



## **Factors Affecting International Students' Level of Satisfaction Towards Selected Public Higher Learning Institutions in Malaysia**

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### **Abstract**

This research aims to examine the factors affecting international student satisfaction in Malaysia. Quantitative analysis is used in this study. Stratified proportionate random sampling technique is applied to select the respondents. Total 200 respondents were involved from the selected public higher learning institutions. SPSS statistical analysis is applied to measure the relationships between and among the constructs. Based on several statistical and scientific researches, the results found that international students in Malaysian public higher learning institutions treat three factors mainly Facilities, Teaching quality and E-learning significant while connecting them with their satisfaction level. Future research is suggested in order to find out the in-depth information about the local students regarding their satisfaction factors, facts in public higher learning institutions by using mixed method or involving qualitative method of study besides quantitative method.

**Keywords:** Level of Satisfaction, International Students, Higher Learning Institutions, Malaysia

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### **Introduction**

In order to transform the Malaysian economy into an established knowledge-based economy, the government has taken significant initiatives designed to redirect funding to increase the number of both public and private universities and colleges (Ali, Zhou, Hussain, Nair, & Ragavan, 2016). Malaysia aims to attract 200,000 international students by 2020 (MOHE, 2013). However, the rivalry from worldwide and regional country such as China, India, and Australia is fierce.

Locally, there is an intense competition between the Malaysian universities to draw international students as private universities are growing rapidly in Malaysia annually (Ling and Piew, 2010). The aim of private universities is to provide an alternative for

tertiary education into local and public universities. Therefore, the competition between the public and private universities is increasing rapidly. Consequently, the public universities have to compete for the enrolment of international students in the market (Ling and Piew, 2010). Recent statistics showed that the enrollments for public universities are lesser than private universities'. As of 31<sup>st</sup> of December, 2014, there were 74,996 international students studying in private higher education institutions in Malaysia, an increase of 29.9% from 2013 whereas in the public institutes, the number was only 32,842 (Bernama, 2015, January 29). The level of satisfaction among international students could be one of the major reasons of this problem.

A study conducted by Hasan and Masri (2013) found that international students in private universities in Malaysia were significantly less satisfied with various resources and facilities. As facilities in a higher educational institution can lead to students' satisfaction, hence, further studies are needed to get a clearer picture of the effect of this variable on international students' level of satisfaction. Although the Malaysian higher education industry has a good standard but there are some shortcomings and negative aspects that have to be addressed. In last 50 years, many Malaysians have been referred to English speaking nations to pursue higher education at selected HEIs and more of them are seeking better quality educational services overseas (Lenn, 2000; Sohail and Saeed, 2003). The international students in Malaysia are considered as a new group of students who join the higher educational studies abroad. A considerable part of foreign students of HEIs are currently demanding a kind of superior quality educational services that may be different from the Malaysian students.

Moreover, International students in higher educational institutions in Malaysia come from various countries with different cultural backgrounds. Thus, their expectation and perception of satisfaction may differ (Mohd Yusoff & Chelliah, 2010; Ali, Zhou, Hussain, Nair, & Ragavan, 2016). According to Wan, Chapman and Biggs (1992), foreign students usually has high level of stress concerning their academic experiences, for instance, instructor-student interaction was often fast-paced and their educational and social system were often not readily accessible to them compared to their Malaysian course mates (Kanji, Tambi, & Wallace, 1999). Hence there is a need to conduct further research to know how teaching methods may affect the satisfaction levels of international students. In most of the educational institutions in Malaysia, especially public universities, academic staffs are often unaware of the demands of the international students (Kanij et al, 1999; Hanapi, Zahiruddin & Mohd Shah, 2003). Thus, the expectations of the international students are often unmet by the universities, particularly regarding the quality of teaching which often creates dissatisfaction among the students. Therefore, more studies are needed to identify the influence of teaching quality on international students' level of satisfaction. According to Hasan & Masri (2013), tuition costs is also associated with the level of satisfaction among international students in private higher learning institutions. For instance, the lesser the tuition costs the more likely that the student were to be satisfied. On the other hand, a high price with low level of educational and non-educational services will also result in dissatisfaction. Therefore, it is essential to identify the effects of tuition costs on international students' level of satisfaction studying in public universities. In this context, it is apparent that there are issues regarding the international students' level of satisfaction. As a result, higher learning institutions in Malaysia especially public higher education institutions must recognize the need of international students in order to adapt and serve them better.

