



**An evaluation of student satisfaction of the joint master programs
at Foreign Trade University in Vietnam**

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Abstract

Globalization has become increasingly popular. Nevertheless, education in Vietnam has lagged behind developed countries. Thus, one of main reasons for Vietnam to engage in international collaboration is to improve training quality and enrich the human resource for economic development. This study aims to assess joint master programs at the Faculty of International Education at Foreign Trade University based on the overall student satisfaction. The SSI model developed by Temizer and Turkyilmaz (2012) to measure student satisfaction at private university is applied in the research. The data of this research are analyzed by the SPSS 20.0 software. The online questionnaires in the research are used for collecting opinions of joint master students at the Faculty of International Education at Foreign Trade University. From the analysis of 237 respondents, the results show that image (IM), perceived value (PV), perceived quality (PQ), and student expectation (EXP) impact on student satisfaction, in which perceived value and image mostly affected the overall satisfaction of students coming from joint master programs at Foreign Trade University.

Keywords: Joint master program, SSI model, Student satisfaction

1. Introduction

Nowadays, with the increase in globalization and the conception of education as a special service, international education has been popular in Vietnam. International education can be understood in two ways, one is training with the goal of taking international qualifications, and the other is training with the goal of reaching the international standards of the program's content and quality (Ngoc, 2013). The first understanding focuses on the results of the

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program as the joint training program allows students to receive international degrees upon graduation. Meanwhile, the second understanding emphasizes the content and the process of implementation, and considers the results that students have received and absorbed during the joint training programs as a whole.

With the current situation of international education in Vietnam, Foreign Trade University (FTU) is chosen in the research because FTU is a university of high ranking in Vietnam and has a variety of master's programs including master courses associated with Australia, Taiwan, France, and England. FTU was established in 1960 and is one of the best universities in Vietnam offering a wide range of courses such as business, finance, management and marketing (FTU, The introduction of FTU, 2014). The Faculty of International Education (FIE) is in charge of the management of joint master training. All programs that this department carries out are international joint training. These joint master programs are MIB (Master of International Business with La Trobe University, Australia), MBA (Master of Business Administration with BI Norwegian School of management, Norway), MBA with Shute University (Taiwan) and MBA with Meiho University (Taiwan) (FTU, The faculty of International education, 2014). This paper focuses on master training programs which bring many benefits for all learners. Joint master program is a model of education to create opportunities for social learning. By doing this, many people in the remote areas and who are busy working all have the opportunity to study further. Joint training can be found in not only attractive sectors such as finance, accounting, foreign languages, but also is expanded to technology or even in the field of vocational training.

Zhang *et al.* (2008) establish a college student satisfaction model according to the theoretical frames of American Customer Satisfaction Model (ACSI) and European Customer Satisfaction Index (ECSI). Other previous researchers also investigated student satisfaction in universities and post-graduate schools, as there is a fierce competition among universities worldwide to attract and retain the best students, and also because the labor market is more unstable. Nonetheless, these studies used the Servqual model to evaluate student satisfaction. To fill this gap, the current research measures student satisfaction from different aspects including image of university, expectations, perceived quality, perceived value and loyalty based on ECSI model proposed by Temizer and Turkyilmaz (2012). The proposed model is tested in the context of FIE at Foreign Trade University. By proposing the student satisfaction model, this paper intended to achieve the following research objectives: (1) To examine the effect of proposed factors (image, expectations, perceived quality, perceived value) on loyalty, (2) To investigate the linkages among these proposed factors, (3) To measure which factor is the most important determinant of student loyalty.

2. Literature review

There is a long stream of research on student satisfaction. This part aims to provide an overview of the literature in this field. First, customer satisfaction is discussed. Next, this paper will review various research on student satisfaction and university image, student expectation, perceived quality, perceived value, and the relationship between University's

image and student satisfaction, University's image and student expectation, and perceived value. Finally, the SSI model by Temizer and Turkyilmaz (2012) is identified.

