MOTIVATIONS AND BARRIERS OF VIETNAMESE STUDENTS TOWARDS DISTANCE EDUCATION

Tran Vu[1], Nguyen Quynh Mai[2]

[1,2]School of Business, International University, VNU-HCM
Email: nqmai@hcmiu.edu.vn

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ABSTRACT

This paper aims to investigate the motivations and barriers of Vietnamese students towards the distance education. Quantitative strategy was exploited to conduct this research. The sample of 250 students who following the distance education programs in Ho Chi Minh City was selected. The results show that four motivation factors and six barrier factors were found. The motivations include: perceived benefits, amotivation, no pressure, and follow regulations. The barriers are: lack of time and family supports for study; lack of academic skills; lack of communications with the college/ school; Lack of Financial resources; technological problems and low Social interaction. In addition, research also proved that Perceived benefits and no pressure have positive impact on Intention of distance learning while lacking of academic skills has negative influence on the intention of distance learning.

Keywords: *Barrier, behavioral intention, distance education, motivation, Vietnamese students.*

1. Introduction

Information technology, computers, Internet and its applications have changed the world dramatically. There are a lot of areas that apply that modern technology effectively from military, government administration to manufacturing and service areas. That also includes the education field. One of the most important applications is the online education which is considered as an innovation in learning. The benefits of distance learning are obvious to leaners: lower fees, flexile class schedule, save money and time on commuting to the campus, and able to learn anywhere, any time. Although online learning has appeared in Vietnam for a long time in the form of English training via website, it has not much developed recently. In Ho Chi Minh City, there are only few universities have the distance education in their programs. Ho Chi Minh City Open University (HCMOU) or University of Science (HCMUS) is one of the universities that provide distance education program for the Bachelor Degree focusing on areas of information technology, business administration, finance – banking, accounting, economics law, English, etc. That is the signal that distance education is getting known by Vietnamese learners. It's one of the right and appropriate channel for them to obtain the knowledge beside the traditional education.

There are a lot of difficulties in delivering a good quality distance education program in Vietnam. It's not only the infrastructure, but also the quality control. A lot of top famous universities in Vietnam do

not provide distance education. It, however, is clear to see that more universities are considering offering that program to learners recently. It does not only increase the opportunity to learners, especially for those who are not able to follow the traditional program, but also increases the competitive advantages of the universities. It is able to attract more adult learners who want to seek for a higher degree but they do not have enough time to commute to the campus, or they may not live near the campus.

In general, distance education in Vietnam is still in the very beginning phase comparing to other countries. There is need to have more insight about the learner's motivations and barriers. Therefore, this paper aims to (1) define the motivations and barriers of Vietnamese students toward distance education; (2) evaluate the influence of motivations and barriers on intention for distance education; and (3) give suggestions to program designers and lecturers to improve the quality of distance education program.

2. Literature Review

Distance Education

Currently, there are there main terms that are used interchangeably: distance education (or distance learning), e-learning and online learning. The differences are coming from the way of learning, material delivery, technology and even personal perception (Moore, Dickson-Deane, & Gaylen, 2011). Distance education is an education form that occurs between two parties (learners and instructors); it's held at different times and/or places, uses varying forms of instructional materials (Moore, Dickson-Deane, & Gaylen, 2011). Ellis (2004) said that e-learning did not only covers content and instructional methods delivered via CD-ROM, Internet or Intranet (Benson et.al., 2002) but also includes audio, video tape, satellite broadcast and interactive TV (Clark, 2002). Triacca, Bolchini, Botturi and Iversini (2004) made it more complicated by adding that e-learning was a type of online education. On the other hand, online learning is described by most authors as access to learning experience via the use of some technology (Benson, 2002; Carliner, 2004; Conrad, 2002). It's the more recent version of distance education which improves access to educational opportunities for learners described as both non-traditional and disenfranchised (Benson, 2002; Conrad, 2002). Moreover, it's not only the accessibility to the education through the Internet, but also its convenient features such as flexibility and ability to promote varied interactions (Ally, 2004; Hitltz & Turoff, 2005; Oblinger & Oblinger, 2005). Online learning could be either fully online program or hybrid program based on a mix of online and face-to-face strategy (Kumarawadu, 2009). Moreover, an online learning program must have at least 80% of content that is delivered through the Internet (Allen & Seaman, 2011).