Moreover, there is a gap in the limited empirical evidence and literatures confirming the importance of conducting research on the level of satisfaction among international

students towards public higher learning institutions in Malaysia. Past studies showed that the majority of literature focused on the customer satisfaction in business organization but international students' level of satisfaction has received very little attention, particularly in Malaysia. A few studies investigating students' level of satisfaction at private universities in Malaysia were found but researches done on international students' level of satisfaction of public higher learning institution were very scarce.

Under this circumstance, it is clear that there is a lack of research in this area and this study is highly potential and important. It is expected that the outcomes of this research will help outline the factors that affect the level of satisfaction of the international students in public university in Malaysia. In return, it may provide valuable suggestions for policy makers, top management of the public universities and even the Ministry of Higher Education in terms of universities' recognition to expedite future policy making.

The main objective of this study is to find out the factors that affect international students' satisfaction at public institutions of higher education. In addition, there are some other specific objectives as well, namely:

- To investigate the impact of effective teaching method on international students' level of satisfaction
- To examine the effect of tuition cost on international students' level of satisfaction
- To investigate the influence of campus facilities on international students' level of satisfaction
- To investigate the effects of teaching quality on international students' level of satisfaction
- To examine the effect of e-learning on international students' level of satisfaction
- To provide suggestions for policy makers and administrators based on the findings and suggest the further research to find out more factors that may help the public institutions of higher education in Malaysia to improve students' level of satisfaction

## **Literature Review**

### **International Students' Satisfaction**

The term "students' satisfaction" can be explained in many ways. Browne et al (1998) discussed and found that students' level of satisfaction can be evaluated through the quality of coursework, curriculum activities and other factors related to the university. Students are gradually seen as consumers of higher education service industry, thus their satisfaction should be important to the institutions that want to maintain their recruitment of new students (Thomas and Galambos, 2004). Lecturers should treat students with compassion and assistance should be provided when necessary.

Due to the competitive global education market, present Malaysian universities are very much concerned about their market share against competitors, productivity and the quality of education services provided to the international students (Hasan & Bin Masri, 2013). The satisfaction of international students is important to increase student mobility, institution mobility and program mobility (Naidoo, 2006; LeBlanc and Nha, 1997). Language differences and other background variables and experiences are vital variables as well because both play important functions to ease the transition into a different culture by the foreign students, their satisfaction should be measured and improved (Naidoo, 2006).

Students are satisfied with their educational institution when the institution's service fits their expectations. Therefore, they will be very satisfied if the service is beyond their expectations, or completely satisfied when they receive more than their expectation.

On the other hand, students show their dissatisfaction with the service when it is less than their expectations, and the difference between perceived service and expected service quality is high. Hence they have a tendency to communicate their negative reactions (Petruzzellis, Uggento, & Romanazzi, 2006). According to Islam, Jalali, & Ku Ariffin (2011) different factors or items have a direct or indirect impact on satisfaction of students such as it may include cost and services provided by the university. Based on the students' perception and expectation, their level of satisfaction can be measured (Shekarchizadeh, Rasli, & Hon-Tat, 2011).

