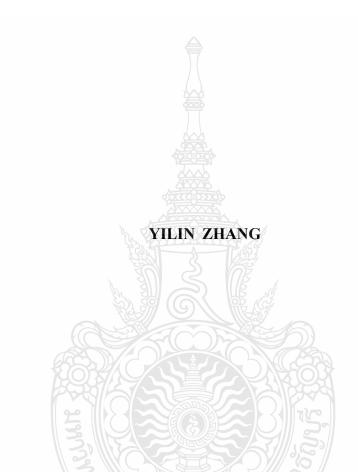
FACTORS AFFECTING THAI CONSUMER INTRNTION IN ONLINE SHOPPING



A THESIS SUBMINTTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION MAJOR SUBJECT IN BUSINESS FACULTY OF BUSINESS ADMINISTRATION

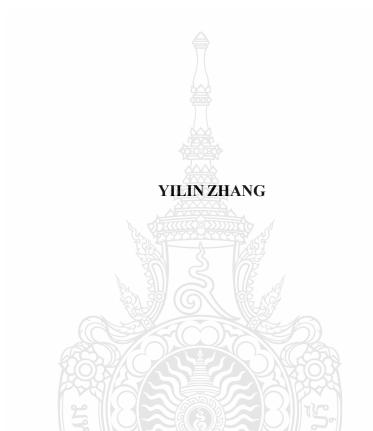
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TECHNOLOGY THANYABURI

Independent Study Title	Factors Affecting Thai Consumer Intention in Online	
	Shopping	
Name - Surname	Miss Yilin Zhang	
Major Subject	General Management	
Independent Study Advisor	Associate Professor Wasun Khan-am, MS.	
Academic Year	2020	

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ABSTRACT

This independent study aimed to investigate: 1) demographic factors affecting consumer intention in online shopping, 2) online buying behaviors affecting consumer intention in online shopping, and 3) consumer attitudes toward online shopping affecting consumer intention in online shopping.

The population of this study was online consumers and the sample group, selected using purposive sampling, included 400 online consumers. The research instrument used for collecting data was questionnaires. The data were analyzed using frequency distribution, percentage, mean, standard deviation, one-way ANOVA, simple regression analysis, and multiple regression analysis.

The study revealed that 1) demographic factors consisting of gender, monthly income, time spent on online shopping per day, and online shopping frequency per year affected consumer intention in online shopping. 2) Online buying behaviors including risk perception, consumer-perceived convenience, benefit perception, and consumer experience had an influence on consumer intention in online shopping. 3) Consumer attitudes toward online shopping significantly affected consumer intention in online shopping at the statistically significant level of 0.05.

Keywords: online buying behaviors, attitudes toward online shopping, intention in online shopping

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Yilin Zhang

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CHAPTER 1 INTRODUCTION

Chapter 1 gives an overview about the relevant aspects about this thesis and why this research should be have done.

1.1 Background and Statement of the Problem

Digitization, networking and information as the characteristics of the 21st century is changing the way of people's lives, learning and work. The Internet has brought a lot of convenience to people, not only provides people with a large amount of rich information, a variety of entertainment methods, but also brings a new way of shopping to people-Online Shopping.

Online shopping is a form of electronic commerce which allows consumers to directly buy goods or services from a seller over the Internet using a web browser. Consumers find a product of interest by visiting the website of the retailer directly or by searching among alternative vendors using a shopping search engine, which displays the same product's availability and pricing at different e-retailers. As of 2020, customers can shop online using a range of different computers and devices, including desktop computers, laptops, tablet computers, smartphones, and smart speakers.

Online shopping enables consumers to be free from space and time constraints, and to buy the products they want without leaving the home. In the past decade, the rapid development of e-commerce has greatly promoted economic development and consumer purchasing power.

According to reports from Google and Temasek, Southeast Asia (Indonesia, Malaysia, Philippines, Singapore, Thailand, and Vietnam) has more than 350 million Internet users. More than 90% of Southeast Asians connect to the Internet primarily through mobile devices. In addition, the same report from Google and Temasek pointed out that the Internet economy in Southeast Asia will rapidly develop into a \$ 240 billion industry, and the e-commerce industry is expected to receive up to \$ 102 billion in revenue by 2025.

The following figure is an estimate and comparison of the revenue of the e-commerce industry in Southeast Asia from 2018 to 2022.

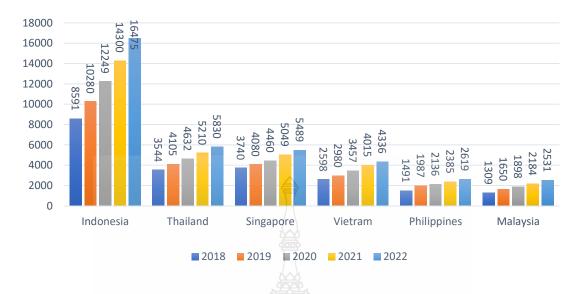


Figure 1.1 Revenue Generated in E-Commerce in SEA Countries (US\$ millions)

In recent years, Thailand's e-commerce market has grown steadily due to its huge potential and is considered the second largest digital economy in Southeast Asia. Currently, Thailand has a population of 69.2 million and nearly 50 million Internet users, with a coverage rate of 73%, about 24.5% of Internet users become online shoppers. With more and more Thais accessing the Internet, using mobile phones to access the Internet and using mobile phones for shopping, and the development of social media platforms, the Thai e-commerce market is estimated to reach \$ 11.1 billion by 2025. Alibaba Group has discovered business opportunities in Southeast Asia and regards it as a new target market.

E-commerce in Thailand accounts for 0.8% of the country's total retail sales and only a small portion of Thailand's total retail sales. The Digital Thailand 4.0 plan launched by the Thai government in 2016 has brought great opportunities for Thai e-commerce companies. This plan increases the use of the Internet and encourages businesses, especially SMEs in remote areas, to use incidental fees and electronic markets to sell local products and services. According to data compiled by Fung Business Intelligence, Market share of Thailand top 5 e-commerce players are: Alibaba (Lazada) 23.3%, CP Group (24 Shopping, iTrue Market) 12.2%, Sea (Shopee Mall) 7.3%, Amazon6.2%, Tesco (Tesco Lotus) 5.9%

Although the Thai e-commerce market is developing rapidly, there is still a large gap compared with the brick-and-mortar retailing industry. Even though most consumers have paid attention to online shopping, relatively few have ever done online shopping. These potential online shopping consumers are still on the sidelines and are at the potential online shopping stage. In my opinion, if these netizens who are interested in online shopping and often browse shopping sites can be transformed into a loyal user group of online shopping and further deepen the existing online shoppers' shopping behavior, Thailand's e-commerce will have a huge development.

1.2 Purpose of the Study

Research the factors that influence consumers' choice of online shopping, investigate how online retail can meet the expectations of these potential online consumers and make them choose to shop online.

1.3 Research Question and Hypothesis

Research question is what factors that affecting to web user for transforming to online shopper. And what is the relationship between these factors and consumers' attitudes and intentions to accept online shopping?

DI Marketing's "Thai Internet Shopping Survey Report" mentioned that Thai consumers believe that online shopping is convenient and time-saving and convenient payment methods are the reasons why many consumers choose online shopping, and worrying about quality, size, after-sales and other problems The main reason for choosing online shopping.

Based on such facts, this article explores the key factors that influence online shopping's consumer behavior. Study what attributes of online shopping will meet the expectations of potential online shopping consumers in Thailand; what is the relationship between these factors and the attitudes and intentions of consumers to accept online shopping? And the discussion of these issues forms the original intention of this article.

Variable hypothesis as follows:

(1) Relationship between attitude and intention of online shopping

Hypothesis 1: Consumers 'attitudes towards online shopping have a positive impact on their intend to online shopping.

(2) The relationship between relevant experience and attitude of online shopping

Hypothesis 2: Consumers 'online experience has a positive impact on online shopping attitude.

(3) The relationship between various factors in online shopping with online shopping attitude

Hypothesis 3: Perceive the usefulness of online shopping is positively related to online shopping attitude.

Hypothesis 4: Perceive that online shopping is easy to use is positively related to online shopping attitude.

Hypothesis 5: Perceived Online shopping risk is negatively correlated with online shopping attitude.

(4) Relationship between consumers with different demographic characteristics and intention of online shopping

Hypothesis 6: Female consumers are more intention to online shopping than male consumers.

Hypothesis 7: Consumers of different ages have significant differences in online shopping intentions.

Hypothesis 8: Consumers with different levels of education have significant differences in online shopping intentions.

Hypothesis 9: Consumers of different occupations have very different intentions to shop online.

Hypothesis 10: Consumers of different incomes have significant differences in online shopping intentions.

1.4 Definition Terms

Perceives Online Shopping to be Useful

A core content of TAM is that individuals believe that the use of specific technologies can increase performance, improve efficiency and produce favorable results. Consumers are rational and will follow the cost-benefit theory during the shopping process, that is, to obtain the maximum benefits with the least cost. The cost includes physical expenditure, time expenditure and currency expenditure. The benefits include a happy shopping experience and access to the most cost-effective products. Online stores provide consumers with a wealth of product information, competitive product prices, flexible shopping methods, and the ability to deliver products to home, etc., so that consumers can be free from time and space constraints. These advantages increase consumer benefits and reduce consumer costs. The relative advantages provided by these online shopping can make consumers feel that online shopping is useful and have a positive attitude towards online shopping.

Therefore, we believe that consumers perceive that online shopping is useful and have a more positive attitude and intention on online shopping. The more consumers perceive the usefulness of online shopping, the more likely they are to accept online shopping.

Perceive Online Shopping as Easy to Use

The perception of easy-to-use online shopping in TAM mainly means that the process of consumers' online transactions is very easy. Many studies have shown that perceived usefulness is the main determinant of consumer acceptance of information technology, perceived ease of online shopping is the second most influential factor, and perceived ease of use affects behavioral intentions indirectly by affecting perceived usefulness. Perceived ease of online shopping mainly emphasizes the convenience in the process of online shopping. Entering the online shopping is useful to emphasize the results of completing shopping. Entering the online store is fast, the navigation is fast, the website interface is clear and easy to understand, it is easy to communicate with merchants, and it is easy to place and cancel orders. These will make consumers feel that online shopping is easier to use, the more likely they are to have more positive online shopping attitude.

Perceive Online Shopping Risks

The current problems in online transactions are mainly product quality, aftersales service and manufacturer's credit cannot be guaranteed, security cannot be guaranteed, information provided online is unreliable, payment is inconvenient, prices are not attractive, and delivery is not timely. The safety of online shopping is also one of the factors that affect the attitude of Chinese consumers to online shopping. Nena Lim (2003) defines the perceived risk of online shopping as "the degree to which consumers believe that they will suffer losses if they buy products or services over the Internet." Jing Miao (2005) defined the perceived risk of online shopping as "an online consumer's subjectively determined expectation of loss when considering a specific online purchase behavior." Here, it is the psychological feeling and subjective understanding of consumers on various objective risks encountered in the process of online shopping. Todd and Jabenpaa (1996) identified five types of perceived risks of online shopping in their research: economic risk, social risk, functional risk, personal risk, and privacy risk.

Based on the risk dimensions proposed in the previous literature, and combined with the survey of factors affecting Thai consumers' online shopping, this article believes that the perceived risk of online shopping mainly comes from the following aspects:

(1) Perceive risk of online products. The online product risk here mainly refers to the discrepancy of the products received by consumers on the page, and the quality of products purchased online is not high.

(2) Perceive risk of network. Here, network risk refers to the risks inherent in the network itself, such as the security of personal privacy information or the risk of theft of accounts and passwords if consumers choose to pay online.