Although there are a lot of similarities and differences of those three terms, there is only one purpose among them. That is providing the education to people who cannot go to a "physical" school. It gives the learning opportunity for individuals. Therefore, in order to avoid arguments, this research will use the original, most general term: "distance education". Most Vietnamese Universities may use the term "distance learning" or "distance education". They have some common points such as: instructional materials are delivered via either printed or electrical version; it's flexible in time and places; mixture of offline (traditional) and online learning, etc.

Motivation

There are two important sub-concepts related to motivation. They are intrinsic motivation and extrinsic motivation. Intrinsic motivation originates inside the individual as

a response to the job itself and the circumstances surrounding its execution (Martin, 2005). On the other hand, an extrinsic motivator is one that originates outside the individuals and which influence their behavior (Martin, 2005).

From previous researches, the motivations for seeking distance education are both extrinsic motivators (Kimmel & McNeese, 2006) and intrinsic motivators (Grabowski & Curtis, 1991; Keller, 1999). The research of Kimmel & McNeese (2006) has found several motivators based on online learners in Canada and U.S. such as *desire for personal accomplishment, a role model for children, desire to finish incomplete program, desire for knowledge/skills in the degree field, and encouragement from children*. On the other hand, the intrinsic motivators are more complex and affect much to the online learners during the program. If the online learners demotivated, they may not overcome numerous barriers. There are several researches about the intrinsic motivational factors of online learners. Grabowski & Curtis (1991) focused on the influence of information and technology to learners like *usefulness of the information, perceived relevance of the information, self-confidence in the ability to access and use the information, and resulting satisfaction from successful access to*. Otherwise, the ACRS model of Keller (1991) defined what encourages learner's active involvement in learning including *engaging and maintaining learner interests (Attention), relating course content to students' interest (Relevance), enhancing student's confidence in understanding course content (Confidence), and satisfying students' inquisitiveness related to information (Satisfaction).*

Besides, to motivate online learners, program designers and lecturers also take the responsibility. Therefore, it's also important to analyze the learners' expectations to distance education programs. Kumarawadu (2009) explored the insight of learners' motivations and expectations through *the characteristics of the ideal online learners, the expected achievement of learning, the most effective ways to design and operate online programs, etc.*

With another viewpoint, Deci and Ryan (1985) suggested the theory of Self-determination. This theory describes different types of motivation underlying human behaviors. The motivation was categorized and listed from high to low levels of self-determination. They are intrinsic motivation, extrinsic motivation and amotivation. The elements of the Self-determination theory (STD) are illustrated in the following figure.

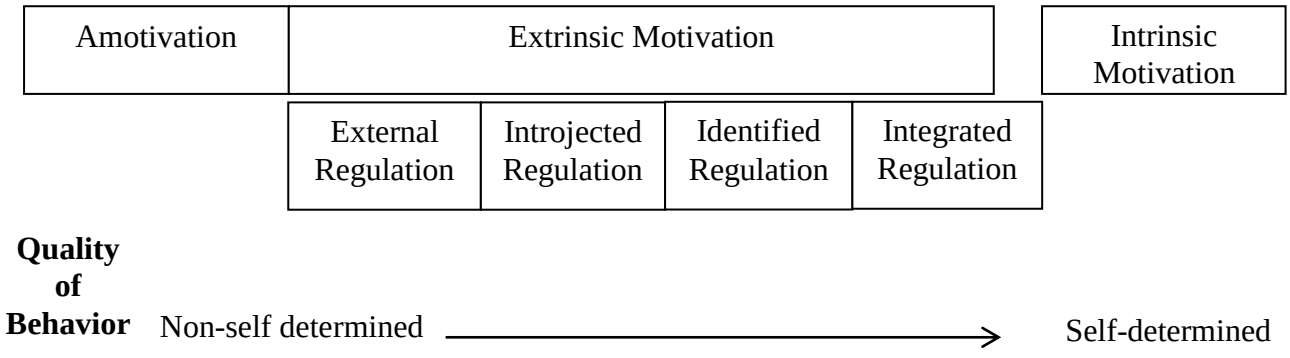

Figure 1. Elements of the Self-determination theory (Deci and Ryan, 1985)

The Intrinsic motivation had been pointed out previously. In addition to previous definition, extrinsic motivation pertains to a wide variety of behaviors where goals of action extend beyond those inherent in the activity itself (Guay, Vallerand, & Blanchard, 2000). It had been divided into another four sub groups that ordered from lower to higher levels of self-determination. They are *external regulation, introjected regulation, identified regulation, integrated regulation.*

Besides intrinsic and extrinsic motivation, the last element in the SDT is amotivation. This was a concept that proposed by Deci and Ryan (1985) in order to fully understand human behaviors. When amotivated, individuals experience a lack of contingency between their behaviors and outcomes. It's either intrinsically or extrinsically motivated. Amotivation is the least self-determined because there is no sense of purpose and no expectations of reward or possibility of changing the course of events (Guay, Vallerand, & Blanchard, 2000).