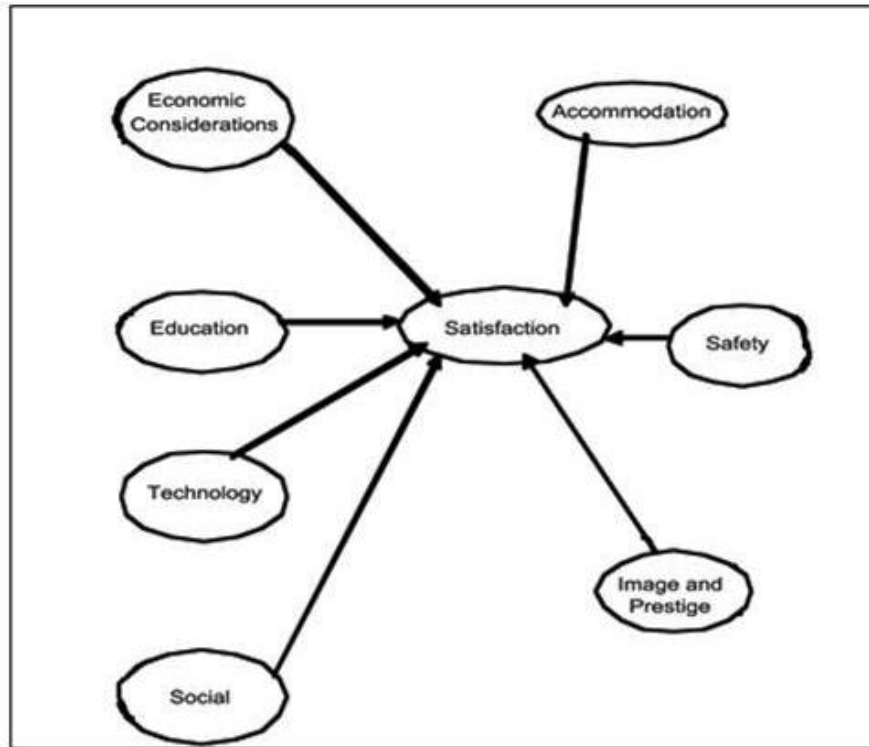
Hence, factors such as professionalism, reliability, hospitality, and commitment are basic constructs of international students' perception and expectation about the services of any university. Grossman (1999) discussed that student should be treated like a customer or a client within the college in that case; the college serve the students to fulfill their expectations and needs. According to H. F. A. Hasan, Ilias, Rahman, & Razak (2009) it is assumed that satisfaction includes the matters of perception and experiences of students during the university or college period. Student satisfaction is being perceived gradually by repeated experiences of their campus life.

Recent research findings showed that satisfied students attract new students through positive word-of-mouth communication, and they may retain loyal to the university to take other courses in future (Marzo-Navarro et al., 2005; Helgesen & Nettet, 2007 ; Gruber et al., 2010). Moreover, Elliot and Healy (2001) proposed student satisfaction is a short-term approach, resulting from the evaluation of the received education service. The most significant factors like the quality of education, academic experience, and accommodation, image of the institutions, interpersonal relationships and campus environment can be used to measure the satisfaction of the international students (Memon et al, 2014).

In addition, both private and public higher learning institutions realised that the international students' level of satisfaction plays an important role in order to determine the accuracy and authenticity of the service delivery system at work. The expectation of the prospective students grows higher even before they enter the higher educational institutions (Palacio, Meneses, & Perez, 2002). In the analysis process of satisfaction measurement, academic and non-academic services must be considered because both possess key roles of satisfying or dissatisfying current and prospective customers (Memon et al, 2014; Arambewela, 2008). In higher education institutions, students are considered as customers as the higher education industry is treated as a service industry and therefore, greater attention should be given on meeting the expectations and needs of the international students. The major motivating factor that satisfies any student specifically, the international students, may include the financial support facilities which is a key element for foreign students in selecting a university for their higher education (Abe, Talbot, & Geelhoed, 1998).

Arambewela & Hall (2009) have conducted research in Australia investigating the factors that influence the satisfaction of international postgraduate students from Asian countries studying in Australia. The empirical research model was based on the expectancy disconfirmation paradigm. The study found that international student satisfaction influencing factors may include education, technology, economic considerations, social factors, accommodation, safety, image and prestige. Figure 1 is the conceptual model:

Figure 1: Factors affecting international students' level of satisfaction



Source: Arambewela and Hall, (2009)

In this study, the same model is adapted into the Malaysian context to examine the most influential factors affecting international students' level of satisfaction towards selected public universities in Malaysia. The study will consider five factors which are effective teaching method, tuition cost, facilities, teaching quality and e-learning.

