

## [POM 7] THE SERVICE QUALITY IN HIGHER EDUCATION: A CASE OF UUM OPERATIONS MANAGEMENT STUDENTS

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### ABSTRACT

*STML services have been one of the major topics discuss among students in UUM. Due to its importance, a research that investigates the student's satisfaction on service quality was conducted. In view of the above study, this article highlights outcomes to the following aims: 1) to identifies the level of students' satisfaction to the performances of services quality provided by STML, 2) to identify the critical factors in service quality dimensions that contributes most to the student satisfaction. The study was conducts using a set of questionnaire to 100 Bachelor Degree of Operations Management from STML. Respondents were divide into two groups which is third year students and fourth year students. The variable used in this research were adopts from Parasuraman using the five dimensions in service quality (Tangibility, Assurance, Reliability, Responsiveness and Empathy). From this research, it was expects that the differences between the demographic attributes of student towards the service quality provided by STML could lead to variation in students' satisfaction levels.*

**Keywords:** *School of Technology Management and Logistics, service quality, students satisfactions*

### INTRODUCTION

Education is the key to the “production” or “outcome” in life. Investment in education from pre-school to higher education level can improve and enhance quality of life. Hence, the preparation by individual as labor is the main agenda of education. This is because education may explain the ability that an individual to manage quality of life because of economic and social factors depending on the education received (Ross & Wu, 1996). Higher education is an education after secondary education included diploma's, bachelor's, master's, specialist, and doctoral organized by higher education. Satisfaction is a pleasurable fulfillment which in general consumers are familiar that consumption completes some goals desire and consequently this completion creates a pleasurable feeling (Oliver, 1997) and it's considered as reflection of life. The concept of satisfaction could be equated to the gap between real-life experiences and expectations (Parasuraman, Zeithaml & Berry, 1990). The student satisfaction should be implement for educational application. It should include constitutional amendments, administrative policies, educational goals and educational processes.

### **Problem statement**

Nowadays, higher education is one of the rapid growing service industries in the world where the appropriate methods and excellent strategies needed to meet the current student requirements especially in facilities by emphasizing the improvement in service quality for students' satisfaction. This situation is represents with establishment of the Department of Private Education at the Ministry of Education to prove that government also encourages in enhancing the development of education in the country. Meanwhile, the purpose of this engagement is to highlight the government's vision to introduce Malaysia as a leading academic center in the region. In this aspect, the government is not only concerned and focusing on education but also the quantities and quality of education. Moreover, education also becomes one of the important elements of the economic expansion. The internal strengths, weaknesses, and external opportunities and threats should become the important necessity for every educational institution to understand it.

However, since students are important customers for university, the insights, opinions and demand of the students need to be considered in order to ensure the good quality service. Most of the opinions and wishes of the students are important as the services in higher education is based on the pattern of demand and requirements of the students and not based on the will of university management itself. The survey will drive the results throughout the institution and also implements the satisfaction survey in management information system that continuously captures the voice of the students through the evaluation of performance from the student's perspective (Mehdipour & Zerehkafi, 2013).

### **Research objectives**

In general, the purpose of this study is tried to determine the relationship between the service quality that offered by School of Technology Management and Logistics (STML) to the students satisfaction for the service provided. There are several dimensions from the SERVQUAL the created by Parasuraman will be discuss and analyzed in this study, which are tangibility, assurance, reliability, responsiveness and empathy.

The purpose of this study:

- 1) To identifies the level of students' satisfaction in the performance of services quality provided by STML, UUM.
- 2) To examine critical factors in service quality (tangibility, responsiveness, reliability, assurance and empathy) that contributes most to students' satisfaction.

## **LITERATURE REVIEW**

### **Student satisfaction**

This study investigated university students' satisfaction from the physical environment and services provided in a higher education institution to shows the quality in higher education. The study emphasizes that academic community should focus on the present issues in higher education, explore the challenges toward the future and identifies effective initiatives to address such challenges (Hirsch & Weber, 1999). Moreover, social factors consist of student-faculty members' relationships and physical factors represent the class size and the environment and all student related service

facilities (Uka, 2014). Student satisfaction is describes as the different perceptions on students and how well a learning environment supports an academic success.

