A Study on Factors Affecting Learners' Intention to Persist in E-Learning Courses in Vietnam

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Abstract

E-Learning has become a learning model that attracts a large number of users in the world and also in Vietnam. However, there has been no research in Vietnam on the factors affecting the persistent intention to take an online course. The purposes of the study are: Investigating the predictors that affect intention to persist in online learning courses in Vietnam, how those factors influence each other and give recommendations for e-learning providers to fascinate and engage students in completing te the courses along with increasing business performances. The research framework was developed based on previous studies with different aspects influencing on the intention to persist in online courses: Internal academic locus of control, Satisfaction, Support from family and work/school. The online surveys were designed using Google Form. The object of study includes Vietnamese people who are over 20 years old and studying online courses (Language, Soft skill, Coursera, Professional etc.). The study found that 4 significant factors: (1) age, (2) internal academic locus of control, (3) satisfaction and (4) support from family and work / school have positive impacts on intention to persist in online learning courses. From the findings, the authors propose some specific recommendations to education providers regarding each of the four factors with statistical significant impact on student persistence intention, helping to limit fertility dropouts in the near future.

Research purpose:

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Research motivation:

E-Learning has become a learning model that attracts a large number of users in the world and also in Vietnam. However, there has been no research in Vietnam on the factors affecting the persistent intention to take an online course.

Research design, approach and method:

The research framework was developed based on previous studies with different aspects influencing the Intention to persist in online courses: Internal academic locus of control, Satisfaction, Support from family and work/school.

The online surveys were designed using Google Form. The object of study includes Vietnamese people who are over 20 years old and studying online courses (Language, Soft skill, Coursera, Professional etc.).

Main findings:

The study found that 4 significant factors: (1) age, (2) internal academic locus of control, (3) satisfaction and (4) support from family and work / school have positive impacts on intention to persist in online learning courses.

Practical/managerial implications:

From the findings, the authors propose some specific recommendations to education providers concerning each of the four factors with statistical significant impact on student persistence intention, helping to limit fertility dropouts in the near future.

Keywords: online learning courses, persistent intention, e-learning courses, persistent intention factors

1. INTRODUCTION

Vietnam is considered to be quickly catching up with the world trend because in 2010, when E-Learning started to become a global trend and spread to many countries in the world, immediately after that, enterprises the country has also taken the first steps of exploring, launching a series of online learning websites such as Violet.vn, Hocmai.vn, Topica, Onluyen.vn, Speakup.vn, Mathplay ... Up to now, online learning has become a studying model that attracts a large number of users, chiefly in busy and developed places like Ho Chi Minh City, Hanoi and Danang with a wide coverage of students, from students at all levels to study. Online education activities in Vietnam mainly provide service groups as follows: Language classes in international languages; Test preparation courses / specialized knowledge lectures (level 2, level 3) and skill courses. The content of E-Learning lectures is quite rich, designed and integrated in many different forms of expression such as videos, clips, sound effects, vivid illustrations ... but still ensures interaction with teacher. Particularly for programs for high school students at all levels, many online learning sites provide a database of thousands of lectures designed to closely follow the curriculum of Educational Ministry

It is noteworthy that E-Learning is not only attracting the investment interest of businesses but also a trend chosen by the Vietnamese education industry. Specifically, the Ministry of Education and Training has cooperated with businesses to deploy E-Learning and online exams in the country such as the contest "Designing E-Learning e-Learning lectures" in 2009-2010 school year or online math contest at violympic.vn website; English Olympic Games on Go - ioe.go.vn ... Many universities in the country also gradually apply E-Learning model besides traditional education method in educational program. For example, Nguyen Tat Thanh University, Polytechnic University,... In addition, there is the appearance of universities in Vietnam. Online training is FUNiX, a member of FPT Education system.

Vietnam is perceived to be a promising marketplace for E-Learning growth because more than 60% of the population uses the Internet, the majority of the users are young people with high learning needs, and spending on education accounts for 5, 8% of GDP and 20% of total budget expenditure (data of the Ministry of Education and Training). Therefore, E-Learning is no longer a playground for familiar names emerging from the early days of development, but also attracts the participation of many Vietnamese startups and foreign investment sources, especially businesses from Singapore. At the end of 2016, Vietnam had 309 funding ventures in E-Learning with a combined reported equity of more than $767 million. Capital inflows into the market are expected to continue to increase in the following years.

Northstar Singapore Group decided to pour capital into Topica Edtech Group with an investment of up to $ 50 million at the end of November 2018. This is the largest funding for an educational technology corporation in Southeast Asia. Kaizen Private Equity, an educational hedge fund Singapore and India based, revealed at the beginning of August 2019 that it will pay $10 million in Yola, a start-up that offers e-learning English teaching facilities in Viet Nam. Shortly thereafter, at the end of August 2019, Everest Education, a Vietnamese startup in the educational sector started raising well $4 million from the Hendale Capital-based in Hong Kong (China). This funding is used to finance the development of the company's academic training centers in Ho Chi Minh City using an integrated blended studying approach that mixes conventional classroom studying and learning with new method online learning (Mobile and Internet Studying).

