friends and family often play an important role in shaping young people’s shopping behavior. When relatives or friends appreciate and regularly use online shopping, young people tend to be influenced and also want to participate so as not to be “outdated” or to feel “integrated” with the group.

Celebrities and KOLs on social networks have a great influence on young people’s shopping behavior. Society increasingly values and encourages online shopping activities because of the convenience and efficiency it brings. This change creates a social pressure, making young people feel the need to keep up with trends and not want to be considered outdated.

Besides, Social Networking sites such as Facebook, Instagram, TikTok are not only places for connection but also powerful commercial platforms. The integration of social networks and e-commerce helps increase the influence of subjective norms on young people’s shopping behavior. The factor “Subjective Norms” has a strong impact on the online shopping behavior of Vietnamese youth. When influenced by friends, family, celebrities and social pressures online, young people tend to accept and participate in online shopping more. Based on research on online shopping behavior of Vietnamese youth, the authors propose a number of solutions to suggest that online shopping service providers can improve and serve users. better as follows:

#### + **Improve usefulness, diversity and accuracy for consumers**

*Improve economic usefulness for consumers:* One of the biggest advantages of e-commerce is helping customers reduce costs and time. When searching for information, consumers always compare prices to find the supplier with the lowest price.

*More diverse products:* Retailers need to diversify the list of products and business items, create complete information for customers' need to compare and choose products as well as update necessary information. A wide product range, with many designs to choose from with guaranteed quality will create a competitive advantage for retailers.

*Update information promptly and accurately:* Information posted on the website needs to be updated promptly and accurately with complete information about the product, origin and technical characteristics.

+ **Improve consumer ease of use:** The ease of use of online purchasing systems for businesses is also an issue that consumers in Vietnam care about a lot. The level of technology use in Vietnam is still low. Therefore, designing and adjusting to have an online sales system that meets the criteria of ease of use for consumers is also an issue that online sellers need to invest a lot in.

*The website has a beautiful interface and is easy to use:* A good sales website must create a feeling of ease of communication with users and convenience. Furthermore, the search function on the website can help customers quickly find products. In addition, products should be arranged according to specific categories/topics to optimize customers' search capabilities.

*Improved simple ordering process:* Retailers need to improve sales and payment processes that are quick, flexible and suitable for all customers. The purchasing process is as simple as: customers just need to click on the product of their choice and on the second click to fill in the necessary information such as buyer's name, phone, email and they are done.

*Choose a simple payment process:* To have strong development following world trends, retailers need to implement online payment policies to be able to expand geographical limits such as the worldwide online sales website Amazon. com is a typical example

#### + **Improve consumers' online information search behavior**

Consumers' online information search behavior increases when they become aware of the benefits of online shopping such as (1) saving time, (2) shopping anywhere, anytime. At any time, (3) receive benefits from online shopping. Therefore, to improve online information search behavior, retailers need to:

- Integrate information search and product review utilities right on the product detail display page.
- Organize and gather positive reviews about products and retailers on the Internet. Before purchasing any product or buying something from a website, buyers will usually do detailed research on the Internet about the product and the reputation of that website.

#### **+ Improve shopping convenience for consumers**

*Create a mobile version of your website:* Nowadays, a lot of people use smartphones, so this is a way to optimize the website as well as optimize its ability to meet customer needs.

*Invest in building a quality website:* The website needs to be designed to create excitement and attraction for customers; Simple graphics, easy access; clear letters; easy to read; easy to understand for customers to use. The arrangement of information on the website must aim to ensure customers can easily find product-related information.

*Delivery policy, product return and warranty:* Develop delivery policies most suitable for the business model and a policy to protect customers' rights when it is necessary to exchange or return products, as well as a complete and clear warranty policy. and bring convenience to customers.

#### **+ Improve the quality of online shopping services for consumers**

*Customer support:* Build a team of trained staff to advise and resolve customers' questions about products/services. Build a hotline that operates 24/7 and 7 days a week.

*After-sales service:* must bring consumers interesting experiences, fully fulfill product/service commitments to consumers to bring satisfaction, from which they can easily share with those around them. around.

*Policy to care for customers* and people around them (for example, giving discount codes to customers on special days, giving away gifts...).