Satisfaction, according to Feclikova (2004), is interpreted as a feeling which results from a process of evaluating what was received against that expected, the purchase decision itself and/or the fulfillment of needs/want. Customer satisfaction in marketing context has specific meanings in which customer satisfaction is defined as customer's overall evaluation of the date (Gustafsson *et al.*, 2005). This satisfaction has positive influences on retaining customers among different variety of service and products. The student is a special customer in a special service environment, and is a part of the product development (Jurkowitz *et al.*, 2006). Therefore, Temizer and Turkyilmaz (2012) consider students as customers as they examined factors influencing student satisfaction. Drawing from previous research, the current paper views student satisfaction as student's overall evaluation of their learning program in this paper

According to the work of Temizer and Turkyilmaz (2012), there is little research which developed and tested a satisfaction index model student (SSI) for institutions of higher education. Their proposed SSI model based on the ECSI model has been employed to measure the satisfaction of students from different aspects such as the image of the university, expectations, perceived quality, value feel, and loyalty. The results can provide valuable information for strategic management and university researchers about the factors that influence satisfaction and loyalty in students. Although other studies mostly employed Servqual model or 5Qs model to assess the training quality service, these papers seem to be insufficient to examine student satisfaction. In this vein, this study uses SSI model to assess student satisfaction with the purpose of increasing training service of joint master programs in Vietnam.

Kotler (2001) defines image as the set of beliefs, ideas, and impression that a person holds regarding an object. On the other hand, Keller (1993) considers brand image as a set of perceptions about a brand reflected by brand associations in consumers' memory. All definitions of image mentioned above vary with different researchers' theories, however, these theories all showed that an image can generate values in terms of helping customers. Creating and maintaining image are important duties of a firm's marketing program (Roth, 1995). The image of university is seen as an image of a corporation, hence, university image in this study refers to the set of beliefs, ideas and impressions that an individual student holds regarding an object.

With regard to student expectations, some researchers (Anderson, 1973; Churchill and Surprenant, 1982; Oliver, 1977; Westbrook and Reilly, 1983) view expectations as significant beliefs, before experience about product global performance, formed by company suggestions or product information. Nevertheless, Swan and Martin (1981) argue that expectations represent the anticipated satisfaction of product consumption. Hence, student expectations can be seen as the anticipated satisfaction from students about their learning program.

When it comes to perceived quality, it is defined as the consumer's judgment about an entity's overall experience or superiority (Zeithaml, 1987; Zammuto *et al.*, 1996). Parasuraman *et al.* (1990) also conclude that consumer perceptions of service quality result from comparing

expectations prior to receiving the service to their actual experience of the service. Rowley (1996) further defines perceived quality as a form of attitude related to, but not the same as, satisfaction, which results from a comparison between expectations and perceptions of performance.

For perceived value, Zeithaml (1988) suggests that perceived value is the overall evaluation that the consumer makes of a product based on perceptions of that given in exchange for that which is received. Hence, value represents a trade-off between the most prominent components of that given in exchange for that received (Alves, 2010). Various other studies have also adopted this perspective on value (McDougall and Levesque, 2000; Cronin *et al.*, 2000; Hermawan, 2001; Fornell *et al.*, 1996). Some definitions of perceived value in the higher education field also are made up from this trade-off approach. Ledden *et al.* (2007) state that the value perceived by a student is the overall evaluation of the utility of the service based upon the perception of that is received and given. Brooks and Everett (2009) associate the value of education only to the targets that studying enables to be reached.

The original model of the SSI Temizer and Turkyilmaz (2012) is a structural model developed to measure the satisfaction of students from different aspects such as image of the university, expectations, perceived quality, perceived value, overall satisfaction and loyalty degree of students. This model contains six following constructs in which each factor is a latent construct that is operationalized by multiple indicators.