The presence of domestic companies and foreign investors has made the E-learning market in Vietnam grow and put Vietnam among the top 10 rapidly developing Asian countries in this field (according to Statistics of University World News, 2017). Also in 2017, Vietnam was ranked as the nation with the fastest growth rate (about 44.3%) of e- learning, 4.9% larger than Malaysia - an already inherently accelerated country which is strong growth in this area.

In addition to the above-mentioned potentials of Vietnam for online learning, a recent external factor has also greatly influenced the online learning situation in Vietnam. Since the Tet holiday, on January 30, 2020, Vietnam has detected the first 3 cases of corona virus. The virus has so far been declared a worldwide pandemic by WHO. The government announced the closure of schools at all levels from primary to tertiary and graduate. With the extended period of absence, many schools have shifted to online teaching. Because of that, many centers for teaching foreign languages or soft skills have also turned to online courses. Around the world, Harvard University has opened more than 60 free online courses accessible to everyone. Sixty online courses in data science, programming, social sciences, anthropology, health and the arts. There are also more free online courses from: British Council, Microsoft, Yale University ,....During the time when the pandemic was serious, all residents were encouraged to stay indoors and to limit going out. Therefore, the demand for learning and improving knowledge during free time at home is increasing. Everyone has time and material to study online. During the pandemic and even after this pandemic, online learning may take a huge developed step for both education and economic field.

Although Vietnam has the potential and opportunities for online learning development, the percentage of people who dropout online courses is still high. It seems that the courses are many in number but not quality assurance. So that the question here is what is the reason why students make the decision to quit or continue to study online courses. This study may serve to recognize influences that affect the intention to persist an online course in Vietnam.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1 Demographic characteristics

Hypothesis 1: Demographic characteristics has an indirect effect on intention to persist through internal factors.

Demographic characteristics: (Rovai, 2001) found the difference between male and female gender in an online course, in which he explained the difference was in the form of communication and community consciousness. He found that most men and a little piece of ladies communicated an autonomous voice, while a greater part of ladies and few men utilized an associated voice in the correspondence of the messages they composed. People with a high sense of community often use a connected voice when writing messages. Alternately, individuals with a low feeling of network will in general use independent voices to write messages. This is related to perseverance during e-learning because a low feeling of network is related with sentiments of confinement, trouble associating and is thought to antagonistically influence understudy determination in web based learning courses. (Ross, 1990) have studied that with online courses, women tend to be more successful than men.

In a study comparing dropouts and completing students of a television broadcasting course of (Dille, 1991), they focused their research on the specific characteristics of students completing the course. After the study, they concluded that the students who completed the course were older, had higher GPA and more college credits or higher education. In (Xenos, 2002), after field interviews with dropouts in separation instruction courses, a critical relationship among dropout and time of separation learning understudies were watched. One statement has been made that dropouts are often older and they need more encouragement from tutors. (Packham, 2004) found that most of the understudies who neglected to finish courses were male.

According to (Dabbagh, 2007), the online learning population is not homogeneous, including young, motivated students who have part-time jobs and are sensitive to information technology innovation and adults, who are self-directed and towards a clear goal. (Wojciechowski, 2005) announced that more seasoned understudies will in general show signs of improvement grades. This finding is likewise reliable with ((Dabbagh, 2007) and (Knowles, 1989) declaration that more established understudies are commonly increasingly self-sufficient and self-coordinated. These are two significant elements to be skilled to concentrate well in the online condition. In the study of (Lim, 2006), youthful online students (from 20 to 29 years of age) were appeared to perform better on the information test and felt progressively happy with the nature of their web based learning courses. Lim's findings supported the belief that older students (based on cognitive aging) seem to miss epistemological skills and trust to

manipulate learning through hi-tech (Jones, 1998). Previous studies have also shown that age may depend on context and other variables such as educational level to influence online learning. (Shin, 2004), after conducting an online awareness survey on undergraduate and graduate students, concluded that highly educated understudies are bound to be sure about results. learning than understudies with lower levels of training.

Students who have previous experience taking university education courses or any one of these courses will have a higher online completion rate. Regardless of the quality and performance of those learning experiences, there is a critical contrast between understudies who complete the course and the individuals who drop out of the measure of learning experience they had gone to before taking on the web courses. In (Levy, 2007), understudies with more significant levels of instruction or more long stretches of tutoring are more averse to drop out of online courses than different understudies. Notwithstanding, a few creators proposed that segment qualities minimally affect dropouts from separation training courses (Volkwein, 1995); (Williamson, 1988).

H1a: Age has an indirect effect on intention to persist (P) through internal academic locus of control (ALOC).