Barriers

Many authors agreed that adult learners face numerous of challenges and difficulties when they are back to school. Mbilinyi (2006) stated that adults returning to school face – and in many case, overcome – obstacles different from those facing younger students. In fact, almost adult learners who are seeking for the online learning are working, self-financed or married. They study online to take the advantages of flexibility of place and time. Therefore, adults worry most about juggling school with their family and work responsibility (Mbilinyi, 2006). Some examples barriers that are found out by Mbilinyi (2006) and Kimmel & McNeese (2006): the role as primary caregiver in a family, lack of childcare for the minor child/children, lack of funds for childcare for the minor child/children, lack of personal funds to pay for the colleges, concern about paying back student loans, finding the time for school amidst work, family and other commitment. In another study, Muilenburg & Berge (2005) had found eight groups of barriers of students towards online learning. They are: Administrative/instructor issues, Social interaction, Academic skills, Technical skills, Learner motivation, Time and support for studies, Cost and access to the Internet, Technical problem. Muilenburg & Berge (2005) considered Learner motivation as a component of Barriers. It indicated that there was a relationship between those two components.

Behavioral Intention

Behavioral intention of distance education or online learning learners had been investigated in some study with different models. There was a study about the investigation of students' behavioral intention to use the online learning course websites which used the three-tier Technology Use Model (Liaw, 2008). It integrates multidisciplinary perspective that included motivation, social cognitive theory (SCT), theory of planned behavior (TBP), and technology acceptance model (TAM).

Another study combined TAM model and innovation diffusion theory (IDT) (Chang & Tung, 2008) to investigate the behavioral intention of online learners. Although different model was used, some similarities to motivations and barriers were found. Chang & Tung (2008) found the factors that affected behavioral intention of online learners such as compatibility, perceived usefulness, perceived ease of use, perceived system quality, computer self-efficacy.

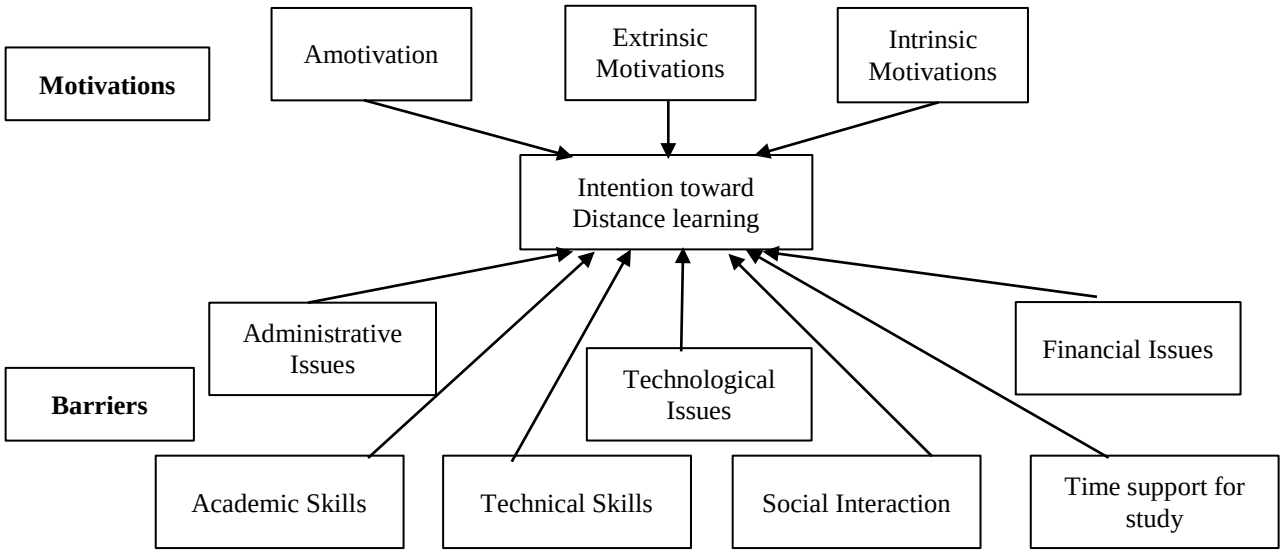

Figure 2. Research model

The research model was based on the construct of motivation from self-determined theory of Deci and Ryan (1985) then was developed by (Guay, Vallerand, & Blanchard, 2000) and the category of barriers of Muilenburg & Berge (2005). Those motivations and barriers were examined how those influence intention toward distance learning of learners.