3. Research methodology

As aforementioned, Temizer and Turkyilmaz (2012) focus on student satisfaction and loyalty which strongly depend on the efforts regarding the quality of the services provided. This paper presents an empirical study on the SSI model with the master students of FTU as the investigation objectives. Nonetheless, this study only aims at measuring student satisfaction and leaves out loyalty for three reasons. Firstly, most students choose joint programs which have short period of time, are flexible and convenient because they are still working at their organizations, so they try to balance learning and work. Moreover, there is strong competition among Vietnamese universities in order to attract students to their master joint programs. That is the reason why this study focuses on evaluating student satisfaction. Secondly, most students in these programs are doing business or working for enterprises, so that they just need necessary knowledge and certificates in order to contribute to their job with no intention to study higher education degree like PhD. Therefore, the author does not mention loyalty in this study. Thirdly, the title of this paper just mentions student satisfaction without loyalty. Thus, the researcher omits loyalty constructed in the SSI model.

Based on the analysis of foreign research of student satisfaction, joint master student satisfaction of Faculty of International Education at FTU in Vietnam is influenced by university image, their perceptions of the master training quality, their estimations of the perception value and further affected by expectations. Therefore, the researcher investigates five latent constructs instead of six constructs, which are student satisfaction, image, student

expectations, perceived quality and perceived value; while loyalty is omitted. The original SSI model is modified as the following figure:

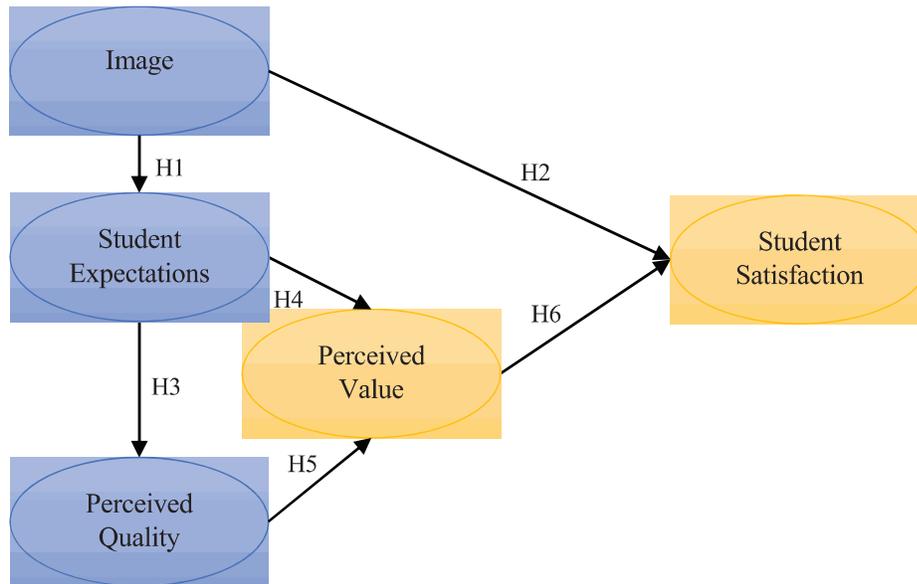


Figure 1. Satisfaction Index modified

Source: Satisfaction Index (Temizer and Turkyilmaz, 2012)

As this model showed, loyalty is omitted and four hypotheses are not available as they are unnecessary in this study. It means that the relationships between image and loyalty, student satisfaction and loyalty, student expectations and student satisfaction, perceived value and student satisfaction are not studied. Thus, this research studies about six relationships between image and student satisfaction, image and student expectations, student expectation and perceived quality, student expectation and perceived value, perceived quality and perceived value, perceived value and student satisfaction. These six relationships are proposed as follows:

- H1: Image has a positive effect on student expectations.*
- H2: Image has a positive effect on student satisfaction.*
- H3: Student expectation has a positive effect on perceived quality.*
- H4: Student expectation has a positive effect on perceived value.*
- H5: Perceived quality has a positive effect on perceived value.*
- H6: Perceived value has a positive effect on student satisfaction.*