H1b: Age has an indirect effect on intention to persist (P) through satisfaction (S)

For age, according to (Dille, 1991), students who completed the course were older students. As observed in life, older people tend to be more self-conscious, they know what their goals are and try not to need to sit around on things that don't enhance themselves. (Fredericksen, 2000) revealed that understudies with the most elevated level of fulfillment with various parts of online courses additionally had more elevated levels of learning contrasted with understudies who have lower fulfillment levels. Appropriately, it is important that more seasoned understudies are frequently found to have more elevated levels of fulfillment in online courses than more youthful understudies. For older students, because they have determined to invest in an online course to gain knowledge that will help a certain goal, so they will study seriously and concentrate. As a result, their study results will be better and lead to higher satisfaction with the course. When satisfaction is high, they will likely be persistent with the online course. Understudies who have an interior locus of control are typically progressively self-coordinated, more propelled and perform better than understudies who have an outside locus of control in online courses (Chang, 2009); (Liu, 2002); (Parker, 2003). Older students tend to be more self-directed and highly motivated, so older people seem to get an internal locus of control. They believe in their ability to achieve goals so they will tend to be more persistent in the course.

H1c: Gender has an indirect effect on intention to persist (P) through internal academic locus of control (ALOC).

H1d: Gender has an indirect effect on intention to persist (P) through satisfaction (S).

(Rovai, 2001) has demonstrated that men tend to have lower sense of community and women have higher feeling of network. Because the low feeling of network leads to emotions of isolation or difficulty connecting with people, we see that women will often connect and exchange more, which leads to higher satisfaction. Since then, women will also be more persistent in online courses. In fact, men are often more confident than women. Especially in the case of chance or belief in the gods, women are also the ones who tend to believe more. (Adrian C. Sherman, 1997) has shown that men seem to get more internal locus of control than females, so if they consider the influence of gender on intention to persist, men will have higher internal locus of control and get to be more perseverance in the online course.

H1e: Educational level has an indirect effect on intention to persist (P) through internal academic locus of control (ALOC).

H1f: Educational level has an indirect effect on intention to persist (P) through satisfaction (S).

With educational level, the higher the educational level, the better knowledge and learning skills are. From there they will learn more effectively, concentrate and get better experiences. They also have a clear orientation for their studies so they will be highly satisfied. Therefore, they will also be more persistent in the course. The more academic experience and higher level of education they have, the more likely they will understand the outcome based on their ability, so they tend to have an internal locus of control. Therefore, they would be persistent higher.

2.2 Internal factors

Hypothesis 2: Internal factors have a direct, positive effect on intention to persist.

H2a: Internal academic locus of control (ALOC) has a direct, positive effect on intention to persist (P).

"Academic locus of control: the term "Locus of control is the belief that the outcome of one's actions depends on what one does (internal control points) or on events outside of self-control (external control points)". (Psychologist Philip Zinbardo). (Parker, 1999) conducted a study of predictive factors for decision for perseverance from e- learning courses. The study focuses on demographic characteristics and locus of control variables. After the investigation, Parker presumed that the locus of control was the primary variable for anticipating dropout or diligence with a general precision of 80%. (Rotter, 1966) proposed locus of control as a measure of personal awareness of the results of their own behavior compared to their perception of the outcome of the behavior of others. Thus, he proposed a tool of 40 things genuine bogus instruments to evaluate the locus of control."

(Trice, 1985) found that the (Rotter, 1966) instrument has been used for decades but has not really been used to measure education. Therefore, (Trice, 1985) proposed a 28-thing genuine bogus instrument dependent on the (Rotter, 1966) to use the academic locus of control measurement. With academic locus of control, students will reflect their thought of the locus of control related to academic performance of them. (Dollinger, 2000) led an examination on the impact of scholarly locus of control on the score of college courses by understudies. His outcomes indicated that understudies who scored all the more inside on the scholarly locus of control scored altogether higher evaluations (those who completed the online course) than students who scored more externally on the academic locus of control.

Studies on the general locus of control showed that understudies who have an inside locus of control are normally increasingly self-coordinated, more inspired and perform better than understudies who have an outside locus of control in online courses (Chang, 2009); (Liu, 2002); (Parker, 2003)). However, for the correct academic locus of control, the studies are limited. (Lee, 2012) proved that students who have an external academic locus of control are usually have higher rate to drop out of e-learning course. A recent (Levy, 2007) study has shown contrasting results with previous studies on the locus of control that academic locus of control cannot predict dropping out of online courses. Because of this inconsistency in the outcomes and shortage of research utilizing new scales, we need to investigate its effect on the retention of online students.

As explained above, understudies with high internal locus of control, they will rely on ability then try to study effectively, not just rely on luck. They also do not blame the external impact when an event happens to them. Therefore, they will try their best to reach their goal because they know the result reflects directly from their ability. They will tend to be more persistent in the course.

H2b: Satisfaction (S) has direct, positive effect on intention to persist (P).