### **Effective Teaching Method**

Teaching and learning are the opposite sides of a coin. The most recognized criterion for determining good teaching is the amount of student learning that occurs. There are high correlations between students overall rating of the course and teachers, and the students rating of amount. Students who learned more gave their teachers higher ratings (Cohen, 1981; Theall and Franklin, 2001; Kim and Ok, 2010). Thomas Angelo also put the same criterion forth, when he said; "teaching in the absence of learning is just talking" (Kelchtermans & Ballet, 2002). Neo (2005) performed a survey on students' level of satisfaction in higher education and its influential factors. He found that the overall impression of the school and the quality of the education, teacher expertise, the quality and accessibility of IT facilities and their interest in the subjects were the most influential predictors of the student satisfaction.

There are ample arguments within the higher education communities on schooling methods or effectiveness of teaching (Braskamp & Ory; 1994; Theall and Franklin, 2001). Most universities in the world accept a procedure by which trainee teachers deliver unidentified response at the end of each subject that they finish. These evaluations of teacher efficiency have been a burning issue since they were first implemented in the mid-1920s" (Algozzine et al., 2004) and they generate a vast challenge for almost every

institution that uses them (Hoyt & Pallett, 1999; Benton & Ryalls, 2016). Throughout the study period learners' evaluation of lecturers has changed considerably, particularly in purpose and methodology areas. They have been altered from being predominantly used to support students in the course choice, serving academic staff for increasing their teaching abilities and additional development, and also help officers with respect to personnel judgments (Ory, 2000). Borrego & Henderson (2014) advised teachers to use the information constructively to develop and increase their instruction efficiency. Most universities in the world accept a procedure by which students deliver anonymous response at the end of each course that they have completed. These evaluations of teacher efficiency have been a debatable issue since they were first established in mid-1920s (Algozzine et al., 2004) and they had generated a huge challenge for almost every institution that applied them (Hoyt and Pallett, 1999).

Based on the above discussion and findings, these are the proposed hypotheses:

**H1. Effective teaching method has an influence on international students' level of satisfaction**

### **Tuition Fees**

Tuition fees is an influential factor for students who attend any educational institutions (Rolfe, 2002; Yusoff et al, 2015) According to Gamage et al (2007), tuition fees is the most important factor that influences students' level of satisfaction. Foskett et al. (2006) found that flexibility in terms of tuition fee mode of payment and availability of financial assistance exerts a significant influence on students' choice and satisfaction in their choice of higher learning institutions. Furthermore, more studies indicated that financial assistance and tuition fees offered by the higher learning institutions is found as one of the most influential factors of the students' satisfaction (Hill 1995, Joseph, Yakhou et al. 2005). Cabrera and La Nasa (2000) conducted research that consistently exhibited a significant negative relationship between increased or high tuition fees and a high number of enrolments.

Based on the above discussion and findings, the next proposed hypothesis is:

**H2. Tuition cost has a significant relationship with international students' level of satisfaction.**

### **Facilities**

In the context of higher learning institutions, facilities can be defined as the land and buildings used by the university or university-related functions which contribute to achieving institutional goals (Den Heijer, 2012; Martirosyan, 2015). The value of a strategic campus is strongly emphasised by stakeholders that added value and enhance institution's image at large, including the city, region and country; (Vidalakis et al., 2013). The role of facilities management department is to manage the campus facilities in order to support the core functions and goals related to provide the educational services to the students who are the customer of the university and its facility services (Owlia & Aspinwall, 1996; Hill, 1995).

Facility services encompasses all the facilities such as lighting systems, ventilation, air conditioning systems and heating, acoustic systems; audio visual/information technology (IT) equipment, the design of classrooms, cleaning and maintenance that have direct and major effects on the educational outcome (Koket al. 2011). However, according to Earthman (2002), Thomas and Galambos (2004) & Mavondo et al., (2004), other campus facility services such as building design and structure, physical arrangement and

fitting of buildings, and interior decorations have a more indirect influence on students' level of satisfaction and the organisation's image. Facilities are also essential in order to attract and retain current and potential students by providing environments for knowledge creation (Price et al., 2003). On top of that, facilities also add value to the organisation's performance (Alexander, 1992). In this regard, Temple (2008) emphasises that campus building's design needs to be given more attention to the social keystones of learning by providing welcoming and flexible spaces for informal meeting. Noticeably, campus facilities support and enable learning, teaching and research, which are the main services of universities. As a result, it is important to know and measure students satisfaction and experiences of facilities, (Telford and Masson, 2005; Nasser et al., 2008).