In the SSI model developed by Temizer and Turkyilmaz (2012), the questions were designed with 23 measurements. In their research, image construct (seven questions), student expectation (four questions), perceived quality (four questions), perceived value (two questions), student satisfaction (three questions), and loyalty (three questions). This study chose 20 questions out of 23, leaving out the three questions related to the omitted loyalty construct. Based on the original questions from SSI model of Temizer and Turkyilmaz (2012), these 20 questions are adjusted and revised to be more suitable for the purpose of the study, which is to evaluate

student satisfaction of joint master programs of FIE at Foreign Trade University in Vietnam. The structured questions are in Likert format with 05 scale from “1” to “5”, where “1” is Strong Disagree, “2” is Disagree, “3” is No Comment, “4” is Agree, and 5” is Strongly Agree.

A survey to measure the manifest variables was prepared in Vietnamese and English language. The final questionnaire contained 24 questions, 20 of that pertaining to the SSI model, others are for demographics. The questionnaire is divided into 2 parts: Part 1 is about general information of students (including four questions); Part 2 is about evaluating the overall student satisfaction (including twenty questions). The answers for these questions were set with a 05 Likert scale from “1” to “5” where “1” is Strong Disagree, “2” - Disagree, “3” - No Comment, “4” - Agree, “5” - Strongly Agree.

This study focuses on joint master programs coming from the FIE, and selects MIB and MBAF4 programs for further investigation. The MIB program has 9 courses which include approximately 260 students. On the other hand, MBAF4 only has 1 course which includes 23 students. The total participants are 283 students. Questionnaires are sent through emails. Email survey is used to collect the data because it is the more powerful alternative, more efficient and effective compared to telephone surveys and personal interviews. It can be done with minimal cost and equipment complexity. In addition, email survey also allows specific segments of the population to be easily reached. Moreover, as MIB courses have been run since 2008 and all students from 8 courses graduated except for the 9th course which is still running in Australia, it is really difficult to send questionnaires directly to 260 participants in all 9 MIB courses. These are the reasons why email is used to send questionnaires. Questionnaires are designed in the form of Google documents., With the help of the International Education Faculty (IEF), questionnaires are sent via email to 283 participants in 2 joint master programs at FTU. After 14 days from the date of email delivery, the surveys are collected.

The quantity of the questionnaires sent is 283, the callback quantity of the effective questionnaire is 237, and the effective rate is 83.7%. The gender ratio of the data sample is 44% male and 56% female. The proportion of students from MIB is 92% and the proportion of students from MBAF4 is 8%. This paper uses SPSS? software with analytical methods as follows: First, the frequency value of categorical variables such as sex, age, marriage status, course learning is analyzed by using the Descriptive Statistic. Second, Cronbach’s Alpha coefficient is used to test the reliability. According to Cronbach (1951), the closer Cronbach’s Alpha to 1.0, the higher the internal consistency reliability. Third, Pearson Correlation Coefficient analysis is used in this study to determine whether there are significant relationships among the independent variables and dependent variable. Fourth, Multi Regression Analysis is used to determine which among variables is the most important in explaining the relationships.

4. Research results

4.1 Sample description

After designing questionnaires and launching survey by email with the support of FIE at FTU, primary data are collected through automatic respondent system of Google document. 237

surveys from 237 students of MIB and MBAF4 programs are collected. The quantity of the questionnaire is 283, the callback quantity of the effective questionnaire is 237, and the effective rate is 83.7%. The gender ratio of the data sample is 44% of male and 56% of female. The proportion of students from MIB is 92% and the proportion of students from MBAF4 is 8%.