(3) Perceive the risk of online merchants. Here, the risks of online merchants mainly include the fraudulent behaviors of merchants, such as the merchants failing to keep their promises, and the product after-sales service cannot be guaranteed.

Consumers will only adopt the online shopping model if they are convinced that online retailers have the ability and motivation to deliver the high-quality goods and services they need, and to ensure their privacy and security. Therefore, this article believes that perception of online shopping risk is an important factor affecting consumers' attitudes and intentions on online shopping. The riskier consumers feel about online shopping, the more negative attitude they will have towards online shopping.

Online Shopping Attitudes and Intentions

Attitude refers to the persistent evaluation, feeling and tendency of an individual towards certain individuals or ideas, that is, the individual's feeling of likes or dislikes to accomplish the target behavior. People hold attitudes to almost everything, and attitudes are not innate, but gradually formed through contact, observation, and understanding. Once attitudes are formed, they are relatively durable and stable. Intention refers to the consumer's understanding of the attributes and benefits of things. Different consumers may have different intentions about the same thing.

Fishbein (1975) believes that purchase behavior is mainly determined by shopping intention, and attitude is one of the factors that determine the intention.

Attitude generally influences consumers' purchase behavior through intention variables, and attitudes and behaviors are not consistent in many cases. There are many reasons for inconsistencies, such as purchasing motivation. Even if consumers have a better attitude towards a certain shopping method or product, if they lack motivation, consumers will not take purchasing actions. Good feelings, but because of financial constraints, purchases cannot be realized. Many studies have also shown that attitudes are significantly related to consumers' intentions to shop online. Therefore, this article believes that the more consumers experience the Internet and online shopping, the higher their attitude towards online shopping.

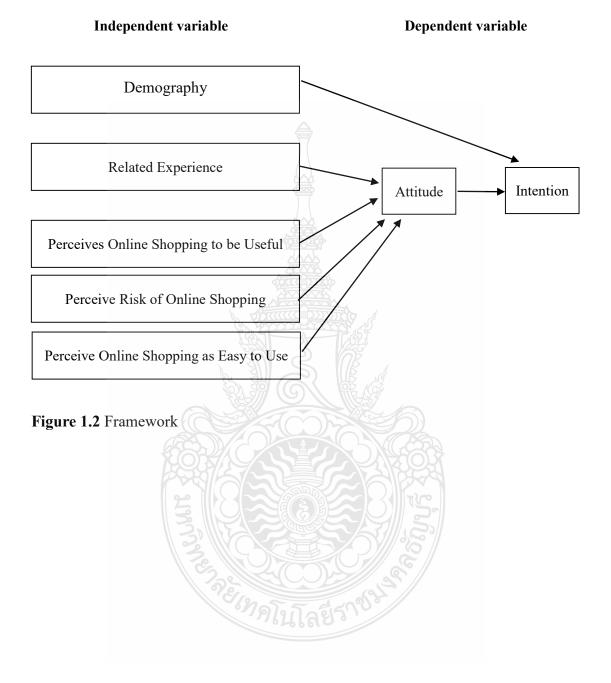
1.5 Significance of the Study

E-commerce has transformed traditional lifestyles, making it easier for people to shop. It has greatly speeded up consumers' access to various products and services, and greatly enhanced their richness. Thailand's e-commerce industry and overall online shopping are in a period of rapid development. However, the real economy of Thailand is not afraid of the development of e-commerce. The concept of consumption of online shopping has not been of great weight in the minds of Thai customers.

Therefore, it is of great significance to study the consumer behavior of Thai consumers in online shopping and understand the influencing factors that influence potential consumers' online shopping. Firstly, theoretically, the research on the influencing factors of consumers 'online shopping intentions is conducive to accurately investigate consumers' online shopping behavior, and further deepen the consumer behavior theory. Secondly, in practice, research on the influencing factors of consumers' online shopping intentions is conducive to enterprises being truly consumer-centric, and can enable companies to reasonably allocate marketing resources to the influencing factors of consumers when shopping online, and improve the use of marketing resources Efficiency, better engaged in the development of the online retail market.

1.6 Conceptual Framework

This research is based on the conceptual framework specified below:



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Variable	Measurement of variables
Demography	1. (Q21) Gender
	2. (Q22) Age
	3. (Q23) Education level
	4. (Q24) Occupation
	5. (Q25) Income
Related Experience	6. (Q1) Time spent by respondents on the Internet every day
	7. (Q2) Respondents' experience using the Internet
	8. (Q3) Number of online shopping in recently year
	9. (Q4) Cost of per online shopping purchase
Perceives Online	10. (Q5) Online shopping enables consumers to complete
Shopping to be Useful	shopping or find information faster than traditional stores
	11. (Q6) Online shopping is convenient and can save a lot of time
	12. (Q7) Online shopping can enable consumers to find more
	products and product information in a short period of time
Perceive Online	13. (Q8) Consumers can easily search and get the information
Shopping as Easy to Use	they want in online shopping
	14. (Q9) The online shopping process is clear
	15. (Q10) Online shopping search, communication, purchase,
	payment and other processes are easy to operate
Perceive Risk of Online	16. (Q16) Consumers worry about the difference between the
Shopping	product they receive and what they advertise on the web page
	17. (Q17) Consumers are concerned about the low quality of
2	products bought online
30	18. (Q18) Consumers worry about security of personal privacy
3	information
	19. (Q19) Consumers worry about account or password theft
	during online payments
	20. (Q20) Consumers worry that the merchants will not keep their
	promises and product after-sales services are not guaranteed
Attitude of Online	21. (Q11) Shopping online is exciting and enjoyable
Shopping	22. (Q12) Consumers love online shopping
Intention to Online	23. (Q13) Consumers recently have plan to shop online
Shopping	24. (Q14) Products that can be purchased online, consumers will
	buy them online
	25. (Q15) Online shopping is my number one shopping method

 Table 1.1 Measurement of variables

CHAPTER 2 REVIEW OF THE LITERATURE

The objective of this chapter is to review the literature relevant to this study and with theories regarding this topic. This chapter is divided into the following five sections:

Part 1: Concepts and theories related to "Demography"

Part 2: Concepts and Theories Related to "Online Consumer Behavior"

Part 3: Previous Research

2.1 Theory

Part 1: Demography

In Wikipedia, the definition of demographics is: Demographics is a methodological discipline that describes the collection, sorting, and reflecting of the state of demographic phenomena, their changing processes, and their quantitative relationship with socioeconomic development. It reveals the nature, laws, and development trends of population phenomena through quantitative performance. It is an important part of demography and an important part of socio-economic statistics.

One of the earliest demographic studies in the modern period was Natural and Political Observations Made upon the Bills of Mortality (1662) by John Graunt, which contains a primitive form of life table. Among the study's findings were that one third of the children in London died before their sixteenth birthday. Mathematicians, such as Edmond Halley, developed the life table as the basis for life insurance mathematics.

In 1755, Benjamin Franklin published his essay Observations Concerning the Increase of Mankind, Peopling of Countries, etc., projecting exponential growth in British colonies. (von Valtier, William F. June 2011. "An Extravagant Assumption": The Demographic Numbers behind Benjamin Franklin's Twenty-Five-Year Doubling Period") His work influenced Thomas Robert Malthus, who, writing at the end of the 18th century, feared that, if unchecked, population growth would tend to outstrip growth in food production, leading to ever-increasing famine and poverty. Malthus is seen as the intellectual father of ideas of overpopulation and the limits to growth. Later, more sophisticated and realistic models were presented by Benjamin Gompertz and Verhulst. (Zirkle, Conway, 1941)

In 1855, a Belgian scholar Achille Guillard defined demography as the natural and social history of human species or the mathematical knowledge of populations, of their general changes, and of their physical, civil, intellectual and moral condition. (Caves, R. W. 2004. Encyclopedia of the City. Routledge. p. 169)

The period 1860-1910 can be characterised as a period of transition wherein demography emerged from statistics as a separate field of interest. This period included a panoply of international 'great demographers' like Adolphe Quételet (1796-1874), William Farr (1807-1883), Louis-Adolphe Bertillon (1821-1883) and his son Jacques (1851-1922), Joseph Körösi (1844-1906), Anders Nicolas Kaier (1838-1919), Richard

Böckh (1824-1907), Émile Durkheim (1858-1917), Wilhelm Lexis (1837-1914), and Luigi Bodio (1840-1920) contributed to the development of demography and to the toolkit of methods and techniques of demographic analysis.

Aopeng \cdot sicong (2018) stated in the article "Big Data Marketing-Demographics and Market Segmentation": The difference in consumer demand is the basis of market segmentation, but this difference cannot be directly measured. At present, the most commonly used measurement method of enterprises is big data. Geographical data, demographic data, behavioral data, etc. can be used as criteria for market segmentation. After applying demographic data to market segmentation, demographic data is more comprehensive, and the collected data is more real-time and effective. It can better reflect changes in consumer demand in a timely manner, thereby helping decision makers to make accurate judgments. The results obtained through market segmentation can effectively recommend marketing activities and find effective promotion channels to reach these segmented groups.

Part 2: Online Consumer Behavior

In the context of Internet technology, consumers have transformed from an ordinary shopper to a consumer with dual shopper and computer user status. Technical acceptance models that explain individual use of information systems have also been used to illustrate consumer use of online retail as a retail method. The theoretical basis of technology acceptance model is rational behavior theory and planned behavior theory.

(1) The Theory of Reasoned Action (TRA)

The Theory of Reasoned Action (TRA) is a model that finds its origins in the field of social psychology. This model developed by Fishbein and Ajzen (1975) defines the links between beliefs, attitudes, norms, intentions, and behaviors of individuals. According to this model, a person's behavior is determined by its behavioral intention to perform it. This intention is itself determined by the person's attitudes and his subjective norms towards the behavior. Fishbein and Ajzen (1975, p. 302) define the subjective norms as "the person's perception that most people who are important to him think he should or should not perform the behavior in question" (Fishbein and Ajzen 1975, p.302) This theory can be summarized by the following equation:

Behavioral Intention = Attitude + Subjective norms

According to TRA, the attitude of a person towards a behavior is determined by his beliefs on the consequences of this behavior, multiplied by his evaluation of these consequences. Beliefs are defined by the person's subjective probability that performing a particular behavior will produce specific results. This model therefore suggests that external stimuli influence attitudes by modifying the structure of the person's beliefs. Moreover, behavioral intention is also determined by the subjective norms that are themselves determined by the normative beliefs of an individual and by his motivation to comply to the norms.

(2) The Theory of Planned Behavior

The Theory of Planned Behavior (TPB) is a theory that links one's beliefs and behavior. The theory states that intention toward attitude, subjective norms, and perceived behavioral control, together shape an individual's behavioral intentions and behaviors. The concept was proposed by Icek Ajzen to improve on the predictive power of the theory of reasoned action by including perceived behavioral control. It has been applied to studies of the relations among beliefs, attitudes, behavioral intentions and behaviours in various fields such as advertising, public relations, advertising campaigns, healthcare, sport management and sustainability.

(3) The Technology Acceptance Model

The Technology Acceptance Model (TAM) was developed by American scholar Fred D. Davis, 1986 based on the Theory of Reasoned Action in the field of information systems and computer technology, to explain and predict people's acceptance of information technology.