**H3: There is a significant relationship between facilities and international students' satisfaction.**

### **Teaching Quality**

The quality of teaching refers to the degree and mode of instruction to which students' perception of quality is high. Students are more likely to feel satisfied, if they believe that the quality of instruction is high (Aman, 2009; Sampson et al 2011; Tessema et al 2012). The definition of quality in higher education is slightly subjective, but easily identified in a multidimensional form of teaching, staff-student relationships, research, services and facilities (Uka, 2014). According to Greiner (2000), the quality of teaching has a significant relationship to the students' level of satisfaction. Therefore, academicians are considered as a service provider by the institutions in both physical and social environmental contexts to influence students' satisfaction positively (Driscoll & Wicks, 1998). Moreover, a student enrolled in a higher education institution usually aimed to benefit from quality teaching, thus the institution that provides quality teaching motivate the students better (Suarman et al, 2013). Nonetheless, students' satisfaction is a short-term approach based on their involvement with the educational institutions' service quality of teaching (Tessema, Ready and Embaye, 2011; Elliott and Healy, 2001).

Holford and Patkar (2003) stated that generally, there are five items on students' level of satisfaction, among the items, quality of instruction is found as one of the most important elements compared to the quality of the facilities, service, learning process and curriculum. According to Chang and Fisher (2003), students' level of satisfaction is a very significant component for them to acquire knowledge or skill. A student in a lesson can be considered satisfied if he feels that the quality of instruction motivates his needs and expectations to put more effort in learning, and to attend more courses in future (Gecer, 2013). In addition, an educational institution is considered as a service setting, where the service is simultaneously produced and consumed in a regular manner (Childers et al., 2014). A research conducted by Suarman et al. (2013) on teaching quality and satisfaction among university students found that the quality of teaching and learning at the university was still below satisfactory and this is consistent with the research conducted by Ibrahim, Ghavifekr, Ling, Siraj, & Azeez (2014) and Ginns & Ellis (2007).

**H4: Teaching quality has a significant relationship with international students' level of satisfaction.**

### **E-Learning**

E-learning technique as an infrastructure for learner fulfillment states to the use of electronic media and information technology (ICT) in schooling. E-learning is mostly comprehensive of all customs of educational tools in learning and teaching which is wide-

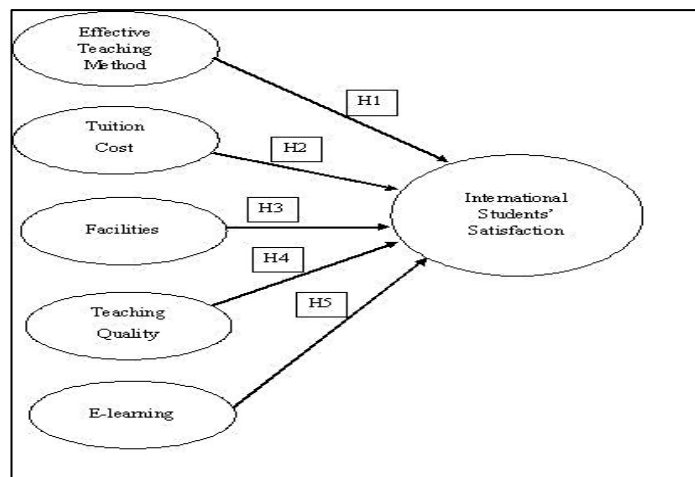
ranging and generally identical with multimedia learning, technology-enhanced learning (TEL), computer-based instruction (CBI), computer-based training (CBT), computer-assisted instruction or computer-aided instruction (CAI), internet-based training (IBT), web-based training (WBT), online education, virtual education, virtual learning environments (VLE) which are also called learning platforms), m-learning, and digital educational collaboration (Sher, 2009; Kransow, 2013). These substitute abbreviations highlight a specific feature, module or supply technique.

In the web-based environment, the interaction between student-instructor and, student-student were found to be significant factors in students' level of satisfaction and overall learning experience (Sher, 2009; Kransow, 2013). Online Learning System (OLS) can operate either inside or outside of formal classes. E-learning is also appropriate for distance learning and flexible education. However, it can also be implemented in conjunction with face-to-face schooling, in which the term 'blended learning' is frequently used (Franklin, 2001).