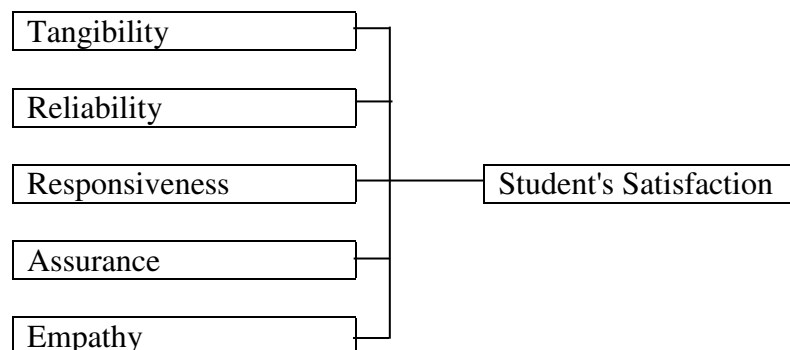
### **Service quality**

Service quality can be defined as the difference between customer expectations of service and perceived service. If expectations are greater than performance, then perceived quality is less than satisfactory and hence customer dissatisfaction occurs (Lewis & Mitchell, 1990; Parasuraman et al., 1985). The majority of the work to date has attempted to use the SERVQUAL (Parasuraman et al., 1988) methodology in an effort to measure service quality. The aims of this study is to determine any actual or perceived gaps between customer expectations and perceptions of the service offered by any organization that involves the use of SERVQUAL instrument which are tangibility, reliability, responsiveness, assurance and empathy. The others aim of this paper is to point out how management of service improvement can become more logical and integrated with respect to the prioritized service quality dimensions and their affections on increasing or decreasing service quality gaps. In the following, after a brief review of the service quality concept, the model of service quality gaps and the SERVQUAL methodology is demonstrated and an example is presented to pinpoint the application of the SERVQUAL approach. Then, after a discussion, major conclusions are derived from the studies (Shahin, 2006).

## **METHODOLOGY**

### **Research framework**

The research framework of this study adopted from Parasuraman's SERVQUAL dimensions. Parasuraman et.al. (1988) developed a model containing five satisfaction essential elements for determining customer satisfaction on the quality of students' services offered in higher education institutions (Figure 1). The independent variable of this study is tangible, reliability, responsiveness, assurance and empathy of service that provided by STML, UUM to measure the student satisfaction with the performance. The dependent variable in this study is to overall of the student satisfaction toward the service provided by STML, UUM.



**Figure 1**  
Research framework of student satisfaction

## Sample

The total number of respondents our survey questionnaire is 100 students of Bachelor Degree of Operation Management from School of Technology, Management, and Logistics. The gender distribution was 60% for females and 40% for males.

## Instrumentation

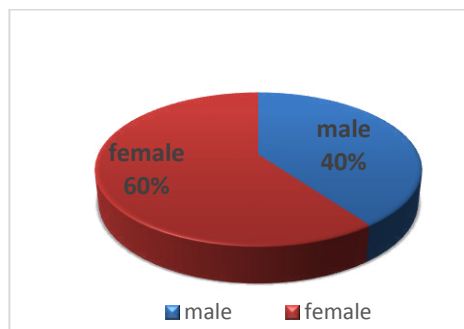
This study used the questionnaire as a medium to get the data needed. The questionnaire is separate into three section, which is Section A: demographic factor (gender, race, year of study and qualification), Section B: measurement of service quality in higher education (by using the five dimension of measurement in SERVQUAL) and Section C: measurement of student satisfaction. The instrument used in this research is adapted from (Parasuraman et al., 1990) which are the five dimensions of service quality (tangibility, assurance, reliability, responsiveness, and empathy). Besides, we also using the Likert scale to measure the level of satisfaction of students toward the service quality that provided by STML. In the Likert scale, level 1 means strongly dissatisfied up until to level 5 for strongly satisfied. To measure the student's satisfaction, the instrument for this variable was adapted from (Atheeyaman, 1997).