3. Research Methodology

Measurements

Measurements from previous research was collected and refined according to research objectives and Vietnamese context. The factor of motivation is measured by three second-order factors: extrinsic motivation, intrinsic motivation, and amotivation. The scale that was applied for extrinsic motivation was Self-regulation questionnaire developed by Williams and Deci (1996) which has two subscales: Controlled regulation and autonomous regulation. The questionnaire was adapted as needed to refer to the distance education in Vietnam. Intrinsic motivation was measured by Intrinsic Motivation Inventory (IMI) which was first developed by Deci et.al. (1994). This is a multidimensional measurement device including 7 subscales, intends to assess participants' subjective experience related to a target activity in laboratory experiments. The scale measuring amotivation was adopted from the research of Guay, Vallerand, and Blanchard (2000). The measurement of Barriers was based on two research (Muilenburg & Berge, 2005) and (Kimmel & McNeese, 2006). The following table will illustrate the summary of research and scales that are used in this paper.

Table 1. Variables of Research Model

First-order factors	Second-order factors	Third-order factors	Source
MOTIVATIONS	Extrinsic motivations	Autonomous regulation	Williams & Deci, 1996
		Controlled regulation	
	Intrinsic motivations	Enjoyment	Deci et.al., 1994
		Perceived Competence	
		Importance	

First-order factors	Second-order factors	Third-order factors	Source
		No Pressure	
		Perceived Choice	
		Usefulness	
	Amotivation	--	Guay, Vallerand, and Blanchard, 2000
BARRIERS	Academic Issues	--	Muilenburg & Berge, 2005; Kimmel & McNeese, 2006
	Social Interaction	--	
	Academic Skills	--	
	Technical Skills	--	
	Time/Support for Study	--	
	Technology Issues	--	
	Financial Issues	--	
BEHAVIORAL INTENTION	--	--	Ajzen (1991); Gong et al., 2005; Punnoose, 2012

The measurements of third and second-order variables (Motivation and Barriers) and first-order variable (Behavioral Intention) are presented in Appendix. These variables were measured by 7-point Likert scale to access the level of agreement to the statements. Since the original questionnaire was written in English, it has been translated into Vietnamese by the authors with the support of English native speakers and Vietnamese linguistic experts. The authors tried to keep the original meaning while making it understandable as much as possible to Vietnamese students.

Sampling

Direct distribution of survey will be applied in order to have the highest response rate. It was distributed at the school when students were gathered in the orientation day. There were 650 surveys distributed to distance education students of three universities in Ho Chi Minh City. The response rate was 66.8% with 434 surveys, there were only 267 (61.5%) valid surveys.

In this research, there are two out of three universities that offer technical/technology programs for the distance education. Therefore, most of the respondents are male, accounted for 70.4% of total respondents, doubling female (29.6%). Most of the respondents are in the age of 25-29 and over 35 years old, accounted for more than 30% of total respondents each. The top three areas that followed by most of students were Information Technology or Electrical Engineering, Business Administration, Economic – Law, accounting for 40% - 15% - 7.5% of total respondents respectively. The experience of participants is distributed nearly evenly. The number of senior learners seems to be higher than others.

4. Findings

Reliability and Validity

In order to test the reliability of each construct, the Cronbach's alpha was employed with the threshold 0.6. According to the testing result, the constructs of *extrinsic*

motivations, amotiv*at*ion and *Barriers* have the highest internal consistency (Cronbach's alpha above 0.7). 18 items were eliminated to increase internal consistency of the constructs. The scale of *Importance* has Cronbach's alpha below 0.5 was eliminated in the EFA.

