Perceived service quality and student satisfaction in higher education

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Abstract: *In higher education, students are the main customers of universities. As such, providing quality services and satisfying students' needs as well as expectations are vital for universities to succeed from the increasing competitiveness of this industry. This research investigates the levels of student satisfaction and the relationship between student satisfaction and the quality of service being provided at the International Business School, UniversitiTeknologi Malaysia Kuala Lumpur. The results of this research indicated that almost the majority of students were satisfied with the quality of services offered at this university. Also, the findings showed that, the factors of facilities, advisory services, curriculum, and financial assistance and tuition costs have positive and significant impact on student satisfaction.*
Keywords: *higher education, perceived service quality, student satisfaction*

I. Introduction

Due to increased pressure of the competition in the education service industry, the higher education institutions are focusing more on the student satisfaction. Devising strategies to attract students and creating efficient and effective learning environments is part of the plan implemented by the administrators in these institutions in order to link academic success to concepts such as retention and recruitment (DeShieldsJr, Kara et al. 2005, Helgesen and Nesset 2007). The institutions can gain student satisfaction through delivery of excellent service values and this is an integral part in securing a sustainable competitive advantage in today's international educational market (Huang, Binney et al. 2012). A population of satisfied student will bring continuous advantages for the universities through positive word of mouth communication and also provide a better position for them in dealing with other competitors. Being driven to engage in commercial rivalry, they have to be cautious with not only about the quality of education they provide to their graduates with enough social principles in terms of abilities and talents, but also with how students feel about their learning experience in this universities (Munteanu, Ceobanu et al. 2010). Arokiasamy (2012) expresses in today's world, in order to be able to create and retain a decent level of competitiveness, organizations and firms require to emphasize on quality as one of the most significant success factors in the industry. In addition, universities and all other education institutions are focusing more on evaluating their students' perception of the quality of the service they deliver, the reason being education's classification as a marketable service, the rise in the number of full-fee payment students, increasing expectations by the students from the higher education institutions, the internationalized face of the higher education and finally, the fierce rivalry that is going on in the higher education industry at the moment (Oldfield and Baron 2000). According to Zeithmal et al. (1996), organizations' failure in realizing the customer expectations is one of the major reasons they underperform in their respective industry. In consequence, unless they manage to gain a correct understanding of the expectations and requirements of their customers, they are bound to fail. Only little researches have been conducted so far on the perception level of students with regard to service quality (Kimani, Kagira et al. 2011). On the other hand, the researches done in developing countries regarding the students' perception on service quality are generally focus on the students in private institutions and universities and not the ones in public universities. Also, there are literature available regarding researches on students' perception on service quality. However, the majority of these researches are conducted on quality perception among students in developed countries like UK, Australia, New Zealand and the United States. As can see, there is little or no literature on the same concept in developing countries (Athiyaman 1997, Oldfield and Baron 2000, Joseph, Yakhou et al. 2005, Kao 2007, Hasan, Ilias et al. 2009).

Regardless of the quantity of the researches done, only limited literature is available regarding education and quality within Malaysian higher education institutions (Wei and Ramalu 2011). Also, it is important to define the perceived factors to study the service quality that will eventually determine students' level of satisfaction, in this case, among one of the Malaysian public universities. So, this research examines the levels of student satisfaction with perceived service quality factors and investigates the relationship between student satisfaction and these factors on postgraduate students in a public university (International Business School UniversitiTeknologi Malaysia Kuala Lumpur).