Table 1. Demographic information

Demographic information	Characteristics	Number	Percent (%)
Gender	Male	104	44
	Female	133	56
	Total	237	100
Age	Less than 30 years old	132	56
	31 - 40	89	38
	41 - 50	12	5
	51 - 60	4	2
	Total	237	100
Marriage status	Married	137	58
	Single	100	42
	Total	237	100
Joint master course	MBAF4	20	8
	MIB	217	92
	Total	237	100

Source: Analysis from SPSS

Descriptive statistical analysis on marriage status reports that 58% of respondents are married while 42% are not. Furthermore, most of the replies come from MIB class, with 92% is from MIB at 217 while 8% is from MBAF4, equaling to 20 students. The results of this survey are not out of expectations because the actual number of students from MIB courses is larger at 260.

4.2 Reliability statistics

The table below shows detailed assessment of the credibility of the scale, as the Cronbach's Alpha values of Image, Student expectation, Perceived quality, Perceived value and Student satisfaction are 0.850, 0.837, 0.899, 0.850, and 0.863 respectively (> 0.80). It means that Image, Student expectation, Perceived quality, Perceived value and Student satisfaction have good reliability in the survey scale. To sum up, after checking the reliability of all factors, there are no factors or variables which were excluded, therefore all 20 questions are reliable and used for the next step.

Table 2. Reliability analysis

	Cronbach's Alpha	N of Items
Image	0.850	7
Student expectation	0.837	4
Perceived quality	0.899	4
Perceived value	0.850	2
Student satisfaction	0.863	3
Total		20

Source: Analysis from SPSS

4.3 Hypothesis testing

4.3.1 Hypothesis testing between image and student expectation

A multiple linear regression is used to measure the relationship between Image and Student expectation. Table 3 below demonstrates that Image has a positive effect on student expectation.

Table 3. Data of regression EXP from IM

Model Summary		ANOVA ^a		Coefficients ^a			
				Model	Unstandardized Coefficients	Standardized Coefficients	Sig.
R Square	Adj. R Square	Sig.	F	B	Beta		
0.576	0.574	0.000 ^b	319.533	(Constant)	-0.528		0.031
				IM	1.029	0.759	0.000

Source: Analysis from SPSS

The Sig value in the Anova table above determines whether or not the fit the data. The Sig value is under 0.05, which means the regression model is suitable for the data. According to the Anova analysis results above, Sig is at 0.000 (< 0.05) and F value is really high at 319.533. It means that the regression model is fit statistically and is applicable to the population.

With the results here, Adjusted R squared is 0.574, in other words, 57.4% change of EXP (Student expectation) can be explained by the change of IM (Image).

Under the coefficients table above, IM (1.029) is an independent variable while EXP is a dependent variable, and constant is -0.528. This results in the positive relationship between Image and Student expectation. It is worth to denoting that Image has a positive impact on Student expectation. Moreover, there is a causal positive relationship between image and student expectation.

In conclusion, H1 is statistically fit and Image has a positive effect on student expectation.

4.3.2 Hypothesis testing between student expectation and perceived quality

In order to measure the relationship between Student expectation and Perceived quality, this research uses a multiple linear regression. After analyzing, the results below (Table 4) show that H3 is statistically fit and Student expectation has a positive effect on perceived quality.

Table 4. Data of regression PQ from EXP

Model Summary		ANOVA ^a		Coefficients ^a			
				Model	Unstandardized Coefficients	Standardized Coefficients	Sig.
R Square	Adj. R Square	Sig.	F	B	Beta		
0.794	0.794	0.000 ^b	908.001	(Constant)	0.173		0.149
				EXP	0.936	0.891	0.000

Source: Analysis from SPSS

The Sig value at Anova table above determines whether or not the model fit the data. The Sig. value is under 0.05 which means the regression model is suitable for data. According to the Anova analysis results above, Sig is at 0.000 (< 0.05) and F value is really high at 908.001. It means that the regression model is statistically fit and is applicable to the population.

With the result here, Adjusted R squared is at 0.794 which means 79.4% change of PQ (Perceived quality) can be explained by the change of EXP (Student expectation).