## Data analysis procedures

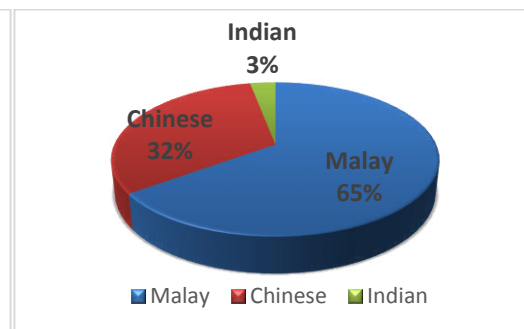
The data analysis for this study conducted through 'Statistical Package for Social Science' software or SPSS version 16. The purpose of used this SPSS software is to test reliability the instrument in order to enable to produce a robust and valid result.

## FINDINGS AND DISCUSSIONS

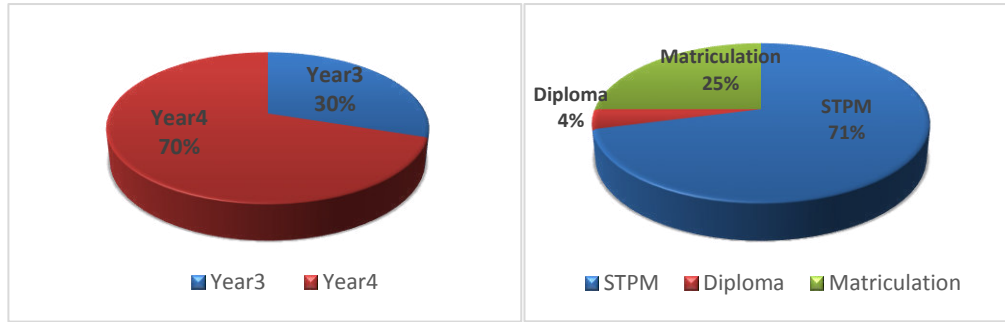
The demographic information includes the following characteristic of participants which are gender, race, year of study and qualification. The demographics information is represented in Table 1.1 based on frequency distributions and percentages. The total number of respondent is 100 Bachelor Degree of Operation Management from School of Technology, Management and Logistics. The gender distribution was 60 for females and 40 for males (Figure 2). There are three race involved in this study, which are 65% of Malay, 32% of Chinese and 3% of Indian (Figure 3). Most of the respondents are in the fourth year of their study (70%), followed by third year of study (30%) (Figure 4). Majority of the respondents are from STPM (71%), Matriculation (25%), and Diploma (4%) (Figure 5).



**Figure 2**  
Frequency of gender



**Figure 3**  
Frequency of race



**Figure 4**  
Frequency year of study

**Figure 5**  
Frequency of qualification

### Overall results

For the dependent variable for student satisfaction has 4 items, while for the independent variable of service quality, each of the dimensions starting with tangibility, responsiveness, reliability, and empathy contain 4 items, while assurance has 3 items totaling with 19 items. In Table 1 (refer to appendix), it shows that mean of student satisfaction is (mean=3.7150) followed by service quality with an overall mean of 3.6780 (on a 5-point scale). For each dimension, assurance scores the highest (3.7800), followed by tangibility (3.7400), responsiveness (3.6700), reliability (3.6200) and empathy (3.5800). The maximum score is 5.00 indicating that there are some who felt that the satisfaction is better than expected while the minimum score for student satisfaction is 1.50 indicating that there are students who felt that their satisfaction is much worse than expected. As may see in Table 1, the mean for service quality is 3.6780 which be perceived as students in Bachelor of Operation Management in UUM are actually neutral with overall service quality provided by School of Technology, Management, and Logistic (STML).

For the Table 2 (refer to appendix), it be seen that the highest mean score for item under an independent variables is “knowledgeable” (mean=4.1000), followed by “learning materials” (3.8600) and “staff character” (3.7400) and the lowest were “keep student interest” (3.4200) which mean that the lowest satisfaction toward the services related to empathy of services and the highest related to assurance. Furthermore, it can also be seen that assurance item (knowledgeable) had the highest overall mean score. For the dependent variable (student satisfaction), the item "decision to enroll" (3.8300) score the highest while "familiar services and choice to enroll" (3.6500) score the lowest.

