南華大學企業管理學系管理科學碩士班碩士論文

A THESIS FOR THE DEGREE MASTER OF BUSINESS ADMINISTRATION
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探討影響越南消費者採用線上學習之因素：
以科技接受模型(TAM)及價值增加模型(VAM)為基礎

EXPLORING THE FACTORS AFFECTING CONSUMERS' ADOPTION OF E-LEARNING IN VIETNAM: BASED ON TAM AND VAM PERSPECTIVES

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準碩士推薦函

本校企業管理學系管理科學碩士班研究生 Le Quang Trang君在本系修業 1.5年，已經完成本系碩士班規定之修業課程及論文研究之訓練。

1、在修業課程方面： Le Quang Trang 君已修滿 39 學分，其中必修科目：研究方法、決策專題、管理科學、經營專題等科目，成績及格(請查閱碩士班歷年成績)。

2、在論文研究方面： Le Quang Trang 君在學期間已完成下列論文：

(1)碩士論文：Exploring the Factors Affecting Consumers' Adoption of E-Learning in Vietnam: Based on Tam and VAM Perspectives

(2)期刊論文：

本人認為 Le Quang Trang 君已完成南華大學企業管理學系管理科學碩士班之碩士養成教育，符合訓練水準，並具備本校碩士學位考試之申請資格，特向碩士資格審查小組推薦其初稿，名稱：Exploring the Factors Affecting Consumers' Adoption of E-Learning in Vietnam: Based on Tam and VAM Perspectives，以參加碩士論文口試。

吳萬益

指導教授：[illegible] 簽章

中華民國 106 年 1 月 3 日

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ABSTRACT

This study aims to identify important factors affecting consumers' adoption of E-learning in Vietnam by combining all components of Technology Acceptance Model (TAM) and Value-based Adoption Model (VAM) to make recommendations and proposals for providers of e-learning services in the design of the features, services service to meet the requirements of consumers. In addition, to investigate the relationship to perceived ease of use, peceived usefulness, perceived sacrifice, perceived benefit, perceived value, attitude toward E-learning, intention toward E-learning in Vietnam and attribute of three moderators: Social Influence, E-word of mouth, E-servicescape. The study was carried out in two stages as preliminary research (quantitative) and formal studies (quantitative) and 300 data were collected from Vietnamese consumers by online surveys. The results of this study help provides to understand deeply the factors affecting consumers' adoption of E-learning. So providers can improve the design and develop functions and services suitable to consumers' need. Besides that, the study also provides a scientific documents on adoption new technology, through building a framework of factors affecting to usage intention of adoption new technology, it will help researchers to understand deeply about Vietnam market.

Keyworld: E-learning, TAM, VAM, E-word of mouth, E-servicescape, Social Influence

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CHAPTER ONE
INTRODUCTION

1.1 Research Background and Motivation

Nowadays, technology has become an important factor that changed the way of life, how to think, how to work and approach of human culture. Indeed, with the development of technology by storm in the 21st century, especially information and communications technology (ICT). ICT is present everywhere, all areas, from trade, health, culture, politics, ... And education is no exception. Educational researchers studied how to apply ICT to improve the quality of education, bringing deeper penetration of technology in education, the creation of new educational tools, better quality necessarily, make good use of the advantages of the era. All these things have led to the birth of a new form of learning called electronic education, electronic or training familiar with the term e-Learning.

E-learning (also known as Online education) is a virtual learning methods through a computer network to a server elsewhere have kept available electronic lectures and software needed to be able to asked / required / recommended for learners to online distance learning. E-learning "is learning facilitated and supported through the utilization of information and communication technologies (ICTs)". So, to improve the efficiency of the quality of education - training will be a vital factor in determining the existence and development of every country. E-Learning is an effective solution to solve this problem. The term "E-Learning" has only been in existence since 1999. Since then the online training business has spread worldwide with the edge fierce. Through many practical surveys, the researchers have demonstrated that e -Learning bring many benefits to teaching by helping teachers and students gain the skills needed for jobs in a century (Means 2009, Vilaseca 2008). In the US, E-learning has received backing and support policies of the government since the late 90s According to statistics of the US Development and Training (Training and Development American Society for ASTD).

In Vietnam, e-Learning has been interested in research since the early years of the 21st century, however, the development of e-learning in the country is quite slow. In about 2002 or earlier, the research papers, learn about eLearning in Vietnam is not much. In the two years 2003-2004, the study of e-learning in Vietnam was much more concerned units. In 2007-2008 with the establishment of business enterprises in online education, E-learning started to develop strong. This is the stage to focus on building learning materials stocks,

pushing the search engine learning content. So far acceleration in the number of online educational unit was launched. The units operate on online education started hierarchy and specialization clearer and 2015 is a prerequisite for the development of quality online education in Vietnam. Although, the studies evaluated the factors affecting acceptance of e-learning system have been implemented quite popular around the world (Roca & Gagne, 2008; Park, 2009; Park et al, 2012; Punnoose, 2012; Chen & Tseng, 2012; Çakır & Solak, 2014; Mohamandi, 2015). However, in Vietnam, studies like that are limited because most of University in Vietnam just began implementing recently. This indicates that the development and applied e-learning in education in Vietnam is absolutely necessary. Previously, many researchers have applied Technology Acceptance Model (TAM) (Davis, F. D., 1989) to find out the factors affecting the consumers' behavior adopt E-learning. Now, my research incorporates a model that is Value-Based Adoption Model (VAM) (H. -W. Kim, H. C. Chan, S. Gupta, 2007) and besides that, to expand the scope and based on nowadays reality development of social networks so factors social influence and e-word of mouth also was mentioned and examined in this study. Technology Acceptance model (TAM) using when testing consumers' adoption behavior in new technology and Value-based adoption Model (VAM) was developed to predict new technology adoption by using extrinsic factor, intrinsic factor, effort and monetary even so non-monetary so the combination of these two models will make the research more widely and more detail in new market like Vietnam.

Based on development demand in Vietnam and the true benefits which e-learning provides, so that why I chose this topic: "Exploring the Factors Affecting Consumers'Adoption of E-Learning: Based on TAM and VAM Perspectives in Vietnam".

1.2 Research Objective

Based on the motivation and purpose , the object of this study is:

- To find out the factors affecting consumers' adoption of E-learning in Vietnam
- to help providers to understand deeply the factors affecting consumers' adoption of E-learning. And then can improve the design and development functions and services suitable to consumers' need.
- This study examines attribute of the moderators: social influence, e-word of mouth, e-servicescape

1.3 Research Flow

This study begins with choosing a research topic which is exploring the factors

affecting consumers' adoption of e-learning in Vietnam: based on TAM perspectives, but after reviewing and explored literature that has many other factors relevant to purchase intention such as: perceived value, social influence, e-service scape, e-word of mouth. Because of that the research decide to add more model is VAM.

A questionnaire survey of this study is conducted to consumers. The research methodology used mainly quantitative. Survey area in biggest cities in Vietnam. The respondents are the consumer that around 15 to 50 year old and living and working in Ho Chi Minh city and Ha Noi. They were surveyed via email and direct surveys.

Data analysis and hypotheses testing are analyzed with following techniques:

1. Factor Analysis
2. Regression
3. Structural Equation Modeling (SEM)

Figure 1-1 The flow chart for this research

After analyzing data can give the conclusions and suggestions of this study. The flow chart of this study is shown in Figure. 1-1

1.4 Structure of Research

In addition to the table of contents, appendices and references, the subject consists of 5 chapters:

- Chapter one (Introduction): This is overview chapter on the research topic, introducing about research background, research objectives, research flow.
- Chapter two (Literature Review): This chapter will explain definition of based theories in this study and definition of each construsts.
- Chapter three (Methodology): The content of this chapter is presenting research on the measurement methods and also discuss sampling plan, data collection procedures, and data analysis techniques.
- Chapter four (Result and Data analysis): Chapter four is show the statistical and descriptive results of this study. It is includes data collection, the basic characteristics of respondents, descriptive statistics of research items, and factor analysis, reliability test, Structural Equation Modeling (SEM) result and result of moderators using hierarchical multiple regression.
- Chapter five (Conclusion and Suggestion): Chapter five is presenting a summary of the significant findings and conclusions of this study.

CHAPTER TWO
LITERATURE REVIEW

This study include three sections. The first section is Theoretical backgound: definition of theory: Theory Reasoned Action (TRA), Theory Planned Behavior (TPB), Technology Acceptance Model (TAM), Value-based Adoption Model (VAM). The second section is definition of research constructs.

2.1 Theoretical Background

There are many theories to explain human behavior in general and buying behavior of consumers in particular. In which the intention to commit acts with Theory of Reasoned Action (TRA) (Fishbein and Ajzen, 1975) and Theory of Planned Behavior (TPB) (Ajzen, 1991). Two theories are widely used in explaining the intention to commit acts of man. Beside that, Technology Acceptance model (TAM) using when testing consumers' adoption behavior in new technology and Value-based adoption Model (VAM) was developed to predict new technology adoption by using extrinsic factor, intrinsic factor, effort and monetary even so non-monetary.

2.1.1 Theory of Reasoned Action

Theory of Reasoned Action (TRA) serves to understand an individual's voluntary behavior *(Doswell, Willa; Braxter, Betty; Cha, EunSeok; Kim, Kevin 2011)*. According to this theory (Ajzen and Fishbein under, 1975), to understand buying behavior, the need to study the Behavioral Intention. Behavioral Intention is the best tool to predict the behavior because the behavior of a person is defined by their intentions in carrying out such acts. For more concerned about factors contributing to Behavioral Intention, then consider buying two factors are Subjective Norm and Attitudes of our customers. In the TRA model, the Attitude is measured by awareness of the properties of the product. Consumers will notice these attributes bring the necessary benefits and different level of importance. If you know the weight of that property may be close to the results predicted consumer choice. Subjective Norm factors can be measured through those related to consumers (such as family, friends, co-workers, ...); these people like consumers buy it or not. The impact of Subjective Norm to Behavioral Intention of consumers depends on level of support / opposition to the purchase of the consumer and the consumer's motives do according to the wishes of those affected. The extent of the impact related to Behavioral Intention and motivations of consumers follow those involved are two basic elements to assess Subjective Norm. In the

model TRA, each individual trust consumers about the product or brand will affect Attitude toward Behavior, and Attitudes toward Behavior affects Behavioral Intention rather not directly Behavior. Therefore Attitude will explain the reasons for Behavioral Intention, and Intention is the best factor to explain the Behavioral Intention. However, the laters studies also found few limitations of this theory. Research by Sheppard et al (1988) showed that TRA with some limitations. TRA indicated the behavior of the individual target completely under the control of the will of them, the problem of choosing the context analysis not clearly indicated by Fishbein and Ajzen, and the intention of the individual is measured in the absence of sufficient information necessary to form the complete certainty (Sheppard et al, 1988). The study also said that TRA focuses on identifying individual behavior, while in real terms, people are often faced with many choices acts like the store, look select the product, type, size, color ... the existence so much choice can swap the nature of processes formed the intention and role of intention in the behavior expected shirt reality. These restrictions limit the application of this theory to certain acts (Buchan, 2005)

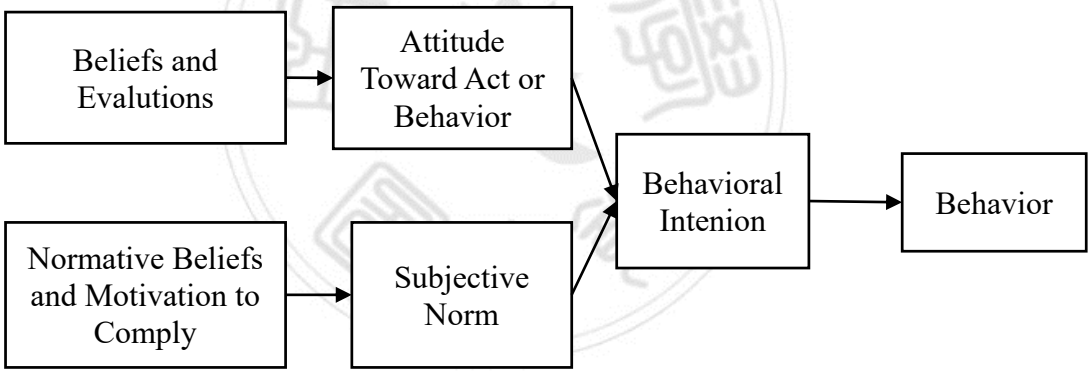

Figure 2-1 Theory Reasoned Action

2.1.2 Theory Planned Behavior

Like TRA, the intention is for the motivating factors leading to behavior. The intention is for the motivating factors leading to behavior, it is indicated for people who will try to what extent, or how many planned to spend their efforts on the implementation of a specific behavior. As a general rule, the more powerful intentions, the ability to act is made growing. It is clear, however, that the intention of committing acts become acts really only be seen in the behavior that is entirely under the control of reason.

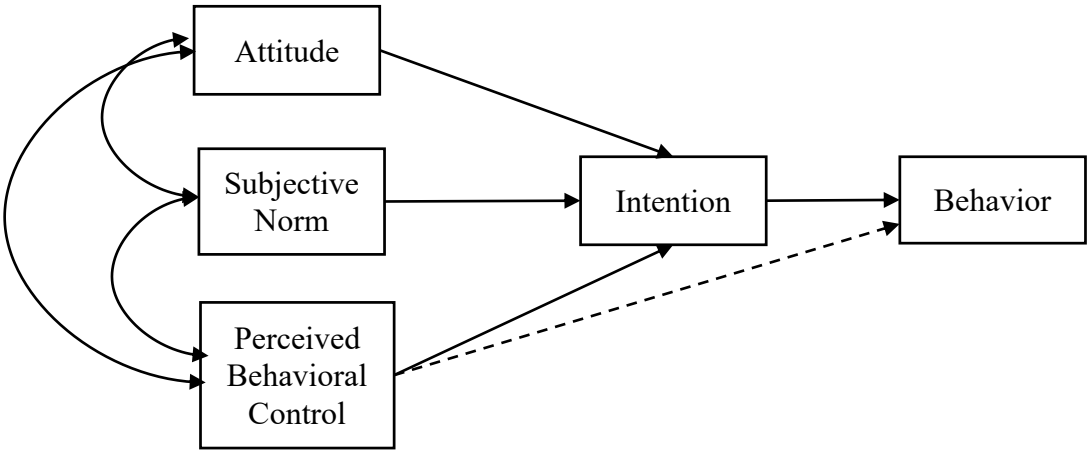

Figure 2-2 The Theory of Planned Behaviour

2.1.3 The Technology Adoption Model (TAM)

The Technology Adoption Model (TAM) was developed from Theory of Reasoned Action (M. Srite and E. Karahanna 2006) using TAM to find out which factor affect to people's behavior accept or reject technology based on TRA theory aim to determine the relation between two key beliefs: perceived usefulness and perceived ease of use of consumers and consumers attitude, intention and actual usage computer behavior. And it found the strongest factor predictor of individual's intention to use technology is perceived usefulness.

TAM is used to explain and predict the acceptance and use of a technology. TAM tested and widely accepted in the research in the field of information technology, which are considered the model has good predictive value. In particular, the behavioral intention to use significantly correlated to Actual system use, when intention as an important factor to Actual system use, and other factors affecting the use of an indirect way through planned use (Davis, 1989). Today TAM model is considered one of the most popular models to assess the acceptability of new technology services in the field of information technology and telecommunications (Kuo & Yen, 2009; Shroff and et al, 2011; Melas et al, 2011)

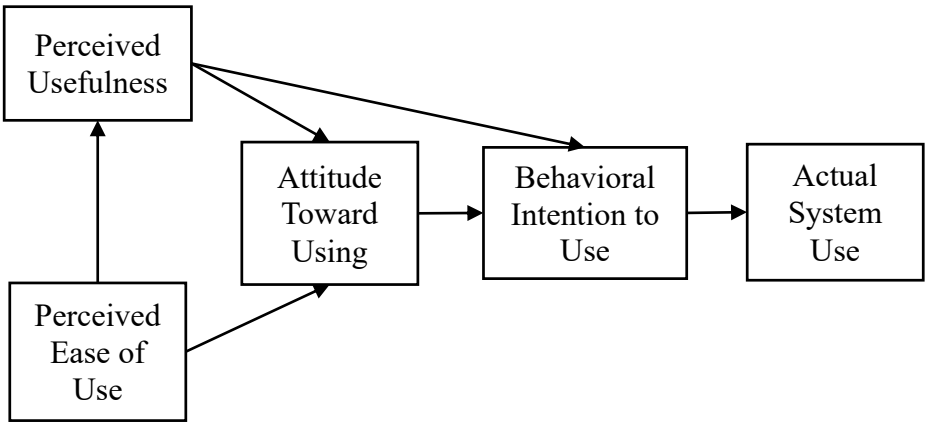

Figure 2-3 Technology Acceptance Model (TAM)

2.1.4 Value-based Adoption Model (VAM)

According to Hee-Woong Kim et al., (2007), Adoption Intention can be predit through Perceived Value (PV). While PV can be defined the degree based on 2 factors: Benefit and Sacrifice. PV can be defined based on a balance of Benefit and Sacrifice, which classifies motivations into extrinsic and intrinsic subsystems. In which, benefit not just only useful, what things that consumers receive and also about the experience. Sometimes it is an exciting, fun experience, also about sacrifice including monetary and non-monetary factors, which is the cost consumers have to pay to can use the technology (money, time, ...) and intangible costs when they use new technology (try, effort, ...). VAM model was developed based on the shortcomings of TAM by factors affecting perceived value and perceived value is passed from the point of maximum value.

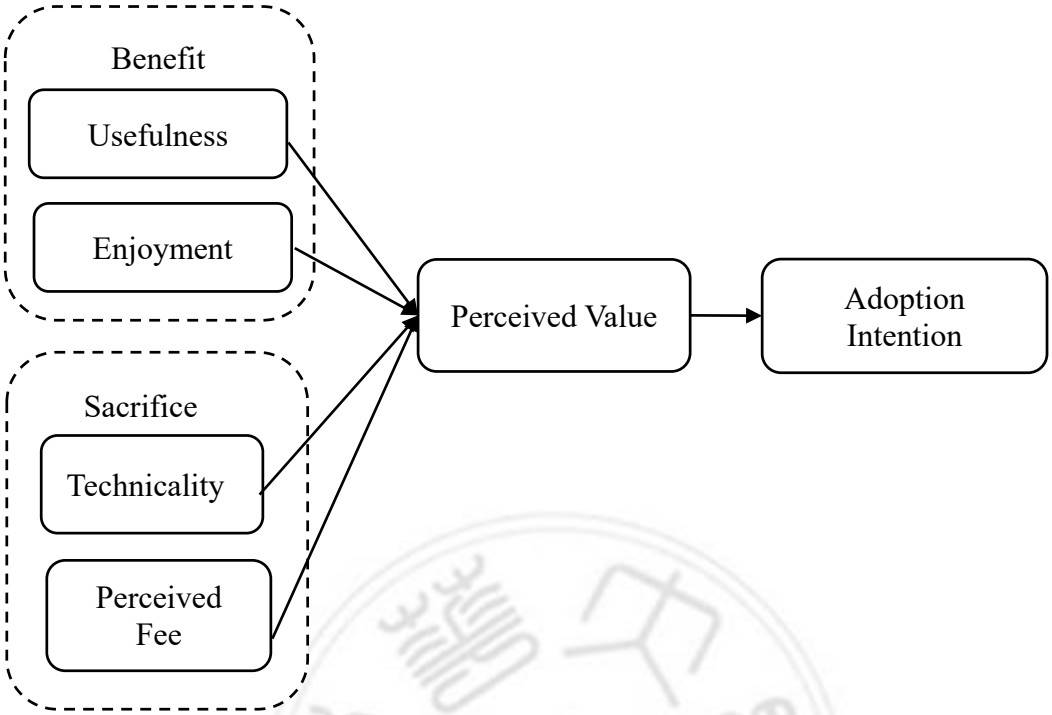

Figure 2-4 Value-based Adoption Model (VAM)

2.2 Definition of Constructs

2.2.1 Perceived Ease of Use (PEOU)

In the study of acceptance new technology, the model variables of TAM as perceived ease of use and perceived usefulness are used very popular since proven to have a direct impact to the users to choose a system of to use technology. According to this study, it always affects relationships between perceived ease of use and perceived usefulness and actual system use. According to (Venkatesh, 2000) have shown that users will create awareness of the use of a specific system based on their shared belief system and its practices. In the context of e-learning, if the system is difficult to use and lacks detail to annoying consumers, it is difficult to form the conscious decision to accept use of e-learning. Indeed, if such a technology product that is too complicated or difficult to use, it will be limited in the number of users and can not be applied on a large scale in society. In the context of e-learning, e-learning system will be developed on the basis of high technology in the research model of e-learning technology, the existence of the ease of use will help determinants affect intention toward e-learning. Therefore, based on the model of TAM, the author suggests the positive

impact of perceived ease of use to perceived usefulness and intention toward of e-learning.