Satisfaction: A few examinations analyzed the connection among fulfillment and ingenuity, demonstrating altogether positive connection between them, students are more averse to drop out when they are happy with the courses, and when the courses are applicable to their own lives. ((Johnson, 2008); (Levy, 2007); (Morgan, 2007)). A study of more than 200 students taking online courses was conducted by (Levy, 2003) to examine the relationship between how student satisfied and e- learning performance. It pointed out student satisfaction with e- learning is an important aspect to measure the efficiency of e- learning. In addition, according to (Chyung, 1998), student satisfaction is a critical factor in students' decision whether to drop out of e-learning programs. (Chyung, 1998) reported that "four to two percent of dropouts expressing dissatisfaction with the learning environment

is the reason for dropping out". (Ivankova, 2005) hypothesize that the further an understudy advances in an online class, the stronger fulfillment, detailing fulfillment rates of 92.3% with graduated members, 71.8% with registered undergraduate, then 57.7% with starting undergraduate. Then again, the pulled back/dormant gathering reports a 20% fulfillment rate. (Müller, 2008) found out when students don't feel happy with teachers or maybe the method of studying, students will be increasingly able to be not so fruitful compare to their classmates who persist. (Fredericksen, 2000) detailed that understudies with the most significant level of fulfillment with various parts of online courses likewise had more elevated levels of learning contrasted with understudies who have lower fulfillment levels. In like manner, it is important that more seasoned understudies are frequently found to have more significant levels of fulfillment in online courses than more youthful understudies.

People who has high satisfaction, they see the possibility of the goal they will achieve after completing the course, they are satisfied that this course will definitely bring the target they need, there isn't any issue make them confuse or concern about the course, so that they will persist until the course is completed.

2.3 External factor

Support from family and work/school: The support here is both physical and mental support. Most adult learners have a lot of responsibility for their families and their jobs, these are the two main aspects influencing adult students' intention to persist in e-learning courses (Park, 2007). For learners who are still students, they also do part-time jobs, so they have the same responsibility as adult learners for work and school. External components, for example, authoritative help, money related issues and time limitations are known to be a significant hindrance to grown-up participation since grown-up students have a wide range of jobs in their lives (Darkenwald, 1982), (Johnstone, 1965)).

According to (Willging, 2004), external aspects like family problems, miss of workplace support, work changes or large workloads are considered to be the key aspects leading to dropout e-learning courses. (Greer, 1998) emphasized the support of family and co-worker, friends in the achievement of e-learning learners. According to (Park, 2009), grown-up students are bound to drop out of online courses when they don't get support from their family, working environment or school while taking on the web courses, paying little mind to student scholastic planning. The greater part of the understudies who went to in online courses are part-or all day laborers who need to adjust their family, work and study obligations. So that, positive help from family, companions, bosses, instructors and partners is fundamental for understudies to prevail in online courses (Holder, 2007). Nonetheless, (Lee, 2012) didn't find significant connections between course finish and the variable help from family and work/school.

Hypothesis 3: External factor (Support from family and work/school) has a direct, positive effect on intention to persist (P).

The majority of participants and those who choose to study online are employed, either part-time or full-time. They are also often the ones who consider the time and financial issues when choosing to study online. Because it can be seen that the difficulties of online learning often do not require time to move to the classroom and the cost is usually cheaper than normal courses. Therefore, support from home and work / school is a factor that directly affects students' intention to persevere in learning online. If students receive emotional support from their home and work/school as an encouragement or financial / time support to make them less worried and more mentally comfortable then they will be more inclined to more determined to complete the course.
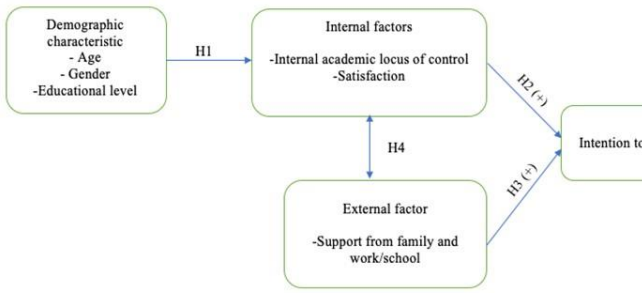
Numerous investigations have indicated that external variables are likewise one of the primary components causing on the e-learning students to choose to drop out. With the goal that a direct line from external components to intention to persist has been included (Park, 2009).

Hypothesis 4: Internal factors and external factor are correlated with each other

In Rovai's original model, it can be seen that three factors of characteristics of student, skills of student and external aspects will affect the internal aspects, then internal factors will directly affect the persistence decision. However, it is possible to predict that external aspects and internal aspects are correlated with each other. Take an example, if students do not receive mental or financial support from family and friends, work, they will have less motivation to complete the course and will be less satisfied. When they have heavy workload and little time to study, their family put stress on them and their supervisor at company do not sympathize them. At that time, the intention to persevere with their course will be reduced. If a person always receives encouragement and support from family, friends, colleagues during the course of study, they will be motivated and that will lead to high persistence to complete the online course (Park, 2009).

It can be predicted that the support from family and work/school and satisfaction are positive correlated with each other. When there is a comfortable mind and favorable conditions, it will be simpler for understudies to study and spotlight on figuring out how to accomplish high results, the satisfaction will increase.

Figure 2.1: Research Model Proposed

3. METHODOLOGY

3.1 Data collection method

This thesis used 2 data sources: secondary data source and primary data source (data that Master students collected).