The TAM model believes that the behavior of individuals using information systems is caused by the behavioral intentions of using the systems, and the behavioral intentions are jointly determined by the individual's attitude towards the use of the system and the perception of the information system. Attitude reflects the individual's feelings about using the system. It is determined by perceived usefulness and perceived ease of use. Perceived usefulness is influenced by perceived ease of use and external variables. Perceived usefulness refers to the degree to which an individual believes that using a specific application system will increase job performance. Perceived ease of use refers to the ease with which individuals expect to use the system. The more useful the technology is, the more convenient it is to use, and the clearer the attitude and behavioral intent to adopt the technology, the more likely it is to adopt the technology.

The model suggests that when users are presented with a new technology, a number of factors influence their decision about how and when they will use it, notably:

Perceived usefulness (PU) - This was defined by Fred Davis as "the degree to which a person believes that using a particular system would enhance his or her job performance". It means whether or not someone perceives that technology to be useful for what they want to do.

Perceived ease-of-use (PEOU) - Davis defined this as "the degree to which a person believes that using a particular system would be free from effort" (Davis 1989). If the technology is easy to use, then the barriers conquered. If it's not easy to use and the interface is complicated, no one has a positive attitude towards it.

Online shopping requires consumers to have a network-connected device (computer, iPad or mobile phone) and certain online knowledge and skills, such as the use of online shopping platform apps, online search and web checking, etc., so this is a process of accepting new technologies. From this perspective, consumers acceptance of online shopping is similar to their acceptance of computer information technology. Based on the technology acceptance model, we can study the key factors that affect consumers' acceptance of online shopping models.

2.2 Previous Research

A study by Marios Koufaris (2002) suggests that consumers' use of the Internet has a significant effect on their online behavior. In addition to the online use experience that affects consumers 'online shopping behavior, research has found that consumers' direct online shopping experience in the past also affects consumers 'online shopping behavior.

Forsythe (2003), the economic, functional, and psychological risks decrease with the increase of online shopping experience, while the time and convenience risks are directly proportional to the online shopping experience.

Aron O 'Cass, Tino French (2003) Research on the factors affecting online consumer behavior based on the TAM model. In his research, he focused on online retail behavior. From the perspective of consumers accepting the technology of online retail , Analyzes the path block diagram that affects the behavior of consumers during the entire purchase process, and uses the technology acceptance model to analyze the behavior of users who shop on the Internet, focusing on the behavior of consumers who have purchased goods, without subdividing the research objects. Research suggests that perceived online retail usefulness and perceived ease of use are significantly positively related to consumers' attitudes towards online retail.

Hung-Pin (2004) is based on TAM. The research believes that web page security, entry cost, perceived usefulness, perceived ease of use, and consumer satisfaction will positively affect consumers' online shopping attitudes. Consumers perceive information quality, perception system quality, and perception service quality. Will positively affect consumers' acceptance of online shopping.

Yao Qiang (2004) was one of the first scholars who conducted research regarding about e-commerce of China, in his research, studied the development status of China's e-commerce website, and focused on the Alibaba website, analyzing its operation, the status quo of the website itself and the advantages and disadvantages in the development process.

Liu Gang (2011) studied the construction of e-commerce payment systems in Western countries such as Europe and the United States, and referred to the results of overseas advanced e-commerce payment systems. He analyzed the problems faced in the construction and application of China's e-commerce payment system, and proposed the application and countermeasures of the development of China's e-commerce payment system.

Benjamaporn K. (2011) conducted research on the Thai e-commerce market. The study found that the number of companies using e-commerce in Thailand is increasing, but there are few successes, especially those that sell products only through e-commerce. She pointed out through research that the success of e-commerce needs to be judged according to factors such as system application, application satisfaction, and benefits (service quality) of applying e-commerce.

Ma Bingqiong (2015) combined with the market situation, made a classification survey on various types of Thai e-commerce B2C, B2B, B2G, and put forward four division methods about Thai e-commerce industry like the type of economic activities, the type of sales, the number of direct practitioners and the sales model of online and offline, which can make us know the general situation and development issues of e-commerce industry in Thailand, but there is no in-depth study of Thailand e-commerce major obstacles, so we need spend more time and effort to study and understand the development prospects of cross-border e-commerce in Thailand.

Li Pengbo (2016) through the analysis of the famous enterprise cases of importing cross-border e-commerce, he believes that China's cross-border e-commerce has developed rapidly in the past three or four years because of the promotion of national policies and the upgrading of consumer demand and trading methods.

Jac Fei (2017) Published a paper entitled History and development status of China e-commerce. A paper on e-commerce briefly summarized the history and future development prospects of Chinese e-commerce: The launch of e-commerce in China was from 1997 to 1999. At this time, only a small number of people were exposed to the Internet. The level of informatization was low. The public lacked the knowledge of ecommerce. Most e-commerce websites were struggling. In the next adjustment period from 2000 to 2002, many Internet companies collapsed due to the impact of the Internet economic bubble. The problems of e-commerce were gradually exposed, funds were withdrawn, and the market was reshuffled. From 2003 to 2007, during the recovery period, China's e-commerce transaction volume reached 2.2 trillion Yuan. The market gradually became rational. More and more netizens began to accept online shopping. Alibaba set up Taobao and launched Alipay, which brought big influence onto the development of ecommerce. Meanwhile the basic environment continued to be mature, and the bottlenecks such as the problems of logistics and payment were basically solved. In the growth period from 2008 to 2013, China's e-commerce transaction volume exceeded 100 billion Yuan, entering a stage of standardization and steady development. Many famous large enterprises and funds entered the market. Both the number of netizens and logistics services developed rapidly. Since 2014, China's e-commerce has been developing at an alarming rate. On November 11, 2018, the "Double Eleven" promotion in the field of ecommerce was launched, with many large-scale e-commerce headed by Taobao and Tmall Mall and JD. The companies ushered in the annual sales peak. On the 11th, the GMS (Gross Merchandise Volume) of the e-commerce industry in China exceeded 400 billion Yuan for the first time. Among them, Tmall's final transaction rating was 213.5 billion Yuan; JD 11.11 Global Good Things Festival totaled 159.8 billion Yuan, verifying the e-commerce miracle belonging to China.

Mobile marketing service provider Yeahmobi (2018) released a "Global E-Commerce Information: Thailand" report combining a large amount of data and market research data. The report includes geographical, trade, Internet penetration, e-commerce environment, marketing strategies, payments, logistics and taxation. On the aspect of the comprehensive interpretation of the Thai market. In 2014, the scale of B2C e-commerce in Thailand increased from 18.20 trillion baht (about 3.31 trillion Yuan) in 2013 to 41.17 trillion baht (about 7.48 trillion Yuan), up to 126%. In 2016, the E-Commerce Development Agency (ETDA) conducted a survey of 592,996 e-commerce practitioners. The results showed that in the B2C sector alone, the transaction volume in 2016 reached US \$ 19.64 billion. By the end of 2017, Thailand's e-commerce market transaction volume reached 2.8 trillion baht (about US \$ 83.9 billion), an increase of nearly 10% over the previous year. The B2B market will reach 1.67 trillion baht (US \$ 50.1 billion) in 2017, accounting for 59.56% of the total e-commerce market. In 2017, B2C transaction volume reached US \$ 812.6 billion, up to 15.54% year-on- year, accounting for 28.89% of the e-commerce market.

Tran Phuong Thao (2018) conducted a study on the influencing factors to Vietnamese Consumers 'intention in Online shopping to study the online shopping behavior of Vietnamese consumers through the deconstructed planned behavior theory.



CHAPTER 3 RESEARCH METHODOLOGY

Chapter 3 explains how the research process was been conducted. In order to study the factors that influence Thai consumers to purchase products on the Lazada platform and to study consumer online shopping behavior. In this paper, a simple random sampling method is used to randomly survey Thai consumers in a large shopping mall with a large flow of people in Bangkok. Based on the results of the questionnaire, the following research is conducted:

- 3.1 Sequences of Research
- 3.2 Population and Sampling Technique
- 3.3 Instrumentation
- 3.3 Verification and Test Reliability of Questionnaire
- 3.4 Data Collection
- 3.5 Data Analysis

3.1 Sequences of Research

The research for this Independent Study will according to the following schedule:

- Define research topic
- Pre-data collection
- Define research question
- Literature review
- Complete first three chapters
- Prepare consumer survey
- Implement survey
- Evaluate survey data
- Complete chapter four and five

3.2 Population and Sampling Technique

With a total population of about 69 million, Thailand is the 20th most populous country in the world. There are 77 first-level administrative regions in the country, including 76 "prefectures" (province, changwat) and the capital (the only prefecture-level municipality) Bangkok. Among them, Bangkok has the largest population, about 5.1 million people, and 21 provinces with population over 1 million. Thailand's current e-commerce is mainly concentrated in Bangkok and other cities with more developed express logistics. According to Fung business data, Thailand's main economic retail areas are near Siam, Suklumvit Road, Pratunam, Riverside area, Silom, Chatuchak in Bangkok. Therefore, based on the above data, this study establishes the research scope as follows:

1. Population: The resident population of Bangkok, Thailand, is approximately

5,104,476.

2. Locations: Affected by the current covid-19 epidemic, in order to reduce face-to-face transmission, an online questionnaire was chosen. Create online questionnaires in Google Sheets and send at random to Thai Internet users via Wechat, Facebook, Line, etc. The link to the survey is:

https://docs.google.com/forms/d/e/1FAIpQLSftGb5Gvg2MuDfnzhUKY9qLX hqvLIptsOUR_HrR6Zjf8rDSA/viewform?usp=sf_link

The questionnaire has required options to ensure the integrity of the survey questionnaire received. In addition, the questionnaire is guaranteed to be an Internet user.

The sample of this research is calculated by using Taro Yamane (Yamane, 1973) formula with 95%confidence level. (according 5,104,476 persons from the data of Bangkok Thailand district official report 2019.)

The calculation formula of Taro Yamane is presented as follows:

$$n = \frac{N}{1+N (e)^2}$$

Where :

n = sample size required

N = number of people in the population

e = allowable error (%)

Substitute numbers in formula:

$$n = \frac{5,104,476}{1+5,104,476(0.05)^{2}}$$
$$= \frac{5,104,476}{1+5,104,476(0.0025)}$$
$$= \frac{5,104,476}{12,762.19}$$
$$= 399.968 \approx 400$$

After calculated the sample size by substituting the numbers into the Yamane formula, the numbers of sample are 399.968. In order to obtain reliable of data, researcher has increased sample size to 400.

3.3 Instrumentation

For the study, questionnaire is used as the research instrument. To capture the answers, questionnaire was designed and used. The questionnaire consists of check-list question and five-point Likert scale and is divided into 4 parts as follows:

1) The first part of the questionnaire is mainly to measure the respondents' Internet usage experience and the basic situation of online shopping, including four questions, including 4 questions. For this part use check-list questions. 2) The second part of the questionnaire is about consumer acceptance of online shopping. Using five-point Likert scale with questionnaire. Respondents are asked to rate from "1 strength disagree" to "5 completely agree", Among them, questions Q5-Q7 are about consumers' usefulness in perceiving online shopping. Questions Q8-Q10 are about consumers 'measurement of perceived ease of use of online shopping. Questions Q11-Q12 are about consumer attitudes towards online shopping. Questions Q13-Q15 are about consumer intent to measure online shopping.

3) The third part of the questionnaire is a study on consumers' perception of the risks of online shopping. Scores are still scored using five-point Likert scale with questionnaire, including questions Q16-Q20.

4) The fourth part of the questionnaire is the demographic information of the respondents. The fourth part has questions about demographic characteristics, including the gender, age, education level, occupation and salary of the respondent. For this part also use check-list questions.

3.4 Verification and Test Reliability of Questionnaire

This study uses a questionnaire to test the accuracy and reliability of the study.