Table 2. Reliability test

Factor		Constructs	Cronbach's alpha
Motivations	1	Autonomous regulation	0.815
	2	Controlled regulation	0.72
	3	Enjoyment	0.613
	4	Perceived Competence	0.67
	5	Importance	0.399
	6	No Pressure	0.619
	7	Perceived Choice	0.649
	8	Usefulness	0.832
	9	Amotivation	0.821
Barriers	10	Lack of support for study	0.885
	11	Lack of academic skills	0.914
	12	Lack of technical skills	0.874
	13	Academic issues	0.848
	14	Financial issues	0.888
	15	Technology issues	0.806
	16	Low social interaction	0.763
Dependent factor	17	Behavior intention	0.697

Exploratory factor analysis (EFA)

A principal axis factor analysis (PAFA) with Promax rotation and Kaiser Normalization was used to determine the underlying structure of the data. A cutoff for statistical significance of the factor loading of 0.5 was used. Each item loaded distinctively on one factor. The highest factor loading was separated from its next nearest loading by at least 0.300. In the first round, the PAFA of the 69 variables of both independent and dependent factors resulted in 16 constructs that accounted for 58.499% of the overall variance extracted. After 20 round of extractions, 19 out of the 69 items were excluded as their factor loadings were below the 0.5 cut-off point or they did not have significant different from theirs next nearest loadings. The 50 items left were grouped into 11 constructs with their reliability presented in the appendix. The name of new constructs were adjusted to fit with the content of measurements.

Confirmatory factor analysis (CFA)

At first, 12 constructs including 50 variables from the EFA result are employed

for confirmatory factor analysis to identify and testing the relationship among concepts and between concepts and their measures. The item having loading less than 0.500 is eliminated. The initial CFA show that most of important fitness indices are not satisfied (CMIN/df = 1.732; CFI = 0.877; TLI = 0.864; GFI = 0.787; RMSEA = 0.052) suggested for model simplification that means reducing number of items. While all the constructs have item‘s factor loading more than 0.500 except No Pressure scale. Variable *of not feel nervous (PT1)* explain 44.6 percent of the overall concept, suggested for excluding this item from the model. In the next round of CFA, the construct of No Pressure is measured by two items left. The Heywood case occurred in estimation result, one item of Pressure/tension construct has standardized loading larger than one and the error variance is negative. Thus the author suggested excluding this construct out of the model. The final CFA, there are some adjustment based on modification indices to improve model fitness indices (CMIN/df = 1.665; CFI = 0.899; TLI = 0.888; GFI = 0.806; RMSEA = 0.050). Although some the fitness indices did not meet the threshold of 0.900, the authors accept the analysis result as there are numerous variables in the model and sample data are not sufficient.

Table 3. Composite reliability and Composite variance of all constructs

Factor		New constructs		Composite Reliability	Composite variance
Motivations	1	Perceived benefit	PB	0.898	0.471
	2	Amotivation	AM	0.794	0.562
	3	Follow regulations	CR	0.649	0.384
	4	No pressure	InE	0.812	0.684
Barriers	5	Lack of time and family supports for study	TSS	0.833	0.607
	6	Lack of academic skills	AcS	0.913	0.724
	7	Lack of communications with the college/ school	AcI	0.845	0.441
	8	Lack of Financial resources	FnI	0.889	0.727
	9	Technological problems	TeI	0.825	0.544
	10	Low Social interaction	SoI	0.734	0.482
Dependent	11	Behavior intention	BeIn	0.693	0.545

The results of EFA and CFA help to achieve the initial research objective: identifying Motivations and Barriers of Vietnamese students towards distance learning.

In the Motivations factor, except one construct which is the combination of extrinsic motivation items (autonomous regulation) and intrinsic motivation items, the new construct is named Perceived benefits. This is the biggest pool of item in motivations factors since it contains items from other pre-defined groups such as autonomous regulation, perceive of choice, enjoyment and value/usefulness. It can be explained that the definition of extrinsic motivation, especially autonomous regulation, is very closed the intrinsic motivations. In case of autonomous regulations dominated, a learner follows the

distance education because of their sense of its significance, not because of their fun or interest as intrinsic motivation. In general, the learners themselves found this program is so useful to them, they could apply their new knowledge to the daily work in order to improve productivity and feel pretty competent. They themselves know exactly the value of the program brings to them. Beside the benefits of distance education brings to adult learners, they are also motivated by interest of the program. Moreover, although this program is distance education which is different to traditional education in Vietnam literately, the effect of instructors to students (follow regulation) is still remained. Distance learners have a high regard for instructors whose suggestions and advices are considered important and should be followed. The last construct of motivations factor is amotivation, which was used to assess the study orientation/ objectives of the learners. We can see that most of students knew their purposes when joining this program as most of them did not agree to the amotivation questions.