3.1.1 Secondary data source

Secondary data is collected mostly from the following sources: Google scholar, Science @ Direct: Archive Full text files cover scientific literature ng core with many indexes High impact, ISI Web of Knowledge: Scientific works on the database Science quotes from more than 12,000 leading journals worldwide updated every week

 3.1.2 Primary data source

Primary data sources were collected by the surveys to figure out the kernels aspects can influence the intention to persevere in online courses in Vietnam. In that way, primary data collection is possible proceed as follows:

The surveys were assigned among Vietnamese people living in Vietnam by Google Form. The object of study is the people who are over 20 years old and studying online courses (Language, Soft skill, Coursera, Professional ,..) at the time doing the survey. The delivery networks were online only.

- Sample size:

Because it is impossible to investigate all Vietnamese online learners, the thesis focuses on number of about 250 learners. This sample size is calculated using the formula for calculating the sample proposed by (Hair, 1998) as follows:

Sample size: about 210 (minimum 19*5=95)

- Scale and scale history

 The study was built on basis of Rovai 's composite persistence model so that the research scale needed to be translated into Vietnamese from initial research scale which was used in publication of the article and study paper. A pre-test translated questionnaire was made with some sample respondent before giving the official survey to make sure the respondent can understand clearly after translation.

The metrics for this study were adapted from the same metrics used in previous studies. For example, with the Internal academic locus of control metric adjusted from Trice (1985), Satisfaction from Keller's (1987) (Instructional Materials Motivation Survey (IMMS), Support from family and work / school from the authors (Holder, 2007) Fiscal and Emotional Support and (Park, 2009), Persistence from Shin, N (2003). After referring to the scale and questionnaire of previous studies, the questionnaire. The survey for this study was formed with the following questions:

+ Sixteen (16) Ladder questions from disagree to strongly agree are elaborated (3 questions about internal academic locus of control, 3 questions about satisfaction, 6 Questions related to support from family and work / school, 4 questions about intention to persist of online course learners in Vietnam.

+ Five (5) survey questions about demographic characteristics.

3.2 Design and evaluate the questionnaire:

 A cover letter at the beginning of survey outlining the aim of this research and the moral implications of research. There are two sections of the questionnaire. Section one collected demographic characteristics information of respondents. There are two questions about the most recent online course that respondents took to filter respondents into three categories that were completed, not completed and are currently learning. In this study, only the questionnaires of respondents who are attending the course are valid for the use of research analysis. Section two consists of questions about factors affect intention to persist in online courses. Likert-type scale of five was used to measure all of the statements. Answers were instructed as 1: Strongly Disagree, 2: Disagree, 3: Neural, 4: Agree, 5: Strongly Agree.

3.3. Pilot test:

Questionnaires are sent to 10 people who are attending any online course. These 10 people were required to give the opinions about the questionnaire like how to ask questions and the content of the questions. Essentially, all respondents had the option to address all the inquiries in the survey. However, some questions when translated into Vietnamese are still a bit difficult to understand, the author corrected according to the evaluation of the test respondents.

4. RESULTS AND DISCUSSION

4.1 Descriptive Analysis

This part presents the investigation and related discoveries of all information gathered from the study. Descriptive data analysis is a suitable technique to dissect elucidating survey review.

The surveys were circulated by means of Google Form connect to in excess of 400 people who are older than 20 years old in Vietnam. There are 324 answers (27 dropouts, 63 completed and 234 studying) in total, so in final, only 234 qualify answers.

- Age: 202 participants generally 86.3% are at the age of 20 to 29 years old, 27 participants generally 11.5% are at the age of 30 to 39 years old, otherwise 5 participants generally 2.2% are over 40 years old.

- Educational level: The inquiry gathered information of the most noteworthy degree level of participant. 7 participants generally 3% got high school degree, 75 participants generally 32% got postgraduate degree, 152 participants generally 65% got university degree.

- Gender: 69.2% of participants generally 162 people were female, 30.8% of participants generally 72 people were male.

4.2 Cronbach's Alpha Analysis

The unwavering quality trial of a measure alludes to the level of the instrument that it liberated from arbitrary mistake. The unwavering quality of a measure generally identified with the consistency and soundness of that estimation. In this exploration, there were 4 independent scales and 3 dependent scales which used to quantify the develops of Rovai reconsidered model. The autonomous scales are Demographic Characteristics, Internal academic locus of control(ALOC), Satisfaction (S), Support from family and work/school (FW). The dependent scales Intention to persist (P), Internal academic locus of control (ALOC) and Satisfaction (S).

The Cronbach's Alpha proves all the variables: Internal academic locus of control, Satisfaction, Support from family and work/school and Intention to persist got Alpha ratio with high reliability (>0.8). So that all of these variables are good enough to use analyze.

4.3 Factor Analysis

4.3.1 Exploratory Factor Analysis (EFA)

Disclosure factor investigation encourages us think about decreasing the quantity of perceptions to few factors. From that point, we effectively think about every connection between factors. EFA assessment factor examination is viewed as legitimate when the entirety of the accompanying measures are fulfilled.