**Table 3**  
Total overall mean score for gender

Gender	Male & Female	
	Year 3	Year 4
Year of study		
Variables		
Tangibility	3.5917	3.8036
Reliability	3.5667	3.6429
Responsiveness	3.7583	3.6321
Assurance	3.8222	3.7619
Empathy	3.5667	3.5857
Total overall	3.6611	3.6852

Moreover, the demographic variables include gender, race, qualification and year of study to complete this research. In our research, it emphasizes to explain the demographic for the year of study which is Year 3 and Year 4 to find student's satisfaction in service quality of higher education. In Table 3, shows the overall mean for the student according to their year of study. For the overall mean of Year 3 is 3.6611 while for Year 4 is 3.6852. It shows the mean score for Year 4 students is higher compared to Year 3 students. For the Year 3 students result, it indicates the highest mean score is Assurance which is 3.8222 meanwhile the lowest mean score is Empathy and Reliability with 3.5667 respectively.

Then, for Year 4 students result, it is found that the highest mean score is Tangibility which are 3.8036 while the lowest is Empathy with 3.5857. Therefore, the results proven that there is homogeneous attributes between the preferences of Year 3 and Year 4 students in the lowest satisfaction that they received which are Empathy. Furthermore, it can be seen that relatively, compared with variable presented, respondents from Year 3 students gave ranking to the five variables of the service quality in higher education from the highest to lowest are Assurance, Responsiveness, Tangibility, Reliability and Empathy. In addition, for Year 4 students is Tangibility, Assurance, Reliability, Responsiveness and Empathy.

### Male perspective

**Table 4**  
Mean score for year of study (male)

Gender	Male	
Year of study	Year 3	Year 4
Tangibility	3.5833	3.6800
Reliability	3.5833	3.5000
Responsiveness	3.6833	3.4000
Assurance	3.6667	3.5733
Empathy	3.4667	3.3900
Total	3.5967	3.5087

Table 4 indicates male students in Year 3 and Year 4 reacted with variables in this research. In Year 3 the total mean score is 3.5967 which is higher compared to Year 4 with 3.5087. From the results, it is clear that variables in service quality for the preferences of the male students in Year 3 shows the significant value. We can see the pattern of mean score in Year 3 mostly is higher compared to Year 4 except the Tangibility. The highest mean score is Responsiveness which is 3.6833 and then for lowest mean score is 3.4667 in Empathy. Moreover, for Year 4 students it indicates the highest is Tangibility with 3.6833 while the lowest mean score is Empathy which is 3.3900. As may see in the Table 4 above, there are homogeneous attributes between the Year 3 and Year 4 student's satisfaction on Empathy. Furthermore, it shows that relatively, compared with variable presented, respondents from Year 3 students gave ranking to the five variables of the service quality in higher education from highest to the lowest are Responsiveness, Assurance, Tangibility and Reliability, and Empathy. In addition, for Year 4 students the highest is Tangibility, followed by Assurance, Reliability, Responsiveness and Empathy.

## Female perspective

**Table 5**  
Mean score for year of study (female)

Gender	Female	
Year of study	Year 3	Year 4
Tangibility	3.6000	3.8722
Reliability	3.5500	3.7222
Responsiveness	3.8333	3.7611
Assurance	3.9778	3.8667
Empathy	3.6667	3.6944
Total	3.7256	3.7833

In Table 5 it can be seen that female students mean score in Year 3 and Year 4. For Year 3 the total mean score is 3.7256 which are lower compared to Year 4 with 3.7833. From the results, it is clear that variables in service quality for the preferences of the female students in Year 3 presented the highest mean score is Assurance which is 3.9778 and then for lowest mean score is 3.5500 in Reliability. Moreover, for Year 4 students it indicates the highest is Tangibility with 3.8722 while the lowest mean score is Empathy which is 3.6944. As may see in the Table 5 above, there are homogeneous attributes between the Year 3 and Year 4 student's satisfaction on overall service quality which are Empathy. Furthermore, it shows that relatively, compared with variable presented, respondents from Year 3 students gave ranking to the five variables of the service quality in higher education from highest to the lowest are Assurance, Responsiveness, Empathy, Tangibility and Reliability. In addition, for Year 4 students are Tangibility, Assurance, Responsiveness, Reliability and Empathy.