II. Literature review

Generally, in a competitive environment it is vital for service organizations to have a proper understanding of determinants and backgrounds of consumer's satisfaction as to have an extremely high monetary value. So, organizations have to focus on perceived service quality determinants for the reason that, perceived service quality is an antecedent to customer satisfaction (Lassar, Manolis et al. 2000). In the eyes of a customer, service quality is like beauty; it means that service quality has different meanings for different people and is person-dependent. However when quality applies to services most of its definitions consider as customer-centered. So, perceived quality is a function of customer satisfaction or customer satisfaction is a function of perceived quality. Arambewela and Hall (2009) in their studies report that, service quality can help organizations to attract new customers and keep their existing ones because service quality can lead to customer satisfaction. Also, this association and recognition among customer satisfaction and service quality has been remained at the forefront of many researchers in their studies. So, understanding of this association for researchers and also managers is very important. As such, the most important responsibility of higher education institutions is to manage all aspects of their services to students by improving student satisfaction which can be achieved by way of improving perceived service quality (Helgesen 2006). Schertzer and Schertzer (2004) represents that one of the important factors which can lead to student satisfaction is positive perceptions of service quality. Consequently, these satisfied students can absorb new students by engaging in affirmative word-of-mouth connection to inform their friends. Also, this positive word-of-mouth communication may return the previous students to take other courses in their previous university.

On the other hand Russell (2005) reveals that the important goal for higher education institutions is delivering perceived service quality to students. This act can lead to generate much desired additional income for institutions. Also, a valuable source of income is overseas fee-paying students who sometimes can be educated at lower cost. Oldfield and Baron (2000) state that for delivering high quality and satisfying student higher education institutions must focus on what their students want instead of gathering data base on what institutions consider their students regard as important. According to the study of Shekarchizadeh, Rasli et al. (2011), the significance of student satisfaction in higher educational institutions can be shown when answering to this question: "What are the consequences of students who are dissatisfied?" Principals of higher education institutes must be aware that dissatisfied students in a competitive environment tend to withdraw or transfer. They report that even though, dissatisfied students because of the lack of alternative options was being forced to stay in the institution they will lose their loyalty and may not talk in positive word of mouth communication. Based on the studies of Soutar and McNeil (1996), there are two kinds of dimensions for student perceived service quality which include non-academic dimensions and academic dimension. On the other hand, Athiyaman (1997) represents other dimensions of student perceived service quality such as library facilities, level of curriculum, leisure facilities, computing facilities, availability of academic personnel and quality of teaching. In addition, 14 dimensions have been proposed by Hill (1995) to measure student perceived service quality which include library facilities, travel agency, housing services, occupation services, university bookshop, advisory services, health services, financial assistance, and involvement of students in course contents, work expertise and computing facilities. Hameed and Amjad (2011) examine student satisfaction in COMSATS Institute of Information Technology (CIIT) by collecting feedback from 157 students. They use modified version of Keaveney and Young (1997) and find that counseling staff, faculty and classes have a significant effect on student satisfaction. It is intensely recommends that the failure and success of students in every higher educational institution is related to the level of satisfaction and dissatisfaction, because students believe that higher educational quality brings higher learning chances (Aldridge and Rowley 1998).

2.1 Hypotheses and Theoretical Model

Based on the previous studies which have been mentioned, this research examines the relationship between student satisfaction and perceived service quality factors. In this research, student satisfaction has been examined as a dependent variable and five perceived service quality factors have considered as independent variables. The independent variables include; student advising, Curriculum, teaching quality, financial assistance and tuition costs and facilities.

2.1.1 Advising

Based on the findings of Hagen and Jordan (2008), the foundation of student retention is academic advisement in higher education. On the other hand, students can develop their mature educational and career goals when academic consultation provided effectively. Also it can increase the satisfaction of students and their learning outcomes. Also, Peterson, Wagner et al. (2001) in their study state that positive perception of students about their institution is connected to effective academic advising and students are more satisfied when they received meaningful and effective academic counseling. DeShieldsJr, Kara et al (2005) examine a research on importance of advisory services in US higher education system and find that the advising staff as a fundamental

part of the US higher education system and can enable the students to continue their college or university in an effective way. Sumaedi, Bakti et al. (2012) depict that in higher education institutions the advisory services have an affirmative influence on perceived service quality. So the overall perceived service quality will increase by any increase in perceived quality of education advising. According to the above findings, the following hypothesis is offered: H1. There is a significant positive relationship between advising and student satisfaction.