4.4 Confirmatory Factor Analysis

Factor investigation affirmed that CFA was performed with 16 watched factors. From the EFA investigation results, four components were drawn with the comparing scale bunches framing the applied estimation model and remembered for the CFA examination to think about the model's importance to the exploration information. CFA examination results are as per the following:
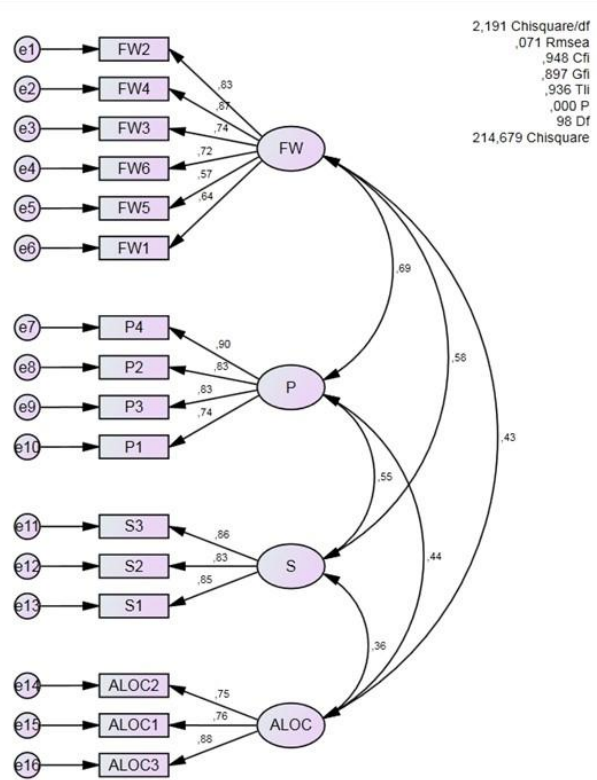

Figure 4 1 CFA model on Amos

Source: Amos Result

Therefore, we have a suitable CFA investigation model.

4.5 Structural Equation Modeling (SEM)

After CFA examination, the investigation utilized SEM structure model to decide the affecting elements and the degree of impact among the elements.
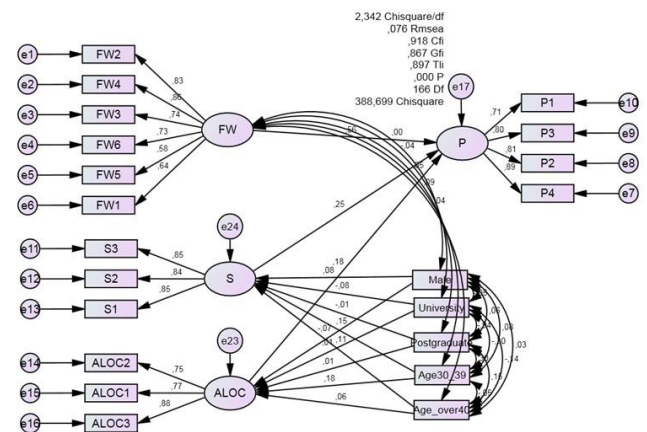

Figure 4 2 Analysis results of SEM linear structure model

Source: Amos Result

As being shown in figure 4.2, the model is logical with the research data because Chi square / df (2.342) <3; TLI (0.897) is approximately 0.9, CFI (0.918) > 0.9; RMSEA = 0.076 (<0.08). Subsequent to looking into the

model's appropriateness, the following issue will assess the SEM investigation results.

Table 4.1 Analysis results of SEM linear structure model

Relationship			Estimate	S.E.	C.R.	P	Standardized Estimate
ALOC	<---	Male	-0,109	0,116	-0,942	0,346	-0,066
ALOC	<---	University	0,012	0,314	0,038	0,97	0,007
ALOC	<---	Postgraduate	0,011	0,322	0,033	0,974	0,006
ALOC	**<---**	**Age30_39**	**0,429**	**0,178**	**2,417**	**0,016**	**0,179**
ALOC	<---	Age_over40	0,302	0,374	0,809	0,419	0,057
S	<---	Male	0,179	0,144	1,243	0,214	0,085
S	<---	University	-0,157	0,391	-0,401	0,688	-0,077
S	<---	Postgraduate	-0,024	0,401	-0,061	0,952	-0,012
S	**<---**	**Age30_39**	**0,447**	**0,219**	**2,041**	**0,041**	**0,147**
S	<---	Age_over40	0,771	0,466	1,654	0,098	0,114
P	**<---**	**ALOC**	**0,202**	**0,07**	**2,877**	**0,004**	**0,178**
P	**<---**	**S**	**0,227**	**0,055**	**4,154**	*****	**0,254**
P	**<---**	**FW**	**0,628**	**0,074**	**8,496**	*****	**0,565**

Source: Amos Result

At the 5% significance level, the correlations corresponding to the highlighted sig value in model are statistically significant (p <0.05).

Age30_39 has statistically significant to internal academic locus of control with p= 0,016. Age30_39 has direct effect (0,179) to internal academic locus of control. Age30_39 also has statistically significant to satisfaction with p = 0,041. Age30_39 has direct effect (0,147) to satisfaction. Gender and educational level showed no statistically significant to internal locus of control and satisfaction since p > 0.05.