Student satisfaction is one of the crucial elements in terms of influencing the success of e-learning programs (Abel 2005). Sener and Humbert (2003) found that satisfaction is a vital factor in creating a successful online program. Hence, universities must ensure both high levels of student satisfaction and quality curriculum to attract and maintain student enrollment (Hess & Kelly, 2005; Levin et al, 2008). However, many institutions do not have dedicated significant resources to support the implementation of e-learning which could lead to less satisfaction due to inability to expose the system's optimal capabilities (Black et al., 2007). Palmer and Holt (2009) found that the students' comfort level with technology was critical to their satisfaction with online courses. Therefore, sufficient support would help individuals to be comfortable with systems and software which then leads to learners' satisfaction with e-learning (Macedo-Rouet et al, 2009).

**H5. There is a significant relationship between e-learning experiences and international students' level of satisfaction.**

**Figure 2: Conceptual Model with Hypothesis**



## Methodology

Survey questionnaires were distributed among 200 international students to evaluate the study of the variables. In order to enhance the consistency and to minimize errors, a structured questionnaire and a suitable number of respondents are essential for the survey method (Babin and Anderson, 2010). The survey research design is suitable for the research, as surveys are fast to administer, economical, confidential, provides anonymity, easily distributed to participants (Creswell, 2009). According to Malhotra (1999), to obtain accurate and complete information about the research problem, the use of questionnaire is the most formalized tool. In addition, the survey method is the suitable approach to examine the research hypotheses. For the purpose of this research, the method is the survey method because it is a convenient method of collecting the information from a large population within the short time and with the least budget. However, like most of quantitative researchers, structured questionnaire are used for the collection of data as the instrument for this research. The questionnaire are used to elicit the opinions of participants and to find the contributing factors affecting the satisfaction level of international students in the selected public institute of higher learning in Malaysia.

Descriptive analyses are applied to describe the sample such as age, gender, level of education, nationality and source of funding for their higher education. In this descriptive analysis, means, standards deviations, frequency distribution, and percentages will be included. Exploratory factor analysis has been used to find out the groups of variables where similar or related variables fall under one specific cluster, which is known as a factor (Anglim, 2007). Exploratory analysis confirms the possible relationships among the variables rather defining the nature of relationships (Zikmund, 2003; Hair et al., 2010). In this study, the exploratory factor analysis measures the relationships of certain variables, which affected the satisfaction of foreign students in public universities in Malaysia.

Regression analysis has been utilized in the present study to observe if the independent variable forecasted the dependent variable. According to Kachigan (1991), a regression analysis equation explains the nature of the association between two variables and regression analysis supplies variance procedures, which permit researchers to evaluate the correctness with which the regression equation can forecast principles on the measure variables.

## Results and Analysis

**Table 1: Sample Characteristics (Gender)**

Respondent's Gender					
		Frequency	Percentage	Valid Percentage	Cumulative Percentage
Valid	Male	124	62.0	62.0	62.0
	Female	76	38.0	38.0	100.0
	Total	200	100.0	100.0	

### Factor Analysis

Factor analysis measures the interrelationships among the large number of composing variables. It determines the set of variables where there is high interrelationship (Hair et al, 2010). It helps reducing the number of total items and selects the most relevant one under the specific construct or phenomena. On the contrary, few assumptions and preconditions are supposed to be satisfied before applying the factor analysis. Those assumptions help to

confirm the fitness of data for applying the factor analysis. Table 2 shows the adequate sample for factor analysis as the KMO value is more than .60 and significant value of Bartlett's test of sphericity is acceptable. All these indicated that the study can carry on factor analysis.

Table 2 KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.627
Bartlett's Test of Sphericity	Approx. Chi-Square	910.404
	Df	91
	Sig.	.000

### Rotated Factor Matrix

The entire variables are loaded in the unrotated component matrix into six factors. Additionally, few of the items were also cross-loaded under more than one construct. The unrotated factor loadings define the possibility of the consequential factors.