1. Validity: Design a questionnaire to ensure that each question and answer option is valid and can achieve the purpose of the study.

2. Reliability: Before conducting a large number of questionnaires, use the Tryout method to randomly survey 30 people in places with a large flow of people in Bangkok. First, analyze the 30 survey results to ensure that the collected data can reach Anticipated research value.

It can be seen from Table 4.8 that each coefficient is greater than 0.6, indicating that the reliability of the group of data is acceptable. And each measurement problem item proposed by the scale can describe independent variables and has high reliability. Therefore, each measurement item of the above six measurement variables meets the requirements and all are reserved.

3.5 Data Collection

In this study, Google forms were used to upload the questionnaire, which was randomly sent to the respondents via email and social networking platforms (Facebook, Line, Wechat, etc.). Respondents are all Internet users, especially those who have visited online shopping sites in the future, and will likely become loyal consumers of potential online shopping in the future. Data collection was conducted during in March 2020. And select complete and valid questionnaire survey results as data collection for further analysis.

3.6 Data Analysis

The purpose of data analysis is to concentrate and improve the information hidden in a large amount of seemingly disorganized data, so as to find the inherent laws of the research objects.

The data of this study will be analyzed by computer through package software (SPSS: Statistical Package for Social Sciences) as follows:

1. The demographic background information of the respondents will be analyzed and presented using descriptive statistics in form of Frequency and Percentage.

2. The results collected by the questionnaire will be analyzed by the following methods: factor analysis, scale reliability analysis, correlation analysis, regression analysis and ANOVA analysis. Analyze the linear relationship between variables based on the results of the questionnaire. Correlation analysis is to determine the closeness between variables and the direction of correlation through several statistics describing the correlation. For the existence of a linear relationship between variables, the Pearson correlation coefficient is generally used to test. This article mainly analyzes whether there are significant correlations between product factors, online usage experience, online shopping experience, and consumer acceptance of online shopping models. At the same time, through the correlation analysis, the hypotheses proposed earlier are tested.

3. The scoring of questionnaire will be analyzed by using five - points rating scale or five - Likert scales. The five -point Likert scales are as follow:

Totally agree	5 points
Basically agree	4 points
General	3 points
Disagree	2 points
Strongly disagree	1 point

Researcher used the criteria to scale rating of class interval of Best (1970) to interpret the Mean score of consumers' attitude and intention with online shopping.

 $Class interval = \frac{Maximum-Minmum}{Class number}$

- 1. = 1.00 1.80 means Strongly Disagree
- 2. = 1.81-2.60 means Disagree
- 3. = 2.61-3.40 means General
- 4. = 3.41-4.20 means Basically agree
- 5. = 4.21-5.00 means Totally agree

CAPTER 4 RESEARCH RESULTS

Chapter 4 deal with the evaluation and interpreting of the research results by using statistical methods.

4.1 Demographic Data

According to the results of the questionnaire, the respondents' gender, age, education level, occupation and income level are presented in the following table.

Gender	Frequency	Percentage
Male	132	33%
Female	268	67%
Total	400	100%

Table 4.1 Frequently table of Gender

According to Table 4.1, it can be found that there are 400 respondents in this survey, of which 132 are males, accounting for 33%, and 268 females, accounting for 67%.

Age	Frequency	Percentage
Under 18 years old	20	5%
19-29 years old	220	55%
30-39 years old	108	27%
40-49 years old	36	9%
50 years old and over	16	4%
Total	400 8 1	100%

 Table 4.2 Frequently table of Age

From Table 4.2, it can be found that there are 400 respondents, the most of whom are between 19 and 29 years old, with 220 people, accounting for 55%. Next is between 30 and 39 years old, with 108 people, accounting for 27%. And there are 36 people between the ages of 40 and 49 years old, accounting for 9%. 20 people under 18 years old, 5%. The least number are those over 50, with 16 people, accounting for 4%.

Education level	Frequency	Percentage	
High School	44	11%	
Undergraduate	236	59%	
Graduate	116	29%	
Doctor	4	1%	
Total	400	100%	

Table 4.3 Frequently table of Education level

According to Table 4.3, there are a total of 400 respondents, the most of whom have a bachelor's degree, with 36, accounting for 59%, followed by a master degree, with 116, accounting for 29%. High school degree, with 44 people, accounting for 11%, and the least is a 4 people with a PhD degree, 1%.

Occupation	Frequency	Percentage	
Student	136	34%	
Civil servants / employees	60	15%	
of state-owned enterprises			
Private company employees	128	32%	
Self-employed	76	19%	
Total	400	100%	

 Table 4.4 Frequently table of Occupation

According to Table 4.3, it can be seen that of the 400 respondents, there are 136 students, accounting for 34%, 128 people work in private companies, accounting for 32%, 60 people workers in public institutions, accounting for 15%, and 76 self-employed, accounting for 19%.

Monthly income	Frequency	Percentage
10,000 Baht or below	100	25%
10,001-20,000 Baht	100	25%
20,001-30,000 Baht	68	17%
30,001-40,000 Baht	44	11%
40,001-50,000 Baht	20	5%
More than 50,001 Baht	68	17%
Total S	400 3	100%

 Table 4.5 Frequently table of Monthly income

According to Table 4.5, from 400 respondents, there are 100 people with 10,000 Baht or below, accounting for 25%, 100 people with monthly income of 10,001--20,000 Baht, accounting for 25%, 68 people with 20,001--30,000 Baht, accounting for 17%, and 68 people with More than 50,001 Baht, accounting for 17%, the lowest is between 40,001--50,000 Baht, there is 20 person, accounting for 5%.

4.2 Descriptive Statistics of Variables

Based on the results of the questionnaire survey, the following table lists the descriptive statistical results of the respondents' various question results.

Related Experience	Strongly	Disagree	General	Basically	Totally	Mean	SD.
Related Experience	disagree	Disagiee	General	agree	agree	witan	50.
Q2. Respondents have a lot		0	61	200	120		
of experience in using the	0	o (2 0)	64 (16 0)	208	120	4.10	.729
Internet		(2.0)	(16.0)	(52.0)	(30.0)		

Table 4.6 Descriptive of Related Experience

According to Table 4.6, we can see that 208 people chose 52%, which accounted for 52%, followed by 120 people who totally agreed that they have a lot of Internet-related experience, accounting for 30%, and the mean value is 4.10 and the standard deviation is 0.729, which shows that most of the respondents think that they have more experience in using the Internet.

Perceives Online Shopping to be	Strongly		1 0	Basically	Totally		
	0.	Disagree	General	v	·	Mean	SD.
Useful	disagree			agree	agree		
Q5. Online shopping enables							
consumers to complete	28	32	112	84	144	3.71	1.229
shopping or find information	(7.0)	(8.0)	(28.0)	(21.0)	(36.0)	5.71	1.229
faster than traditional stores	<u>E</u>	2					
Q6. Online shopping is	0 30	8	64	208	120		
convenient and can save a lot	35 24					4.10	.729
of time	(0.0)	(2.0)	(16.0)	(52.0)	(30.0)		
				6			
Q7. Online shopping can							
enable consumers to find	$\mathcal{V}_{\mathcal{O}}$		05				
more products and product		120	76	68	136	3.55	1.237
	(0.0)	(30.0)	(19.0)	(17.0)	(34.0)	5.55	1.237
information in a short period	()	6995		Kan	` '		
of time 5							

Table 4.7 Descriptive of Perceives Online Shopping to be Useful

According to Table 4.7, we can see that respondents believe that online shopping can get product information faster than shopping in brick-and-mortar stores. 144 people completely agree with this view, accounting for 36% of the respondents, the highest proportion. The average value is 3.71, and the standard deviation is 1.229. The average value of online shopping can save a lot of time is 4.10 The standard deviation is 0.729. There are 52% of the respondents chose to basically agree, and 30% of consumers totally agreed. The average value of more product information is 3.55, and the standard deviation is 1.237. This shows that most consumers think that online shopping is useful.

Perceive Online Shopping as Easy to Use	Strongly disagree	Disagree	General	Basically agree	Totally agree	Mean	SD.
Q8. Consumers can easily search and get the information they want in online shopping	28 (7.0)	32 (8.0)	112 (28.0)	84 (21.0)	144 (36.0)	3.71	1.229
Q9. The online shopping process is clear	4 (1.0)	12 (3.0)	96 (24.0)	172 (43.0)	116 (29.0)	3.96	0.860
Q10. Online shopping search, communication, purchase, payment and other processes are easy to operate	0 (0.0)	4 (1.0)	96 (24.0)	172 (43.0)	128 (32.0)	4.06	0.773

Table 4.8 Descriptive of Perceive Online Shopping as Easy to Use

According to Table 4.8, we can see that the average value of the respondents think that online shopping can easily search for product information is 3.71, and the standard deviation is 1.229. The clear average value of the online shopping process is 3.96, and the standard deviation is 0.860. The average value of simple operations of customer service communication and payment in online shopping is 4.06, and the standard deviation is 0.773.

	KOBA				
Table 4.9 Descripti	ve of Perce	ive Risk	of Onlin	e Shop	oing

Perceive Risk of Online Shopping	Strongly disagree	Disagree	General	Basically agree	Totally agree	Mean	SD.
Q16. Consumers worry about the difference between the product they receive and what they advertise on the web page	8 (2.0)	116 (29.0)	128 (32.0)	116 (29.0)	32 (8.0)	3.12	0.984
Q17. Consumers are concerned about the low quality of products bought online	12 (3.0)	96 (24.0)	168 (42.0)	76 (19.0)	48 (12.0)	3.13	1.008

Perceive Risk of	Strongly	Disagree	General	Basically	Totally	Mean	SD.
Online Shopping	disagree			agree	agree		
Q18. Consumers							
worry about security	16	80	168	88	48	3.18	1.015
of personal privacy	(4.0)	(2.0)	(42.0)	(48.0)	(12.0)	5.10	1.015
information							
Q19. Consumers							
worry about account	20	96	172	80	32		
or password theft						3.02	0.981
during online	(5.0)	(24.0)	(43.0)	(20.0)	(8.0)		
payments		te la					
Q20. Consumers			L.				
worry that the							
merchants will not	10	104	1.0	7(40		
keep their promises	12	104	168	76	40	3.07	0.984
and product after-	(3.0)	(26.0)	(42.0)	(19.0)	(10.0)		
sales services are							
not guaranteed							

 Table 4.9 Descriptive of Perceive Risk of Online Shopping (Cont.)

According to Table 4.9, we can see that the average value of respondents worrying about the inconsistency between the goods received during online shopping and those seen online is 3.12, and the standard deviation is 0.984. The average value of worrying about buying products with poor quality is 3.13, The standard deviation is 1.008. The average value of worrying about personal information leakage is 3.18, the standard deviation is 1.015. The average value of worrying about payment information leakage is 3.02, the standard deviation is 0.981. The average value of worrying about after-sales problems is 3.07, and the standard deviation is 0.984.

Attitude of Online Shopping	Strongly disagree	Disagree	General	Basically agree	Totally agree	Mean	SD.
Q11. Shopping online is exciting and enjoyable	4 (1.0)	36 (9.0)	108 (27.0)	128 (32.0)	124 (31.0)	3.83	1.002
Q12. Consumers love online shopping	0 (0.0)	24 (6.0)	144 (36.0)	116 (29.0)	116 (29.0)	3.81	0.925

Table 4.10 Descriptive of Attitude of Online Shopping

According to Table 4.10, we can see that the average value of respondents can have fun from online shopping is 3.83, the standard deviation is 1.02. The average value of consumers like online shopping is 3.81, the standard deviation is 0.925.