Internal academic locus of control has statistically significant to intention to persist with p = 0,004. Internal academic locus of control has positive, direct effect (0,178) to intention to persist. Satisfaction has statistically significant to intention to persist with p = ***. Satisfaction has positive, direct effect (0,254) to intention to persist. Support from family and work/school has strong statistically significant to intention to persist with p = ***. Support from family and work/school has positive, direct effect (0,565) to intention to persist. Hypothesis 2 and 3 are proved.

Hypothesis 1 about the indirect relationship between demographic characteristics and intention to persist. Analyze weights in direct and indirect relationships and total Effects relationships in table below:

Table 4.2 Direct, Indirect and Total Effect relationships

Relationship				Estimate	Standardized Estimate
P	<---	ALOC	Direct	0,202	0,178
			Indirect	0	0
			Total effect	0,202	0,178
P	<---	S	Direct	0,227	0,254
			Indirect	0	0
			Total effect	0,227	0,254
P	<---	FW	Direct	0,628	0,565
			Indirect	0	0
			Total effect	0,628	0,565
ALOC	<---	Age30_39	Direct	0,429	0,179
			Indirect	0	0
			Total effect	0,429	0,179
S	<---	Age30_39	Direct	0,447	0,147
			Indirect	0	0
			Total effect	0,447	0,147
P	<---	Age30_39	Direct	0	0
			Indirect	0,188	0,069
			Total effect	0,188	0,069

Source: Amos Result

In the table, Age (Age30_39) has indirect effect (0,069) to intention to persist. The conclusion for hypothesis 1 can be: Gender and Educational level has no significant or has no effect to intention to persist. However, Age has indirect effect to intention to persist through internal academic locus of control and satisfaction.

Table 4.3 Hypothesis Testing Results

Hypothesis	Status
H1a: Age has an indirect effect on intention to persist (P) through internal academic locus of control (ALOC).	Supported
H1b: Age has an indirect effect on intention to persist (P) through satisfaction (S)	Supported
H1c: Gender has an indirect effect on intention to persist (P) through internal academic locus of control (ALOC).	Rejected
H1d: Gender has an indirect effect on intention to persist (P) through satisfaction (S).	Rejected
H1e: Educational level has an indirect effect on intention to persist (P) through internal academic locus of control (ALOC).	Rejected
H1f: Educational level has an indirect effect on intention to persist (P) through satisfaction (S).	Rejected
H2a: Internal academic locus of control (ALOC) has a direct, positive effect on intention to persist (P).	Supported
H2b: Satisfaction (S) has direct, positive effect on intention to persist (P).	Supported
H3: Support from family and work/school (FW) has a direct, positive effect on intention to persist (P).	Supported
H4: Internal factors and external factor are correlated with each other	Supported

Source: Authors' synthesis

5. CONCLUSION

5.1 Conclusion and discussion

In the digital age and people always want to make the most of time. The demand for learning increases and reaches far beyond the national scope. Online learning is a solution as well as a great step forward in education. Because of the rising demand for online learning,

investors can also see this as a potential source of business investment. Started and widely applied first in developed countries but now online learning is promising a major breakthrough in the near future with Vietnamese. The aspects that influence the intention to persevere in taking online courses found in the study are age, internal academic locus of control, satisfaction and support from family and work / school. From knowing the factors that influence students' intention to persist in learning online, online course providers, or even schools can come up with solutions to reduce dropout rates and improve high quality e- learning.

"The critical theoretical contribution of this research is to revise the original Rovai model by adding new internal academic locus of control variable, also apply it into online courses to consider the intention to persist with the online course. Previous studies mostly did not consider factors affecting online learning, but only based on Rovai or Tinto model to consider the difference of factors between dropout and persistence. Through statistical results describing and analyzing SEM structure equation model in chapter 4, the author found similarities with previous studies. In general, the results obtained for these factors are not different from the groups of factors such as factors of learners' characteristics, internal aspects and external aspects according to the analysis framework of Bean and Metzer (1985) model that the author has proposed in this study. By analyzing the actual data collected from the factors that belong to individual learners' characteristics such as age, gender, educational level to analyze indirect causes and to drill down into the analysis, find out the main cause has a direct effect on the intention to persevere, apply the analysis method of structure equation model from the results of the survey. According to the results, the causes belong to demographic characteristic, external and internal factors including 4 statistically significant factors: (1) age, (2) internal academic locus of control, (3) satisfaction and (4) support from family and work / school. Through research, no single set of factors is able to predict the persistence of learning in an online course, but it is a combination of the consideration of many factors that directly affect through and indirectly. Interaction with each other leads to predict the influence of online learning perseverance. In particular, the factor of support from family factions and schools brought the most influence. Then there is satisfaction and internal academic locus of control. Age has the smallest influence in this study. Initially the internal academic locus of control is considered to have the greatest influence due to the context of the Vietnamese people or believe in psychological factors to make decisions. However, the research results show that internal academic locus of control is influential but not the most powerful factor. Gender and educational level factor has no statistical significance for the intention to persist. Other way to say, we found no difference between men and women, between people with university or postgraduate qualifications for the intention to persevere

in the study. The study also found a correlation between satisfaction and support from family and work / school.