2.2.2 Perceived Benefit

Perceived benefits often involve elements of products such as functionality, quality, design, and brand. It can be divided into extrinsic and intrinsic benefits. Extrinsic benefits are functional, utilitarian or banausic (Babin et al., 1994). So trying to create more benefits for the customer to makes them satisfied is essential. The efforts to make the product more attractive thanks to design, functionality, quality ... to the customers perceive more benefits, thereby pushing up the high perceived value.

2.2.3 Perceived Usefulness (PU)

According to Davis et al (1989, 1993) Perceived Usefulness is defined as the perception of the benefits that users get from the act of using an IT system (Davis, 1989). The development objective of the e-learning platform is always must be improved to increase the quality and ease of use, convenient for the user, thereby increasing the intention toward e-learning. The fact that when users realize their benefits tied to a technology product, they will tend to use technology regularly and become loyal customers. For example, the e-learning courses can provide the user with important benefits and services become indispensable in improving knowledge needs. So applying TAM model to study e-learning, the author suggests the positive impact of usefulness to the actual use of e-learning users.

2.2.4 Perceived Enjoyment (PE)

Perceived enjoyment was defined as the level of awareness that a person be attracted or interested in the use of computers (Teo, 2001). According to Goldsmith (2002) pointed out that interest is an important factor determining online shopping behavior of customers. They also views that in e-learning, if the user can enjoy the experience through the application of e-learning systems, attitudes towards adopting e-learning will be more positive. Users have the exciting experience that seems to be easy to remember and re-use the e-learning system than users who haven't have enjoyment experience.

2.2.5 Perceived Sacrifice (PS)

(Grewal et al., 1998) sacrifices refer to those negative components of perceived value of products or services. Perceived sacrifices are both monetary and nonmonetary (R. Thaler, 1985; Zeithaml, V. A. 1988). Non-monetary costs generally include time, effort and spend another unsatisfactory for the purchase and currency including technical factors determine price.

2.2.6 Perceived Risk (PR)

Bauer (1960) was the first to introduce the concept of awareness of risks in the procurement process, is seen as the decisive uncertainty of consumers when buying and to recognize the consequences of this decision. Cox and Rich (1964) refers to the concept of perceived risk that the perceived level of risk of consumers when deciding to purchase. Kaplan (1974) introduced the concept of perceived risk related means uncertainty about the loss of a sale and purchase transaction includes six factors: finance, performance (product not properly energy), social, psychological, safety, time. Mitchell (1999) suggests that risk perceptions are subjective thoughts about determining losses, with two implications are the uncertainty and negative consequences. For online shopping, the perceived level of risk is often higher than traditional shopping is because buyers do not see the real picture of the product and are not in direct contact with the salesman (Park & Stoel, 2005). According Bhatnagar & Ghose (2004), risks related to these three factors negatively impact online shopping decisions are: product risk, financial risk, security risk 'personal information season. According to Mohsen Mazari (2008), the consumer behavior risky when consumer behavior will lead to the result that he could not foresee, or uncertainty and results that can make him we are not satisfied. Stone and Gronhaug (1993) pointed out that the concept of risks related to the selection of acts that perform such acts bring different results than expected, with more thetot or worse than expected. However, in studying online consumer behavior focuses on potential outcomes but negative direction. Indeed, in e-learning perceived risk could bring negative impact to consumers' adoption technology like e-learning.

2.2.7 Perceived Fee (PF)

Perceived fee for product and services was found to be an important variable. Lichtenstein et al. (1993) define price as the amount of economic outlays that a person has to give up in exchange for good or service (Chang et al.1994; Doddset al. 1985; Zeithaml, 1988). In e-learning context, the fee consumers have to pay bring negative affect to consumers' adoption e-learning.

2.2.8 Attitude toward E-learning (AE)

Attitudes toward a behavior is defined as positive reviews or negative of an individual prior intend to implement an act. It relates to the judgment of an individual that performs a behavior is good or bad, and also has an integrated assessment that an individual

tended or not interested to carry out the behavior (Ajzen and Fishbein , 1980). Specifically the leading e-learning attitude of consumer behavior based on ease of use and perceived usefulness.

2.2.9 Perceived Value (PV)

The perceived value (PV) Zeithaml (1988) is defined by the consumers' perception of the value they have to spend to get service and the service they are worthy of the costs that consumers have to spend, according to which consumer perceptions of what is received and what is making decisions overall assessment of the utility consumers of products (Zeithaml 1988). However, a good product is only when consumers believe it possible - an affordable interest only when consumers feel that it is consistent with the benefits they receive as consumer products.

2.2.10 E-servicescape (ES)

The best way to attract attention and impress customers which is based on the design of e-servicescape (Van Haperen, 2012). E-servicescape can affect the feelings of consumers, because the e-servicescape is the face of organization, In e-learning, e-servicescape is where the learning process takes place between consumers and providers should require e-servicescape in a clearly presented, complete and understandable which the customers directly and through the use of e-sercivescape will evaluate the quality of services e - Learning.

2.2.11 E-Word of Mouth (EW)

E-Word-of-mouth can be defined as all contact information unofficially directed at consumers users through Internet-based technologies (such as websites, forums, blogs, social networks, ...) related to the use of shared characteristics or special goods and services, or their sellers. Unofficial information will be quickly shared on social networks. That could cause two-way impact to the e-learning organization. So e-learning organizations need to closely monitor the above information.

2.2.12 Intention toward E-learning in VietNam (IEVN)

Intent towards E-learning (IE) Behavioral intention was determined as the intention of the consumer to act in attitude has taken shape ahead of them to get themselves access to and use of services. Purchase intent is a final action is formed before making a decision to buy a product. In e-learning environment, the intention of the consumers is a factor that every organization wants consumers towards e-learning, by providing information to make their

consumers' in tention stronger and make sure them have a good intention toward e-learning. There elements have been mentioned in many previous TAM research.

2.2.13 Social Influence (SI)

Social Influence: is the extent to which an individual is aware of the person who is important with them, believe that they should use the new system and it will bring benefit to them. Social influence is built from the concept of the 3 different models: the standard subjective (TRA, TAM2, TPB), Social Influence (Model of Pc Utilization) and Image (Innovation Diffusion Theory) (Venkatesh et al, 2003). Pervious research (Venkatesh et al, 2003) show that, the affect of social influence is stronger with women than man, especically older people. In e-learning, this factor never be exam before so this study will add social influnce as the moderator to test an affection.

2.3 Hypotheses Development

This study proposes and tests a model of e-learning technology acceptance based on TAM. Additionally, the VAM inclusion of Perceived Benefit, Perceived Sacrifice (Perceived Fee, Perceived Risk), Perceived Value and test the impact of moderating factors as: Social Influence, E-Word of Mouth and E-servicescape.

2.3.1 Relationship between constructs in TAM

Many previous studies have used the model to apply the technology to find out factors affecting the e-learning oriented, they have proven PU, PE is the second most important factor in understanding customer behavior goods in the application of new technologies. PU is the customer's perception of the use of technology that will help them improve and gain more benefits while the effort (PEOU) that they spend is lower than the utility that it brings. And it has been proven to have a positive impact PU to PEOU and when it will change perceptions, consumer thinking about E-learning makes them more aggressive look to the behavior using technology.

Besides that, several studies have shown the direct impact of PEOU on PU. When consumers are aware of E-learning is easy to use, to study, it will be useful for them in the academic issues such as reducing the time, money and effort (Huang et al, 2012). When perceptions are formed, the consumers' attitude toward a more positive E-learning, improve the ability to accept e-learning technology.

Finally, if the attitude of the technology used for this is positive, then this will positively influence their intentions to use it (T.Teo et al, 2011; Seif et al 2012, Punnoose, 2012) and

The research of Adwan, 2013; Sharma 2013 have proved the directly positive PU on IE. from which may offer alternative hypotheses using in Vietnam environment:

H1: Perceived ease of use will positively related to Perceived Usefulness.

H2: Perceived usefulness will positively affect to Attitude towards E-learning.

H3: Perceived ease of use will positively affect to Attitude towards E-learning.

H4: Attitude towards E-learning will positively affect to Intention toward E-learning VietNam.

H5: Perceived usefulness will directly positively affect to Intention toward E-learning in VietNam.

2.3.2 Perceived Usefulness on perceived value

Monetary sacrifices of course, includes price of the product/services or fee charged to the customers for using the services. Bolton and Drew, (1991) found a positive correlation between perceived quality and perceived value. Kim et al. (2007) in their study of supporting VAM used the following benefits and sacrifices such as perceived usefulness, perceived enjoyment as benefits whereas sacrifices included technicality and perceived fee. Seyal (2016) endorsed that perceived usefulness has been considered as important determinant of perceived value.

H6: Perceived Usefulness will positive affect to Perceived Value.

2.3.3 Perceived Enjoyment on perceived value

Perceived enjoyment was defined as the level of awareness that a person be attracted or interested in the use of computers (Teo, 2001). Van der Heijden (2004) found that perceived enjoyment was a stronger determinant of intention toward e-learning than perceived usefulness when using hedonic systems. In e-learning, perceived enjoyment is quite important factor and it has great impact to affect consumer sentiment, when the e-learning approched the useful elements, besides that it needs extra enjoy , consumers does not want to use a system that will give them a stress or fatigue. From that perceived enjoyment impact strongly to perceived value of consumers. According to Goldsmith (2002) pointed out that interest is an important factor determining intention toward e-learning. According to Hee-Woong Kim (2007) perceived enjoyment have a significant effect on perceived value. The hypothesis is propose:

H7: Perceived Enjoyment will positive affect to Perceived Value

2.3.4 Perceived Fee on perceived value

The intention of the behavior of consumers through a new technology services are influenced by the value they receive from the service, which is perceived fee (Zeithaml, 1988; Cheong and Park, 2005). The comparison will be made. If the value they get from e-learning to higher costs spend, purchase intent will be formed. If the value is lower, they will refuse service. In the context of e-learning, service providers have to care about the balance between expenses and value that consumers receive. The cost not only money but also expressed by other factors. (Chong, Lai, 2012; Kim, 2007). Consequently, the following hypotheses are proposed:

H8: Perceived fee will negative affect to Perceived Value

2.3.5 Perceived Risk on perceived value

In addition to the financial cost, the diffusion of a new technology is mainly limited by the perceived risk of using a new technology service (Newell and Newell-Lemon, 2001). Financial risks including original purchase price and maintenance costs (Grewal et al., 1994). When consumers make purchase decisions, they are often concerned about the performance of the product and the financial aspects of the purchase, especially with new technologies such as E-learning. This concern is a perceived risk (Sarin et al., 2003). (Yu et al, 2015;. Chong Lai; 2012). In e-learning context, risk often arises from the system, hackers targeted the poor security of the system in order to steal consumer information such as personal information, credit accounts. These risks strongly negative impact on consumer intentions toward e-learning. This is the problem service providers should prioritize top concern. So the perceived risk of adopting e-learning will affect the perceived value. So we can hypothesize:

H9: Perceived Risk will negative affect to Perceived Value

2.3.6 Perceived Value on Intention toward E-learning

consumers try to achieve maximum utility or benefits, perceived values reflect by comparing the benefits with the sacrifices and formed an intention based on a comparison there. In the context of e-learning, perceived value proportional to the intention. The higher values is the more intent (Sweeney et al, 1997; Kwon and Seo 2013). And in another previous research, perceived value have never exam with intention toward e-learning. Therefore hypothesize:

H10: Perceived Value will positive affect to Intention toward E-learning

2.3.7 E-Servicescape and relationship between Attitude toward E-learning, Intention toward E-learning.

e-servicescape usually designed to increase efficiency or inhibitors of service activities such as e-learning technologies (Zeithaml and Bitner, 2000). Usually a website can also affect consumers through design and its features. Therefore the service provider e-learning to focus on the elements surrounding environment, spatial layout and functionality, and the signs, symbols, and artifacts to the site. The combination of factors that create consumer perceived. Accordingly, the size of the e-servicescape will play important roles in shaping quab and explain consumer behavior. (Hopkins et al 2009) .Hence, we may hypothesize:

H11: E-servicescape will strengthen the effect of Attitude toward E-learning on Intention toward E-learning

2.3.8 E-Word of Mouth and relationship between Percied Value, Intention toward E-learning.

In the context of e-learning, when the consumers are looking for information about services, they usually go to the forums, information sharing pages to know the comment , the feedback of the previous consumers. If information is shared is helpful. That will increase their perceived value and trust service provider can give them what they want, from that reinforces their intention (Arslanagić et al 2011; Kamtarin 2012) Based on that, we can hypothesize:

H12: Word of Mouth will strengthen the effect of Perceived Value to Intention toward E-learning.

2.3.9 Social Influence and realtionship between TAM, VAM.

In TAM model, many studies have shown it is not complete, TAM is often applied in an organization or unit. Because it does not include social factors. In this study, the application of a moderator: Influence to examine social factors affecting consumers in order to improve the accuracy and breadth of the study. This study will try to exams the affect of moderator social influene on relationship between perceived benefit, perceived sacrifice on percived value. So, we can propose hypotheses:

H13a: Social Influence will strengthen the effect of Perceived Ease of use on Attitude toward E-learning.

H13b: Social Influence will strengthen the effect of Perceived usefulness on Attitude toward

E-learning.

H13c: Social Influence will strengthen the effect of Perceived usefulness on Perceived Value.

H13d: Social Influence will strengthen the effect of Perceived Enjoyment on Perceived Value.

H13e: Social Influence will strengthen the effect of Perceived Fee on Perceived Value.

H13f: Social Influence will strengthen the effect of Perceived Risk on Perceived Value.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Reseach Framework

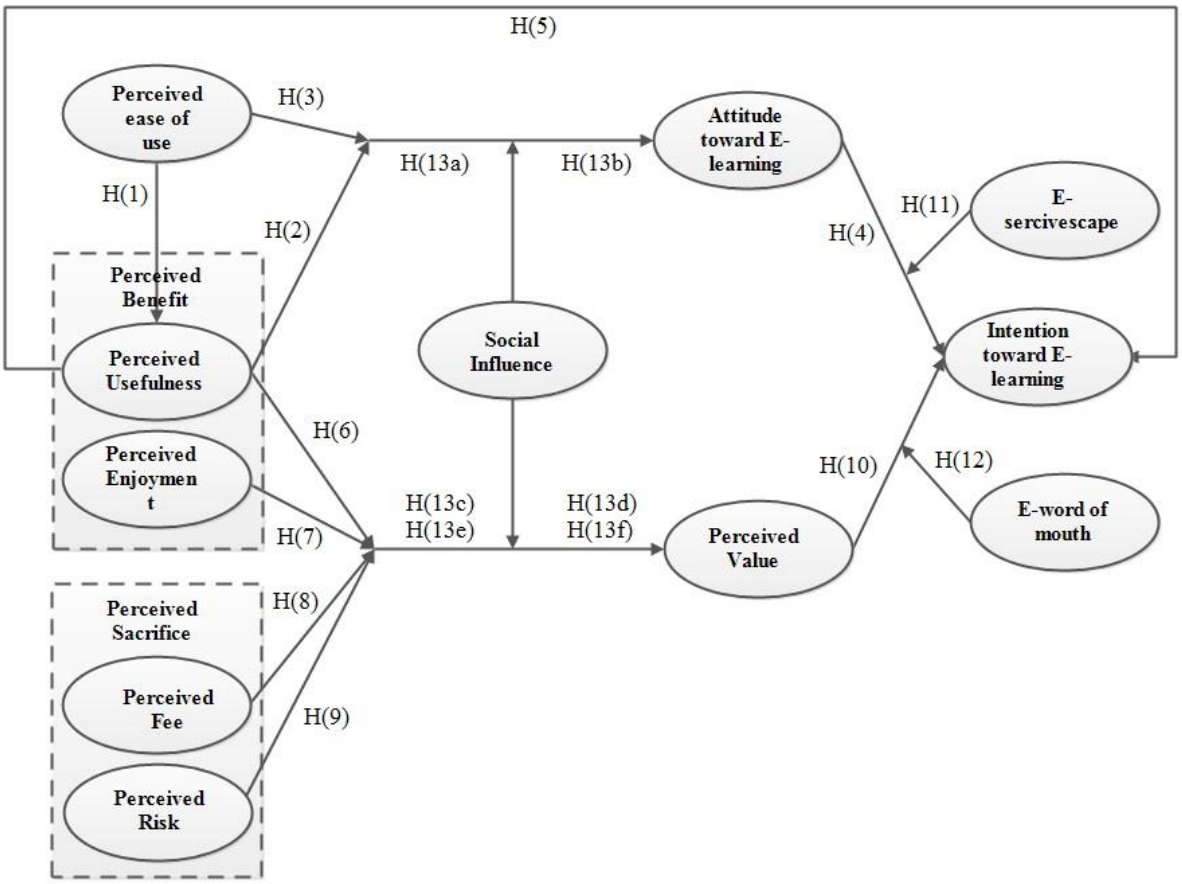

Figure 3-1 Research flamework

The purpose of this study is to identify the interrelationship among relevant constructs including perceived ease of use, perceived usefulness, perceived benefit, perceived sacrifice, perceived value, attitude toward E-learning, Intention toward E-learning in Vietnam, social influence, e-servicescape, e-word of mouth in the combination between TAM, VAM and to understand of the factors that affect the application of new technologies from the perspective of consumers, the research orientation of e-learning services in Vietnam. Use 2 models TAM and VAM is also particularly useful for awareness through e-learning, because it is through the helpful comments, easily see when using, but also mentions the price cognitive therapy feel special enjoyment value and risk. Besides, the VAM provides a clear understanding of the factors that affect the value perception and cognitive values

adopted from the point of maximum value. While TAM can explain the application of traditional technologies used in setting up the organization, it has its limitations in explaining the application of IT, such as E-learning new consumers because consumer choice and behavior is mainly determined by the value of the object selected, as illustrated in the economic and marketing research. Therefore, the application of theoretical framework of two models TAM and VAM is to offset the disadvantages of the two models to find out the factors that strongly influence the intention towards E-learning and provides a building modeling services E-learning system is suitable for consumers in Vietnam.

3.2 Research Hypotheses

Based on the literature review that has been discussed in chapter 2, eleven hypotheses are developed in this study for the further empirical validation. First, H1, H2, H3, H4, H5 test the interrelationship between constructs in TAM, H6, H7 tested the effect of perceived usefulness, perceived enjoyment on perceived value, H8,H9 tested the effect of perceived fee, perceived risk on perceived value, H10 tested the effect of perceived value on intention toward E-learning, H11 tested effect moderating of E-servicescape on attitude and intention toward E-learning, H12 tested effect moderating E-word of mouth on perceived value and intention toward E-learning, H13a,H13b,H13c, H13d, H13e, H13f tested effect moderating of social influence on perceived ease of use and attitude toward e-learning, perceived usefulness and intention toward E-learning, perceived usefulness and perceived value, perceived enjoyment and perceived value, perceived fee and perceived value, perceived risk on perceived value. Thus, the hypotheses are as follow:

H1: Perceived ease of use will positively related to Perceived Usefulness.

H2: Perceived usefulness will positively affect to Attitude towards E-learning.

H3: Perceived ease of use will positively affect to Attitude towards E-learning.

H4: Attitude towards E-learning will positively affect to Intention toward E-learning VietNam.

H5: Perceived usefulness will directly positively affect to Intention toward E-learning in VietNam.