2.1.2 Curriculum

In educational institutions the curriculum has considered as academic program given to students. Also, the curriculum dimension in various articles is known as subject content, program issues, academic concerns and course content. Based on the findings of LeBlanc and Nguyen (1997), the appropriateness of course content and educational programs, the number of courses offered as well as the range to which the purposes of the educational programs are described to the students have related to curriculum. The curriculum also has been stated as one of the factors of perceived service quality by students. In addition several articles have shown that there is an optimistic association among overall student perceived quality and curriculum (Athiyaman 1997, Russell 2005, Ling, Chai et al. 2010). In universities, courses are usually grouped under diverse classifications such as college primary courses, university-wide prescriptions, essential courses and electives in major. So, when universities provide numerous course offerings for their students and provide more options and choices for them it can make students more satisfied with curriculum (Tessema and Ready 2012). Also, Browne et al. (1998) declare that course quality and other curriculum-related issues connected with a university can effect on overall student satisfaction. Based on the above findings, the following hypothesis is proposed: H2. There is a significant positive relationship between curriculum and student satisfaction.

2.1.3 Teaching Quality

Pors (2001) in his study states that using student' perceptions of the different dimensions of teaching space experience, the quality of teaching can be measured. On the other hand, Louden(2000) reports that if instructors know about aspects and criteria which are directly connected to the professional development of a lecturer, it can increase the teaching quality of lecturers. In universities considering the quality of teaching staff is more important for the reason that, one of the main factors which have the main role in the largest positive effect on student satisfaction is teaching staff in universities. Consequently professor by knowing more about student experiences can assist them to adapt their manners and approaches toward the needs of students. So, it can affect students' perceived service quality and their satisfaction levels (Pozo-Munoz, Rebolloso-Pacheco et al. 2000, Voss, Gruber et al. 2010). In a study which has conducted by Devinder and Datta(2003) among 168 students shows that the most important issue based on the perceived service quality for students is the outcome of the lecture in class such as information and abilities gained, accessibility of class notes and reading material, attention and effectiveness of the lecture and tutor's feedback on evaluated work. Also Hill et al. (2003) find that the important factors for students related to teaching quality is the quality of the instructor such as lecture delivery, comment to students during the meeting and on projects, and the connection with students in the classroom. Based on the above findings, the following hypothesis is proposed: H3. There is a significant positive relationship between teaching quality and student satisfaction.

2.1.4 Financial Assistance and Tuition Costs

These days students have multiple choices for selecting a university in higher educations. One of the significant aspects which influence student satisfaction with a university is the accessibility of financial assistance such as scholarships and loans and tuition costs. This availability can encourage students to select a particular university among multiple choices (Webb, Coccari et al. 1997). Also, the studies of Gamage, Suwanabroma et al. (2008) support this comment. They conduct a research on perceived service quality among Thai and Japanese students and represent that tuition fees and financial assistance can effect on overall satisfaction among students and this factor is seen as the second most important aspect which influence perceptions of non-academic aspect of students. The overall students' perceived service quality can be affected by the reasonable cost of education based on the findings of Ford et al. (1999). Furthermore, scholarship which is the provision of financial assistance in education has been considered as one of the most significant elements of perceived service quality of students. Also in some literatures the endeavors indicate that in terms of financial assistance and tuition costs the costs of courses offered by the university is considered as one of the most significant factors of the students' perceived service quality (Hill 1995, Joseph, Yakhou et al. 2005). Based on the above findings, the following hypothesis is proposed: H4. There is a significant positive relationship between financial assistance and tuition costs and student satisfaction.