**Table 3 Rotated Factor Matrix for Dependent and Independent Variables**

Factor Name	EV		PV	Rotated Component Matrix <sup>a</sup>						
				Component Variables			Component			
					1	2	3	4	5	6
<b>Teaching Method</b>	3.987	24.864	24.864							
ET4				I have been able to learn new skills	.826					
ET1				Teaching technique is satisfactory	.774					
<b>Tuition Cost</b>	2.166	13.537	38.401							
TC5				I am very sensitive to the rise of tuition cost		.757				
TC3				Tuition fees payment plan/schedule is flexible		.536				
TC2				Financial loan /Grants are not easily accessible		.821				
TC1				Education service is worth		.539				
<b>Facilities</b>	1.700	10.626	49.027							
FC1				Lecture hall facilities are sufficient			.589			
FC6				Signage for university			.856			
<b>Teaching Quality</b>	1.293	8.081	57.108							
QT4				I consider lecturers' knowledge efficiency				.716		
QT2				Quality of teaching tools is an essential factor				.741		
QT3				Evaluation done by the instructors is essential				.511		
<b>E-learning</b>	1.22	7.636	64.744							
EL3				Web-based communication as a popular way					.753	
EL2				Doing the e-learning was so complicated					.756	
<b>Student Satisfaction</b>	1.085	6.781	71.525							
SS2				I feel satisfied						.877
SS4				Overall, I am satisfied with						.862
SS3				My service experience provided by the institution is excellent						.752

Extraction Method: Principal Component Analysis.  
a. Rotation converged in 6 iterations. Notes: 1: Eigenvalue (EV), 2: Percentage of Variance (PV) and 3: Cumulative Variance

Rotated component matrix shows the meaningful factor rotation in Table 4.12. To avoid the cross loading under the multiple factors, the value of factor loading less than .40 or below must be suppressed (Sekaran, 1994). As each factor needs to be unique and distinct, several running of the factor analysis in the above rotated matrix shows the ultimate demonstration of items associated with the respective factors. Some of the items were excluded because of the cross loading.

## Hypotheses Testing

In SPSS, P value 0.05 is used as the benchmark for testing the hypotheses. In order to establish the stronger relationship, the P value is expected to be less than or equal to 0.05. The significant values of the research in Table 4.14 suggest that all the constituting factors (independent variables) have the significant positive influence on students' satisfaction except Effective Teaching Method and Tuition Cost because all the P values are lesser than 0.05 except the P values for the above mentioned relationships.

### H1: Effective teaching method has an influence on international students' level of satisfaction

Based on the literature, the hypothesis is developed to test if there is significant relationship between student satisfaction and effective teaching method of the higher learning institutions. Table 4.17 shows the standardized coefficients or  $\beta$  is  $-.025$ , and it is found that 't' calculated value is more than its significance value which is  $0.562$ . Therefore, hypothesis  $H_1$  is not supported. This finding is also supported by Nasser, Khoury, & Abouchedid (2008) and Delaney (2005) who identified that academic staff, academic experience, residential life, and social life on campus, personal development opportunities, student service and resources were the factors that led towards the students' satisfaction compared to teaching method because most of the time learners have very limited skills in understanding the instructions method which the instructor was most comfortable with to teach.

**Table 2 Coefficients**

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.405	.258		-1.569	.118
	Effective Teaching Method	-.041	.071	-.025	-.581	.562
	Tuition Cost	-.018	.045	-.016	-.401	.689
	Facilities	.341	.055	.271	6.227	.000
	Teaching Quality	.373	.052	.337	7.192	.000
	E- learning	.480	.042	.490	11.431	.000

a. Dependent Variable: Student Satisfaction

### H2. Tuition cost has a significant relationship with international students' level of satisfaction

According to the objective of the study it is required to find out or measure the relationship between tuition cost and international students' level of satisfaction. This finding is consistent with the study of Abe et al. (1993) where he mentioned several economic factors like university funding and overall cost of education. Based on the literatures, the hypothesis is developed to test if there is significant relationship between student satisfaction and tuition cost of the selected public higher learning institutions in Malaysia.