H6: Perceived Usefulness will positive affect to Perceived Value.

H7: Perceived Enjoyment will positive affect to Perceived Value.

H8: Perceived fee will negative affect to Perceived Value.

H9: Perceived Risk will negative affect to Perceived Value.

H10: Perceived Value will positive affect to Intention toward E-learning

H11: E-servicescape will strengthen the effect of Attitude toward E-learning on Intention toward E-learning

H12: E-word of Mouth will strengthen the effect of Perceived Value to Intention toward E-learning.

H13a: Social Influence will strengthen the effect of Perceived Ease of use on Attitude toward E-learning.

H13b: Social Influence will strengthen the effect of Perceived usefulness on Attitude toward E-learning.

H13c: Social Influence will strengthen the effect of Perceived usefulness on Perceived Value

H13d: Social Influence will strengthen the effect of Perceived Enjoyment on Perceived Value

H13e: Social Influence will strengthen the effect of Perceived Fee on Perceived Value

H13f: Social Influence will strengthen the effect of Perceived Risk on Perceived Value

3.3 Research design

This study uses quantitative research method. Quantitative research is to ask people to give their opinion in a structured way. The study will be conducted according to the following steps:

(1) Questionnaire design

(2) Preliminary research

(3) Formal research

3.3.1 Questionnaire design

This research applied 5 point-Likert scales from

(1) strongly disagree

(2) disagree, 3-neutral

(3) agree

(4) strongly disagree.

3.3.2 Preliminary research

Preliminary studies have proceeded in Vietnam. The draft questionnaire was composed following the format of the services survey form created by Google Documents. Then, this questionnaire was shared via email to 100 peoples. The result was obtained 80/100 feedback after about 2 weeks. The 80 samples will be used to assess preliminary the scale and research concepts before proceeding with formal study.

For a preliminary assessment of the scale draft, 80 samples will be analyzed with SPSS 20 to considering reliability coefficient Cronbach's alpha and analysis discovered factor EFA (Exploratory Factor Analysis, referred to as the method EFA):

The draft scale was assessed reliability through Cronbach's alpha coefficient. In addition, by observing column "the correlation coefficient variables - total" (Corrected Item-Total Correlation) of table "the Statistics table variables-total" (Item-Total Statistics), the bad variable will be removed if the variable correlation coefficient variations-total < 0.3 (Nunnally & Bernstein 1994). Scale is considered good if Cronbach's alpha is 0.7-0.8. In this research, measurement items with factor loadings greater than 0.6 were selected as members for a specific factor.

Next, EFA method is used to test the convergence of the component variable of the concept. The variable have factor loading < 0.5 will be disqualified (Nunnally & Bernstein 1994), thus helping shortened a set of observed variables to a set of factors. In addition, Total Variance Cumulative will also be tested if achieving ≥ 50% (Gerbing & Anderson 1988). This method can help assess preliminarily the draft scale. After the type of the variable is not satisfactory, the remaining variables will be taken into the complete scale of the official questionnaire that used for formal quantitative research.

3.3.3 Formal research

Formal Research is done by quantitative methods through questionnaire surveys with the measurement scales after considering the type of unsatisfactory variations. This research step is used to re-test the official scale and model research.

The population in this study is Vietnamese that have experience about e-learning. People were chosen as respondents in order to decrease the confounding effect because of different population characteristics and also it is easier to collect the data. But, this study can't be generalized, experimental research is not intended to generalize the results of the study in a group that representing the people, but to know how the results of research in specific groups that represent homogeneous characteristics (Malhotra, 2007). Nevertheless, Calder, Phillips, and Tybout (1981) argued that rigorous test of theory could be provided by any respondent group when the research goal is theory application.

Regarding sample size, research uses methods: EFA, CFA, SEM and Hierarchical Multiple Resgression so the sample size must ensure fit to use the above method. The determination of sample size when using EFA method based on two factors (1) the minimum

size, and (2) the number of measurement variables included in the analysis. Using linear structural model SEM requires large sample sizes because it is based on reason large sample distribution theory (Raykov & Widaman 1995).

This research intends to collect 300 samples. In order to exclude case the answer unsatisfactory and ensure minimum sample size of 300, the questionnaire was prepared as 450 (estimated greater than minimum limit as 50%, including the questionnaire unsatisfactory). Data collection methods include:

(1) Survey via email with the questionnaire drafted following the format of the services survey form created by Google

(2) Survey directly with respondents lives in Ho Chi Minh city in Vietnam

After one month, data was collected with 300 valid responses. The sample size of more than 300 elements are said to be suitable (Comrey & Lee, 1992) and can be applied to multivariate study in this case. Process research is summarized by Figure. 3-2 below.

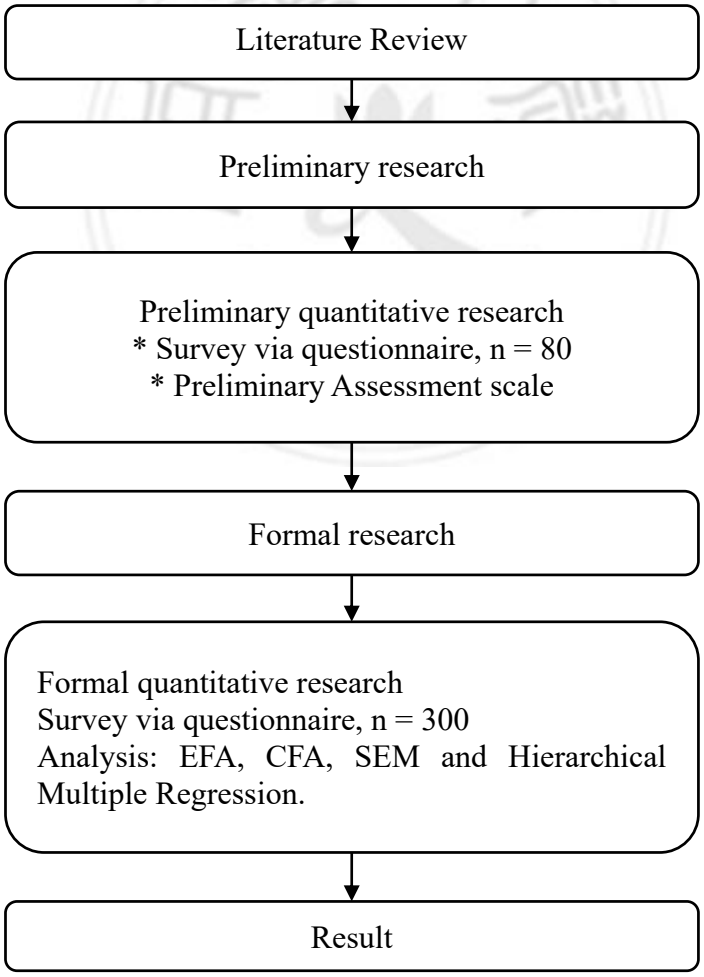

Figure 3-2 The process research

3.4 Research Instruments

This study identified 11 research constructs and evaluated the inter-relationship among constructs. These constructs are perceived ease of use, perceived usefulness, perceived enjoyment, perceived fee, perceived risk, Perceived Value, Attitude toward E-learning, Intention toward E-learning, Social Influence, E-word of mouth, E-servicescape. For each construct, the operational conceptions and measurement items were also identified. The detailed questionnaire items are shown in Appendix.

3.4.1 Perceived Ease of Use

The study identified perceived ease of use influence to perecived usefulness and attitude toward E-learning. This factor is measured with 5 items modified from Teo (2009) and Chang et al (2007). Sample items measuring perceived ease of use: Learning to operate the e-learning system is easy for me, I find the e-learning system easy to use.

Perceived ease of use Teo (2009) and Chang et al (2012).
[PEOU1] Learning to operate the e-learning system is easy for me.
[PEOU2] I find it easy to get the e-learning system to do what I want it to do
[PEOU3] My interaction with e-learning system is clear and understandable
[PEOU4] It is easy for me to become skillful at using the e-learning system
[PEOU5] I find the e-learning system easy to use

3.4.2 Perceived Usefulness

The study identified perceived usefulness influence to perecived value and attitude toward E-learning. Perceived usefulness is defined as the extent of consumers' awareness about what consumers receive after they using new technologies such as E-learning like does it have improve their knowledge performance. This factor is measured with 5 items modified from Al-Adwan et al (2012) and Shroff et al (2011). Sample items measuring perceived ease of use: Using the E-learning system will improve my learning performance, Using the E-learning system will increase my learning productivity.

Perceived Usefulness Al-Adwan et al (2012) and Shroff et al (2011)
[PU1] Using the E-learning system will allow me to accomplish learning tasks more quickly
[PU2] Using the E-learning system will improve my learning performance
[PU3] Using the E-learning system will make it easier to learn course content
[PU4] Using the E-learning system will increase my learning productivity
[PU5] Using the E-learning system will enhance my effectiveness in learning

3.4.3 Attitude toward E-learning

The study identified Attitude toward E-learning influence to intention toward E-learning. Attitudes toward a behavior is defined as positive reviews or negative of an individual prior intend to implement an act. This factor is measured with 3 items modified from Amal et al (2014) Aixia et al (2011). Sample items measuring Attitude toward E-learning: Using the E-learning system will improve my learning performance, Using the E-learning system will increase my learning productivity.

Attitude toward E-learning Amal et al (2014) Aixia et al (2011)
[AE1]I believe it is (would be) a good idea to use this E-learning for my learning performance.
[AE2] Studying through e-learning is a wise idea
[AE 3] I am positive toward e-learning
[AE 4] I would be interested in studying courses that use E-learning

3.4.4 Perceived Enjoyment

The study identified Perceived Enjoyment influence to perceived value. Perceived Enjoyment is defined as the experience fun and entertainment while using e-learning of consumers . This factor is measured with 4 items modified from Chin et al (2015), Shen (2012). Sample items measuring perceived enjoyment: I have fun interacting with E-learning, Using E-learning provides me with a lot of enjoyment.

Perceived Enjoyment Chin et al (2015), Shen (2012)
[PE1] I have fun interacting with E-learning
[PE2]Using E-learning provides me with a lot of enjoyment
[PE3] I enjoy using E-learning

3.4.5 Social Influence

The study identified social influence affect to perceived ease of use, perceived usefulness, perceived risk, perceived fee, perceived enjoyment, perceived value, attiutde toward e-learning, intention toward e-learning. Social influence is defined as the affect of people who have close relationship with consumers and give them positive or negative awareness about adoption e-learning . This factor is measured with 4 items modified from Huang (2016), Shen (2006). Sample items measuring Social Influence: People who influence my behaviour think that I should use the system, People who are important to me think that I should use the system.

Social Influence Huang (2016), Shen (2006)

[SI1]People who influence my behaviour think that I should use the system.
[SI2] People who are important to me think that I should use the system.
[SI3] My classmates who have good performance have benefited from using the system.
[SI4] In general, the teacher has supported the use of the system.

3.4.6 Perceived Risk

The study identified perceived risk influence to perceived value. Perceived risk is defined as the awreness of consumers about bad things can happen when they using e-learning system. This factor is measured with 4 items modified from Armand et al (2011), Pavlou (2001). Sample items measuring perceived risk: I feel unsafe when using E-learning,] I am worried about personal information suffering from unauthorised use when using E-learning.

Perceived Risk Armand et al (2011), Pavlou (2001)

[PR1] I feel unsafe when using E-learning.
[PR2] I am worried that private information would be leaked when using E-learning.
[PR3] I am worried about personal information suffering from unauthorised use when using E-learning.

3.4.7 Perceived Fee

The study identified perceived fee influence to perceived value. Perceived fee is defined as the awreness of consumers about what they have to pay for adopt E-learning such as: money, time, effort,... This factor is measured with 4 items modified from Kim et al (2007). Sample items measuring perceived fee: The fee that I have to pay for the use of E-learning is too high, The fee that I have to pay for the use of E-learning is reasonable (reversed).

Perceived Fee Kim et al (2007)

[PF1] The fee that I have to pay for the use of E-learning is too high.
[PF2] The fee that I have to pay for the use of E-learning is reasonable (reversed).
[PF3] I am please with the price I have to pay for the use of E-learning (reversed).

3.4.8 Perceived Value

The study identified perceived value to intention toward e-learning. Perceived value is defined as an overall evaluation of consumer related product utilities based on the understanding of what is received and what is given. This factor is measured with 4 items modified from Kim et al (2007), Khaled (2016). Sample items measuring perceived value: Based on the fee I need to pay, using E-learning offers value for money, Based on the amount of effort I need to put in, using E-learning is beneficial to me.

Perceived Value Kim et al (2007), Khaled (2016)

[PV1] Based on the fee I need to pay, using E-learning offers value for money
[PV2] Based on the amount of effort I need to put in, using E-learning is beneficial to me.
[PV3] Based on the amount of time I need to spend, using E-learning is worthwhile to me.
[PV4] Overall, using E-learning delivers me good value.

3.4.9 E-word of mouth

The study identified e-word of mouth to perceived value and intention toward e-learning. E-word of mouth is defined as the information afftect to consumers through internet technology such as: social network, blog, vblog,… This factor is measured with 4 items modified from from Isabella et al (2010). Sample items measuring E-word of mouth: When I talk with my friends on social networking site, I would say positive thing about E-learning., When I talk with my friends on social networking site, I would encourage them purchasing E-learning.

E-word of mouth Wang et al (2015)

Opinion giving
[OG1] I often persuade my contacts on social networks to buy products that I like.
[OG2] My contacts on social networks pick their products based on what I have told them.
[OG3] On social networks, I often influence my contacts' opinions about products.
[OG4] My friends tend to ask my advice about products on social networks.
Opinion seeking
[OS1] When I consider new products, I ask my contacts on social networks for advice.
[OS2] I like to get my contacts' opinions on social networks before I buy new products.
[OS3] I feel more comfortable choosing products when I have gotten my contacts' opinions on them on social networks.
[OS4] I tend to consult other people on social networks to help me choose new products I buy.
Opinion passing
[OP1] When I receive product related information or opinion from a friend, I will pass it along to my other contacts on social networks.
[OP2] I like to pass along interesting information about products from one group of my contacts on my 'friends' list to another on social networks.
[OP3] I tend to pass along my contacts' positive reviews of products to other contacts on social networks.
[OP4] I tend to pass along my contacts' negative reviews of products to other contacts on social networks Social Capital Constructs.

3.4.10 E-servicescape

The study identified e-servicescape to attitude toward e-learning and intention toward e-learning. E-servicescape is defined as the function of E-learning system such as: website themes, payment systems, linked section . This factor is measured with 6 items modified from from Harris et al (2010), Hakim et al (2014). Sample items measuring e-servicescape: The functions on this web site are easy to operate, the website links are obvious in their intent and destination.

E-sercivescape (Tran et al., 2012)

Visual Appeal

[VA1] This website is aesthetic appeal.
[VA2] I like the way this website is look
[VA3] This website is visually attractive
[VA4] The way this website displays its products is attractive

Entertainment Value

[EV1] This web site does not just sell products, it entertains me.
[EV2] I shop from this web site for the pure enjoyment of it.
[EV3] I enjoy shopping from this web site for its own sake, not just for the items I may have purchased.

Usability

[US1] The functions on this web site are easy to operate.
[US2] This web site is user-friendly.
[US3] The website links are obvious in their intent and destination.
[US4] There are convenient ways to maneuver among related pages and between different sections.
[US5] Navigation through this web site is intuitively.
[US6] There are useful navigational aids.

Customization

[CU1] The services of this web site are often personalized to me
[CU2] I feel that this web site is designed for me
[CU3] That this web site treats me as an individual
[CU4] If I wanted to, I could customize the web site to what I like (e.g. Changing colors, layout, fonts, etc.)

Financial Security

[FS1] This web site has efficient payment procedures
[FS2] The payment facilities of this web site are easy to use
[FS3] Paying for goods is straightforward on this web site
[FS4] I have no concerns about buying things from this web site

3.4.11 Intention toward E-learning in Vietnam

Intention toward E-learning is defined as the extent to which consumers intend to use or not use the E-learning in the furute. This factor is measured with 4 items modified from from Bertea (2009), Lee et al (2011). Sample items measuring Intention toward E-

learning: In general, I plan to use E-learning in the future, Given the chance, I intend to use E-learning in the future.

Intention toward E-learning in Vietnam Bertea (2009), Lee et al (2011).
[IEVN1] In general, I plan to use E-learning in the future.
[IEVN2] Given the chance, I intend to use E-learning in the future.
[IEVN3] I predict I would use E-learning in the future.
[IEVN4] I will use e-learning in the future when I need improve knowledge

3.5 Data Analysis Procedure

3.5.1 Descriptive Statistic Analysis

There are several criteria which must be followed in factor analysis and reliability test such as:

(1) KMO > 0.5 and Barlett p < 0.05

(2) Communality > 0.5

(3) Explained Variance (Accumulative) > 0.6

(4) Eigen Value > 1

(5) Difference Between Loading > 0.3

(6) Factor Loading > 0.6

(7) Cronbach's α > 0.7

(8) Item to Total Correlation > 0.5

3.5.2 Reliability of the Measurement Variables

There are several criteria which must be followed in factor analysis and reliability test such as:

(1) KMO > 0.5 and Barlett p < 0.05

(2) Communality > 0.5

(3) Explained Variance (Accumulative) > 0.6

(4) Eigen Value > 1

(5) Difference Between Loading > 0.3

(6) Factor Loading > 0.6

(7) Cronbach's α > 0.7

(8) Item to Total Correlation > 0.5

3.5.3 Hierarchical Multiple Regressions.

The criteria to measure of hierarchical regression analysis include:

(1) R2 > 0.

(2) F-value ≥ 4

(3) t-value > 1.96, p < 0.05

(4) Durbin-Watson between 1.5 - 2.5

(5) Tolerance > 0.5

(6) VIF < 2

3.5.4 Structural Equations Modeling

There are several criteria which must be followed in linear structural model (SEM) to assess overall Model Fit such as:

(1) $\chi 2$ (chi-square) small is better $p>0.05$; $\chi 2$ /d.f. < 3

(2) Goodness of Fit (GFI) > 0.90

(3) Adjust of Goodness of Fit (AGFI) > 0.90

(4) Root Mean Square Residual Error (RMR) < 0.05

(5) RMSEA < 0.08 Or NFI, CFI, TI > 0.90

CHAPTER FOUR

RESULT AND DATA ANALYSIS

This chapter will be divided three section; the first section is the descriptive analysis of the respondents as characteristics of respondents, measurement variables. The second section is evaluation the scales including factor analysis and reliability of measurement scales. In this part need to consider the factor loading, item-to-total correlation, principal components factor analysis, and coefficient alpha. The third section is testing the conceptual framework and hypotheses. This study use the method of structural equation modeling SEM to test.

4.1 Descriptive analysis

4.1.1 Characteristics of Respondents

The survey is conducted in Vietnam, 450 surveys were sent via email to respondents started in 08/2016. After one month, there are 330 valid questionnaires were collected, and then, 30 questionnaires were drop off because of missing data. Therefore, 300 questionnaires were usable for further analysis.

For this research context, respondents must have at least 3 months e-learning experience. About gender, 55.7% is male and 44.3% is female. Percentage of e-learning experience, 24% respondents surveyed have experience above 1 year, 39.7% have experience about 7-12 months and 36.3% have experience about 3-6 months. The detail characteristics are presented in table 4-1.

Table 4-1 *Characteristics of Respondents*

Classification	Respondents	
	Frequency	**Percentage (%)**
Gender		
Male	167	55.7%
Female	133	44.3%
Age		
12-18 years old	57	19%
19-25 years old	132	44%
26-35 years old	90	30%
Higher than 35 years old	21	7%
Education		
High school	57	19%
Bachelor	144	48%
Master	88	29.3%
Doctoral	11	3.7%
Income		
Lower than 5 million VND	135	45%
5-10 million VND	96	32%
Higher than 10 million VND	69	23%
E-learning experience		
3-6 months	109	36.3%
7-12 months	119	39.7%
Higher than 1 years	72	24%

4.1.2 Measurement Results of Relevant Variables

This section shows the descriptive statistics by questionnaire items for sample respondents. There are 5 items of Perceived Usefulness and 3 items of Perceived Enjoyment, 5 items of Perceived ease of use, 4 items of Attitude toward E-learning, 4 items of Social Influence, 3 items of Perceived Risk, 3 items of Perceived Fee, 19 items of E-servicescape (four items of Visual Appeal, three items of Entertainment Value, four items of Usability, four items of Customization and four items of Financial security), 12 items of E-word of mouth (four items of Opinion giving, four items of Opinion seeking, four items of Opinion passing), 4 items of Intention toward E-learning, and four items of Percived value.