2.1.5 Facilities

Facility dimension is associated with accessibility of physical facilities which protect academic activities as well as non-academic activities. Based on various researches, this dimension is mentioned as tangibles, physical features, and physical issues. Besides, there are studies which modify these dimensions to several particular dimensions known as entertaining facilities, and computing facilities (Athiyaman 1997, Ford, Joseph et al. 1999, Sohail and Shaikh 2004). Based on the research of Sohail and Shaikh (2004), the physical facilities of the higher education institutions contain the lighting of the lecture halls, campus building appearance, design of lecture halls, and cleanliness of the campus as well the easement of the classrooms and study rooms. Aldridge and Rowley (1998)represent that, Physical facilities such as library services, technology facilities, and lecture rooms have a significant effect on students' educational experience. Based on the result of two studies which are conducted by LeBlanc and Nguyen (1997) and Sohail and Shaik, (2004), overall students' perceived service quality can be affected by students' abilities through accessing to facilities offered by their higher education institutes. Accessibility to facilities includes comforting access to the computer facilities, parking facilities, and classroom facilities. Based on the above findings, the following hypothesis is proposed: H5. There is a significant positive relationship between facilities and student satisfaction. The theoretical model has illustrated in Fig.1 based on the defined hypotheses.
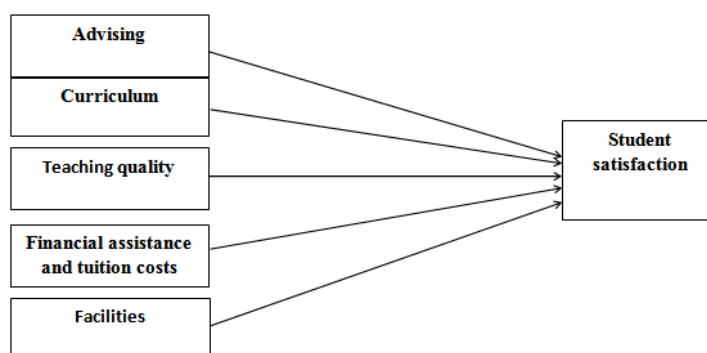

Figure 1.conceptual model

Figure 1.conceptual model

III.   Methodology

For understanding the research project, research design operates as glue. Research design is used for illustrating all of the key parts of research and to organize the research. This study has used quantitative style and questionnaire is the research instrument. All the constructs in questionnaire have been adopted based on the original articles (Letcher and Neves, 2010; Nasser, Khoury et al., 2008; Gamage, Suwanabroma et al., 2008; Kwan and Ng, 1999; Sohail and Shaikh, 2004; Tsinidou, Gerogiannis et al., 2010; Sahney, Banwet et al., 2004; Chien, 2007; Zabid, Rashid et al., 2005; Helgesen and Nesset, 2007). In this research the population respondents comprise postgraduate students studying at the International Business School UniversitiTeknologi Malaysia Kuala Lumpur. In data collection, students are selected through random sampling method and 250 questionnaires are distributed. Of this number, 225 students completed and returned the questionnaires. In examining the student satisfaction with perceived service quality factors which include the advising, quality of teaching and lecturers, financial assistance and tuition costs, facilities and curriculum a total of 41 Statements are constructed in the questionnaire. The statements are created to request the students to indicate their satisfaction on each aspect of university education with perceived service quality through the five likert scale ranging from very dissatisfied to very satisfy.

Also, the demographic part of questionnaire include Gender (male or female), marital status (single or married), age (20 and below, 21-25, 26 and above), Mode of study (full time or part time) and Semester (First Semester, second Semester, third Semester, Fourth Semester fifth and above). The details of respondent's background have shown in table 1. For this study the data analysis has been conducted through 'Statistical Package for Social Science' software or SPSS version 19. In this research the pilots testconducts due to increase in the validities of questionnaires before beginning the full scale survey. For understanding the reliability of questions a total number of 40 survey questionnaires are distributed among students. Malhotra and Groover (1998) believes that reliability examination can help researcher to know that how the questionnaire items must be designed. Scales reliability has assessed through Coefficient Cronbach alpha (Cronbach, 1951). In this research the reliability of all measures are above 0.7 which shows that all the constructs are reliable.

Table 1: Demographic profile

		Frequency	Percentage
Gender	Female	109	48.4
	Male	116	51.6
Age	20-25	55	24.4
	26-30	170	75.6
	31 and above	-	-
Marital status	Single	144	64.0
	Married	81	36.0