Table 2 shows the regression weight of the relationship between the constructs. The Standard Coefficient or  $\beta = -.016$  and the result also indicated that this variable does not contribute to the model as well because it is found that 't' calculated value is more than its significance value at 5 percent level of significance which is  $.689$ . Therefore, hypothesis  $H_2$  is not supported. This finding is consistent with the study of Leslie & Brinkman (1987)

where the research consistently exhibited an insignificant relationship between tuition cost and students' satisfaction in higher educational institutions rather researchers emphasize more importance on other economic considerations including quality of education, cost of living, which can affect a great deal of the satisfaction level of any international student.

### **H3. There is a significant relationship between facilities and international students' level of satisfaction**

Whether the facilities of the university influence the student satisfaction or not, the study needs to find out the fact based on its objectives. In physical environment there are certain factors such as lighting, layout, appearance of building, classrooms, and overall cleanliness that are important for students' satisfaction (Shekarchizadeh et al., 2011). This hypothesis was developed based on early researches and literatures and within this study it is tested using quantitative analysis. Based on the literatures, the hypothesis is developed to test if there is significant relationship between international students' level of satisfaction and university facilities. Table 4.17 shows the regression weight of the relationship between the constructs. The Standard Coefficient or  $\beta = .271$  and the result also indicated that this variable contributes to the model as well because it is found that 't' calculated value is less than its significance value which is .00. Therefore, hypothesis H<sub>3</sub> is supported.

### **H4. There is a significant relationship between teaching quality and international students' level of satisfaction**

Whether teaching quality has positive influence on students' satisfaction or not, the study needs to find out the fact based on its objectives. There are a few studies, which support this hypothesis but yet, very weakly. A research conducted by Suarman, et.al. (2013) on teaching quality and satisfaction among the university students found that the students felt that the quality of teaching and learning at the university was still dissatisfactory. This hypothesis was developed based on early researches and literatures and within this study it is tested by quantitative analysis. It is similar with the findings of other relevant literatures. Table 4.17 shows the regression weight of the relationship between the constructs. The Standard Coefficient or  $\beta = .337$  which means that this variable has a significant positive relationship with students' satisfaction and the result also indicated that this variable contributes to the model as well because it is found that 't' calculated value is less than its significance value which is .00. Therefore, hypothesis H<sub>3</sub> is supported.

### **H5. There is a significant relationship between e-learning experiences and international students' level of satisfaction**

One objective of the study is to find out or measure the significant relationship between e-learning experiences and students' satisfaction. This hypothesis was developed based on early researches and literatures and within this study it is tested by quantitative analysis. This finding is consistent with the study of Kransow (2013) where he mentioned that web-based environment, interaction between student and instructor and among students is found to be significant factors in students' satisfaction and learning. Table 4.17 shows the regression weight of the relationship between the constructs. The Standard Coefficient or  $\beta = .490$  which means that this variable has a significant positive relationship with students' satisfaction and the results also indicated that this variable contributes to the model. This is because it is found that 't' calculated value is less than its significance value which is .00. Therefore, hypothesis H<sub>5</sub> is supported.

## Conclusion

This study is conducted in order to meet a number of objectives. These objectives may include finding out the significant factors that affect international students' satisfaction in selected Malaysian public higher education institutions and measuring the significant level of relationship between international students' satisfactions towards the given factors. By using SPSS, several results could be achieved. Based on several statistical and scientific researches and the results found by this study, a conclusion can be made. It is found that, international students of Malaysia treat the three factors significant while connecting them with their satisfaction level. Based on the Standard Regression Weight it is clear that in Malaysia, teaching quality, e-learning experiences and facilities are more important than teaching method and tuition cost.

## Implications and Recommendations for Future Research

In the context of Malaysia, this sort of study is not well trodden, even though it was very common in developed nations. Gradually, Malaysia has achieved a reputable position in the world market for its high quality and competitive higher education system among the Asian countries. Consequently, the number of international students is increasing day by day in public higher learning institutions in Malaysia. Therefore, the topic of the study where the core factor is international students' satisfaction has great value in order to improve this sector and to sustain the credibility in the competitive world market. Subsequently, the study has both theoretical and practical significance as the findings of the research may fill the imperative research gaps that were identified in the literature.

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