As shown in Table 4-2, for Perceived Benefit, the sample cases show a range from 3.827 to 4.067 in the 5-point Likert scales.

Table 4-2 *Descriptive Analysis for Perceived Usefulness Questionnaire Items*

Perceived Usefulness		Total	
		Mean	**Standard Deviation**
PU1	Using the E-learning system will allow me to accomplish learning tasks more quickly	3.853	1.030
PU2	Using the E-learning system will improve my learning performance	4.067	1.107
PU3	Using the E-learning system will make it easier to learn course content	3.877	0.955
PU4	Using the E-learning system will increase my learning productivity	3.830	1.045
PU5	Using the E-learning system will enhance my effectiveness in learning	4.040	1.103

As shown in Table 4-3, for Perceived ease of use, the sample cases show a range from 3.870 to 4.020 in the 5-point Likert scales.

Table 4-3 *Descriptive Analysis for Perceived Ease of Use Questionnaire Items*

Perceived ease of use		Total	
		Mean	**Standard Deviation**
PEOU1	Learning to operate the e-learning system is easy for me.	3.913	1.066
PEOU2	I find it easy to get the e-learning system to do what I want it to do	3.893	1.006
PEOU3	My interaction with e-learning system is clear and understandable	3.870	1.002
PEOU4	It is easy for me to become skillful at using the e-learning system	3.980	1.044
PEOU5	I find the e-learning system easy to use	4.020	1.094

As shown in Table 4-4, for Attitude toward E-learning, the sample cases show a range from 3.853 to 3.927 in the 5-point Likert scales.

Table 4-4 *Descriptive Analysis for Attitude Toward E-Learning Questionnaire Items*

Attitude toward E-learning		Total	
		Mean	Standard Deviation
AE1	I believe it is (would be) a good idea to use this E-learning for my learning performance.	3.860	1.028
AE2	Studying through e-learning is a wise idea	3.927	1.058
AE3	I am positive toward e-learning	3.853	1.021
AE4	I would be interested in studying courses that use E-learning	3.917	1.062

As shown in Table 4-5, for Perceived Enojoyment, the sample cases show a range from 3.827 to 3.880 in the 5-point Likert scales.

Table 4-5 *Descriptive Analysis for Perceived Enjoyment Questionnaire Items*

Perceived Enjoyment		Total	
		Mean	Standard Deviation
PE1	I have fun interacting with E-learning	3.827	1.074
PE2	Using E-learning provides me with a lot of enjoyment	3.880	1.050
PE3	I enjoy using E-learning	3.880	1.024

As shown in Table 4-6, for Social Influence, the sample cases show a range from 3.623 to 3.700 in the 5-point Likert scales.

Table 4-6 *Descriptive Analysis for Social Influence Questionnaire Items*

Social Influence		Total	
		Mean	Standard Deviation
SI1	People who influence my behaviour think that I should use the system.	3.623	0.755
SI2	People who are important to me think that I should use the system	3.650	0.830
SI3	My classmates who have good performance have benefited from using the system	3.700	0.729
SI4	In general, the teacher has supported the use of the system	3.610	0.748

As shown in Table 4-7, for Perceived Risk, the sample cases show a range from 2.897 to 3.603 in the 5-point Likert scales.

Table 4-7 *Descriptive Analysis for Perceived Risk Questionnaire Items*

Perceived Risk		**Total**	
		Mean	**Standard Deviation**
PR1	I feel unsafe when using E-learning	2.897	1.267
PR2	I am worried that private information would be leaked when using E-learning	3.063	1.373
PR3	I am worried about personal information suffering from unauthorised use when using E-learning	2.883	1.167

As shown in Table 4-8, for Perceived Fee, the sample cases show a range from 2.873 to 3.150 in the 5-point Likert scales.

Table 4-8 *Descriptive Analysis for Perceived Fee Questionnaire Items*

Perceived Fee		**Total**	
		Mean	**Standard Deviation**
PF1	The fee that I have to pay for the use of E-learning is too high.	2.873	1.155
PF2	The fee that I have to pay for the use of E-learning is reasonable (reversed).	3.017	1.260
PF3	I am please with the price I have to pay for the use of E-learning (reversed).	3.150	1.332

As shown in Table 4-9, for E-servicescape, the sample cases show a range from 3.470 to 4.310 in the 5-point Likert scales.

Table 4-9 *Descriptive Analysis for E-Servicescape Questionnaire Items*

E-servicescape		Total	
		Mean	**Standard Deviation**
1. Visual Appeal			
VA1	This website is aesthetic appeal.	3.820	0.900
VA2	I like the way this website is look	3.790	0.974
VA3	This website is visually attractive	3.770	1.049
VA4	The way this website displays its products is attractive	3.970	1.016
2. Entertainment Value			
EV1	This web site does not just sell products, it entertains me	3.680	0.860
EV2	I shop from this web site for the pure enjoyment of it.	3.603	0.838
EV3	I enjoy shopping from this web site for its own sake, not just for the items I may have purchased	3.613	0.898
3. Usability			
US1	The functions on this web site are easy to operate	4.220	0.845
US2	This web site is user-friendly	4.200	0.885
US3	The website links are obvious in their intent and destination	4.310	0.846
US4	There are convenient ways to maneuver among related pages and between different sections	4.183	0.931
4. Customization			
CU1	The services of this web site are often personalized to me	3.467	0.742
CU2	I feel that this web site is designed for me	3.470	0.819
CU3	That this web site treats me as an individual	3.630	0.731
CU4	If I wanted to, I could customize the web site to what I like (e.g. Changing colors, layout, fonts, etc.)	3.667	0.839
5. Financial security			
FS1	This web site has efficient payment procedures	4.020	0.873
FS2	The payment facilities of this web site are easy to use	3.960	0.849
FS3	Paying for goods is straight forward on this web site	3.920	0.718
FS4	I have no concerns about buying things from this web site	3.950	0.639

As shown in Table 4-10, for E-word of mouth, the sample cases show a range from 3.380 to 4.100 in the 5-point Likert scales.

Table 4-10 *Descriptive Analysis for E-Word of Mouth Questionnaire Items*

E-word of mouth		**Total**	
		Mean	**Standard Deviation**
1. Opinion giving			
OG1	I often persuade my contacts on social networks to buy products that I like	3.380	0.835
OG2	My contacts on social networks pick their products based on what I have told them	3.520	0.890
OG3	On social networks, I often influence my contacts' opinions about products	3.600	0.929
OG4	My friends tend to ask my advice about products on social networks	3.670	0.862
2. Opinion seeking			
OSI	When I consider new products, I ask my contacts on social networks for advice	4.100	0.913
OS2	I like to get my contacts' opinions on social networks before I buy new products	3.690	0.745
OS3	I feel more comfortable choosing products when I have gotten my contacts' opinions on them on social networks	3.950	0.975
OS4	I tend to consult other people on social networks to help me choose new products I buy	3.740	0.936
3. Opinion passing			
OP1	When I receive product related information or opinion from a friend, I will pass it along to my other contacts on social networks	3.650	0.944
OP2	I like to pass along interesting information about products from one group of my contacts on my 'friends' list to another on social networks	3.520	0.934
OP3	I tend to pass along my contacts' positive reviews of products to other contacts on social networks	3.640	0.730
OP4	I tend to pass along my contacts' negative reviews of products to other contacts on social networks Social Capital Constructs	3.530	0.867

As shown in Table 4-11, for Intention toward E-learning, the sample cases show a range from 3.870 to 3.980 in the 5-point Likert scales.

Table 4-11 *Descriptive Analysis for Intention Toward E-Learning Questionnaire Items*

Intention toward E-learning		Total	
		Mean	Standard Deviation
IEVN1	In general, I plan to use E-learning in the future.	3.940	0.986
IEVN2	Given the chance, I intend to use E-learning in the future.	3.870	0.914
IEVN3	I predict I would use E-learning in the future.	3.873	0.973
IEVN4	I will use e-learning in the future when I need improve knowledge	3.980	0.991

As shown in Table 4-12, for Percived value, the sample cases show a range from 3.723 to 3.787 in the 5-point Likert scales.

Table 4-12 *Descriptive Analysis for Percived Value Questionnaire Items*

Percived Value		Total	
		Mean	Standard Deviation
PV1	Based on the fee I need to pay, using E-learning offers value for money.	3.723	0.975
PV2	Based on the amount of effort I need to put in, using E-learning is beneficial to me.	3.757	0.987
PV3	Based on the amount of time I need to spend, using E-learning is worthwhile to me.	3.787	0.996
PV4	Overall, using E-learning delivers me good value.	3.773	0.993

4.2 Factor Analysis and Reliability Check

To verify the spatiality and responsibility of the constructs, many knowledge purification processes square measure conducted during this analysis, as well as correlational analysis, correlation analysis, and coefficient alpha analysis. For correlational analysis examines the essential structure of the info. Correlation analysis confirms the multi-collinearity among variables, and constant (Cronbach's) alpha accesses the interior consistency of every variable.

For each analysis construct, correlation analysis is adopted initial to pick the things with higher factor loading, and so to match with the on paper urged things. When

correlational analysis, item-to-total correlation, constant alpha, and matrix square measure calculated to produce the internal consistency measurements to every construct. Confirmatory Analysis was conducted for all constructs because the knowledge was taken and tailored from former analysis and following criterions were followed for the issue analysis:

(1) Kaiser Meyer Olkin Measure of Sampling Adequacy, KMO > 0.5 and Bartlett's test Sig $p < 0.05$
(2) Communality > 0.5
(3) Explained Variance (Accumulative) > 0.6
(4) Eigen Value > 1
(5) Difference Between Loading > 0.3
(6) Factor Loading > 0.6
(7) Cronbach's α > 0.7
(8) Item to Total Correlation > 0.5

The results of the factor analysis and reliability for each variable are shown in Table 11 to 20.

4.2.1 Perceived Usefulness

This construct has total of 5 items that used to explain perceived usefulness construct. This construct is divided into 1 factors for further analysis purposes and items of each factor are listed in table below.

Table 4-13 *Results of Factor Analysis and Reliability Test on Perceived Usefulness*

Research Construct	Research Item	Factor Loading	Eigen Value	Accumulative Explained	Item to Total Correlation	Cronbach's α
Perceived Usefulness, KMO = 0.849			3.132	62.637		0.849
	PU2	0.872			0.770	
	PU5	0.816			0.689	
	PU1	0.807			0.677	
	PU3	0.748			0.609	
	PU4	7.03			0.557	

KMO value for perceived usefulness construct is 0.849, hence it represents data in each factor are well suitable to perform factor analysis. Bartlett test values are less than 0.001, indicate correlations between the variables are significant.

In this construct, all the variables have factor loadings value higher than 0.6. Item PU2 "Using the e-learning system will improve my learning performance" had the highest factor loading of 0.872, indicating this item had the highest relation to perceived usefulness factor 2. A high internal consistency within perceived benefit of this factor is represented by all item to total correlation are greater than 0.5.

Factor has the item to total correlations are above 0.5, Cronbach's α = 0.849 and eigen value = 3.132.

The components had accumulated a total 76% of explained variance which show these are important underlying factors for this construct. Based on all criteria, we can conclude that the reliability and internal consistency of this factor are acceptable.

4.2.2 Perceived Enjoyment

This construct has total of 3 items that used to explain perceived enjoyment construct. This construct is divided into 1 factors for further analysis purposes and items of each factor are listed in table below.

Table 4-14 *Results of Factor Analysis and Reliability Test on Perceived Enjoyment*

Research Construct	Research Item	Factor Loading	Eigen Value	Accumulative Explained	Item to Total Correlation	Cronbach's α
Perceived Enjoyment, KMO= 0.744			2.436	81.215		0.884
	PE1	0.908			0.787	
	PE2	0.905			0.755	
	PE3	0.890			0.782	

KMO value for perceived enjoyment construct is 0.744 (over 0.7) hence it represents data in each factor are well suitable to perform factor analysis. Bartlett test values are less than 0.001, indicate correlations between the variables are significant.

In this construct, all the variables have factor loadings value higher than 0.6. Item PE1 "I have fun interacting with E-learning" had the highest factor loading of 0.908, indicating this item had the highest relation to perceived enjoyment. A high internal consistency within perceived benefit of this factor is represented by all item to total correlation are greater than 0.5.

Factor has the item to total correlations are above 0.5 and Cronbach's α = 0.884 and eigen value = 2.436.

The components had accumulated a total 79.668% of explained variance which show these are important underlying factors for this construct. Based on all criteria, we can conclude that the reliability and internal consistency of this factor are acceptable.

4.2.3 Perceived Ease of Use

This construct has total of 5 items that used to explain Perceived ease of use construct. This construct is divided into 1 factors for further analysis purposes and items of each factor are listed in table below.

Table 4-15 *Results of Factor Analysis and Reliability Test on Perceived Ease of Use*

Research Construct	Research Item	Factor Loading	Eigen Value	Accumulative Explained	Item to Total Correlation	Cronbach's α
Perceived ease of use, KMO = 0.886			3.708	74.152		0.912
	PEOU5	0.877			0.798	
	PEOU3	0.872			0.791	
	PEOU2	0.857			0.773	
	PEOU4	0.850			0.763	
	PEOU1	0.849			0.761	

KMO value for Perceived ease of use construct is 0.886 (over 0.7), hence it represents data in each factor are well suitable to perform factor analysis. Bartlett test values are less than 0.001, indicate correlations between the variables are significant.

In this construct, all the variables have factor loadings value higher than 0.6. Item PEOU5 "I find the e-learning system easy to use" had the highest factor loading of 0.877, indicating this item had the highest relation to Perceived ease of use. A high internal consistency within Perceived ease of use of this factor is represented by all item to total correlation are greater than 0.5.

Factor has the item to total correlations are above 0.5, Cronbach's α = 0.912 and eigen value = 3.708.

The components had accumulated a total 84.125% of explained variance which show these are important underlying factors for this construct. Based on all criteria, we can conclude that the reliability and internal consistency of this factor are acceptable.

4.2.4 Attitude toward E-learning

This construct has total of 5 items that used to explain Attitude toward E-learning construct. This construct is divided into 1 factors for further analysis purposes and items of each factor are listed in table below.

Table 4-16 *Results of Factor Analysis and Reliability Test on Attitude toward E-learning*

Research Construct	Research Item	Factor Loading	Eigen Value	Accumulative Explained	Item to Total Correlation	Cronbach's α
Attitude toward E-learning, KMO = 0,837			3.982	79.644		0.935
	AE1	0.920			0.867	
	AE2	0.908			0.853	
	AE3	0.889			0.825	
	AE4	0.872			0.798	

KMO value for Attitude toward E-learning construct is 0.837 (over 0.7), hence it represents data in each factor are well suitable to perform factor analysis. Bartlett test values are less than 0.001, indicate correlations between the variables are significant.

In this construct, all the variables have factor loadings value higher than 0.6. Item AE1 "I believe it is (would be) a good idea to use this E-learning for my learning performance" had the highest factor loading of 0.920, indicating this item had the highest relation to Attitude toward E-learning. A high internal consistency within Attitude toward E-learning of this factor is represented by all item to total correlation are greater than 0.5.

Factor has the item to total correlations are above 0.5, Cronbach's α = 0.935 and eigen value = 3.982. The components had accumulated a total 76.644% of explained variance which show these are important underlying factors for this construct. Based on all criteria, we can conclude that the reliability and internal consistency of this factor are acceptable.

4.2.5 Social Influence

This construct has total of 5 items that used to explain Social influence construct. This construct is divided into 1 factors for further analysis purposes and items of each factor are listed in table below:

Table 4-17 *Results of Factor Analysis and Reliability Test on Social Influence*

Research Construct	Research Item	Factor Loading	Eigen Value	Accumulative Explained	Item to Total Correlation	Cronbach's α
Social Influence, KMO = 0.773			2.574	64.353		0.810
	SI1	0.874			0.730	
	SI4	0.872			0.728	
	SI2	0.752			0.566	
	SI3	0.697			0.504	

KMO value for Social Influence construct is 0.773 (over 0.7), hence it represents data in each factor are well suitable to perform factor analysis. Bartlett test values are less than 0.001, indicate correlations between the variables are significant.

In this construct, all the variables have factor loadings value higher than 0.6. Item SI1 "People who influence my behaviour think that I should use the system" had the highest factor loading of 0.874, indicating this item had the highest relation to Social Influence. A high internal consistency within Social Influence of this factor is represented by all item to total correlation are greater than 0.5.

Factor has the item to total correlations are above 0.5, Cronbach's α = 0.810 and eigen value = 2.574. The components had accumulated a total 64.353% of explained variance which show these are important underlying factors for this construct. Based on all criteria, we can conclude that the reliability and internal consistency of this factor are acceptable.

4.2.6 Perceived Risk

This construct has total of 3 items that used to explain perceived risk construct. This construct is divided into 1 factors for further analysis purposes and items of each factor are listed in table below:

Table 4-18 *Results of Factor Analysis and Reliability Test on Perceived Risk*

Research Construct	Research Item	Factor Loading	Eigen Value	Accumulative Explained	Item to Total Correlation	Cronbach's α
Perceived Risk, KMO = 0.732			2.390	79.668		0.862
	PR3	0.912			0.791	
	PR2	0.889			0.752	
	PR1	0.877			0.731	

KMO value for perceived risk construct is 0.732 (over 0.7), hence it represents data in each factor are well suitable to perform factor analysis. Bartlett test values are less than 0.001, indicate correlations between the variables are significant.

In this construct, all the variables have factor loadings value higher than 0.6. Item PR3 "I am worried about personal information suffering from unauthorised use when using E-learning" had the highest factor loading of 0.912, indicating this item had the highest relation to perceived risk. A high internal consistency within perceived risk of this factor is represented by all item to total correlation are greater than 0.5.

Factor has the item to total correlations are above 0.5, Cronbach's α = 0.862 and eigen value = 2.390. The components had accumulated a total 64.888% of explained variance which show these are important underlying factors for this construct. Based on all criteria, we can conclude that the reliability and internal consistency of this factor are acceptable.

4.2.7 Perceived Fee

This construct has total of 3 items that used to explain perceived fee construct. This construct is divided into 1 factors for further analysis purposes and items of each factor are listed in table below:

Table 4-19 *Results of Factor Analysis and Reliability Test on Perceived Fee*

Research Construct	Research Item	Factor Loading	Eigen Value	Accumulative Explained	Item to Total Correlation	Cronbach's α
Perceived Fee, KMO= 0.717			1.947	64.888		0.722
	PF1	0.847			0.613	
	PF2	0.789			0.536	
	PF3	0.779			0.522	

KMO value for perceived sacrifice construct is 0.717 (over 0.7), hence it represents data in each factor are well suitable to perform factor analysis. Bartlett test values are less than 0.001, indicate correlations between the variables are significant.

In this construct, all the variables have factor loadings value higher than 0.6. Item PF1 "The fee that I have to pay for the use of E-learning is too high." had the highest factor loading of 0.847, indicating this item had the highest relation to perceived sacrifice factor 2. A high internal consistency within perceived sacrifice of this factor is represented by all item to total correlation are greater than 0.5.

Factor has the item to total correlations are above 0.5, Cronbach's α = 0.722 and eigen value = 1.947. The components had accumulated a total 64.888% of explained variance

which show these are important underlying factors for this construct. Based on all criteria, we can conclude that the reliability and internal consistency of this factor are acceptable.

4.2.8 E-servicescape

This construct has total of 19 items that used to explain E-servicescape construct. This construct is divided into 5 factors as Visual Appeal, Entertainment Value, Usability, Customization and Financial security for further analysis purposes and items of each factor are listed in table below, four items in Visual Appeal factor, three items in Entertainment Value, four items in Usability, four items in Customization and four items in Financial security.