IV. Dataanalysis

4.1 Mean and Factor Analysis

According to Pallant (2010), factor analysis looks for groups or clumps between the inter-correlation of variables and is also used to reduce and summarize data by taking a smaller set of factors or components. Before conducting factor analysis in this research, the KMO and Bartlett's Testexamines for assessing the suitability of data for factor analysis. KMO measurement is among 0 and 1 that shows "the sum of partial correlations is large relative to the sum of correlations, indicating diffusion in the pattern of correlations". The Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) value should be 0.6 or above" Also the Barlett's Test of Sphericity value should be significant (Sekaran, 2006). In this research KMO value for dependent variable (0.739) and independent variables (0.906) are above 0.6 and the Bartlett's test is significant (p=.000) therefore factor analysis is suitable. So two factor analysis perform, the first is for dependent variable (student satisfaction) and the second is for independents variables (advising, curriculum, teaching quality, financial assistance and tuition costs and facilities).The items which do not meet the cut-off 0.6, they are removed from further analysis. Also for understanding the levels of student satisfaction with these variables the mean analysis is conducted based on the Secaran (2006) classification on the level of scale importance. Based on the mean analysis, the mean score for all variables that meet cut-off are above 3 which mean that the majority of respondents are satisfied with quality of services being offered. The constructs with the cut-off 0.6 and the mean scores for all variables have shown in Table A.1.

4.2 Hypothesis Testing: Correlation

According to the findings of Pallant (2010)," Correlation analysis uses to define the strength and direction of the linear relationship amongst two variables". In this part the used items are summated based on the identified factor earlier. The range of Pearson correlation coefficients (r) can be taken on only values from –1 to +1 (Cohen, 1988).For all variables, the correlation analysis run which include dependent variable (student satisfaction) and independent variables (Advising, Curriculum, teaching quality, financial assistance and tuition costs and Facilities). The Correlation analysis results have shown in table 3. The outcomes of this table shows that there is a positive and significant correlation among student satisfaction and advising, student satisfaction and curriculum, student satisfaction and teaching quality, student satisfaction and financial assistance and tuition costs, as well as student satisfaction and facilities (P<0.05). On the other hand, there are strong correlation among student satisfaction and advising (r=0.565), student satisfaction and curriculum (r=0.523), student satisfaction and teaching quality (r=0.544), student satisfaction and financial assistance and tuition costs (r=0.532) and student satisfaction and facilities (r=0.572). In terms of inter correlation of independent variables, the correlation matrix has shown that there are positive and strong correlations among advising and curriculum (r=0.515), advising and teaching quality (r=0.607), financial assistance and tuition costs and facilities (r=0.539), as well as curriculum and teaching quality (r=0.664).

Table 3: Correlation analysis

	1	2	3	4	5
Student satisfaction	0.565**	0.523**	0.544**	0.532**	0.572**
Predictor Variables					
1.Advising	-	0.515**	0.607**	0.417**	0.405**
2.Curriculum		-	0.664**	0.436**	0.411**
3.Teaching quality			-	0.421**	0.449**
4.Financial assistance and tuition costs				-	0.539**
5.Facilities					-