1			11 0				
Intention to Online	Strongly	Disagree	General	Basically	Totally	Mean	SD.
Shopping	disagree	Disugree	General	agree	agree	witcuit	52.
Q13. Consumers recently	12	16	96	100	176	4.03	1.054
have plan to shop online	(3.0)	(4.0)	(24.0)	(25.0)	(44.0)	4.03	1.034
Q14. Products that can be							
purchased online,	0	24	92	112	172	4.08	.946
consumers will buy them	(0.0)	(6.0)	(23.0)	(28.0)	(43.0)	4.08	.940
online							
Q15. Online shopping is my	12	52	140	128	68		
number one shopping		(13.0)	(35.0)	(32.0)	(17.0)	3.47	1.016
method	(3.0)	(13.0)	(33.0)	(32.0)	(17.0)		

 Table 4.11 Descriptive of Intention to Online Shopping

According to Table 4.11, we can see that the average of respondents 'recent online shopping plans is 4.03, and the standard deviation is 1.054. If some products can be purchased online, they will choose to buy these products online. 4.08 with a standard deviation of 0.946. Online shopping is the preferred way for them to purchase goods with an average value of 3.47 and a standard deviation of 1.016.

4.3 Reliability Analysis

To ensure a high degree of consistency of test item constituent factors, reliability analysis is used. Reliability analysis is mainly to examine the internal consistency test results of each factor.

The reliability coefficient of the total table is preferably above 0.8, which is acceptable between 0.7-0.8; the reliability factor of the subscale is preferably above 0.7, and 0.6-0.7 is also acceptable.

Table 4.12 Summary of Tendomity test	
Factor	Cronbach's Alpha
Related experience (RE)	0.790
Perceive Online Shopping is useful (POSU)	0.771
Perceive Online Shopping for ease of use (POSEU)	0.669
Attitude for online Shopping (AOS)	0.776
Intention for Online Shopping (IOS)	0.801
Perceive online shopping risks (PROS)	0.920

 Table 4.12 Summary of reliability test

It can be seen from Table 4.12 that each coefficient is greater than 0.6, indicating that the reliability of the group of data is acceptable. And each measurement problem item proposed by the scale can describe independent variables and has high reliability. Therefore, each measurement item of the above six measurement variables meets the requirements and all are reserved.

4.4 Linearity Testing

This part of the hypothesis testing mainly uses correlation and regression analysis. Correlation analysis is a statistical method used to evaluate the strength of relationship between two quantitative variables. A high correlation means that two or more variables have a strong relationship with each other, while a weak correlation means that the variables are hardly related. In statistics, regression analysis refers to a statistical analysis method that determines the quantitative relationship between two or more variables.

1. Relationship between attitude and intention of online shopping

H1: Consumers 'attitudes towards online shopping have a positive impact on their intend to online shopping.

AOS		IOS
Pearson Correlation	Jook	0.642**
Sig. (2-tailed)		0.000

The results show that consumers 'online shopping intentions and consumers' online shopping attitudes are significantly positively correlated at the 0.01 significant level. It shows that consumers' online shopping attitude has a great positive impact on their online shopping intentions.

Table 4.14 Regression analysis of AOS and IOS

	Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
	В	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
(Constant)	1.466	0.147		9.966	0.000	1.177	1.755
AOS	0.627	0.038	0.642	16.692	0.000	0.553	0.701

Dependent Variable: Consumers' online shopping intention (IOS)

Independent Variable: Consumers' online shopping attitude (AOS)

R = 0.642a

R Square = 0.412

Adjusted R Square = 0.410

Std. Error of the Estimate = 0.65360

F Change = 278.623

Sig. F Change = 0.000

From the regression results in Table 4.14, it can be seen that the equations derived from the regression of consumers' online shopping attitudes to online shopping intentions meet the requirements of F test and T test (Sig.t value, Sig. F value are less than 0.05). It shows that the regression equation established between consumers 'online shopping attitude and consumers' online shopping intention meets the inspection requirements.

In addition, it can be seen that the Adjusted R square is 0.410, which indicates that the regression equation can explain 41% of the total variation; the Sig. value of 0.000 indicates that the regression is significant overall.

From regression analysis, we can get the standard regression equation:

Consumers 'online shopping intention = 0.642 * Consumers' attitude towards online shopping

This validates the previous assumption H1.

2. The relationship between relevant experience and attitude of online shopping

Hypothesis 2: Consumers 'online related experience has a positive impact on online shopping attitude.

analysis between RE	and AOS	
LAAS	AOS	
	0.243**	
	0.000	
	analysis between RE	0.243**

The results show that Consumers 'online related experience and consumers' online shopping attitudes are significantly positively correlated at the 0.01 significant level. It shows that Consumers 'online experience has a great positive impact on their online shopping attitude.

Table 4.16 Regression analysis of RE and AOS

	Unstandardized Coefficients		Standardized Coefficients			95.0% Confid for B	o Confidence Interval	
	В	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	
(Constant)	2.704	0.228		11.879	0.000	2.256	3.151	
RE	0.316	0.063	0.243	4.990	0.000	0.191	0.440	

Dependent Variable: Consumers' online shopping attitude (AOS)

Independent Variable: Consumers 'online related experience (RE)

R = 0.243a

R Square = 0.059

Adjusted R Square = 0.057

Std. Error of the Estimate = 0.84650

F Change = 24.904

Sig. F Change = 0.000b

From the regression results in Table 4.16, it can be seen that the regression equation established between Consumers 'online related experience and consumers' online shopping attitudes meets the inspection requirements.

From regression analysis, we can get the standard regression equation:

Consumers' online shopping attitudes = 0.243 * Consumers 'online related experience

This validates the previous assumption H2.

3. The relationship between various factors in online shopping with online shopping attitude

Hypothesis 3: Perceive the usefulness of online shopping is positively related to online shopping attitude.

Hypothesis 4: Perceive that online shopping is easy to use is positively related to online shopping attitude.

Hypothesis 5: Perceived Online shopping risk is negatively correlated with online shopping attitude.

	Correlatio	ns		
	AOS	POSU	POSEU	PROS
AOS	1.000	0.370	0.458	-0.840
POSU	0.370	1.000	0.589	-0.236
POSEU	0.458	0.589	1.000	-0.316
PROS	-0.840	-0.236	-0.316	1.000
AOS		0.000	0.000	0.000
POSU	0.000		0.000	0.000
POSEU	0.000	0.000	<u>y</u> .	0.000
PROS	0.000	0.000	0.000	
AOS	400	400	400	400
POSU	400	400	400	400
POSEU	400	400	400	400
PROS	400	400	400	400
	3.8200	4.3767	4.1167	3.1040
	0.87149	0.64138	0.61427	0.86571
	POSU POSEU PROS AOS POSU POSEU PROS AOS POSU POSEU	AOS AOS AOS 1.000 POSU 0.370 POSEU 0.458 PROS -0.840 AOS . POSU 0.000 POSEU 0.000 POSEU 0.000 POSEU 0.000 PROS 0.000 POSEU 400 POSEU 400 POSEU 400 POSEU 400 PROS 400	AOS1.0000.370POSU0.3701.000POSEU0.4580.589PROS-0.840-0.236AOS.0.000POSU0.000.POSEU0.0000.000PROS0.0000.000POSEU0.0000.000POSU400400POSU400400POSEU400400POSEU400400POSEU400400AOS400400	AOSPOSUPOSEUAOS1.0000.3700.458POSU0.3701.0000.589POSEU0.4580.5891.000PROS-0.840-0.236-0.316AOS.0.0000.000POSU0.000.0.000POSEU0.0000.000.POSEU0.0000.000.POSU0.0000.000.POSEU0.0000.000.POSEU0.0000.000.POSEU400400400POSEU400400400POSEU400400400POSEU400400400POSEU400400400POSEU400400400POSEU400400400

 Table 4.17 Results of correlation analysis between POSU\POSEU\PROS and AOS

According to Table 4.17, we can see that the correlation coefficient between independent and dependent variables is significant (Sig <0.05), so the factors included in the multiple regression analysis are reasonable. Therefore, we can conclude that these independent variables can be introduced into the model to explain customers' attitudes about online shopping.

	Unstand	dardized	Standardized			95.0% Confidence Interval fo		
	Coefficie	nts	Coefficients			В		
	В	SD.	Beta	t	Sig.	Lower Bound	Upper Bound	
(Constant)	4.723	0.215		21.951	0.000	4.300	5.146	
POSU	0.129	0.042	0.095	3.065	0.002	0.046	0.212	
POSEU	0.226	0.045	0.159	5.018	0.000	0.137	0.314	
PROS	-0.773	0.027	-0.767	-29.086	0.000	-0.825	-0.720	

Table 4.18 Multiple regression analysis of POSU\POSRU\PROS and AOS

Dependent Variable: Consumers' online shopping attitude (AOS)

Independent Variable: PROS, POSU, POSEU

R = .868a

R Square = .753

Adjusted R Square = .751 Std. Error of the Estimate = .43493 F Change = 401.993

Sig. F Change = .000

From the regression results in Table 4.18, when including variables: consumers perceive that online shopping is useful, online shopping is easy to use, and online shopping risk, the model's interpretation level is 75.1%. According to three other factors, we get the regression equation:

Consumer online shopping attitude = 0.095*POSU+ 0.159* POSEU - 0.767* PROS

Where:

POSU: Consumers Perceive online shopping is usefulness

POSEU: Consumers perceive online shopping is easy to use

PROS: Consumers perceived online shopping risk

This validates the previous assumption H3(Beta>0, Sig.<0.05), H4(Beta>0, Sig.<0.05) and H5(Beta<0, Sig.<0.05).

4.5 ANOVA Testing

Relationship between consumers with different demographic characteristics and intention of online shopping:

1. Take the respondent's gender as a grouping variable and make an independent sample t-test for their online shopping willingness as a dependent variable.

Hypothesis 6: Female consumers are more intention to online shopping than male consumers.

			Group S	tatistics			
Gender		Ν	Me	an	Std. Devia	ntion Std.	Error Mean
Male		132	3.6	768	0.83797	0.07	/294
Female		268	3.95	502	0.84456	0.05	5159
		Inde	ependent	Samples '	Test		
	Levene's	Test for					
	Equality	of					
	Variances			t-tes	st for Equal	ity of Means	š
					Sig	Maan	Std. Error
	F	Sig.	t	df	(2-tailed)	Difference	Difference
variances	s 1.812	0.179	-3.053	398	0.002	027348	0.08958
l							
variances	5		-3.061	262.62	0.002	-0.27348	0.08934
med			00000	to a			
	Male Female variances	Male Female Levene's Equality Variances F variances 1.812 variances	Male 132 Female 268 Inde Levene's Test for Equality of Variances Variances 1.812 0.179 variances	Gender N Me Male 132 3.6' Female 268 3.9' Independent Independent Equality of Variances t variances 0.179 -3.053 I variances -3.061	Male 132 3.6768 Female 268 3.9502 Independent Samples Levene's Test for Equality of Variances t-test F Sig. t variances 0.179 -3.053 398 variances -3.061 262.62	Gender N Mean Std. Devia Male 132 3.6768 0.83797 Female 268 3.9502 0.84456 Independent Samples Test Independent Samples Independent Samples Equality of Yariances Itelest for Equal F Sig. t df (2-tailed) variances 1.812 0.179 -3.053 398 0.002 variances -3.061 262.62 0.002 0.002 0.002	Gender N Mean Std. Deviation Std. Male 132 3.6768 0.83797 0.07 Female 268 3.9502 0.84456 0.05 Independent Samples Test Levene's Test for Equality of Yariances Levene's Test for Equality of Means F Sig. t df (2-tailed) Difference variances 1.812 0.179 -3.053 398 0.002 027348

Table 4.19 Results of online shopping intention of different genders

As can be seen from Table 4.19, Levene's test score is F = 1.812 (greater than 0.05). Therefore, the variances of customers of different genders are the same, indicating that the data is suitable for testing and analysis of variance.