Table 4-20 *Results of Factor Analysis and Reliability Test on E-servicescape*

Research Construct	Research Item	Factor Loading	Eigen Value	Accumulative Explained	Item to Total Correlation	Cronbach's α
E-servicescape, KMO = 0.846	Visual Appeal		2.484	62.102		0.793
	VA1	0.834			0.670	
	VA2	0.786			0.601	
	VA4	0.780			0.592	
	VA3	0.749			0.558	
	Entertainment Value		2.081	69.350		0.777
	EV2	0.869			0.673	
	EV3	0.849			0.635	
	EV1	0.777			0.538	
	Usability		3.114	77.856		0.904
	US1	0.898			0.811	
	US4	0.889			0.796	
	US3	0.880			0.781	
	US2	0.862			0.756	
	Customization		2.654	66.351		0.829
	CU2	0.857			0.717	
	CU1	0.842			0.696	
	CU4	0.786			0.620	
	CU3	0.770			0.599	
	Financial security		2.723	68.076		0.840
	FS1	0.862			0.732	
	FS2	0.833			0.692	
	FS3	0.828			0.686	
	FS4	0.775			0.614	

KMO value for E-servicescape construct is 0.846 (over 0.7), hence it represents data in each factor are well suitable to perform factor analysis. Bartlett test values are less than

0.001, indicate correlations between the variables are significant.

In this construct, all the variables have factor loadings value higher than 0.6. Item US1 “The functions on this web site are easy to operate” had the highest factor loading of 0.898, indicating this item had the highest relation to E-servicescape factor 3. A high internal consistency within E-servicescape of this factor is represented by all item to total correlation are greater than 0.5.

Factor 1 has the item to total correlations are above 0.5, Cronbach’s α = 0.793 and eigen value = 2.484. Factor 2 has the item to total correlations are above 0.5 and Cronbach’s α = 0.777 and eigen value = 2.081. Factor 3 has the item to total correlations are above 0.5 and Cronbach’s α = 0.904 and eigen value = 3.114. Factor 4 has the item to total correlations are above 0.5 and Cronbach’s α = 0.829 and eigen value = 2.654. Factor 5 has the item to total correlations are above 0.5 and Cronbach’s α = 0.840 and eigen value = 2.723.

The five components had accumulated a total 77.856% of explained variance which show these are important underlying factors for this construct. Based on all criteria, we can conclude that the reliability and internal consistency of this factor are acceptable.

4.2.9 E-word of Mouth

This construct has total of 12 items that used to explain E-word of mouth construct. This construct is divided into 3 factors as Opinion giving, Opinion seeking and Opinion passing for further analysis purposes and items of each factor are listed in table below, four item

s in each factor.

Table 4-21 *Results of Factor Analysis and Reliability Test on E-Word of Mouth*

Research Construct	Research Item	Factor Loading	Eigen Value	Accumulative Explained	Item to Total Correlation	Cronbach's α
E-word of mouth, KMO = 0.790	1. Opinion giving		2.512	62.792		0.802
	OG3	0.810			0.636	
	OG4	0.799			0.626	
	OG1	0.794			0.619	
	OG2	0.767			0.582	
	2. Opinion seeking		2.467	61.673		0.791
	OS4	0.823			0.652	
	OS3	0.795			0.615	
	OS1	0.772			0.587	
	OS2	0.750			0.559	
	3. Opinion passing		2.612	65.292		0.820
	OP2	0.841			0.699	
	OP1	0.827			0.672	
	OP3	0.796			0.630	
	OP4	0.766			0.585	

KMO value for E-word of mouth construct is 0.790 (over 0.7), hence it represents data in each factor are well suitable to perform factor analysis. Bartlett test values are less than 0.001, indicate correlations between the variables are significant.

In this construct, all the variables have factor loadings value higher than 0.6. Item OP2 "I like to pass along interesting information about products from one group of my contacts on my 'friends' list to another on social networks" had the highest factor loading of 0.841, indicating this item had the highest relation to E-word of mouth factor 3. A high internal consistency within E-word of mouth of this factor is represented by all item to total correlation are greater than 0.5.

Factor 1 has the item to total correlations are above 0.5, Cronbach's α = 0.802 and eigen value = 2.512. Factor 2 has the item to total correlations are above 0.5 and Cronbach's α = 0.791and eigen value = 2.467. Factor 3 has the item to total correlations are above 0.5 and Cronbach's α = 0.820 and eigen value = 2.612.

The three components had accumulated a total 65.292% of explained variance which show these are important underlying factors for this construct. Based on all criteria, we can

conclude that the reliability and internal consistency of this factor are acceptable.

4.2.10 Intention toward E-learning

This construct has total of 4 items that used to explain Intention toward E-learning construct. This construct is divided into 1 factors for further analysis purposes and items of each factor are listed in table below:

Table 4-22 *Results of Factor Analysis and Reliability Test on Intention toward E-learning*

Research Construct	Research Item	Factor Loading	Eigen Value	Accumulative Explained	Item to Total Correlation	Cronbach's α
Intention toward E-learning, KMO = 0.793	Level of fear		2.877	71.927		0.870
	IEVN1	0.861			0.743	
	IEVN3	0.857			0.733	
	IEVN4	0.851			0.729	
	IEVN2	0.823			0.686	

KMO value for Intention toward E-learning construct is 0.793 (over 0.7), hence it represents data in each factor are well suitable to perform factor analysis. Bartlett test values are less than 0.001, indicate correlations between the variables are significant.

In this construct, all the variables have factor loadings value higher than 0.6. Item IEVN1 "In general, I plan to use E-learning in the future" had the highest factor loading of 0.861, indicating this item had the highest relation to Intention toward E-learning. A high internal consistency within Intention toward E-learning of this factor is represented by all item to total correlation are greater than 0.5.

Factor has the item to total correlations are above 0.5, Cronbach's α = 0.870 and eigen value = 2.877. The components had accumulated a total 71.927% of explained variance which show these are important underlying factors for this construct. Based on all criteria, we can conclude that the reliability and internal consistency of this factor are acceptable.

4.2.11 Perceived Value

This construct has total of 4 items that used to explain Perceived value construct. This construct is divided into 1 factors for further analysis purposes and items of each factor are listed in table below:

Table 4-23 *Results of Factor Analysis and Reliability Test on Perceived Value*

Research Construct	Research Item	Factor Loading	Eigen Value	Accumulative Explained	Item to Total Correlation	Cronbach's α
Perceived Value, KMO = 0.799	Level of fear		2.598	64.952		0.820
	PV3	0.845			0.697	
	PV4	0.813			0.650	
	PV2	0.804			0.639	
	PV1	0.758			0.582	

KMO value for Perceived value construct is 0.793 (over 0.7), hence it represents data in each factor are well suitable to perform factor analysis. Bartlett test values are less than 0.001, indicate correlations between the variables are significant.

In this construct, all the variables have factor loadings value higher than 0.6. Item PV3 "Based on the amount of time I need to spend, using E-learning is worthwhile to me" had the highest factor loading of 0.845, indicating this item had the highest relation to Perceived value. A high internal consistency within Perceived value of this factor is represented by all item to total correlation are greater than 0.5.

Factor has the item to total correlations are above 0.5, Cronbach's α = 0.820 and eigen value = 2.598. The components had accumulated a total 64.952% of explained variance which show these are important underlying factors for this construct. Based on all criteria, we can conclude that the reliability and internal consistency of this factor are acceptable.

4.3 Confirmatory Factor Analysis CFA

Confirmatory Factor Analysis (CFA) used to test the theoretical structure of measurement scales in Structural Equation Modeling (SEM). CFA has many advantages than EFA in testing scale. To measure the degree of fit of the model with market information, need to consider indicators as:

(1) $\chi 2$ -chi-square—small is better $p>0.05$; $\chi 2$ /d.f. < 3

(2) Goodness of Fit (GFI) > 0.90

(3) Adjust of Goodness of Fit (AGFI) > 0.90

(4) Root Mean Square Residual Error (RMR) < 0.05

(5) RMSEA < 0.08 Or NFI, CFI, TI > 0.90

However, Chi-squared drawback is dependent on sample size. When the value of n high, the Chi-squared statistic is also high. The result of CFA for measurement scales.

The result shows that model is totally good with 417 degrees of freedom, Chi-squared

= 961.021 and p-value = .000. Besides, can consider other criteria such as GFI, TLI, CFI and RMSEA. The result show indicators of GFI = 0.864, TLI = 0.936, CFI = 0.943 (most of index greater than 0.9), and RMSEA = 0.066 (less than 0.08), so this model is fit with the market data.

4.4 Structural Equation Model SEM

Structural Equation Modeling (SEM) used to test the theoretical model proposed in Chapter 2. There are several criteria which must be followed in linear structural model (SEM) to assess overall Model Fit such as:

(1) $\chi 2$ -chi-square—small is better $p>0.05$; $\chi 2$ /d.f. < 3

(2) Goodness of Fit (GFI) > 0.90

(3) Adjust of Goodness of Fit (AGFI) > 0.90

(4) Root Mean Square Residual Error (RMR) < 0.05

(5) RMSEA < 0.08 Or NFI, CFI, TI > 0.90

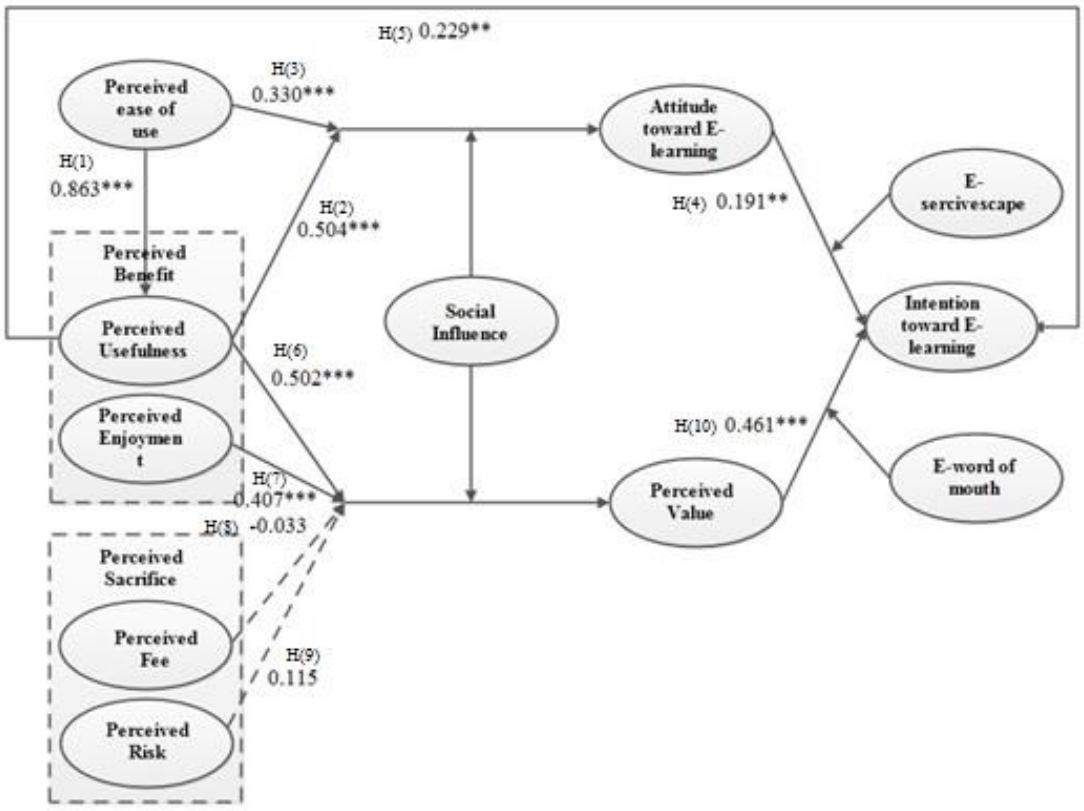

Figure 4-1 Structural Equation Modeling Result

Table 4-24 *Structural Equation Modeling*

Relations	Standardized Coefficients	C. R.	p-value
Variables			
PEOU → PU (H1)	0.863	16.655	***
PEOU → AE (H3)	0.504	5.231	***
PU → AE (H2)	0.330	3.453	***
PR → PV (H9)	0.115	0.739	0.460
PF → PV (H8)	-0.033	-0.215	0.830
PU→ PV (H6)	0.502	7.744	***
PE → PV (H7)	0.407	6.375	***
AE → IEVN (H4)	0.191	2.760	0.006 (**)
PV → IEVN (H10)	0.461	5.939	***
PU → IEVN (H5)	0.229	2.497	0.013 (**)
Chi-Square (p-value)	688.620 (.000)		
Degree of freedom (d. f)	422		
Chi-Square/ d. f.	1.632		
GFI	0.872		
AGFI	0.850		
RMR	0.052		

*Note: 1. ***p-value <0.001, **p-value <0.05, *p-value <0.1; using a significance level of 0.05, critical ratios (t-value) that exceed 1.96 would be called significant.*

Table 4-24 shows the result of inspection theoretical model SEM, the analysis the theoretical models showed that $\chi 2$ /df = 1.632 (< 3); GFI= 0.872 (nearly 0.9); AGFI= 0.850 (nearly 0.9); TLI= 0.969 (> 0.9); CFI= 0.972 (> 0.9); RMSEA= 0.061 (< 0.08) and RMR= 0.052 (nearly 0.05). That is model good fit and hence, it certainly provides substantial support to the fit between this research model and the real data. The result of hypothesis show that:

Hypothesis H1: "*perceived ease of use will positively related to perceived usefulness*" has standardized coefficients =0.863, CR =16.655. It is accepted at the level of significance p = 0.000. That means perceived ease of use has significant with perceived usefulness.

Hypothesis H2: "perceived usefulness will positively affect to attitude towards e-learning" has standardized coefficients = 0.330, cr = 3.453. It is accepted at the level of significance p = 0.000. That means perceived usefulness has significant with attitude towards e-learning.

Hypothesis H3: "*perceived ease of use will positively affect to attitude towards e-learning*" has standardized coefficients = 0.504, CR = 5.231. It is accepted at the level of

significance p = 0.005. That means perceived ease of use has significant with attitude towards e-learning.

Hypothesis H4: "*attitude towards e-learning will positively affect to intention toward e-learning Vietnam*" has standardized coefficients =0.191, CR = 2.760. It is accepted at the level of significance p = 0.006. That means attitude towards e-learning has significant with intention toward e-learning Vietnam.

Hypothesis H5: "*perceived usefulness will directly positively affect to intention toward e-learning in vietnam*" has standardized coefficients = 0.229, CR = 2.497. It is accepted at the level of significance p = 0.013. That means perceived usefulness has significant with intention toward e-learning.

Hypothesis H6: "*perceived usefulness will positive affect to perceived value*" has standardized coefficients =0.502, CR = 7.744. It is accepted at the level of significance p = 0.000. That means perceived usefulness has significant with perceived value.

Hypothesis H7: "*perceived enjoyment will positive affect to perceived value*" has standardized coefficients =0.407, CR = 6.375. It is accepted at the level of significance p = 0.000. That means perceived enjoyment has significant with perceived value.

Hypothesis H8: "*perceived fee will negative affect to perceived value*" has not been accepted because there is no statistically significant, with p = 0.830 > 0.05. Thus, this relationship needs to be reviewed, e-learning courses have high perceived fee not mean to have low perceived value in this study context.

Hypothesis H9: "*perceived risk will negative affect to perceived value*" has not been accepted because there is no statistically significant, with p = 0.460 > 0.05. Thus, this relationship needs to be reviewed, e-learning courses have high perceived risk not mean to have low perceived value in this study context.

Hypothesis H10: "*perceived value will positive affect to intention toward e-learning*" has standardized coefficients = 0.461, CR = 5.939. It is accepted at the level of significance p = 0.000. That means perceived value has significant with intention toward e-learning Vietnam.

4.5 The Moderating Effect of E-servicescape

4.5.1 Moderating Test of E-servicescape among Attitude toward E-learning and Intention toward E-learning

The research also uses hierarchical regression analysis to test the research hypothesis

which is focusing on the moderating effects of E-servicescape in the relationship between Attitude toward E-learning and Intention toward E-learning (see Figure 4-2)

The result shown in table 4-25 indicate that Attitude toward E-learning (β=0.641, p<0.001) is positively and significantly affected to Intention toward E-learning. Model 2 shows that E-servicescape (β=0.299, p<0.001) is positively and significantly affected to Intention toward E-learning.

As shown in Table 4-25, this research uses hierarchical regression analysis checking the moderating effect of E-servicescape.

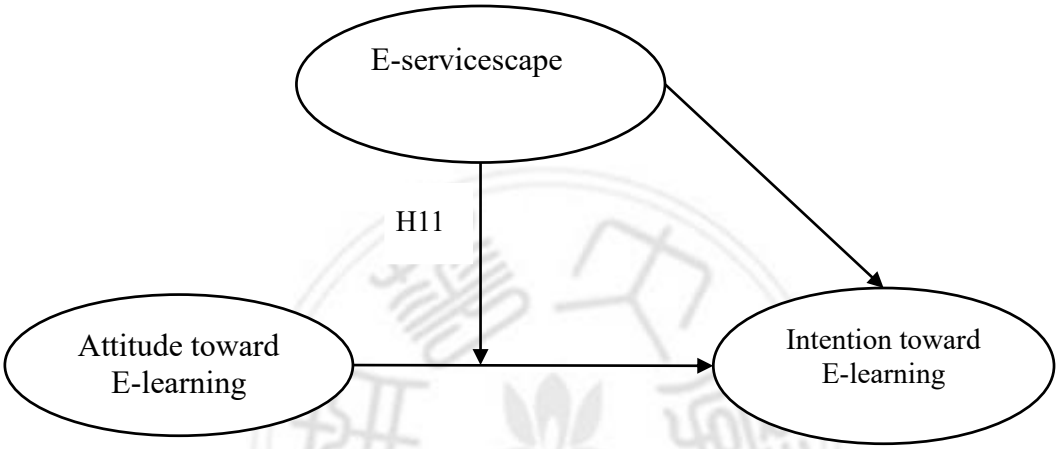

Figure 4-2 The Moderating Effect of E-Servicescape

Table 4-25 *Moderating Test of E-Servicescape among Attitude Toward E-Learning and Intention Toward E-Learning*

	Model 1	**Model 2**	**Model 3**	**Model 4**
	IEVN	**IEVN**	**IEVN**	**IEVN**
Independent variable				
Attitude toward E-learning (AE)	**0.641*** **		**0.643*** **	**0.569*** **
Moderating variables				
E-servicescape (ES)		**0.299*** **	**0.18**$^{+}$	**0.406*** **
Interaction variable				
AE*ES				**0.13***
R^2	**0.411**	**0.089**	**0.411**	**0.422**
Adj-R^2	**0.409**	**0.086**	**0.407**	**0.416**
***F*-value**	**207.975**	**28.299**	**103.784**	**134.863**
Durbin-Watson	**1.537**	**1.783**	**1.537**	**1.823**
VIF	**1.000**	**1.000**	**1.866**	**1.903**

Note: *$^{***}p < 0.001$, $^{**}p<0.01$, $^{*}p< 0.05$, $^{+}p<0.1$*

The result in Model 3 shows that both independent variable (Attitude toward E-learning, β=0.643, p<0.001) is significantly affected to dependent variable (Intention toward

E-learning) and moderating variables (E-servicescape, β=0.180, p<0.1) is not significantly affected to dependent variable (Intention toward E-learning) respectively. In addition, Model 4 shows the interaction effect (R2 =0.422, β=0.130, p<0.5) of Attitude toward E-learning and E-servicescape is partially significant to Intention toward E-learning.

4.6 The Moderating Effect of E-word of mouth.

4.6.1 Moderating Test of E-word of mouth among Perceived Value and Intention toward E-learning.

The research also uses hierarchical regression analysis to test the research hypothesis which is focusing on the moderating effects of E-word of mouth in the relationship between Perceived Value and Intention toward E-learning (see Figure 4-3)

The result shown in table 4-26 indicate that Perceived Value (β=0.719, p<0.001) is positively and significantly affected to Intention toward E-learning. Model 2 shows that E-word of mouth (β=0.732, p<0.001) is positively and significantly affected to Intention toward E-learning.