It can be seen that people aged 30-39 in Vietnam seem to have a higher internal locus of control than people aged 20-29 and over 40. Since then people aged 30-39 will intend to persevere more in taking online course. The research agrees with (Wojciechowski, 2005), (Dabbagh, 2007) and (Knowles, 1989) that older students tend to study better and persevere. As expected, the internal academic locus of control has direct effect on intention to persist as in (Dollinger, 2000). Person with higher internal academic locus of control often study better and consistently complete online courses. The research also agrees with the conclusion in (Levy, 2003) that satisfaction is a critical aspect to assess the impact of the intention to persevere in online learning. The final factor is support from family and work / school, the author gave the same result as (Park, 2007) that almost every adult learner has a lot of responsibility for their families and their jobs, so that this factor conscious adult students' intention to persist in online courses. The gender and educational level factors in this research were not statistically significant. Different from the original Rovai model proposed and compared with a few studies (Packham, 2004) and (Shin, 2004). This difference is due to differences in the context in Vietnam and previous studies abroad. In Vietnam, men and women or people with university or postgraduate degree have an academic equality. Once they decide to participate an e-learning course, they all want to complete the course and achieve same good results. Men and women have no difference in their beliefs about learning outcomes based on their abilities. Now, people with high school and university degrees in Vietnam have good skills and learning awareness is not much different from those with postgraduate education, so their satisfaction when attending the online learning course is no difference.

From the found causes, the author would propose specific solutions for each factor with statistical significance that have the real impact of the factors and remedies, helping to limit fertility dropouts in the near future.

5.2 Recommendation

From e-learning courses supplier point of view: There are 4 independents factors which are appeared in the exploration: Age, Internal academic locus of control, Satisfaction and Support from family and work/school. So as to improve the e-learning experiences, the e-learning courses supplier can take effect on:

-Age: Focus more for the students of the age 20-29 and over 40 prior the admission. Taking care and observe more detail for those people during the courses if something abnormal happens. Age is a fairly sensitive issue in Vietnam with learning issues. Many people will be afraid of being older so they don't want to go to school and compare with their classmates. Therefore, paying attention to the age of class placement is also an

important note. Students under 30 and over 40 should not be placed in the same class even though the curriculum is the same. From that people from 20-29 and over 40 will feel more into the course and higher persistence for online course.

- Internal academic locus of control: Before starting the first session of the program, the provider needs to create confidence about the efforts and results worthy as examples for students. Help students have a positive view of online learning. Create a study schedule or reference study plan that students can follow to achieve the best results. Provide students with an overview and reality of the curriculum and the learning ability of students. Create a comparison table to assess the suitability of the online curriculum and the level and ability of students. From there, they have a clear direction, more confident in their ability to complete and apply well the knowledge of the course. As such, the perseverance rate for online courses will increase.

- Satisfaction: Always ask and ask for feedback from students. Timely attention plays an important role in achieving student satisfaction and increasing student satisfaction. Provide a number of programs outside the basic curriculum framework to increase interaction between teachers and students. Always innovating teaching methods in line with the feedback of students. Making a plan to advise carefully on the level and characteristics or special needs of the students before advising the appropriate course. Build a lecture recording system, library of documents so students can learn and review lessons at any time. Proactively ask for comments, shortcomings of the lesson after each lesson. There is always a support system to answer students' questions and note the interaction of teachers and students during each lesson. Design lectures that are realistic and suitable with the students 's needs.

- Support from family and work/school: Because this is the biggest factor affecting the intention to persevere in online courses. More attention should be paid to the home, work or school of students studying online. When consulting courses, it is necessary to clearly ask this factor, regularly care and inquire about the situation, contact within the permitted range with the family, workplace or school of students studying online. Strive to support and add value to support students' families, workplaces and schools. Also, provider can help the students persist in the program by giving more consideration, utilizing reasonable persuasive plans, and giving extra inside assistance like having additional time after class with them, offering some make up class ahead of time. In addition, supplier and instructors need to illuminate understudies' family and work environment/school of the upsides of the course so as to instigate their backings for students.

5.3 Limitation and future research

The first limitation is on geography. The data is collected mainly in the northern and central regions of Vietnam, so it may not have an overview of factors affecting the intention to persevere in online learning in Vietnam. Future research can be distributed evenly to collect data in all three regions of Vietnam.

The second limitation is that the interpretation among English and Vietnamese could delude the decisively of significance as unique. What's more, there is likewise restriction of difficult to survey whether each member was completely legitimate in reactions to the survey.

The final limitation is on the sample of research. Because the study runs on Amos, the number of samples greater than 234 will give more accurate results. The target audience is people taking online courses in a variety of fields, so bias can occur. Future research may also consider limiting one or two specific areas for online courses.

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