The Independent Samples test result sig two-tailed value is 0.002 (less than 0.05), indicating that consumers of different genders have different online shopping intention. The average online shopping intention of Female consumers is 3.9502 > 3.6768 (The average online shopping intention of Male consumers).

This validates the previous assumption H6.

2. Take consumers' age as a grouping variable, and their online shopping willingness as a dependent variable for a one-way ANOVA

Hypothesis 7: Consumers of different ages have significant differences in online shopping intentions.

			95% Confider	ice Interval for		
			Me	an		
		Std.		Upper		
Ν	Mean	Deviation	Lower Bound	l Bound	Minimum	Maximum
20	4.3333	0.71737	3.9976	4.6691	3.00	5.00
220	3.8242	0.83761	3.7129	3.9355	1.67	5.00
108	3.8889	0.80497	3.7353	4.0424	2.33	5.00
36	3.6667	1.11555	3.2892	4.0441	1.33	5.00
16	4.0000	0.64406	3.6568	4.3432	3.33	5.00
400	3.8600	0.85114	3.7763	3.9437	1.33	5.00
IOVA	Sur	n of Squares	df	Mean Square	F	Sig.
en Grou	ıps	6.512	4	1.628	2.276	0.061
n Group	ps	282.537	395	0.715		
otal		289.049	399			
	20 220 108 36 16 400 KOVA en Grou	20 4.3333 220 3.8242 108 3.8889 36 3.6667 16 4.0000 400 3.8600 XOVA Surren Groups n Groups n Groups	N Mean Deviation 20 4.3333 0.71737 220 3.8242 0.83761 108 3.8889 0.80497 36 3.6667 1.11555 16 4.0000 0.64406 400 3.8600 0.85114 VOVA Sum of Squares en Groups 6.512 n Groups 282.537	N Mean Deviation Lower Bound 20 4.3333 0.71737 3.9976 20 3.8242 0.83761 3.7129 108 3.8889 0.80497 3.7353 36 3.6667 1.11555 3.2892 16 4.0000 0.64406 3.6568 400 3.8600 0.85114 3.7763 XOVA Sum of Squares df en Groups 6.512 4 n Groups 282.537 395	N Mean Deviation Lower Bound Bound 20 4.3333 0.71737 3.9976 4.6691 220 3.8242 0.83761 3.7129 3.9355 108 3.8889 0.80497 3.7353 4.0424 36 3.6667 1.11555 3.2892 4.0441 16 4.0000 0.64406 3.6568 4.3432 400 3.8600 0.85114 3.7763 3.9437 XOVA Sum of Squares df Mean Square en Groups 6.512 4 1.628 n Groups 282.537 395 0.715	N Mean Deviation Lower Bound Bound Minimum 20 4.3333 0.71737 3.9976 4.6691 3.00 220 3.8242 0.83761 3.7129 3.9355 1.67 108 3.8889 0.80497 3.7353 4.0424 2.33 36 3.6667 1.11555 3.2892 4.0441 1.33 16 4.0000 0.64406 3.6568 4.3432 3.33 400 3.8600 0.85114 3.7763 3.9437 1.33 VOVA Sum of Squares df Mean Square F en Groups 6.512 4 1.628 2.276 n Groups 282.537 395 0.715 3.9437

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 Table 4.20 Results of online shopping intention of different ages

In Table 4.20, the number 1 represents the age below 18 years old, 2 represents 19-29 years old, 3 represents 30-39 years old, 4 represents 40-49 years old, and 5 represents 50 years old and above. According to the analysis results in Table 4.20, F = 2.276, P = 0.61 > 0.05, indicating that consumers of different ages have no significant differences in shopping willingness.

Therefore, H7 is rejected.

3. Take consumers' education levels as a grouping variable, and their online shopping willingness as a dependent variable for a one-way ANOVA

Hypothesis 8: Consumers with different levels of education have significant differences in online shopping intentions.

				95% Confider	ice Interval for		
Educatio			Std.	Mean			
n levels	Ν	Mean	Deviation	Lower Bound	Upper Bound	Minimum	Maximum
1	44	3.7576	0.94381	3.4706	4.0445	2.33	5.00
2	236	3.9040	0.79965	3.8014	4.0065	1.67	5.00
3	116	3.8046	0.92842	3.6338	3.9753	1.33	5.00
4	4	4.0000	0.00000	4.0000	4.0000	4.00	4.00
Total	400	3.8600	0.85114	3.7763	3.9437	1.33	5.00
ANO	VA	Sun	n of Squares	s df	Mean Square	F	Sig.
Between	Group	s	1.352	3	0.451	0.620	0.602
Within (Groups	5	287.697	396	0.727		
Tot	al		289.049	399			

Table 4.21 Results of online shopping intention of different education levels

In Table 4.21, the number 1 represents the high school degree, 2 represents the bachelor degree, 3 represents the master degree, and 4 represents the doctor degree. According to the analysis results in Table 4.21, F = 0.62, P = 0.602 > 0.05, indicating that consumers of different education levels have no significant differences in shopping willingness.

Therefore, H8 is rejected.

4. Take consumers' occupation as a grouping variable, and their online shopping willingness as a dependent variable for a one-way ANOVA

Hypothesis 9: Consumers of different occupations have very different intentions to shop online.

			Std.	95% Confiden	ice Interval for		
Occupati			Deviatio	Me	an		
on	Ν	Mean	n	Lower Bound	Upper Bound	Minimum	Maximum
1	136	3.8725	0.84723	3.7289	4.0162	2.00	5.00
2	60	3.9556	0.99616	3.6982	4.2129	1.33	5.00
3	128	3.7396	0.85618	3.5898	3.8893	1.67	5.00
4	76	3.9649	0.70465	3.8039	4.1259	2.33	5.00
Total	400	3.8600	0.85114	3.7763	3.9437	1.33	5.00
ANC	VA	Sum	of Squares	Cdf	Mean Square	F	Sig.
Between	Groups	G	3.262	3	1.087	1.507	0.212
Within (Groups	2	85.787	396	0.722		
Tot	al	2	89.049	399	ROBAN		

Table 4.22 Results of online shopping intention of different occupation

In Table 4.22, the number 1 represents students, 2 represents public sector occupations, 3 represents private sector occupations, and 4 represents self-employment occupations.

According to the analysis results in Table 4.22, F = 1.506, P = 0.212 > 0.05, indicating that consumers of different occupation have no significant differences in shopping willingness.

Therefore, H9 is rejected.

5. Take consumers' income as a grouping variable, and their online shopping willingness as a dependent variable for a one-way ANOVA

Hypothesis 10: Consumers of different incomes have significant differences in online shopping intentions.

				95% Confider	ice Interval for		
Incom			Std.	Me	an	Minimu	
e	Ν	Mean	Deviation	Lower Bound	Upper Bound	m	Maximum
1	100	3.8533	0.93362	3.6681	4.0386	2.00	5.00
2	100	3.7067	0.81688	3.5446	3.8688	1.67	5.00
3	68	3.9608	0.96288	3.7277	4.1938	1.33	5.00
4	44	4.2121	0.76449	3.9797	4.4445	2.67	5.00
5	20	3.0667	0.69753	2.7402	3.3931	2.33	4.00
6	68	4.0000	0.51511	3.8753	4.1247	3.33	5.00
Total	400	3.8600	0.85114	3.7763	3.9437	1.33	5.00
Al	NOVA	Sur	n of Squares	s df	Mean Square	F	Sig.
Betwe	en Grou	ıps	22.422	5	4.484	6.627	0.000
With	in Group	os	266.627	394	0.677		
r	Fotal		289.049	399			

Table 4.23 Results of online shopping intention of different income

In Table 4.23 and Table 4.24, the number 1 represents monthly income below 10,000 baht, 2 represents monthly income between 1,0001 and 20,000 baht, 3 represents monthly income between 20001 and 30,000 baht, 4 represents 30001 and 40,000 baht, 5 represents 40001 and 50,000 baht, Represents 50001 baht and above.

According to the analysis results in Table 4.23, F = 6.627, P = 0.000 < 0.05, indicating that consumers of different occupation have significant differences in shopping intentions.

POR			Subset	
Income 😫	NG		2	3
5	20	3.0667	5	
2	100		3.7067	
1 6	100		3.8533	
3	68		3.9608	3.9608
6	69 68 5	ฮีเรก ^ข °	4.0000	4.0000
4	44			4.2121
Sig.		1.000	0.108	0.155

 Table 4.24 Results of Post Hoc Tests of Income and IOS

According to Table 4.24, among consumers with different incomes, consumers with monthly income between $40,001 \sim 50,000$ baht are in Group 1, and they have lower online shopping intention than consumers with other monthly income levels. Consumers with monthly incomes below 10,000 baht, 1,0001 to 20,000 baht, 20001 to 30,000 baht and 50001 baht or more are in group 2, indicating that there is no significant difference (Sig.= 0.108 > 0.05) in online shopping intention among these consumers. Consumers whose monthly income is between 20001 ~ 30,000 baht, 30001 ~ 40,000 baht and more

than 50001 baht are in group 3, they have a strong intention to online shopping.

This validates the previous assumption H10.

4.6 Summary Hypothesis Test

Based on the above analysis, the hypothetical test results in this paper are as follows.

Table 4.25 Summary Hypothesis Test

Hypothesis	Accept	Reject
H1: Consumers 'attitudes towards online shopping have a positive impact on their intend to online shopping.		
H2: Consumers 'online experience has a positive impact on online shopping attitude.	\checkmark	
H3: Perceive the usefulness of online shopping is positively related to online shopping attitude.	\checkmark	
H4: Perceive that online shopping is easy to use is positively related to online shopping attitude.	\checkmark	
H5: Perceived Online shopping risk is negatively correlated with online shopping attitude.	V	
H6: Female consumers are more intention to online shopping than male consumers.	V	
H7: Consumers of different ages have significant differences in online shopping intentions.		\checkmark
H8: Consumers with different levels of education have significant differences in online shopping intentions.		
H9: Consumers of different occupations have very different intentions to shop online.		\checkmark
H10: Consumers of different incomes have significant differences in online shopping intentions.	\checkmark	

CHAPTER 5 DISCUSSION AND RECOMMENDATION

Chapter 5 gives a summarization of the results of the research and gives recommendations for further research in the field.

5.1 Analysis of research results

This article takes potential online consumers as the research object and explores which factors have influenced their acceptance of online shopping and wonder what is a main factor those users become to a loyal user in E-commerce including experience, Ease of use, usefulness and what is a barrier for becoming to a loyal user such as risk. That can help companies formulate effective strategies to attract consumers to accept online shopping. In the measurement of model relationships, the data is mainly obtained through questionnaire survey for empirical analysis, through SPSS statistical analysis software for factor, correlation, regression and variance analysis, the following conclusions were drawn:

The results of the study show that female consumers account for a larger proportion of the 400 respondents. Consumers aged 19 to 29 accounted for 55%. 59% have an undergraduate degree. Occupation is 34% of students. Monthly income is mostly around 1,0001~20,000 baht.

Hypothesis 1 is valid; research shows that consumers 'attitudes towards online shopping have a positive impact on their intend to online shopping.

Hypothesis 2 is valid; research shows that consumers 'online experience has a positive impact on online shopping attitude.