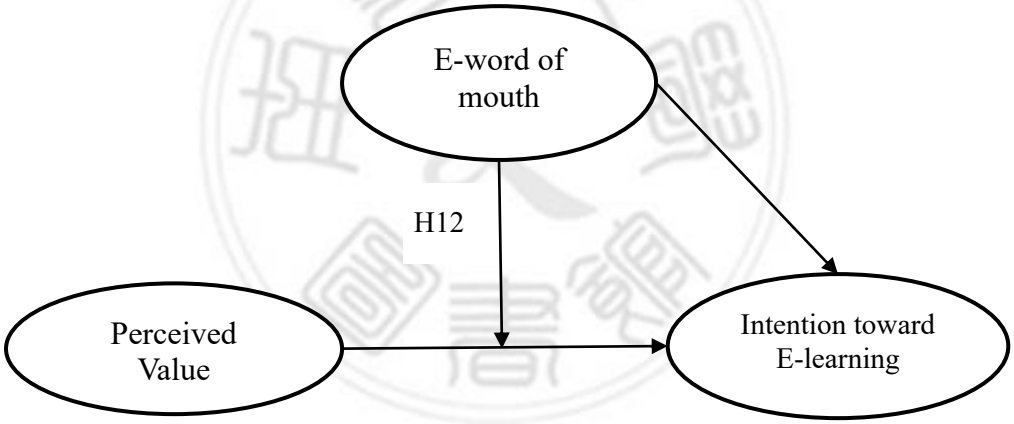

Figure 4-3 The Moderating Effect of E-word of Mouth

As shown in Table 4-26, this research uses hierarchical regression analysis checking the moderating effect of E-word of mouth. The result in Model 3 shows that both independent variable (Perceived Value, β=0.731, p<0.001) and moderating variables (E-word of mouth, β=0.134, p<0.1) are significantly affected to dependent variable (Intention toward E-learning) respectively. In addition, Model 4 shows the interaction effect (R2 =0.545, β=0.204, p<0.001) of Perceived Value and E-word of mouth is also significant to Intention toward E-learning. Therefore, all hypotheses are supported.

Table 4-26 *Moderating Test of E-word of Mouth among Perceived Value and Intention toward E-learning*

	Model 1	Model 2	Model 3	Model 4
	IEVN	IEVN	IEVN	IEVN
Independent variable				
Perceived Value (PV)	**0.719*** **		**0.731*** **	**0.312*** **
Moderating variables				
E-word of mouth (EW)		**0.732**** **	**0.134** **	**0.299*** **
Interaction variable				
PV*EW				**0.204*** **
R^2	**0.518**	**0.469**	**0.535**	**0.545**
Adj-R^2	**0.516**	**0.464**	**0.532**	**0.540**
***F*-value**	**319.841**	**213.080**	**171.175**	**128.136**
Durbin-Watson	**1.512**	**1.467**	**1.639**	**1.731**
VIF	**1.000**	**1.000**	**1.007**	**1.665**

Note: **** p < 0.001, ** p<0.01, * p< 0.05, $^{+}$p<0.1*

4.7 The moderating effect of Social Influence.

4.7.1 Moderating Test of Social Influence among Perceived Ease of Use and Attitude toward E-learning.

The research also uses hierarchical regression analysis to test the research hypothesis which is focusing on the moderating effects of Social Influence in the relationship between Perceived ease of use and Attitude toward E-learning (see Fig. 4-4)

The result shown in table 4-27 indicate that Perceived ease of use (β=0.704, p<0.001) is positively and significantly affected to Attitude toward E-learning. Model 2 shows that Social Influence (β=0.576, p<0.001) is positively and significantly affected to Attitude toward E-learning.

As shown in Table 23, this research uses hierarchical regression analysis checking the moderating effect of Social Influence.

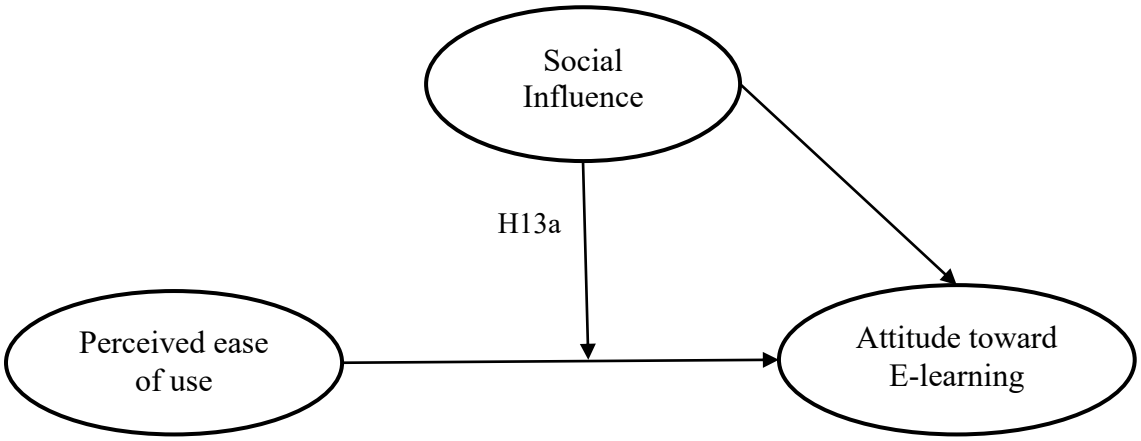

Figure 4-4 The Moderating Effect of Social Influence among Perceived Ease of Use and Attitude Toward E-Learning

As shown in Table 4-27, this research uses hierarchical regression analysis checking the moderating effect of Social Influence. The result in Model 3 shows that both independent variable (Perceived ease of use, β=0.593, p<0.001) and moderating variables (Social Influence, β=0.194, p<0.001) are significantly affected to dependent variable (Attitude toward E-learning) respectively. In addition, Model 4 shows the interaction effect (R2 =0.539, β=0.313, p<0.05) of Perceived ease of use and Social Influence is also significant to Attitude toward E-learning. Therefore, all hypotheses are supported.

Table 4-27 *Moderating Test of Social Influence among Perceived Ease of Use and Attitude Toward E-Learning*

	Model 1	**Model 2**	**Model 3**	**Model 4**
	AE	**AE**	**AE**	**AE**
Independent variable				
Perceived ease of use (PEOU)	**0.704*** **		**0.593*** **	**0.744*** **
Moderating variables				
Social Influence (SI)		**0.576*** **	**0.194*** **	**0.313***
Interaction variable				
PEOU*SI				**0.249*** **
R^2	**0.496**	**0.332**	**0.538**	**0.539**
Adj-R^2	**0.495**	**0.330**	**0.535**	**0.535**
***F*-value**	**293.549**	**147.285**	**172.675**	**115.545**
Durbin-Watson	**1.726**	**1.506**	**1.773**	**1.753**
VIF	**1.000**	**1.000**	**1.711**	**1.711**

Note: *$^{***}p < 0.001$, $^{**}p<0.01$, $^{*}p< 0.05$, $^{+}p<0.1$*

4.7.2 Moderating test of Social Influence among Perceived Usefulness and Attitude toward E-learning.

The research also uses hierarchical regression analysis to test the research hypothesis which is focusing on the moderating effects of Social Influence in the relationship between Perceived usefulness and Attitude toward E-learning (see Fig.4-5)

The result shown in table 4-28 indicate that Perceived usefulness (β=0.699, p<0.001) is positively and significantly affected to Attitude toward E-learning. Model 2 shows that Social Influence (β=0.576, p<0.001) is positively and significantly affected to Attitude toward E-learning.

As shown in Table 4-28, this research uses hierarchical regression analysis checking the moderating effect of Social Influence.

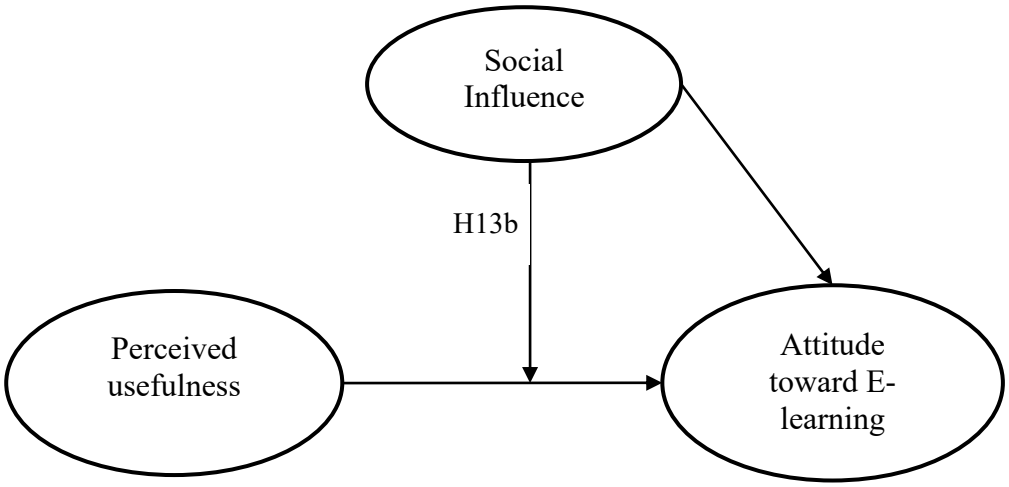

Figure 4-5 The moderating effect of social influence among perceived usefulness and attitude toward e-learning

The result in Model 3 shows that both independent variable (Perceived usefulness, β=0.553, p<0.001) and moderating variables (Social Influence, β=0.242, p<0.01) are significantly affected to dependent variable (Attitude toward E-learning) respectively. In addition, Model 4 shows the interaction effect (R2 =0.531, β=0.443, p<0.001) of Perceived usefulness and Social Influence is also significant to Attitude toward E-learning. Therefore, all hypotheses are supported.

Table 4-28 *Moderating Test of Social Influence among Perceived Usefulness and Attitude toward E-learning*

	Model 1	**Model 2**	**Model 3**	**Model 4**
	AE	**AE**	**AE**	**AE**
Independent variable				
Perceived usefulness (PU)	**0.699*** **		**0.553*** **	**0.821*** **
Moderating variables				
Social Influence (SI)		**0.576*** **	**0.242** **	**0.460*** **
Interaction variable				
PU*SI				**0.443*** **
R^2	**0.489**	**0.332**	**0.526**	**0.531**
Adj-R^2	**0.487**	**0.330**	**0.523**	**0.527**
***F*-value**	**284.737**	**147.285**	**164.619**	**111.895**
Durbin-Watson	**1.713**	**1.506**	**1.700**	**1.699**
VIF	**1.000**	**1.000**	**1.578**	**1.782**

Note: *$^{***}p < 0.001$, $^{**}p<0.01$, $^{*}p< 0.05$, $^{+}p<0.1$*

4.7.2 Moderating test of Social Influence among Perceived Usefulness and Perceived Value.

The research also uses hierarchical regression analysis to test the research hypothesis which is focusing on the moderating effects of Social Influence in the relationship between Perceived usefulness and Perceived value (see Fig.4-6)

The result shown in table 4-29 indicate that Perceived usefulness (β=0.733, $p<0.001$) is positively and significantly affected to Perceived value. Model 2 shows that Social Influence (β=0.628, $p<0.001$) is positively and significantly affected to Perceived value.

As shown in Table 4-29, this research uses hierarchical regression analysis checking the moderating effect of Social Influence.

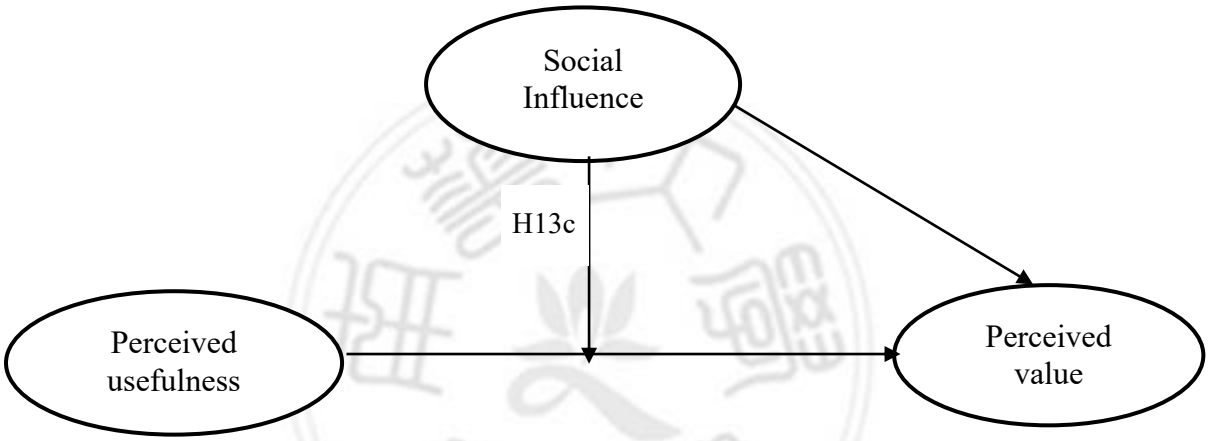

Figure 4-6 The Moderating Effect of Social Influence among Perceived Usefulness and Perceived Value

As shown in Table 4-29, this research uses hierarchical regression analysis checking the moderating effect of Social Influence. The result in Model 3 shows that both independent variable (Perceived usefulness, β=0.556, $p<0.001$) and moderating variables (Social Influence, β=0.292, $p<0.001$) are significantly affected to dependent variable (Perceived value) respectively. In addition, Model 4 shows the interaction effect ($R2$ =0.605, β=0.695, $p<0.01$) of Perceived usefulness and Social Influence is also significant to Perceived value. Therefore, all hypotheses are supported.

Table 4-29 *Moderating test of Social Influence among Perceived Usefulness and Perceived Value*

	Model 1	**Model 2**	**Model 3**	**Model 4**
	PV	**PV**	**PV**	**PV**
Independent variable				
Perceived usefulness (PU)	**0.733*** **		**0.556*** **	**0.878*** **
Moderating variables				
Social Influence (SI)		**0.628*** **	**0.292*** **	**0.633*** **
Interaction variable				
PU*SI				**0.695** **
R^2	**0.537**	**0.395**	**0.591**	**0.605**
Adj-R^2	**0.536**	**0.393**	**0.588**	**0.601**
***F*-value**	**345.803**	**194.436**	**214.601**	**151.140**
Durbin-Watson	**1.769**	**1.503**	**1.666**	**1.699**
VIF	**1.000**	**1.000**	**1.578**	**1.632**

Note: *$^{***}p < 0.001$, $^{**}p<0.01$, $^{*}p< 0.05$, $^{+}p<0.1$*

4.7.3 Moderating test of Social Influence among Perceived enjoyment and Perceived value

The research also uses hierarchical regression analysis to test the research hypothesis which is focusing on the moderating effects of Social Influence in the relationship between Perceived enjoyment and Perceived value (see Fig.4-7)

The result shown in table 4-30 indicate that Perceived enjoyment (β=0.699, p<0.001) is positively and significantly affected to Perceived value. Model 2 shows that Social Influence (β=0.628, p<0.001) is positively and significantly affected to Perceived value.

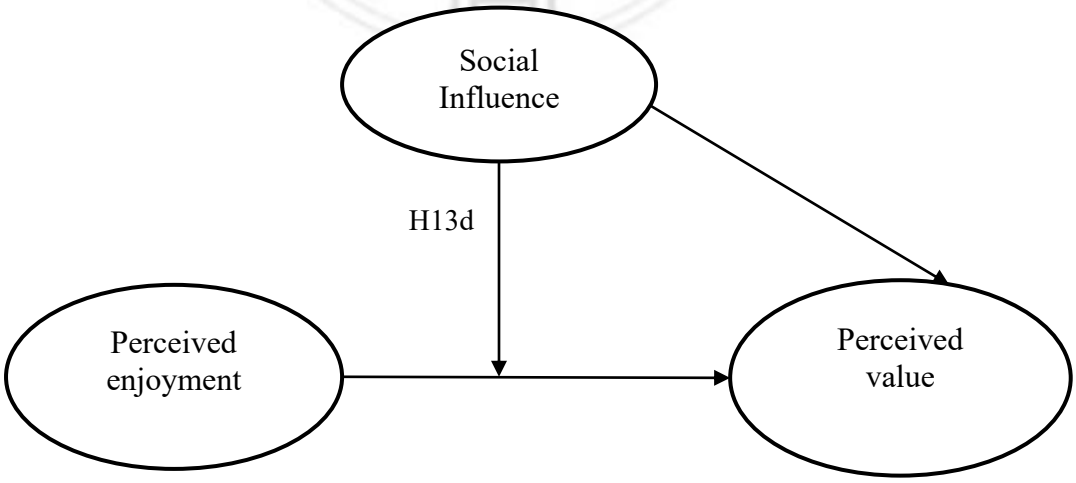

Figure 4-7 The moderating effect of Social Influence

As shown in Table 4-30, this research uses hierarchical regression analysis checking the moderating effect of Social Influence. The result in Model 3 shows that both independent variable (Perceived enjoyment, β=0.504, p<0.001) and moderating variables (Social Influence, β=0.334, p<0.001) are significantly affected to dependent variable (Perceived value) respectively. In addition, Model 4 shows the interaction effect (R2 =0.589, β=0.195, p<0.01) of Perceived enjoyment and Social Influence is also significant to Perceived value. Therefore, all hypotheses are supported.

Table 4-30 *Moderating Test of Social Influence among Perceived Enjoyment and Perceived Value*

	Model 1	**Model 2**	**Model 3**	**Model 4**
	PV	**PV**	**PV**	**PV**
Independent variable				
Perceived enjoyment (PE)	**0.699*** **		**0.504*** **	**0.796*** **
Moderating variables				
Social Influence (SI)		**0.628*** **	**0.334*** **	**0.433*** **
Interaction variable				
PE*SI				**0.195** **
R^2	**0.489**	**0.395**	**0.562**	**0.589**
Adj-R^2	**0.487**	**0.393**	**0.559**	**0.585**
***F*-value**	**284.808**	**194.436**	**190.796**	**141.434**
Durbin-Watson	**1.633**	**1.503**	**1.609**	**1.643**
VIF	**1.000**	**1.000**	**1.517**	**1.734**

Note: *$^{***}p < 0.001$, $^{**}p<0.01$, $^{*}p< 0.05$, $^{+}p<0.1$*

4.7.4 Moderating Test of Social Influence among Perceived Risk and Perceived Value.

The research also uses hierarchical regression analysis to test the research hypothesis which is focusing on the moderating effects of Social Influence in the relationship between Perceived Risk and Perceived value (see Fig.4-8)

The result shown in table 4-31 indicate that Perceived Risk (β=0.159, p<0.05) is positively and significantly affected to Perceived value. Model 2 shows that Social Influence (β=0.628, p<0.001) is positively and significantly affected to Perceived value.

As shown in Table 27, this research uses hierarchical regression analysis checking the moderating effect of Social Influence.

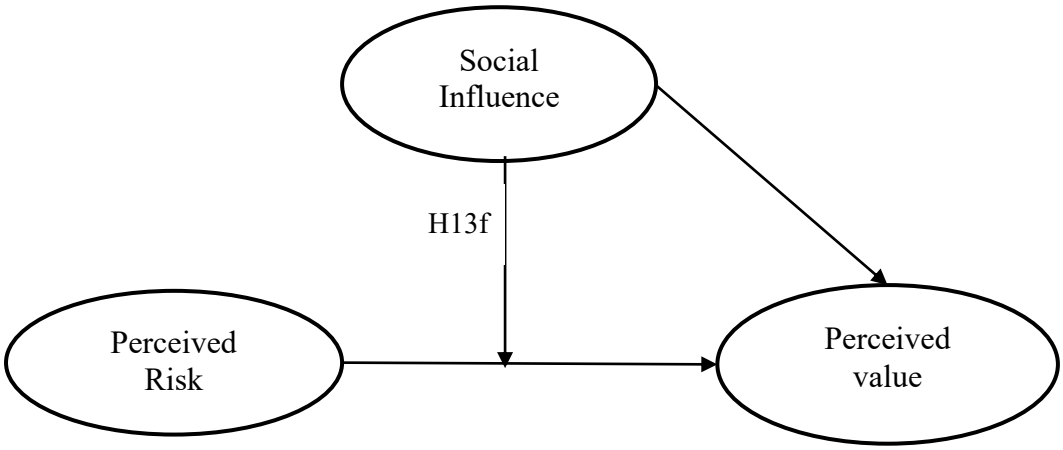

Figure 4-8 The Moderating Efect of Social Influence

The result in Model 3 shows that both independent variable (Perceived Risk, β=0.076, p<0.1) is not significantly affected to dependent variable (Perceived value) respectively and moderating variables (Social Influence, β=0.618, p<0.001) is significantly affected to dependent variable (Perceived value) respectively. In addition, Model 4 shows the interaction effect (R2 =0.406, β= -0.443) of Perceived Risk and Social Influence is not also significant to Perceived value.