There is one component of Barriers removed from the original survey. The factor *Lack of technical skills construct was* eliminated since it may not be applicable to Vietnamese students. The distance education program is designed as a hybrid program. It's the combination of offline and online learning. Offline learning is organized as the usual traditional class, with lecturers and students meeting in an auditorium. Online learning is self-organized learning in which students needs to learn by themselves via books, electronic devices (such as CD-ROM, eBooks, etc.) and the Internet. Therefore, *Technical skills* may not have significant influence in this situation. Although distance education is in the form of a hybrid program, the teaching and learning methodology is much different from the traditional education program that Vietnamese students used to. Therefore, they may feel *Low social interactions*. It's similar to the traditional education program, distance education students seem also have barriers in *Lack of financial resources, Lack of communications with academic programs/ schools; and lack of academic skills*. *Lack of time and support from family/employer*, especially in time aspect, that allows distance learners to follow and complete the program is quite important and significant studying barriers.

Model testing

Table 4. Regression coefficients

			Est	P	Standardized Regression Weights
BeIn	<--	PB	0.632	***	0.546
BeIn	<--	AM	0.105	0.279	0.125
BeIn	<--	CR	0.105	0.329	0.102
BeIn	<--	InE	0.205	0.043	0.216
BeIn	<--	TSS	0.085	0.448	0.09
BeIn	<--	AcI	0.189	0.067	0.197
BeIn	<--	AcS	-0.198	0.026	-0.226
BeIn	<--	FnI	-0.025	0.71	-0.033
BeIn	<--	SoI	0.08	0.463	0.071
BeIn	<--	TeI	-0.131	0.117	-0.163