4.3Hypothesis Testing: Multiple-Regression Analysis

Regression analysis is a method that allows researchers to investigate the simultaneous impact of two or more independent variables on a single interval weighed dependent variable (Palant, 2010). Also, Hair et al. (2011) define that Multiple Regression is an appropriate procedure, where one metric dependent variable exists in a relationship. Therefore, the regression analysis is run and the results have shown in table 4, 5 and 6. At first, the assumptions of linearity, multi-collinearity, normally distributed errors and uncorrelated errors are checked and met. Based on the correlation table, there are strong correlations among student satisfaction and advising, student satisfaction and curriculum, student satisfaction and teaching quality, student satisfaction and financial assistance and tuition costs, as well as student satisfaction and facilities which all are above 0.5. Also the correlation between each of independent variables is not too high it means all correlations are less than 0.7. On the other hand all the VIF values in Table 6 are less than 10, as well as all tolerances are less than 1less R2. So there is no serious problem of multi-colinearity. In addition, in terms of outlier, all the points in the scatterplot are filling in the range of +3 and -3 and the points are quite random, thus there is no outlier and the error terms are independent of each other. Also, in the Scatterplot of the standardized residuals most of the scores have focused in the middle (along the 0 point). All the points in the Normal Probability Plot have lied in a reasonably straight diagonal line from bottom left to top right. Furthermore, based on the result of Durbin Watson statistics, which is 1.810 and respectively is around 2.000, it can be concluded that there is no autocorrelation present in error terms. Based on the table 4, R square value is 0.519, which shows that 52% of the variance in 'Student Satisfaction' is described by advising, curriculum, teaching quality, financial assistance and tuition costs and facilities that is a large effect size (Cohen, 1988). On the other hand the ANOVA table demonstrations that in general the model applied can statistically significantly predict the outcome variable (Sig = .000, $P<0.05$).According to the standardized beta values (table 6), facilities (Beta=0.272) has more impact on the model than others. In the other words, this variable (facilities) has a statistically significant contribution than other variables and teaching quality with lowest Beta value (0.109) shows that the teaching quality variables makes less of contribution to explaining the dependent variables (student satisfaction). Also, most effective factors after facilities are respectively, advising (Beta=0.245), finance (Beta=0.179) and curriculum (Beta=0.134). Furthermore, based on table 5, the combination of independent variables (advising, curriculum, teaching quality, financial assistance and tuition costs and facilities) significantly predicted student satisfaction ($F5,219=47.181$, $P<0.05$). In addition all variables, except teaching quality, which include; advising, curriculum, financial assistance and tuition costs and facilities are significantly contributing to the prediction. Table A.2 shows the research Findings based on the multiple regression analysis compare to previous studies findings.

Table 4: Results of Stepwise Multiple Regression (Model Summary)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.720[a]	.519	.508	.53056	1.810

a. Predictors: (Constant), advise, facility, curriculum, finance, teacher
b. Dependent Variable: satisfaction

Table 5: Results of Stepwise Multiple Regression (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	66.405	5	13.281	47.181	.000[a]
	Residual	61.647	219	.281		
	Total	128.051	224			

Table 6: Results of Stepwise Multiple Regression (Coefficients)

Model	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1 (constant)	-.209	.244		-.855	.393		
curriculum	.173	.084	.134	2.055	.041	.516	1.938
teacher	.125	.080	.109	1.558	.121	.448	2.230
finance	.187	.061	.179	3.050	.003	.636	1.572
facility	.324	.070	.272	4.642	.000	.640	1.562
advise	.262	.066	.245	3.982	.000	.583	1.717

Dependent Variable: satisfaction

V. Discussion And Conclusion

Based on the objectives of research, the aim of this study is to investigate the relationship of the factors of perceived service quality (advising, curriculum, teaching quality, financial assistance and tuition costs and facilities) with student satisfaction. Also examine the levels of student satisfaction with the factors of advising, curriculum, teaching quality, financial assistance and tuition costs and facilities. Based on the findings of mean analysis, almost the majority of students are satisfied with service quality being offered (mean score= 3.45).

Furthermore, the findings of this research shows that, there are a positive and significant correlation between the factors of advising, curriculum, teaching quality, financial assistance and tuition costs and facilities with student satisfaction. Also, all these factors except teaching quality have positive and significant impact on satisfaction of students. So, the findings of this research provide support for previous researches (e.g., Gamage, Suwanabroma et al., 2008; Tessema and Ready, 2012; Letcher and Neves, 2010; Elliott and Healy, 2001; Helgesen and Nesset, 2007) that express similar findings which factors of advising, curriculum, financial assistance and tuition costs and facilities have significant impact on student satisfaction. On the other hand, the outcomes of this research indicate that teaching quality do not have impact on student satisfaction which contradicts with the result of Arambewela and Hall (2009) that indicate this factor has impact on student satisfaction. Therefore, based on the study outcomes, increasing the quality of these factors can result in increasing in the levels of student satisfaction. So, to increase the satisfaction of students, it is important for operators of higher educations to increase the quality of services being offered to their students. So, this study will particularly be useful for the managers and educators within the universities and other institutions in the market by emphasizing the major elements that affect the satisfaction level among students. In general, the outcomes of the present research will assist the managers of these institutions to be able to find outthe weak points and strong points of their institution in providing quality services to their students and apply improvements wherever it is necessary in order to increase the students' satisfaction. To sum it up, higher education institutions will be able to effectively allocate their resources once they are able to prioritize the major elements that help them evaluate their students' perception of service   quality.