As shown in the coefficients table above, EXP (0.936) is an independent variable while PQ is a dependent variable, the constant is 0.173. This results in the positive relationship between Image and Student expectation. It is worth denoting that student expectation has a positive impact on perceived quality. Moreover, there is a causal positive relationship between student expectation and Perceived quality.

4.3.3 Hypothesis testing among student expectation, perceived quality and perceived value

Similar to the aforementioned hypothesis' analysis, the multiple linear regression is also used to measure the relationships among Student expectation, Perceived quality and Perceived value. Thus, H4 (Student expectation has a positive effect on Perceived value) and H5 (Perceived quality has a positive effect on Perceived value) are tested under the following figure.

Table 5. Data of regression PV from EXP and PQ

Model Summary		ANOVA ^a		Coefficients ^a			
				Model	Unstandardized Coefficients	Standardized Coefficients	Sig.
R Square	Adj. R Square	Sig.	F	B	Beta		
0.769	0.767	0.000 ^b	389.547	(Constant)	-0.084		0.554
				EXP	0.404	0.346	0.000
				PQ	0.615	0.554	0.000

Source: Analysis from SPSS

The Sig value at Anova table above determines whether or not the model fit the data. The Sig value is under 0.05 which means the regression model is suitable for the data. According to the Anova analysis results above, Sig is at 0.000 (< 0.05) and F value is at 389.547. It means that the regression model is statistically fit and is applicable to the population.

With the results here, Adjusted R squared is at 0.767 which means 76.7% change of PV (Perceived value) can be explained by the change of EXP (Student expectation) and PQ (Perceived quality).

Under the coefficients table above, EXP and PQ are independent variables while PV is a dependent variable. Partial correlation coefficients of EXP and PQ are 0.404 and 0.615 respectively. This results in the positive relationships between Student expectation and Perceived value, Perceived quality and Perceived value. It is worth denoting that Student Expectation and Perceived quality have positive impacts Student satisfaction. In other words, H4 and H5 are statistically fit.

The Standardized Beta value of the EXP independent variable stands for 0.346 while the Standardized Beta value of the PQ independent variable is 0.554. It means that the Standardized Beta value of the PQ independent variable is higher than that of the EXP variable. It is concluded that PQ (Perceived quality) is the most important impact on PV (Perceived value).

4.3.4 Image and perceived value: which is the most important impact on student satisfaction

Under the above findings, SS (Student satisfaction) is affected by 2 variables which are IM (image) and PV (Perceived value). Thus, in order to assess which is the most important impact on SS, the writer uses multiple linear regressions with 2 independent variables (IM and PV) and dependent variable (SS). H2 (Image has a positive effect on student satisfaction) and H6 (Perceived value has a positive effect on student satisfaction) are proven.

Table 6. Data of regression SS from IM and PV

Model Summary		ANOVA ^a		Coefficients ^a			
				Model	Unstandardized Coefficients	Standardized Coefficients	Sig.
R Square	Adj. R Square	Sig.	F	B	Beta		
0.713	0.710	0.000 ^b	290.389	(Constant)	0.464		0.033
				IM	0.174	0.121	0.016
				PV	0.683	0.753	0.000

Source: Analysis from SPSS

According to the Anova analysis results above, Sig is at 0.000 (< 0.05) and F value is at 290.381. It means that the regression model is statistically fit and is applicable to the population. Adjusted R squared is at 0.710 which means 71% change of SS (Student satisfaction) can be explained by the change of IM (Image) and PV (Perceived value).

Under the coefficients table above, partial correlation coefficients of IM and PV are 0.174 and 0.683 respectively. This results in the positive relationships between Perceived value and Student satisfaction, Image and Student satisfaction. It is worth denoting that Perceived value and Image have positive impacts on Student satisfaction. In other words, H2 and H6 are statistically fit.

The Standardized Beta value of the IM independent variable stands for 0.121 while the Standardized Beta value of the PV independent variable is 0.753. It means that the Standardized

Beta value of the PV independent variable is higher than that of the IM variable (0.632). It is concluded that PV has the biggest impact on SS.