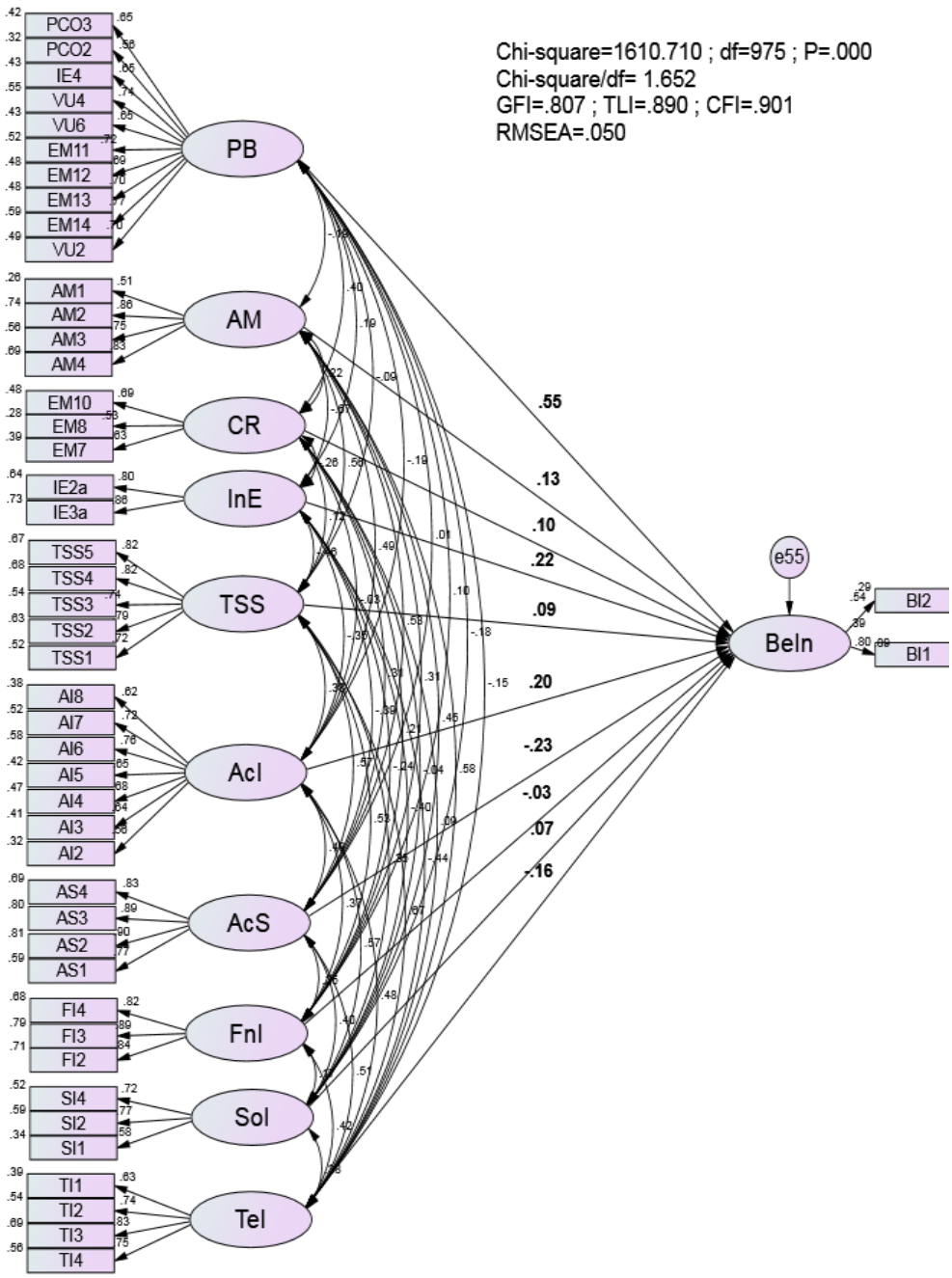

Figure 3. SEM

From the regression table (Table 4), there were three constructs that had statistically significant influence to Behavioral Intention. Two constructs under motivations factors, "Perceived benefits" and "No pressure", have positive effects on intention for distance education. The testing result, one more time, confirms the values of distance education program brings to their students. Once an individual self-perceived the value of the distance education program, he will obviously behave positively such as recommend to others or try harder to study. "No pressure" reflects the distance learning in Vietnamese context, these programs are quite easy to be accepted and to follow and very flexible compared to offline programs. That is also the reason for choosing distance learning

programs. On the other side, lack of academic skills showed the negative relationship with Behavioral intention. Again, it is impossible to deny the important role of academic skills in distance learning. Lack of academic skills like writing, reading, communication and language skills will reduce the knowledge absorption, competency and confidence of students. It could lead to negative behavior such as drop off the program.

5. Discussion and conclusion

In general, the research's findings support the findings of Guay, Vallerand, and Blanchard (2000) in motivations and Kimmel & McNeese (2006), Muilenburg & Berge (2005) in barriers. Since all of universities in this research have not provided distance education via internet fully (there is a fact that very few Vietnamese universities provide that), there were some adjustments to the original literature. There were some differences between Vietnam and foreign distance education (mostly online learning) over the world. Four motivation variables were found. They are: *perceived benefits, interest/enjoyment, effect of instructors (controlled regulation)* and *lack of orientation (amotivation).* There were also six barrier factors found including: *academic issues, lack of academic skills, lack of social interaction, financial issues, technology issues* and *support from family/employer*. This research also identified the motivations and barriers that have the influence to the behavioral intention of the learners. They were, in specify, peceived benefits, interest/enjoyment, and lack of academic skills.

From the results of this study, the learners found it's difficult to contact school's staff, including both administrative and academic staffs. The school needs to have another effective way to communicate to students, so they can help students as soon as possible once they have any issues, including technical issues. Other academics issues seem to be barriers for students. They were material quality and teaching methodology. Since students did not go to school frequently, delivery material should be good in both quantity and quality. Finally, there was an evidence that students also declared they are lacking of academic skills or the prerequisite skills to follow distance education program. The distance education program designer may make more time to supplement those skills for students before they join the main program.

Although distance education requires student to study by themselves most of the time, the effect of instructors was still an important factor as traditional study style. Base on the result, the instructor was one of the motivators of students. Hence, instructors were still an important part of students' study period. However, students may also found it difficult in contacting to instructors. Therefore, instructors may need to support students effectively by creating more contact channels such phone, email, forum, video call, etc. in order to help students solve their issues on time. Moreover, instructors should also have another teaching methodology that's fit to the characteristics of distance education.

Distance education gives prominence to self-study. Therefore, students need to find the interest, enjoyment in the program and its value by themselves. Once they perceived the value of the program and had high self-interest in the program, their motivation will be high enough in order to follow and finish the program well.

REFERENCES

Allen, I. E., & Seaman, J. (2011). *Going the Distance: Online Education in the United States.* Bason Survey Research Group.

Ally, M. (2004). Foundations of educational theory for online learning. *The theory and practice of online learning*, 3-31.

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*, 179–211.

Benson, A. (2002). Using online learning to meet workforce demand: A case study of stakeholder influence. *Quarterly Review of Distance Education*, 443-452.