Table 4-31 *Moderating Test of Social Influence among Perceived Risk and Perceived Value*

	Model 1	**Model 2**	**Model 3**	**Model 4**
	PV	**PV**	**PV**	**PV**
Independent variable				
Perceived Risk (PR)	**0.159***		**0.076**$^{+}$	**0.452**$^{+}$
Moderating variables				
Social Influence (SI)		**0.628*****	**0.618*** **	**0.799*** **
Interaction variable				
PR*SI				**- 0.443**
R^2	**0.024**	**0.395**	**0.401**	**0.406**
Adj-R^2	**0.021**	**0.393**	**0.397**	**0.400**
***F*-value**	**7.482**	**194.436**	**99.226**	**67.325**
Durbin-Watson	**0.998**	**1.503**	**1.220**	**1.226**
VIF	**1.000**	**1.000**	**1.017**	**1.017**

Note: $^{***}p < 0.001$, $^{**}p<0.01$, $^{*}p< 0.05$, $^{+}p<0.1$

4.7.5 Moderating Test of Social Influence among Perceived Fee and Perceived Value

The research also uses hierarchical regression analysis to test the research hypothesis which is focusing on the moderating effects of Social Influence in the relationship between Perceived Fee and Perceived value (see Fig.4-9)

The result shown in table 4-32 indicate that Perceived Fee (β=0.145, p<0.05) is

positively and significantly affected to Perceived value. Model 2 shows that Social Influence (β=0.628, p<0.001) is positively and significantly affected to Perceived value.

As shown in Table 28, this research uses hierarchical regression analysis checking the moderating effect of Social Influence.

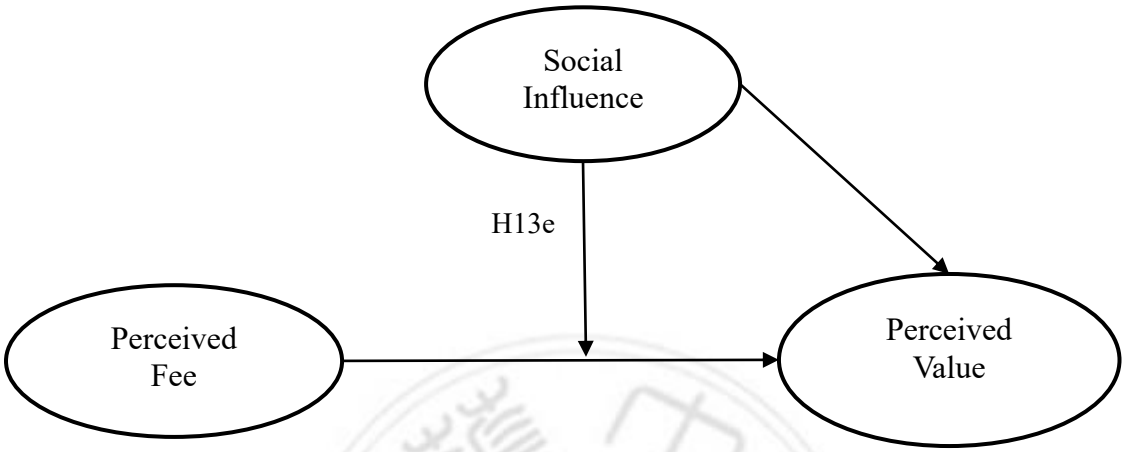

Figure 4-9 The Moderating Effect of Social Influence

Table 4-32 *Moderating Test of Social Influence among Perceived Fee and Perceived Value*

	Model 1	**Model 2**	**Model 3**	**Model 4**
	PV	**PV**	**PV**	**PV**
Independent variable				
Perceived Fee (PF)	**0.145**		**0.062**	**0.384**$^{+}$
Moderating variables				
Social Influence (SI)		**0.628*****	**0.620*** **	**0.780*** **
Interaction variable				
PE*SI				**- 0.383**
R^2	**0.021**	**0.395**	**0.399**	**0.403**
Adj-R^2	**0.018**	**0.393**	**0.395**	**0.397**
***F*-value**	**6.425**	**194.436**	**98.448**	**66.548**
Durbin-Watson	**1.007**	**1.503**	**1.221**	**1.223**
VIF	**1.000**	**1.000**	**1.018**	**1.026**

Note: $^{***}p < 0.001$, $^{**}p<0.01$, $^{*}p< 0.05$, $^{+}p<0.1$

The result in Model 3 shows that both independent variable (Perceived fee, β=0.062, p<0.1) is not significantly affected to dependent variable (Perceived value) and moderating variables (Social Influence, β=0.620, p<0.001) is significantly affected to dependent variable (Perceived value) respectively. In addition, Model 4 shows the interaction effect (R2 =0.403, β= -0.383) of Perceived fee and Social Influence is not also significant to Perceived value.

CHAPTER FIVE
CONCLUSION AND SUGGESTIONS

This chapter will summarize the result after analyzing the data and making the contributions and limitations of the study in the context of Vietnam market. Through it gives some hints for businesses are building e-learning system in Vietnam. This chapter will be divided three section:

(1) Research conclusion

(2) Research contribution

(3) Limitations and Future Research Directions

5.1 Research conclusion

This study investigates to find out the factors affecting consumers' adoption of E-learning in Vietnam. It also examines attribute of the moderators: social influence, e-word of mouth, e-servicescape. And through the study result to understand deeply the factors affecting consumers' adoption of E-learning. And then can improve the design and development functions and services suitable to consumers' need in Vietnam.

As shown in table 5.1, the result of hypothesis testing after analysis include: hypothesis H1, H2, H3, H4, H5, H6, H7, H10, H12, H13a, H13b, H13c, H13d are supported, Hypothesis H11 is partially supported while H8, H9, H13e, H13f are rejected.

Table 5-1 *Research Table Results*

	Research Hypotheses	**Results**
H1	Perceived ease of use will positively affect to Perceived Usefulness	Support
H2	Perceived usefulness will positively affect to Attitude towards E-learning	Support
H3	Perceived ease of use will positively affect to Attitude towards E-learning	Support
H4	Attitude towards E-learning will positively affect to Intention toward E-learning Vietnam	Support
H5	Perceived usefulness will directly positively affect to Intention toward E-learning in Vietnam	Support
H6	Perceived Usefulness will positive affect to Perceived Value	Support
H7	Perceived Enjoyment will positive affect to Perceived Value	Support
H8	Perceived fee will negative affect to Perceived Value	Not support
H9	Perceived Risk will negative affect to Perceived Value	Not Support
H10	Perceived Value will positive affect to Intention toward E-learning	Support
H11	E-servicescape will strengthen the effect of Attitude toward E-learning on Intention toward E-learning	Partially Support
H12	E-word of Mouth will strengthen the effect of Perceived Value to Intention toward E-learning	Support
H13a	Social Influence will strengthen the effect of Perceived Ease of use on Attitude toward E-learning	Support
H13b	Social Influence will strengthen the effect of Perceived usefulness on Attitude toward E-learning	Support
H13c	Social Influence will strengthen the effect of Perceived usefulness on Perceived Value	Support
H13d	Social Influence will strengthen the effect of Perceived Enjoyment on Perceived Value	Support
H11e	Social Influence will strengthen the effect of Perceived Fee on Perceived Value	Not Support
H13f	Social Influence will strengthen the effect of Perceived Risk on Perceived Value	Not Support

According to the results presented in Table 5.1, Attitude Toward e-learning is influenced positively by Perceived ease of use and Perceived usefulness. It also affects positively to intention toward e-learning. In addition, the results also indicate a positive relationship between Perceived ease of use and Perceived usefulness. Many previous studies have used the model to apply the technology to find out factors affecting the e-learning oriented, they have proven perceived usefulness, perceived ease of use is the second most

important factor in understanding customer behavior goods in the application of new technologies. Perceived usefulness is the customer's perception of the use of technology that will help them improve and gain more benefits while the effort (PEOU) that they spend is lower than the utility that it brings. And it has been proven to have a positive impact perceived usefulness to perceived ease of use and when it will change perceptions, consumer thinking about E-learning makes them more aggressive look to the behavior using technology. Factors perceived ease of use has a positive impact on the Perceived usefulness and attitudes towards e-learning. This proves that consumers are very interested in the ease of use of e-learning platform. To raise Perceived usefulness, we need to raise awareness of the ease of use. The E-learning platform should provide sufficient information for users, displaying the instructions in location that user may need while use website. The interpretation described in guideline should be written in an understandable way. The function served for learning in flatform need to design and appropriate layout, making it easy and convenient to use. Course registration functions and payment must be simple to ease of use for the user. Through that, the attitude towards e-learning will be increased and users to easily tend to choose e-learning instead of the traditional way of learning. This study also confirm again the positive impact of Perceived usefulness to intention toward e-learning.

In the context of this study, Perceived usefulness and Perceived enjoyment have the positive impact on Perceived value, while perceived fee and Perceived risk don't have any relationship with this construct. This means that when the perception of risk and cost of e-learning users in Vietnam has increased does not mean that their perceived value of e-learning reduced. In addition, Perceived value proved to have an important role, a positive impact on the intention using e-learning of Vietnam user. Van der Heijden (2004) found that perceived enjoyment was a stronger determinant of intention toward e-learning than perceived usefulness. In E-learning context financial cost may comprise different aspects. Consumers should consider the amount they pay for every course, and whether they get value higher than the amount they have spent (Chong, Lai, 2012; Kim, 2007). Aside from financial cost, the diffusion of a new technology is primarily hampered by the risk perception of using a new service (Newell et al, 2001). Financial risk should include both the initial purchase price and the subsequent maintenance and repair costs of a product (Grewal et al, 1994). When consumers make purchase decisions, they are often concerned about the performance of the product and the financial aspects of the purchase especially with new technology like

E-learning.

In this study, social influence, e-servicescape and e-word of mouth are three moderator variables. Research proposals e-servicescape will strengthen the influence between Attitude toward e-learning and intention toward e-learning. In fact, after surveying and analyzing user reviews in Vietnam, the result indicates it has contributed to making this relationship becomes stronger. Additionally, e-word of mouth has proven to have a strong impact on the relationship between Perceived value and intention toward e-learning.

About social influence variable, the study indicates that it has a positive impact on the relationship between Perceived ease of use, Perceived usefulness and attitude towards e-learning. At the same time, social influence also has positive impact on the relationship between Perceived usefulness, Perceived enjoyment, and Perceived value. Meanwhile, the presence of social influence variable does not make the relationship between Perceived fee, Perceived risk and Perceived value being significant. The object can make an impact on users as friends and relatives around, colleagues, partners, media. The result of survey agrees that users in Vietnam are strongly affected by social influence. Therefore, the e-learning platform should focus on the marketing campaign for the collective, organizations, discount course for the introduction another user to join. With this campaign, users will introduce and invite your friends, your colleagues to join. This will help spread e-learning platform to more users.

5.2 Research contribution

5.2.1 Academic Implication

E-learning is a relatively new field in Vietnam, so it is necessary to research theoretically to oriented for practical activities. This study has contributed further a scientific literature in E-learning area, through the development of a theoretical model to explain the factors that affect the intention to use the user's E-learning in Vietnam.

By building models based on theoretical models TAM has provided a fuller perspective on the issue of research needs to be examined compared to using a homogeneous model. On the other hand, the scale of previous research which was conducted in developing countries, this study did adjust and test the scale in Vietnam through empirical data concentrated in the city Ho Chi Minh City and Hanoi. So this data will contribute to supplement the theoretical scale helped academic and applications researchers to better understand Vietnam market.

5.2.2 Managerial Implication

Through the identification of factors that influence the intention to use the e-learning platform of users Vietnam, this study has provided for the e-learning platforms, a look in more detail about the views of users in this new field. At the same time the e-learning platform can consider through the research proposals to enhance the competitiveness of its products to better meet needs of users.

This study also suggests a new research direction for the e-learning platform in carrying out similar studies with specific courses such as business, soft skills, management.... Then further develop this new learning way in the context of Vietnam in particular and developing countries in general.

5.3 Limitations and Future Research Directions

First, In terms limitation of time, budget, human resources, support tools,... research conducted sampling by convenient sample method should be representative of the total be not high. On the other hand the sample size is not really big, so the subjective assessment the group of respondents can give false study results. Thus further studies can be conduct with a larger sample size to increase the generalizability of the study.

Second, Research just stop at examining the factors affecting the intention to use e-learning without reference to actual user behavior. Therefore, it should be consider the relationship between intended behavior and actual usage behavior. In each specific courses group, the impact of these factors on the intention to use E-learning will be different. This study only focuses survey factors affect the intention to use e-learning, so to understand more deeply, need examine specific courses group such as business, governance ... This is also a new research directions need to be studied and examined in future research.

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APPENDICES I

ENGLISH QUESTIONNAIRE

Exploring the Factors Affecting Consumers' Adoption of E-Learning in Vietnam: Based on TAM and VAM Perspectives

Questionnaire

Dear Respondents:

This academic questionnaire is to investigate the the factors affecting consumers' adoption of E-Learning. This study proposes a theoretical framework integrating e-learning adoption and intentions of consumers use mainly based on Technology Acceptance Model (TAM) and Value-based Adoption Model (VAM). This study also analyze the relationship of consumers intent to use E-learning to the structure are selected as their attitudes, perceived value and other factors not directly impact as: E-servicescape and E-word of mouth and Social Influence.

You have been reported as one of the interested respondents for this study. We have taken the liberty of your joining to express your viewpoint about these issues. Your countenance and assistance will be greatly appreciated. We sincerely invite you to spend a maximum of 15 minutes to complete the questionnaire below. No personal information will be made public. Please be assured that your answers will be kept in strict confidentiality. Please take the time to fill out this questionnaire as accurately as possible. Your help is crucial for this research and also for our understanding about these issues. We deeply appreciate your kind cooperation.

Thank you.
Faithfully Yours,

Section 1. Perceived Benefit

Please take a short look on the questions below related with your experience in e-learning, and then **CIRCLE** the level of agreement on each of the items below based on your opinion.	**Levels of Agreement**				
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	< — — — — — — >				
Perceived Usefulness					
1. Using the E-learning system will allow me to accomplish learning tasks more quickly	**1**	**2**	**3**	**4**	**5**
2. Using the E-learning system will improve my learning performance	**1**	**2**	**3**	**4**	**5**
3. Using the E-learning system will make it easier to learn course content	**1**	**2**	**3**	**4**	**5**
4. Using the E-learning system will increase my learning productivity	**1**	**2**	**3**	**4**	**5**
5. Using the E-learning system will enhance my effectiveness in learning	**1**	**2**	**3**	**4**	**5**
Perceived Enjoyment					
1. I have fun interacting with E-learning	**1**	**2**	**3**	**4**	**5**
2. Using E-learning provides me with a lot of enjoyment	**1**	**2**	**3**	**4**	**5**
3. I enjoy using E-learning	**1**	**2**	**3**	**4**	**5**

Section 2. Perceived ease of use

Please take a short look on the questions below related with your experience in e-learning, and then **CIRCLE** the level of agreement on each of the items below based on your opinion.	**Levels of Agreement**				
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	< — — — — — — >				
Perceived ease of use					
1. Learning to operate the e-learning system is easy for me.	**1**	**2**	**3**	**4**	**5**
2. I find it easy to get the e-learning system to do what I want it to do	**1**	**2**	**3**	**4**	**5**
3. My interaction with e-learning system is clear and understandable	**1**	**2**	**3**	**4**	**5**
4. It is easy for me to become skillful at using the e-learning system	**1**	**2**	**3**	**4**	**5**
5. I find the e-learning system easy to use	**1**	**2**	**3**	**4**	**5**

Section 3. Attitude toward E-learning

Please take a short look on the questions below related with your experience in e-learning, and then **CIRCLE** the level of agreement on each of the items below based on your opinion.	**Levels of Agreement**				
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	< — — — — — — >				
Attitude toward E-learning					
1. I believe it is (would be) a good idea to use this E-learning for my learning performance.	**1**	**2**	**3**	**4**	**5**
2. Studying through e-learning is a wise idea	**1**	**2**	**3**	**4**	**5**
3. I am positive toward e-learning	**1**	**2**	**3**	**4**	**5**
4. I would be interested in studying courses that use E-learning	**1**	**2**	**3**	**4**	**5**

Section 4. Social Influence

Please take a short look on the questions below related with your experience in e-learning, and then **CIRCLE** the level of agreement on each of the items below based on your opinion.	**Levels of Agreement**				
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	< — — — — — — >				
Social Influence					
1. People who influence my behaviour think that I should use the system.	**1**	**2**	**3**	**4**	**5**
2. People who are important to me think that I should use the system	**1**	**2**	**3**	**4**	**5**
3. My classmates who have good performance have benefited from using the system	**1**	**2**	**3**	**4**	**5**
4. In general, the teacher has supported the use of the system	**1**	**2**	**3**	**4**	**5**

Section 5. Perceived Sacrifice

Please take a short look on the questions below related with your experience in e-learning, and then **CIRCLE** the level of agreement on each of the items below based on your opinion.	**Levels of Agreement**				
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	< — — — — — >				
Perceived Risk					
1. I feel unsafe when using E-learning	**1**	**2**	**3**	**4**	**5**
2. I am worried that private information would be leaked when using E-learning	**1**	**2**	**3**	**4**	**5**
3. I am worried about personal information suffering from unauthorised use when using E-learning	**1**	**2**	**3**	**4**	**5**
Perceived Fee					
1. The fee that I have to pay for the use of E-learning is too high.	**1**	**2**	**3**	**4**	**5**
2. The fee that I have to pay for the use of E-learning is reasonable (reversed).	**1**	**2**	**3**	**4**	**5**
3. I am please with the price I have to pay for the use of E-learning (reversed).	**1**	**2**	**3**	**4**	**5**

Section 6. E-servicescape

Please take a short look on the questions below related with your experience in e-learning, and then **CIRCLE** the level of agreement on each of the items below based on your opinion.	**Levels of Agreement**				
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	< — — — — — >				
Visual Appeal					
1. This website is aesthetic appeal.	**1**	**2**	**3**	**4**	**5**
2. I like the way this website is look	**1**	**2**	**3**	**4**	**5**
3. This website is visually attractive	**1**	**2**	**3**	**4**	**5**
4. The way this website displays its products is attractive	**1**	**2**	**3**	**4**	**5**
Entertainment Value					
1. This web site does not just sell products, it entertains me	**1**	**2**	**3**	**4**	**5**
2. I shop from this web site for the pure enjoyment of it.	**1**	**2**	**3**	**4**	**5**
3. I enjoy shopping from this web site for its own sake, not just for the items I may have purchased	**1**	**2**	**3**	**4**	**5**
Usability					

1. The functions on this web site are easy to operate	**1**	**2**	**3**	**4**	**5**
2. This web site is user-friendly	**1**	**2**	**3**	**4**	**5**
3. The website links are obvious in their intent and destination	**1**	**2**	**3**	**4**	**5**
4. There are convenient ways to maneuver among related pages and between different sections	**1**	**2**	**3**	**4**	**5**
Customization					
1. The services of this web site are often personalized to me	**1**	**2**	**3**	**4**	**5**
2. I feel that this web site is designed for me	**1**	**2**	**3**	**4**	**5**
3. That this web site treats me as an individual	**1**	**2**	**3**	**4**	**5**
4. If I wanted to, I could customize the web site to what I like (e.g. Changing colors, layout, fonts, etc.)	**1**	**2**	**3**	**4**	**5**
Financial security					
1. This web site has efficient payment procedures	**1**	**2**	**3**	**4**	**5**
2. The payment facilities of this web site are easy to use	**1**	**2**	**3**	**4**	**5**
3. Paying for goods is straightforward on this web site	**1**	**2**	**3**	**4**	**5**
4. I have no concerns about buying things from this web site	**1**	**2**	**3**	**4**	**5**