*Develop a flexible return, compensation* and complaint policy for customers by allowing customers to return goods on the condition that the customer pays the shipping fee. This solution will give customers a more comfortable purchasing experience.

## **6. CONCLUSION**

Research results show the influence of factors affecting the online shopping behavior of Vietnamese youth. The study had a small sample size, with only 170 valid votes included in the analysis of influencing factors. Research results show that Vietnamese youth's online shopping behavior is influenced by subjective norms, perceived behavioral control, and perceived usefulness. Perceived behavioral control.

Along with the survey being convenient and random, this is also a limitation in sample size and questionnaire quality. In addition, the new model only explains 79.2% of "Online shopping behavior of Vietnamese youth". The research results are considered a direction for further research on the online shopping behavior of Vietnamese youth.

In the future, the research team can expand the survey, research additional factors and purposefully select and filter survey subjects to increase sample size and quality of survey questionnaires, as well as the model's level of explanation.

## References

- 1) Ajzen, I., & Fishbein, M., 1975. *Attitude-behaviour relations: A theoretical analysis and review of empirical research*. Psychological Bulletin, 84, 888-918.
- 2) Bagozzi, R. and Yi, Y. (1988). *On the Evaluation of Structural Equation Models*. Journal of the Academy of Marketing Sciences, 16, 74-94. <http://dx.doi.org/10.1007/BF02723327>.
- 3) Chen, L. (2005). *Online consumer behavior: An empirical study based on theory of planned behavior*. THE UNIVERSITY OF NEBRASKA-LINCOLN.
- 4) Chen, L., Gillenson, M.L., Sherrell, D.L (2002). *Enticing online consumers: An extended technology acceptance perspective*. Information & Management 39(8), 705–719
- 5) Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences (2nd ed.)*. Hillsdale, NJ: Lawrence Erlbaum Associates, Publishers.
- 6) Davis F. D. (1989), “Perceived Usefulness, Perceived Ease of Use and User Acceptance of Information Technology”, MIS Quarterly, 13, 3, pp. 319-339.
- 7) Devellis, R (2012). *Scale Development Theory and Applications*. Sage Publications, New York
- 8) Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2016). *A primer on Partial Least Squares Structural Equation Modeling (PLS-SEM) (1st ed.)*. Thousand Oaks, CA: Sage publications.
- 9) Haubl, G. and Trifts, V. (2000). *Consumer Decision Making in Online Shopping Environments: The Effects of Interactive Decision Aids*. Marketing Science, 19, 4-21.
- 10) Ha Ngoc Thang (2015). *Research on factors affecting online shopping intention in Vietnam*. Doctoral thesis in economics, National Economics University.
- 11) Ha Ngoc Thang, Nguyen Thanh Do (2016). *Factors affecting online shopping intentions of Vietnamese consumers: Research expanding the theory of planned behavior*. Hanoi National University Science Magazine, Economics and Business, volume 32, number 4 (2016), pp. 21-28.
- 12) Hock, C., Ringle, C.M., & Sarstedt, M (2010). *Management of multi-purpose stadiums: Importance and performance measurement of service interfaces*. International Journal of Services Technology and Management, 14(2-3)
- 13) Hu, L. T., & Bentler, P. M. (1999). *Cutoff Criteria for Fit Indexes in Covariance Structure Analysis: Conventional Criteria versus New Alternatives*. Structural Equation Modeling, 6, 1-55. <http://dx.doi.org/10.1080/10705519909540118>
- 14) Hasslinger, A., Hodzic, S., & Obazo, C. (2007). *Consumer behaviour in online shopping*. Kristianstaad University Department of Business Studies.
- 15) Ken Kin, Kiu Fong, Stanley Kam Sing Wong (2015). *Factors Influencing the Behavior Intention of Mobile Commerce, Service users: An Exploratory Study in Hong Kong*. International Journal of Business and Management Vol.10, No.7;2015ISSN1833-3850E-ISSN1833-8119
- 16) Ken Kin-Kiu Fong and Stanley Kam Sing Wong. 2015. *Factors Influencing the Behavior Intention of Mobile Commerce Service Users: An Exploratory Study in Hong Kong*. International Journal of Business and Management 10(7)
- 17) Khan & R. Chavan. (2015). *Factors affecting online shoppers behavior for electronic goods purchasing in Mumbai: An empirical study*. International Journal in Management and Social Science, 3(3), 467 – 477.
- 18) Le Kim Dung (2020). *Research on online shopping behavior of Vietnamese consumers*”. Doctoral thesis in business administration, Academy of Social Sciences.