Hypothesis 3 is valid; research shows that consumers perceive the usefulness of online shopping is positively related to online shopping attitude.

Hypothesis 4 is valid; research shows that consumers perceive that online shopping is easy to use is positively related to online shopping attitude.

Hypothesis 5 is valid; research shows that consumers perceived online shopping risk is negatively correlated with online shopping attitude.

Hypothesis 6 is valid; research shows that Female consumers are more intention to online shopping than male consumers in Thailand.

Hypothesis 7 is not valid; research shows that Thai consumers of different ages have no significant differences in online shopping intentions.

Hypothesis 8 is not valid; research shows that Thai consumers with different levels of education have no significant differences in online shopping intentions.

Hypothesis 9 is not valid; research shows that Thai consumers of different occupations have no different intentions to shop online.

Hypothesis 10 is valid; research shows that consumers of different incomes have significant differences in online shopping intentions.

The study found that the center of consumers' acceptance of online shopping models is their attitudes towards online shopping. The better the consumer's attitude towards online shopping, the more likely it is to accept online shopping. Consumer's attitude is a key variable affecting the development of online retail. Perception that online shopping is easy to use is the main determinant of consumers' online shopping attitudes and intentions. The convenience of online shopping operations affects online shopping attitudes. Consumers feel that online shopping is very convenient, and it will be easier to accept and use it. Complex shopping procedures will cause consumers to have a negative online shopping attitude. Perceiving online shopping is useful also is main factor that affects consumers 'online shopping attitudes. Online retailing needs to provide more shopping advantages than traditional shopping. For example, increasing the variety of products sold can make consumers buy more. Perceived online risks will cause consumers to have negative online shopping attitudes. The more consumers feel the risks of online shopping, the less willing they are to choose to buy goods online.

According to the research, the following regression equation is also obtained:

(1) Consumers 'online shopping intention = 0.642 * Consumers' attitude towards online shopping

(2) Consumers' online shopping attitudes = 0.243 * Consumers 'online related experience

(3) Consumer online shopping attitude = 0.095*POSU+ 0.159* POSEU - 0.767* PROS

According to equation (1) we can find that consumers 'online shopping attitudes and intentions are very consistent, and consumer intentions directly affect consumers' online shopping behavior, so the factors that affect consumers 'online shopping attitudes are also the key factors that determine consumers' acceptance of online shopping.

From the equations (3), we can see that perception that online shopping is easy to use is the key influencing factor. Therefore, it is necessary to establish an easy-to-use shopping website or online shopping app to ensure that the text is easy to understand and help online consumers to use it more simply and conveniently. For example, online shopping websites or online shopping apps should be designed to be more concise, so that customers can search and get detailed product information clearly. And take advantage of the convenience and affordability of online shopping to attract more consumers. The web interface design of online shopping should be simple and easy to use, and the online registration, purchase and payment process should be simple and convenient also strengthen customer service, make communication in online shopping more convenient, and increase consumer satisfaction. And we also can see that consumers 'perception of shopping risk is inversely related to consumers' online shopping attitudes, so a safe online shopping system needs to be established. Online shopping should improve product quality and brand recognition, strengthen inspection strategies for fakes and imitation items to make sure that online shopping consumption concepts and habits will gradually penetrate into the minds of Thai consumers. For example, to establish a safe and reliable network information system to prevent data theft and payment security issues, it is also necessary to introduce corresponding policies and regulations as soon as possible to regulate online transaction activities.

According to the above analysis, we can know that to attract consumers, online stores must be improved from the following aspects.

First, online stores should make consumers feel reliable.

Second, online stores need to provide rich and accurate product information. Consumers like to find product information on the Internet, because browsing information online is quick and easy, so online stores should provide consumers with as much product information as possible and the description of product information on the online store should be clear and accurate.

Third, online stores need to provide services that satisfy consumers.

Fourth, online stores should provide shopping advantages to make consumers feel that online shopping is easy to use. Online retailing will only accept and choose it if it provides consumers with more convenience than traditional shopping. Online stores should make full use of the convenience of using the network to collect consumer data, track consumer behavior and attitudes, and provide online consumers with timely, accurate, valuable, and interesting information, goods and services. The website design should not only meet the requirements of consumers to search and compare information, but also improve the fun of online interaction and increase the attractiveness of online stores. Companies can set up discussion groups, chat rooms, etc., to facilitate consumers to interact and communicate through the network, and increase the social interaction experience of consumers online shopping. When consumers feel the efficiency and fun of online shopping, competitive product prices, etc., consumers will form a relatively positive attitude towards online shopping, and they will gradually switch from traditional shopping to online shopping.

5.2 Discussion

The results of the study show that consumers' attitudes towards online shopping have a positive impact on their online purchase intentions. The more positive the consumer's attitude towards a website, the higher their willingness to buy on that website. This result is consistent with many previous research results, such as Lin (2007), Bigne-Alcaniz (2008) etc. And from the analysis in this article, we can find that when consumers perceive that online shopping is easy to use, the average value of consumers' shopping willingness is the highest, followed by perception of the usefulness of online shopping and related experience of online use. The greater the risk of online purchases, the lower the consumer's willingness to choose online shopping. Understanding the benefits of online shopping and avoiding potential problems and risks can make consumers full of information about online shopping products and become familiar with the service. (Jiradilok, Malisuwan, Madan, & Sivaraks, 2014; Prashar, Sai Vijay, & Parsad, 2017).

Through the hypothesis testing of customers with different personal factors, a certain purchase intention can be obtained. Among customers who purchase products online, it is found that female consumers prefer to do online shopping, and consumers with different monthly incomes have different economic strengths, and also have different effects on online shopping willingness. Because purchases and the number of purchases indicate trust in quality and service, there is a desire to repeat purchases, which is consistent with Inkaew and Huang (2019) research on consumer behavior.

5.3 Research limitations

The scope of this research is limited to consumers' intention to shop, not actual purchase behavior. Although there is a connection between willingness and purchasing behavior, the process from willingness to purchasing behavior is also affected by factors.

In fact, there are many factors that affect consumers' purchase intentions, such as the characteristics of the website, the purchasing environment (cultural, legal and other issues), consumer characteristics (shopping trends, shopping experience, shopping preferences), product characteristics, and many other factors It has not been verified in this study.

5.4 Implication for Practice and Future Research

Future researchers can study the impact of cultural factors on consumers' online shopping behavior from the perspective of online shopping consumer typology. And it can expand the sample research of consumers with shopping experience and compare the different factors of consumers with different online shopping experiences. Or the effect of product type on purchase intention can be studied. In online shopping, the decisionmaking process for different products is also different. Therefore, it is necessary to study the impact of product types on online purchase intentions, so as to help retailers choose the right products to sell to consumers through online channels.



Bibliography

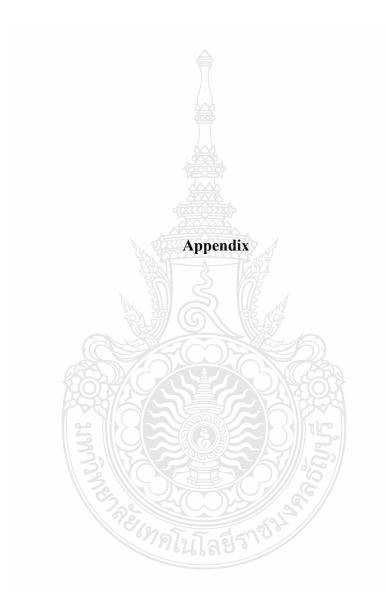
- Alan, A. K., Kabadayı, E. T., Bakis, S., & Ildokuz, S. I. (2017). The role of individual factors on online shopping behavior. Journal of Business Economics and Finance, 6(3), 200- 215.
- Chanthinok, K. (2015). Why does the consumer online purchasing? a conceptual model of social factors. **Social Science Asia**, **1**(3), 1-15.
- Doolin, B., Dillon, S., Thompson, F., & Corner, J. L. (2005). Perceived risk, the Internet shopping experience and online purchasing behavior: A New Zealand perspective. Journal of Global Information Management (JGIM), 13(2), 66-88.
- Forsythe, S. M., & Shi, B. (2003). Consumer patronage and risk perceptions in Internet shopping. Journal of Business research, 56(11), 867-875.
- Inkaew, A., & Huang, C. Y. (2019). Exploring consumer behavior of Thai millennials towards buying consumer electronics online. RMUTT Global Business Accounting and Finance Review, 3(3), 1-12.
- Jiradilok, T., Malisuwan, S., Madan, N., & Sivaraks, J. (2014). The impact of customer satisfaction on online purchasing: A case study analysis in Thailand. Journal of Economics, Business and Management, 2(1), 5-11.
- Katawetawaraks, C., & Wang, C. (2011). Online shopper behavior: Influences of online shopping decision. Asian Journal of Business Research, 1(2), 66-74.
- Klopping, I. M., & McKinney, E. (2004). Extending the technology acceptance model and the task-technology fit model to consumer e-commerce. Information Technology, Learning & Performance Journal, 22(1), 35-48.
- Laosethakul, K., & Boulton, W. (2007). Critical Success Factors for E-commerce in Thailand: Cultural and Infrastructural Influences. **The Electronic Journal of Information Systems in Developing Countries, 30**(1), 1-22.
- Naseri, M. B., & Elliott, G. (2011). Role of demographics, social connectedness and prior internet experience in adoption of online shopping: Applications for direct marketing. Journal of Targeting, Measurement and Analysis for Marketing, 19(2), 69-84.
- Niranjanamurthy, M., Kavyashree, N., Jagannath, S., & Chahar, D. (2013). Analysis of e-commerce and m-commerce: advantages, limitations and security issues. International Journal of Advanced Research in Computer and Communication Engineering, 2(6), 2360-2370.
- Prashar, S., Sai Vijay, T., & Parsad, C. (2017). Effects of online shopping values and website cues on purchase behaviour: A study using S–O–R framework. Vikalpa, 42(1), 1-18.
- Rayburn, J. M., & Conrad, C. (2004). China's Internet structure: Problems and control measures. International Journal of Management, 21(4), 471-480.

Bibliography (Cont.)

Zanella, A., Bui, N., Castellani, A., Vangelista, L., & Zorzi, M. (2014). Internet of things for smart cities. **IEEE Internet of Things journal, 1**(1), 22-32.

Zhang, Y., & Feng, Y. Q. (2011). Factors that influence a buyer's decision process of shopping online: The effects of tradition and virtual community. In 2011
 International Conference of Information Technology, Computer Engineering and Management Sciences, (294-297). IEEE.





Questionnaire - English

Dear friends,

We are researchers in Rajamangala University of Technology Thanyaburi, we are conducting a study on consumer online shopping. Therefore, this questionnaire has been designed, and we hope you can take a few minutes to fill it out in your busy schedule. Your answer will only be used for this research, and we will keep it strictly confidential. Thank you for your cooperation.