Benson, A.; Elliot, D.; Grant, M.; Holschuh, D.; Kim, B.; Kim, H.;. (2002). Usability and instructional design heuristics for e-Learning evaluation. *World Conference on Educational Multimedia, Hypermedia and Telecommunications (EDMEDIA)*, (pp. 1615-1621). Chesapeake, VA: ACCE.

Carliner, S. (2004). *An overview of online learning (2nd. ed.).* Armherst, MA: Human Resource Development Press.

Chang Su-Chao & Tung Feng-Cheng. (2008). An emperical investigation of students' behavioural intentions to use the online learning websites. *British Journal of Education Technology, 39*(1), 71-83.

Clark, R. (2002). Six principles of effective e-Learning: What works and why. *The e-learning developer's Journal*, 1-10.

Conrad, D. (2002). Deep in the hearts of learners: Insights into the nature of online community. *Journal of Distance Education*, 1-19.

Deci, E. L., Eghrari, H., Patrick, B. C., Leone, D. (1994). Facilitating internalization: The self-determination theory perspective. *Journal of Personality, 62*, 119-142.

Deci, E. L.; Ryan, R. M. (1985). Intrinsic motivation and self-determination in human behavior.

Dictionary, T. O. (2012). Retrieved 8 15, 2012, from the Oxford Advanced Learner's Dictionary: http://oald8.oxfordlearnersdictionaries.com/dictionary/barrier

Ellis, R. (2004). Down with boring e-learning! (M. W. Allen, Interviewer).

Guay Frédéric, Vallerand Robert J., and Blanchard Céline. (2000). On the Assessement of Situational Instrinsic and Extrinsic Motivation: The Situational Motivation Scale (SIMS). *Motivation and Emotion, 24*(3), 175-213.

Gong, M., Xu, Y., & Yu, Y. (2004). An enhanced technology acceptance model for web-based learning. *Journal of Information Systems Education, 15*(4), 365-373.

Grabowski, B. L., & Curtis, R. (1991). Information, instruction and learning: A Hypermedia perspective. *performance Improvement Quarterly*, 2-12.

Hitltz, S. R., & Turoff, M. (2005). Education goes digital: The evolution of online learning and the revolution in higher education. *Communications of the ACM*, 59-64.

Keller, J. M. (1999). Using the ARCS motivational process in computer-based instruction and distance education. *New Directions for teching and learning, 78*.

Kimmel, S. B., & McNeese, M. n. (2006). *Barriers to Business Education: Motivating Adult Learners.* Institute of Behavioral and Applied Management.

Kumarawadu, P. (2009). *Motivation of online learners: Review of practices and emerging trends.* Sri Lanka Institute of Information Technology.

Liaw, S.-S. (2008). Investigating students' perceived satisfaction, bahavioral intention and effectiveness of e-learning: A case study of the Blackboard system. *Computers & Education, 51*, 864 - 873.

Martin, J. (2005). *Organizational Behaviour and Management* (Third ed.). Thompson Learning.

Mbilinyi, L. (2006). *Adults' view on the value and feasibility of returning to school.* Capella University. Degrees of Oppurtunity.

Moore, J. L., Dickson-Deane, C., & Gaylen, K. (2011). e-Learning, online learning and distance learning environments: Are they the same? *Internet and Higher Education 14*, 129-135.

Muilenburg Lin Y. & Berge Zane L.. (2005, May). Student Barriers to Online Learning: A factor analytic study. *Distance Education, 26*(1), 29-48.

Oblinger, D. G., & Oblinger, J. L. (2005). Educating the net generation. *EDUCAUSE*.

Punnoose, Alfie Chacko (2012). Determinants of Intention to Use eLearning Based on the Technology Acceptance Model. *Journal of Information Technology Education: Research* Volume 11, 2012.

Ryan, R. M., Koestner, R. & Deci, E. L. (1991). Varied forms of persistence: When free-choice behavior is not intrinsically motivated. *Motivation and Emotion, 15*, 185-205.

Triacca, L., Bolchini, D., Botturi, L., & Inversini, A. (2004). Mile: Systematic usability evaluation for e-Learning web applications. *ACCE Journal*.

Vallerand, R. J. (1997). Toward a hierachical model of intrinsic and extrinsic motivation. *Advances in experimental social psychology*, 271-360.

Williams, G. C. & Deci, E. L. (1996). Internalization of biopsychosocial values by medical students: A test of self-dermination theory. *Journal of Personality and Social Psychology*, 767-779.