VI. Limitations And Recommendations

This study has some limitations. First of all the results of this research is limited from one public university in Malaysia and among postgraduate students at the International Business School of UniversitiTeknologi Malaysia. On the other hand the sample size of this research is just 225 students which are small. So, this indicates that the finding of this research cannot be generalized to the all public universities in Malaysia. Therefore, in order to attain more concluding data, further studies may focus on larger sample size and by selecting more than one public university. Also, this research investigates the perceived service quality factors among students and do not examine the effects of any demographic factors along perceived service quality factors on student satisfaction. Thus, researchers in future studies can incorporate the demographic factors such as the effect of semesters, the education success level based on the student's GPA or the differences between part time and full time students into their studies.

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Appendix: Table A.1 Mean and factor loadings for constructs

Item	Loading Factor	Mean
availability of Advisor in your college	.695	
Advisor's knowledge of requirements	.719	
Advisor's helpfulness of recommendations	.699	
Advisor's interest in students' progress	.699	
Effectiveness of advisor in guiding me in my major	.737	
Ability of advisor for advising regarding personal problems	.605	
(Advising)		3.27
The quality of material emphasized in course	.650	
The appropriateness of requirements for your course	.661	
Availability of information on the module structure	.612	
Variety of elective modules/modules on specialization areas	.690	
Clarity of course objectives	.684	
(Curriculum)		3.42
Vividness of teaching material	.604	
Level of enthusiasm of lecturers	.607	
Methodical course arrangement	.608	
Willingness of lecturer to help students in their studies and self-development	.641	
Effectiveness of teaching method	.687	
Effectiveness of lecture sessions to motivate learners to read the modules	.603	
Communication of lecturers with learners	.617	
Efficiency of lecturers in providing effective feedback on learners' performance	.605	
The level of preparing of lecturers for handling the tutorial sessions	.624	
(Teaching Quality)		3.56
Availability of variety of scholarships for deserving students	.702	
Flexibility of university's plans for payments of student loans and T-fees	.721	
Being competitive of Tuition fees with other similar education providers	.663	
Period of time of Student registration	.677	
Mode and process of payment of fees	.651	
(Financial assistance and Tuition Costs)		3.06
The availability of quiet places to study in the university	.619	
The amount and availability of library facilities	.679	
The amount and availability of computing facilities	.717	
The amount and availability of sports and recreational facilities	.675	
Feeling physically secure anywhere on the campus	.688	
Being easy to find parking lots inside and near campus	.733	
Openness of Computer labs during suitable hours	.619	
Amount and availability of reading rooms	.648	
The locations of lectures	.621	
(Facilities)		3.35
Satisfaction with the university college compared with expectations	.752	
Satisfaction with the university college compared with an ideal one	.744	
Satisfaction with the university college for recommending to others	.739	
(Student Satisfaction)		3.34

Cumulative % = 52.581

Table A. 2: Research Findings of regression analysis by comparing previous studies findings

Hypotheses	Findings after regression analysis	Remarks
H1. There is a significant positive relationship between advising and student satisfaction.	Supported	Supports: Gamage, Suwanabroma et al. (2008), Arambewela and Hall (2009), Keaveney and Young (1997), Hameed and Amjad (2011) Not supporting: Letcher and Neves (2010), Elliott and Healy (2001)
H2. There is a significant positive relationship between curriculum and student satisfaction.	Supported	Supports: Parayitam (2007), Tessema and Ready (2012) Not supporting: _____

H3. There is a significant positive relationship between teaching quality and student satisfaction.	Not supported	Supports: Letcher and Neves (2010) Not supporting: Arambewela and Hall (2009)
H4. There is a significant positive relationship between financial assistance and tuition costs and student satisfaction.	Supported	Supports: Gamage, Suwanabroma et al. (2008), Elliott and Healy (2001) Not supporting: ⎯⎯⎯⎯
H5. There is a significant positive relationship between facilities and student satisfaction	Supported	Supports: Helgesen and Nesset (2007) Not supporting: ⎯⎯⎯⎯