Section 7. E-word of mouth

Please take a short look on the questions below related with your experience in e-learning, and then **CIRCLE** the level of agreement on each of the items below based on your opinion.	**Levels of Agreement**				
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	< — — — — — >				
Opinion giving					
1. I often persuade my contacts on social networks to buy products that I like	**1**	**2**	**3**	**4**	**5**
2. My contacts on social networks pick their products based on what I have told them	**1**	**2**	**3**	**4**	**5**
3. On social networks, I often influence my contacts' opinions about products	**1**	**2**	**3**	**4**	**5**
4. My friends tend to ask my advice about products on social networks	**1**	**2**	**3**	**4**	**5**
Opinion seeking					
1. When I consider new products, I ask my contacts on social networks for advice	**1**	**2**	**3**	**4**	**5**
2. I like to get my contacts' opinions on social networks before I buy new products	**1**	**2**	**3**	**4**	**5**
3. I feel more comfortable choosing products when I have gotten my contacts' opinions on them on social networks	**1**	**2**	**3**	**4**	**5**
4. I tend to consult other people on social networks to help me choose new products I buy	**1**	**2**	**3**	**4**	**5**

Opinion passing	**1**	**2**	**3**	**4**	**5**
1. When I receive product related information or opinion from a friend, I will pass it along to my other contacts on social networks	**1**	**2**	**3**	**4**	**5**
2. I like to pass along interesting information about products from one group of my contacts on my 'friends' list to another on social networks	**1**	**2**	**3**	**4**	**5**
3. I tend to pass along my contacts' positive reviews of products to other contacts on social networks	**1**	**2**	**3**	**4**	**5**
4. I tend to pass along my contacts' negative reviews of products to other contacts on social networks Social Capital Constructs	**1**	**2**	**3**	**4**	**5**

Section 8. Intention toward E-learning

Please take a short look on the questions below related with your experience in e-learning, and then **CIRCLE** the level of agreement on each of the items below based on your opinion.	**Levels of Agreement**				
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	< — — — — — >				
Intention toward E-learning					
1. In general, I plan to use E-learning in the future.	**1**	**2**	**3**	**4**	**5**
2. Given the chance, I intend to use E-learning in the future.	**1**	**2**	**3**	**4**	**5**
3. I predict I would use E-learning in the future.	**1**	**2**	**3**	**4**	**5**
4. I will use e-learning in the future when I need improve knowledge	**1**	**2**	**3**	**4**	**5**

Section 9. Percived value

Please take a short look on the questions below related with your experience in e-learning, and then **CIRCLE** the level of agreement on each of the items below based on your opinion.	**Levels of Agreement**				
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	< — — — — — >				
Percived Value					
1. Based on the fee I need to pay, using E-learning offers value for money.	**1**	**2**	**3**	**4**	**5**
2. Based on the amount of effort I need to put in, using E-learning is beneficial to me.	**1**	**2**	**3**	**4**	**5**
3. Based on the amount of time I need to spend, using E-learning is worthwhile to me.	**1**	**2**	**3**	**4**	**5**
4. Overall, using E-learning delivers me good value.	**1**	**2**	**3**	**4**	**5**

Section 10. Demographic Information

Gender	□ Male	□ Female		
Age	□ 12-18 years old	□ 19-25 years old	□ 26-35 years old	□ >35 years old
Education	□ High School	□ Bachelor	□Master	□Doctoral
Income	□ < 5 million	□ 5-10 million	□ > 10 million	
Experience in e-learning	□ 3-6 months	□ 7-12 months	□ > 1 years	

APPENDIX II

VIETNAMESE QUESTIONNAIRE

Khám phá các yếu tố ảnh hưởng đến việc chấp nhận E-learning của người tiêu dùng tại Việt Nam: Dựa trên mô hình nhận thức TAM và VAM

BẢNG CÂU HỎI KHẢO SÁT

Kính gửi Quý Anh/Chị,

Tôi tên là Lê Quang Trạng, hiện là sinh viên sau đại học ngành Quản trị kinh doanh tại trường đại học Nanhua, Đài loan. Bảng khảo sát này nhằm đánh giá ảnh hưởng của các nhân tố: nhận thức hữu ích, nhận thức dễ sử dụng, nhận thức giải trí, nhận thức rủi ro, nhận thức chi phí, nhận thức giá trị, thái độ đến e-learning, ý định đến e-learning, ảnh hưởng xã hội, e-word of mouth, e-servicescape đến sự chấp nhận e-learning của người tiêu dùng tại Việt Nam. Rất mong Quý Anh/Chị dành một vài phút tham gia cuộc khảo sát. Ý kiến của Quý Anh/Chị rất quý báu trong việc hoàn thành đề tài luận văn này. Mọi thông tin Quý Anh/Chị cung cấp chỉ dành cho mục đích nghiên cứu đề tài luận văn và sẽ không được công khai trong bất kì hoàn cảnh nào. Xin vui lòng chọn ý kiến phù hợp nhất với Quý Anh/Chị trong khoảng tin cậy và chính xác nhất có thể.

Xin chân thành cảm ơn Quý Anh/Chị đã dành thời gian quý báu, tôi vô cùng biết ơn sự hợp tác của Quý Anh/Chị. Chúc quý Anh/Chị một ngày tốt lành.

Phần 1. Nhận thức lợi ích

Xin vui lòng chọn ý kiến phù hợp nhất với Quý Anh/Chị trong khoảng tin cậy và chính xác nhất có thể. Sau đó khoanh tròn vào từng mức độ phù hợp.	**Mức độ Đồng ý**				
	Hoàn Toàn Không Đồng Ý				Hoàn Toàn Đồng Ý
	< — — — — — >				
Perceived Usefulness					
1. Sử dụng hệ thống E-learning sẽ cho phép tôi để hoàn thành nhiệm vụ học tập một cách nhanh chóng hơn	**1**	**2**	**3**	**4**	**5**
2. Sử dụng hệ thống E-learning sẽ cải thiện hiệu suất học tập của tôi	**1**	**2**	**3**	**4**	**5**
3. Sử dụng hệ thống E-learning sẽ làm cho tôi dễ dàng hiểu nội dung khóa học	**1**	**2**	**3**	**4**	**5**
4. Sử dụng hệ thống E-learning sẽ làm tăng năng suất học tập của tôi	**1**	**2**	**3**	**4**	**5**
5. Sử dụng hệ thống E-learning sẽ nâng cao hiệu quả của tôi trong học tập	**1**	**2**	**3**	**4**	**5**
Perceived Enjoyment					
1. Tôi cảm thấy rất thích thú khi học tập qua	**1**	**2**	**3**	**4**	**5**
2. Tôi cảm thấy rất thoãi mái khi học tập qua	**1**	**2**	**3**	**4**	**5**
3. Tôi rất hào hứng mỗi khi sử dụng hệ thống	**1**	**2**	**3**	**4**	**5**

Phần 2. Perceived ease of use

Xin vui lòng chọn ý kiến phù hợp nhất với Quý Anh/Chị trong khoảng tin cậy và chính xác nhất có thể. Sau đó khoanh tròn vào từng mức độ phù hợp.	**Mức độ Đồng ý**				
	Hoàn Toàn Không Đồng Ý				Hoàn Toàn Đồng Ý
	< — — — — — >				
Perceived ease of use					
1. Học cách sử dụng hệ thống E-learning rất dễ	**1**	**2**	**3**	**4**	**5**
2. Điều khiển sử dụng hệ thống E-learning theo ý mình rất dễ	**1**	**2**	**3**	**4**	**5**
3. Tương tác của tôi với hệ thống e-learning rõ ràng và dễ hiểu	**1**	**2**	**3**	**4**	**5**
4. Rất dễ dàng để thuần thục trong việc sử dụng hệ thống E-learning	**1**	**2**	**3**	**4**	**5**
5. Tôi thấy hệ thống e-learning dễ sử dụng	**1**	**2**	**3**	**4**	**5**

Phần 3. Attitude toward E-learning

Xin vui lòng chọn ý kiến phù hợp nhất với Quý Anh/Chị trong khoảng tin cậy và chính xác nhất có thể. Sau đó khoanh tròn vào từng mức độ phù hợp.	Mức độ Đồng ý				
	Hoàn Toàn Không	Không Đồng Ý	Bình Thường	Đồng Ý	Hoàn Toàn Đồng Ý
	<	– – – – – –			>
Attitude toward E-learning					
1. Tôi tin rằng sử dụng E-learning là ý tưởng tốt cho quá trình học tập của tôi sau này.	**1**	**2**	**3**	**4**	**5**
2. Học tập thông qua e-learning là một ý tưởng đúng đắn	**1**	**2**	**3**	**4**	**5**
3. Tôi đánh giá cao việc học tập qua E-learning	**1**	**2**	**3**	**4**	**5**
4. Tôi hẳn sẽ thấy rấtth ú vị khi học qua e-learning	**1**	**2**	**3**	**4**	**5**

Phần 4. Social Influence

Xin vui lòng chọn ý kiến phù hợp nhất với Quý Anh/Chị trong khoảng tin cậy và chính xác nhất có thể. Sau đó khoanh tròn vào từng mức độ phù hợp.	Mức độ Đồng ý				
	Hoàn Toàn Không	Không Đồng Ý	Bình Thường	Đồng Ý	Hoàn Toàn Đồng Ý
	<	– – – – – –			>
Social Influence					
1. Tôi sẽ sử dụng E-learning khi nhận được lời khuyên từ những người có sức ảnh hưởng đến tôi	**1**	**2**	**3**	**4**	**5**
2. Những người quan trọng với tôi khuyên rằng tôi nên sử dụng hệ thống E-learning	**1**	**2**	**3**	**4**	**5**
3. Bạn cùng lớp của tôi đã cải thiện kết quả học tập nhờ sử dụng E-learning	**1**	**2**	**3**	**4**	**5**
4. Tôi sẽ được giáo viên hỗ trợ nếu sử dụng E-learning	**1**	**2**	**3**	**4**	**5**

Phần 5. Perceived Sacrifice

Xin vui lòng chọn ý kiến phù hợp nhất với Quý Anh/Chị trong khoảng tin cậy và chính xác nhất có thể. Sau đó khoanh tròn vào từng mức độ phù hợp.	Mức độ Đồng ý				
	Hoàn Toàn Không Đồng Ý				Hoàn Toàn Đồng Ý
	< — — — — — >				
Perceived Risk					
1. Tôi cảm thấy không an toàn khi sử dụng E-learning	**1**	**2**	**3**	**4**	**5**
2. Tôi lo ngại rằng thông tin cá nhân sẽ bị rò rỉ khi sử dụng E-learning	**1**	**2**	**3**	**4**	**5**
3. Tôi lo lắng thông tin cá nhân bị sử dụng trái phép khi sử dụng E-learning	**1**	**2**	**3**	**4**	**5**
Perceived Fee					
1. Lệ phí mà tôi phải trả tiền cho việc sử dụng E-learning là quá cao.	**1**	**2**	**3**	**4**	**5**
2. Các khoản phí mà tôi phải trả cho việc sử dụng E-learning là hợp lý.	**1**	**2**	**3**	**4**	**5**
3. Tôi hài lòng với chi phí mà tôi phải trả cho việc sử dụng E-learning.	**1**	**2**	**3**	**4**	**5**

Phần 6. E-servicescape

Xin vui lòng chọn ý kiến phù hợp nhất với Quý Anh/Chị trong khoảng tin cậy và chính xác nhất có thể. Sau đó khoanh tròn vào từng mức độ phù hợp.	Mức độ Đồng ý				
	Hoàn Toàn Không Đồng Ý				Hoàn Toàn Đồng Ý
	< — — — — — >				
Visual Appeal					
1. Giao diện rất hấp dẫn	**1**	**2**	**3**	**4**	**5**
2. Tôi thích cách giao diện thể hiện	**1**	**2**	**3**	**4**	**5**
3. Trang web rất cuốn hút	**1**	**2**	**3**	**4**	**5**
4. Cách trang web giới thiệu sản phẩm rất lôi cuốn	**1**	**2**	**3**	**4**	**5**
Entertainment Value					
1. Trang web này không chỉ bán sản phẩm, nó tiện giải trí tôi	**1**	**2**	**3**	**4**	**5**
2. Tôi mua sắm từ trang web này và thụ hưởng giải trí của nó.	**1**	**2**	**3**	**4**	**5**
3. Tôi thích mua sắm từ trang web này vì lợi ích riêng của mình, không chỉ cho những bài tôi có thể đã mua	**1**	**2**	**3**	**4**	**5**
Usability					
1. Các chức năng trên trang web này là dễ dàng hoạt động	**1**	**2**	**3**	**4**	**5**
2. Trang web này là người dùng thân thiện	**1**	**2**	**3**	**4**	**5**
3. Các liên kết trang web là hiển nhiên trong ý định và điểm đến của	**1**	**2**	**3**	**4**	**5**

họ					
4. Có nhiều cách thuận tiện để điều động giữa các trang có liên quan và giữa các phần khác nhau	**1**	**2**	**3**	**4**	**5**
Customization					
1. Các dịch vụ của trang web này thường được cá nhân hoá với tôi	**1**	**2**	**3**	**4**	**5**
2. Tôi cảm thấy rằng trang web này được thiết kế cho tôi	**1**	**2**	**3**	**4**	**5**
3. Đó là trang web này đối xử với tôi như một cá nhân	**1**	**2**	**3**	**4**	**5**
4. Nếu tôi muốn, tôi có thể tùy chỉnh các trang web với những gì tôi thích (ví dụ như thay đổi màu sắc, bố cục, phông chữ, vv)	**1**	**2**	**3**	**4**	**5**
Financial security					
1. Trang web này có các thủ tục thanh toán hiệu quả	**1**	**2**	**3**	**4**	**5**
2. Các phương tiện thanh toán của trang web này là dễ sử dụng	**1**	**2**	**3**	**4**	**5**
3. Thanh toán cho hàng hóa là đơn giản trên trang web này	**1**	**2**	**3**	**4**	**5**
4. Tôi không có mối quan tâm về việc mua những thứ từ trang web này	**1**	**2**	**3**	**4**	**5**

Phần 7. E-word of mouth

Xin vui lòng chọn ý kiến phù hợp nhất với Quý Anh/Chị trong khoảng tin cậy và chính xác nhất có thể. Sau đó khoanh tròn vào từng mức độ phù hợp.	**Mức độ Đồng ý**				
	Hoàn Toàn Không	Không Đồng Ý	Bình Thường	Đồng Ý	Hoàn Toàn Đồng Ý
	< — — — — — — >				
Opinion giving					
1. Tôi thường khuyên liên lạc của tôi trên các mạng xã hội để mua sản phẩm mà tôi thích	**1**	**2**	**3**	**4**	**5**
2. Địa chỉ liên lạc của tôi trên các mạng xã hội chọn các sản phẩm của họ dựa trên những gì tôi đã nói với họ	**1**	**2**	**3**	**4**	**5**
3. Trên các mạng xã hội, tôi thường ảnh hưởng đến ý kiến chỉ liên lạc của tôi 'về sản phẩm	**1**	**2**	**3**	**4**	**5**
4. Bạn bè tôi có xu hướng để xin lời khuyên của tôi về các sản phẩm trên mạng xã hội	**1**	**2**	**3**	**4**	**5**
Opinion seeking					
1. Khi tôi xem xét các sản phẩm mới, tôi hỏi địa chỉ liên lạc của tôi trên các mạng xã hội để được tư vấn	**1**	**2**	**3**	**4**	**5**
2. Tôi muốn nhận được ý kiến chỉ liên lạc của tôi 'trên mạng xã hội trước khi tôi mua sản phẩm mới	**1**	**2**	**3**	**4**	**5**
3. Tôi cảm thấy sản phẩm lựa chọn thoải mái hơn khi tôi đã nhận được ý kiến chỉ liên lạc của tôi 'trên chúng trên mạng xã hội	**1**	**2**	**3**	**4**	**5**
4. Tôi có xu hướng tham khảo ý kiến người khác trên mạng xã hội để giúp tôi chọn sản phẩm mới tôi mua	**1**	**2**	**3**	**4**	**5**
Opinion passing	**1**	**2**	**3**	**4**	**5**
1. Khi tôi nhận được sản phẩm thông tin có liên quan hoặc ý kiến từ	**1**	**2**	**3**	**4**	**5**

một người bạn, tôi sẽ vượt qua nó cùng với các liên hệ khác của tôi trên mạng xã hội					
2. Tôi muốn vượt qua cùng những thông tin thú vị về sản phẩm từ một nhóm các địa chỉ liên lạc của tôi trên danh sách "bạn bè" của tôi khác trên mạng xã hội	**1**	**2**	**3**	**4**	**5**
3. Tôi có xu hướng để vượt qua cùng đánh giá tích cực liên lạc của tôi 'của sản phẩm để liên lạc khác trên mạng xã hội	**1**	**2**	**3**	**4**	**5**
4. Tôi có xu hướng để vượt qua cùng đánh giá tiêu cực liên lạc của tôi 'của sản phẩm để liên lạc khác trên các mạng xã hội.	**1**	**2**	**3**	**4**	**5**

Phần 8. Intention toward E-learning

Xin vui lòng chọn ý kiến phù hợp nhất với Quý Anh/Chị trong khoảng tin cậy và chính xác nhất có thể. Sau đó khoanh tròn vào từng mức độ phù hợp.	**Mức độ Đồng ý** Hoàn Toàn Không Không Đồng Ý Bình Thường Đồng Ý Hoàn Toàn Đồng Ý < — — — — — >				
Intention toward E-learning					
5. Nói chung, tôi có kế hoạch để sử dụng E-learning trong tương lai.	**1**	**2**	**3**	**4**	**5**
6. Với những cơ hội, tôi có ý định sử dụng E-learning trong tương lai.	**1**	**2**	**3**	**4**	**5**
7. Tôi đoán tôi sẽ sử dụng E-learning trong tương lai.	**1**	**2**	**3**	**4**	**5**
8. Tôi sẽ sử dụng e-learning trong tương lai khi tôi cần nâng cao kiến thức	**1**	**2**	**3**	**4**	**5**

Phần 9. Percived value

Xin vui lòng chọn ý kiến phù hợp nhất với Quý Anh/Chị trong khoảng tin cậy và chính xác nhất có thể. Sau đó khoanh tròn vào từng mức độ phù hợp.	**Mức độ Đồng ý** Hoàn Toàn Không Không Đồng Ý Bình Thường Đồng Ý Hoàn Toàn Đồng Ý < — — — — — >				
Percived Value					
1. Căn cứ vào khoản phí Tôi cần phải trả tiền, sử dụng E-learning cung cấp giá trị đồng tiền.	**1**	**2**	**3**	**4**	**5**
2. Căn cứ vào số lượng nỗ lực tôi cần để đưa vào sử dụng E-learning là có lợi cho tôi.	**1**	**2**	**3**	**4**	**5**
3. Căn cứ vào số lượng thời gian tôi cần phải chi tiêu, sử dụng E-learning là đáng giá với tôi.	**1**	**2**	**3**	**4**	**5**
4. Nhìn chung, sử dụng E-learning cung cấp cho tôi giá trị tốt.	**1**	**2**	**3**	**4**	**5**

Phần 10. Thông tin người trả lời

Giới tính	□ Nam	□ Nữ		
Tuổi	□ 12-18 Tuổi	□ 19-25 Tuổi	□ 26-35 Tuổi	□ >35 Tuổi
Học vấn	□ Trung học	□ Cử nhân	□ Cao học	□ Tiến sĩ
Thu nhập	□ < 5 triệu	□ 5-10 triệu	□ > 10 triệu	
Kinh nghiệm trong e-learning	□ 3-6 tháng	□ 7-12 tháng	□ > 1 năm	