Part 1: About your basic situation of online and online shopping (please fill in $\sqrt{}$ before the option you think is appropriate)

1. How long do you spend online every day?

- Less than 1 hour
- \Box 1-2 hours
- \Box 3-5 hours
- □ 5-7 hours
- \Box More than 7 hours
- 2. Do you think you are more experienced in using the Internet?
 - Strongly disagree
 - Disagree
 - General
 - □ Basically agree
 - □ Totally agree
- 3. How many times online purchases have you made recently in a year?
 - \Box 0 times
 - \Box 1-5 times
 - □ 6-10 times
 - □ 11-20 times
 - ☐ More than 20 times
- 4. How much does your online shopping spend on average?
 - Less than 300 baht
 - 300-1,000 baht
 - 1,000-2,000 baht
 - 2,000-3,000 baht
 - ☐ More than 3,000 baht

Part 2: Regarding your personal opinions on online shopping, please fill in $\sqrt{}$ before you think the score is appropriate (even if you don't have online shopping experience, you can fill it out based on your subjective feelings about these issues)

	Strongly	Disagree	General	Basically	Totally
	disagree			agree	agree
5. Online shopping enables	□ 1	□ 2	□ 3	□ 4	□ 5
consumers to complete					
shopping or find					
information faster than					
traditional stores					
6. Online shopping is			□ 3	□ 4	□ 5
convenient and can save a	di				
lot of time		No.			
7. Online shopping can	□ 1 ,	□ 2		□ 4	□ 5
enable consumers to find	1 A				
more products and product	222				
information in a short					
period of time					
8. Consumers can easily		□ 2	□ 3	□ 4	□ 5
search and get the	3n c		4		
information they want in			CH-J		
online shopping					
9. The online shopping			□ 3	□ 4	□ 5
process is clear	∂X		NG COD		
10. Online shopping search,	01		□ 3	□ 4	□ 5
communication, purchase,			DIRY		
payment and other					
processes are easy to			7///20/		
operate					
11. I think shopping online	a 4		□ 3	□ 4	□ 5
is exciting and enjoyable		S	5//		
12. I love shopping online	ิคโบ	02	□ 3	□ 4	□ 5
13. I have a plan to shop	01	□ 2	□ 3	□ 4	□ 5
online recently					
14. If products that can be	□ 1	□ 2	□ 3	□ 4	□ 5
purchased online, I will buy					
them online					
15. Online shopping is my	□ 1	□ 2	□ 3	□ 4	□ 5
fist choose of shopping way					

	Strongly	Disagree	General	Basically	Totally
	disagree			agree	agree
16. I worry about the difference	□ 1	□ 2		□ 4	□ 5
between the product I receive and					
what I advertise on the web page					
17. I'm concerned about the low	□ 1 ⊜	□ 2	□ 3	□ 4	□ 5
quality of products bought online					
18. I worry about security of my	□ 1 🎧	□ 2	□ 3	□ 4	□ 5
personal privacy information	0000				
19. I worry about account or		□ 2	□ 3	□ 4	□ 5
password theft during online		6			
payments					
20. I worry about the merchants		⇒ □ 2	□ 3	□ 4	□ 5
will not keep their promises and					
product after-sales services are not	VIIIIII ON	A ALLEY			
guaranteed					

Part 3: Some thoughts on your online shopping risks (Please fill $\sqrt{}$ in the points you think are suitable)

Part 4: This part is about your basic information (please fill in $\sqrt{}$ before you think the option is appropriate)

21. What is your gender?
Male
Female
22. What is your age?
Under 18 years
19-29 years old
30-39 years old
40-49 years old
50 years old and over

23. What is your education level?

High School
Undergraduate
Graduate
Doctor
Other

- 24. What is your occupation?
 - Student
 - Civil servants / employees of state-owned enterprises
 - Private company employees
 - Self-employed
 - ☐ Other
- 25. What is your monthly income?
 - □ 10,000 or below
 - 10,001-20,000 Baht
 - 20,001-30,000 Baht
 - □ 30,001-40,000 Baht
 - 40,001-50,000 Baht
 - ☐ More than 50,001 Baht

Questionnaire - Thai

แบบสอบถาม

เราเป็นนักวิจัยในมหาวิทยาลัยเทคโนโลยีราชมงคลธัญบุรี เรากำลังศึกษาเรื่องการซื้อสินค้า ออนไลน์ของผู้บริโภค ดังนั้นแบบสอบถามนี้จึงได้รับการออกแบบมาและเราหวังว่าคุณจะใช้เวลาสักครู่ เพื่อกรอกข้อมูลลงในตารางงานที่ยุ่งของคุณ คำตอบของคุณจะถูกใช้สำหรับการวิจัยนี้เท่านั้นและเราจะ เก็บเป็นความลับอย่างเคร่งครัด ขอบคุณสำหรับความร่วมมือ

ส่วนที่ 1: เกี่ยวกับสถานการณ์พื้นฐานของการซื้อสินค้าออนไลน์และออนไลน์ (โปรดกรอก√ในจุดที่คุณ คิดว่าเหมาะสม)

1. ทุกวันนี้คุณใช้ออนไลน์กี่ชั่วโมง

- 🗌 น้อยกว่า 1 ชั่วโมง
- 🗌 1-2 ชั่วโมง 🗌 3-5 ชั่วโมง 🏅
- 🗌 5-7 ชั่วโมง 🗌 มากกว่า 7 ชั่วโมง

2. คุณรู้สึกว่าตัวเองมีความชำนาญในการใช้อินเตอร์เน็ตหรือไม่

- 🗌 ไม่เห็นด้วยอย่างยิ่ง 🔲 ไม่เห็นด้วย
- 🗌 ไม่แน่ใจ 🛛 เห็นด้วยโดยทั่วไป
- 🗌 เห็นด้วยอย่างเต็มที่
- 3. คุณเคยซื้อสินค้าออนไลน์กี่ครั้งในปีที่ผ่านมา
 - 🗌 0 ครั้ง
 - 🗌 1-5 ครั้ง 🏳
 - 🗌 6-10 ครั้ง
 - 🗌 11-20 ครั้ง
 - 🗌 มากกว่า 20 ครั้ง
- 4. การซ้อปปิ้งออนไลน์ในแต่ละครั้งของคุณ รวมยอดเงินประมาณกี่บาท
 - 🗌 น้อยกว่า 300 บาท
 - 🗌 300-1,000 บาท
 - 🗌 1,000 2,000 บาท
 - 🗌 2,000-3,000 บาท
 - 🗌 มากกว่า 3,000 บาท

ความรู้สึกส่วนตัวของคุณเกี่ยวกับปัญหาเหล่านี้		N 1 G	И	ಡ ೪	æ
	ไม่เห็น *	ไม่เห็น <i>*</i>	ไม่	เห็นด้วย รัฐ่า	เห็น
	ด้วย	ด้วย	แน่ใจ	โดยทั่วไป	ด้วย
	อย่างยิ่ง				อย่าง
<u> </u>					เต็มที่
5. การซ็อปปิ้งออนไลน์ช่วยให้ผู้บริโภค	1	2	3	4	5
สามารถซ็อปปิ้งหรือค้นหาข้อมูลได้เร็วกว่า					
ร้านค้าทั่วไป					
6. การซื้อของออนไลน์สะดวกและ	1	2	3	4	5
ประหยัดเวลาได้มาก					
7. การช็อปปิ้งออนไลน์ช่วยให้ผู้บริโภค	1	2	3	4	5
สามารถค้นหาผลิตภัณฑ์และข้อมูล 🛛 🧔					
ผลิตภัณฑ์เพิ่มเติมได้ในเวลาสั้น		a d			
8. ผู้บริโภคสามารถค้นหาและรับข้อมูลที่		s 🗍 2	3	4	5
ต้องการได้อย่างง่ายในการช็อปปิ้งออนไลน์	S B				
9. กระบวนการซื้อของออนไลน์ชัดเจน		2	3	4	5
10. การค้นหาการช็อปปิ้งออนไลน์การ		2	3	4	5
สื่อสารการซื้อการชำระเงินและกระบวนการ					
อื่น ๆ นั้นใช้งานง่าย		<u>R</u> AC	Ö B		
11. ฉันคิดว่าการซ็อปปิ้งออนไลน์น่าตื่นเต้น			3	4	5
และสนุกสนาน 🛛 🎽 🗌 🔾		9 3 11	S		
12. ฉันรักการซ็อปปิ้งออนไลน์	1	2	3	4	5
13. ฉันมีแผนจะซื้อของทางออนไลน์เมื่อ		2	3	4	5
เร็ว ๆ นี้					
14. หากผลิตภัณฑ์ที่สามารถซื้อออนไลน์ได้	กมอร	2	3	4	5
ฉันจะซื้อทางออนไลน์	66600				
15. การซ็อปปิ้งออนไลน์เป็นสิ่งที่ฉันเลือก	1	2	3	4	5
ทางหลัก					

ส่วนที่ 2 : เกี่ยวกับความคิดเห็นส่วนตัวของคุณเกี่ยวกับการซ็อปปิ้งออนไลน์โปรดกรอก√ก่อนที่คุณจะ คิดว่าคะแนนนั้นเหมาะสม (แม้ว่าคุณจะไม่มีประสบการณ์การซ็อปปิ้งออนไลน์คุณสามารถกรอกได้ตาม ความรู้สึกส่วนตัวของคุณเกี่ยวกับปัญหาเหล่านี้)

	ไม่เห็น ด้วย	ไม่เห็น ด้วย	ไม่ แน่ใจ	เห็นด้วย โดยทั่วไป	เห็น ด้วย
	อย่าง				อย่าง
	ยิ่ง				เต็มที่
16. ฉันกังวลเกี่ยวกับความแตกต่างระหว่าง	1	2	3	4	5
ผลิตภัณฑ์ที่ฉันได้รับและสิ่งที่ฉันโฆษณาบน					
หน้าเว็บ					
17. ฉันกังวลเกี่ยวกับคุณภาพต่ำของ	1	2	3	4	5
ผลิตภัณฑ์ที่ซื้อทางออนไลน์	\prod				
18. ฉันกังวลเกี่ยวกับความปลอดภัยข้อมูล 👔	1	2	3	4	5
ส่วนบุคคลของฉัน					
19. ฉันกังวลเกี่ยวกับการขโมยบัญชีหรือ	1	2	3	4	5
รหัสผ่านระหว่างการชำระเงินออนไลน์					
20. ฉันกังวลเกี่ยวกับร้านค้าที่จะไม่รักษา		5 2	3	4	5
สัญญาของพวกเขาและผลิตภัณฑ์บริการ	S C	No.			
หลังการขาย	R				

ส่วนที่ 3 : ความคิดบางอย่างเกี่ยวกับความเสี่ยงในการซื้อสินค้าออนไลน์ของคุณ (โปรดกรอก√ในจุดที่ คุณคิดว่าเหมาะสม)

ส่วนที่ 4: ส่วนนี้เกี่ยวกับข้อมูลพื้นฐานของคุณ (โปรดกรอก√ก่อนที่คุณจะคิดว่าตัวเลือกนั้นเหมาะสม) 21. เพศของคุณคืออะไร?

	ชาย	🗆 หญิง
22. คุณอายุเท่าไหร่		
	ต่ำกว่า 18 ปี	□ 30-39 킨 30-39 킨
	19-29 원 🜏	่ 🛛 40-9 ปี
🗌 50 ปีขึ้นไป		
23. ระดับการศึกษาของคุณคืออะไร		
	มัธยมต้น/มัธยมปล	ลาย 🔲 ระดับปริญญาตรี
	ระดับปริญญาโท	🗌 ระดับปริญญาเอก
🗌 อื่น ๆ		
24. อาชีพของคุณคืออะไร		
	นักเรียน	🗌 ข้าราชการ/พนักงานรัฐวิสาหกิจ
	พนักงานบริษัทเอก	าชน 🛛 ประกอบธุรกิจส่วนตัว/อาชีพอิสระ
	อื่น ๆ	

25. คุณมีรายได้ต่อเดือนเท่าไหร่?

- 🗌 10,000 หรือต่ำกว่า
- 🗌 10,001-20,000 บาท
- □ 20,001-30,000 บาท
- ่ 30,001-40,000 บาท
- □ 40,001-50,000 บาท
- 🗌 มากกว่า 50,001 บาท



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Henan University, Henan, China, 2014
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