- 19) Li, N. and Zhang, P. (2002). *Consumer online shopping attitudes and behavior: an assessment of research*. Proceedings of 8th Americas Conference on Information System, 2002, 508-517.
- 20) Lim Yi Jin, Abdullah Bin Osman, Mohd Suberi Bin AB.Halim (2014). *Perceived usefulness and trust towards consumer behaviors: a perspective of consumer online shopping*. Journal of Asian Scientific Research, 2014,4(10): 541-546.
- 21) Lui, V. Y. F. (2012). *An integrated model of the factors influencing the purchasing decision of UK online consumers*. (Doctoral dissertation, University of Bolton).
- 22) Market Business News (2004). *Online shopping – definition and meaning*. marketbusinessnews.com. <https://marketbusinessnews.com/financial-glossary/online-shopping-definition-meaning/>
- 23) MasterCard (2008). *Online Shopping in Asia/pacific – Patterns, Trends and Future growth*. MasterCard Worldwide Insights, 3Q 2008.
- 24) Monsuwe TP, Dellaert BGC, de Ruyter KR (2004). *What drives consumers to shop online? A literature review*. Int. J. Services industry Manag. 15(1): 102-121.
- 25) Nguyen Thanh Do, Ha Ngoc Thang (2015). *Opportunities and challenges of online shopping in Vietnam*. Science Magazine, Hong Duc University, 2015, Vol. 20, pp. 136-144.
- 26) Nguyen To Uyen (2016). *Research on factors affecting customer satisfaction when shopping online: research in Kon Tum City*. Master's thesis in Business Administration, Da Nang University.
- 27) Philip Kotler (2007). *Basic marketing*. Social Labor Publishing House.
- 28) Nguyen Thu Thao (2021). *The impact of social network advertising on young people's online shopping behavior*. Master's thesis in Business Administration, Foreign Trade University.
- 29) Tran Thi Thanh Binh (2020). *Industrial Revolution 4.0 – Opportunities and challenges of the Vietnamese working class today*. Tapchicongsan.org.vn. [https://www.tapchicongsan.org.vn/web/guest/nghien-cu/-/2018/816338/view\\_content](https://www.tapchicongsan.org.vn/web/guest/nghien-cu/-/2018/816338/view_content)
- 30) Tran Thi Hong Hanh (2017). *Factors affecting the online shopping behavior of household appliances among female office workers in Hanoi*. Master's thesis in Business Administration, University of Economics - Vietnam National University, Hanoi
- 31) Turban E., King D., Lee J.K., Liang T.-P (2006). *Electric Commerce A Managerial Prespective*. Prentice Hall Upper Saddle River New Jersey, Pearson Education.
- 32) The Economic Times (2006). *What is online shopping?* Economic.com. <https://m.economictimes.com/tech/internet/what-is-online-shopping/articleshow/916214.cms>
- 33) vnetwork.vn (2023). *Vietnam Internet 2023: Latest data and development trends*. Vnetwork.vn. <https://www.vnetwork.vn/news/internet-viet-nam-2023-so-lieu-moi-nhat-va-xu-huong-phet-trien/>
- 34) Vu Thi Tuong Vi (2017). *The relationship between online service quality, trust and online shopping intention*. Graduation thesis, Ho Chi Minh City Open University. Ho Chi Minh.
- 35) Wikipedia (2024). *Online Shopping*. en.wikipedia.org. [https://en.wikipedia.org/wiki/Mua\\_s%E1%BA%AFm\\_tr%E1%BB%B1c\\_tuy%E1%BA%BFn](https://en.wikipedia.org/wiki/Mua_s%E1%BA%AFm_tr%E1%BB%B1c_tuy%E1%BA%BFn)