In conclusion, all these tests indicate that the SSI model is reliable and valid, Image and Perceived value directly affect Student satisfaction, and Perceived value has the strongest impact on SS. It also means that student is satisfied mostly by the value of the courses.

5. Discussion and conclusion

The purpose of this research is to evaluate student satisfaction in joint master programs at FIE of FTU in Vietnam. In order to improve and develop joint master programs, it is required that the FIE knows what forms students' opinions about its training courses. Therefore, this research examined the factors affecting joint master students' satisfaction and also gave some suggestions for FIE to improve and develop its programs. The research was based on the SSI model for evaluating student satisfaction, which was developed by Temizer and Turkyilmaz (2012). The theoretical review identified that student satisfaction is influenced by factors like IM, PV, EXP, PQ. It is stated that not only FIE at FTU, but also Vietnamese universities need to pay attention to these factors in order to enhance student satisfaction, given the situation that globalization is still developing and international education is dramatically popular.

The findings of the present study revealed that six regression models depicting six hypothesis relationships are developed consistently with the data collected and are applicable to the population. Two out of five variables (image and perceived value) have positively strong effects on student satisfaction and perceived value is the most impact determinant. Furthermore, perceive quality is the most important factor influencing perceived value. On the other hand, it also means that perceived value and image strongly affect student satisfaction. Perceived value is the most important factor impacting student satisfaction coming from two joint master programs (MIB, MBAF4) of FIE at FTU. These results of the current paper are consistent with the research of Temizer and Turkyilmaz (2012). Moreover, this study also agreed with other research like Zhang *et al.* (2008), Jurkowitsch *et al.* (2006), Ledden *et al.* (2007), and Brooks and Everett (2009).

This paper demonstrates theoretical implications to the literature. Based on the findings, this research addresses the importance of university image, perceived value, student expectation and perceived quality on student satisfaction. Especially, university image and perceived value play the critically key role in increasing student satisfaction. Student satisfaction is mostly affected by perceived value. It means that student is satisfied mostly by the value of the courses. It is suggested that universities pay more attention to developing their image and increasing training services to obtain satisfaction from students. These findings could be further utilized in different universities in Vietnam besides FTU. On this aspect, this study responds with the call for increasing service quality in education made by Temizer and Turkyilmaz (2012) and Duong and Thuy (2019).

In addition, this paper is expected to contribute several practical implications that help universities maintain their effective training management. First, improving training quality

of joint master programs will lead to the increase in student expectation, which then affect perceived value. Second, improving teaching ability of lecturers is the key factor of increasing training service. Third, improving student management is a prominent activity to promote university image. The FIE should maintain good relationships with students during and after they study because on one hand, it increases student valuation of the image of faculty, on the other hand, it may help the faculty have more applicants enrolling in joint master courses. Next, the FIE and FTU should invest to modernize the lecture rooms to serve training programs in general and joint master programs in particular, including classrooms, conference rooms as well as international standard laboratories; as well as introduce computers into the management of Faculty at FTU to manage the students and other tasks more effectively. Finally, poor university services are the main reason not to recommend a university. This is often related to bureaucracy, which is an important negative influencer of student satisfaction, as well as poor accommodation. Therefore, focusing on the quality of the services and information provision for current students can increase satisfaction.

This study faces the following limitations. The first is associated with the measurement method, which relies on respondents' self-ratings of their activities. The second suspect response biases, as participants may overstate or understate their activities. Therefore, additional measurement methods need to be further explored (Bagozzi and Yi, 2012). Another limitation is measurement misspecification, as this study is just based on liner regression for testing hypotheses, which might hinder the research to adequately capture the dynamic nature of the variables and the underlying relationships (Mikulić, 2018). Future research may apply the structural equation model (SEM) for testing hypothesis and may consider combining multiple research methods (Chao and Lam, 2011).

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