## Comparisons between male and female perspectives

**Table 6**  
Total overall mean score for year of study

Gender	Male		Female	
Year of study	Year 3	Year 4	Year 3	Year 4
Variables				
Tangibility	3.5833	3.6800	3.6000	3.8722
Reliability	3.5833	3.5000	3.5500	3.7222
Responsiveness	3.6833	3.4000	3.8333	3.7611
Assurance	3.6667	3.5733	3.9778	3.8667
Empathy	3.4667	3.3900	3.6667	3.6944
Total	3.5967	3.5087	3.7256	3.7833

For the discussion, the study only focus on mean values for each variables established to determines students' satisfaction with the service quality offered by STML. Table 6 above shows the overall mean for male and female students from Year 3 and Year 4. Based on the table, we can see that the female students is more satisfied with the service provided compared to the male students. We also found the uniqueness in the variables, as it shown that male students for Year 3 share the same value on Tangibility and Reliability attributes which is 3.5833. This can be describes students satisfied with

the physical aspects (equipment, learning materials, and facilities) and performance aspects (on time service, fair and consistent and sincere interest) that offered by STML. In this table also show the 30 students in the Year 3 students for male and female that involve in this research share the homogeneous attributes which is Reliability. It is represents that the students has quite similar thought about the performance that been performed by STML.

Based on analysis, we focus on male students from Year 3 and Year 4 for the variable that contributes the highest satisfactions on their behalf. For Year 3 the student voted for the Responsiveness as the variable that give the highest satisfaction. It maybe because the students in Year 3 quite familiar and satisfied with the quick response from the management team in STML such as booking the hall or get the signature from the management to approve certain project. Meanwhile, for the Year 4 students voted for the Tangibility as the highest mean score because fourth year students used and experienced with the physical equipment longer than students in Year 3. So, it can see the changes and improvement in term of physical aspect that been provided by STML. However, for the female students from Year 3 and Year 4 give differences response from the male students. For Year 3 the highest satisfactions in Assurance because they might think that the service that been provided by STML is reliable and the lecturer is full of knowledge to answer the students' questions and curiosity. Then, for Year 4 students the highest satisfactions is similar with the male students which is Tangibility. So, in conclusion, the results is consistent for male and female students in Year 4 for critical factors in service quality that contributes most to the students' satisfaction.

## CONCLUSION

In conclusion, it is clear that service quality provided by STML in view of students is quite satisfied. The student experience on the service quality of higher education is very complex and students has differences perception depending on the gender and year of study. In general, this study uses the mean value for determining the extent the level of student satisfaction using the services and facilities at STML. In addition, the analysis has made, view the students in Year 3 more focused the quality in the faculty and do not see it in a whole. This may happen because they are less experienced than last year students who have experience for four years in their field of study and have seen the quality in all aspects on the service of higher education. Although the student's satisfaction is quite satisfied but there are some things need to improved and enhanced to give the best service for the students.

Therefore, we want to suggest that STML should focused on things deemed important by students and needs to look at the quality in the students' perspective and not only from the management. As we can see at the results, both male in Year 3 and Year 4 has lowest satisfactions in Empathy attributes. So, the management team of STML should provide the training to the staff in order to increase their understanding about their work scope in providing the service to the students. Then, they will understand the student needs properly to give the better services to the students. Besides that, the lecturer also have to play an important roles in fairly treat the students in classes and give the individual attention to the students that are needs. Furthermore, we also want to suggest that management team should revise the operating hours in providing service to the students. For example, they may reschedule and rotating the break time for the staff so



that the services still has been run at that time. Lastly, the management team of STML should take it seriously in order to increase the student's satisfaction towards the services provided.

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## APPENDIX

**Table 1**  
Descriptive statistics

Type of Variables	N	Minimum	Maximum	Mean
<b>Independent variables</b>				
Tangibility	100	2.5	5	3.7400
Reliability	100	1	5	3.6200
Responsiveness	100	1.5	5	3.6700
Assurance	100	2	5	3.7800
Empathy	100	1.25	5	3.5800
Total				3.6780
<b>Dependent variables</b>				
Student satisfaction	100	1.5	5	3.7150

**Table 2**  
Questionnaire items

Questions	N	Minimum	Maximum	Mean	Std. Deviation
<b>Tangibility</b>					
Modern Equipment	100	1	5	3.6300	0.6614
Visual Appealing	100	2	5	3.7300	0.6795
Staff Character	100	1	5	3.7400	0.8363
Learning Materials	100	2	5	3.8600	0.6034
<b>Reliability</b>					
Right Time	100	1	5	3.5700	0.7818
Problem Solving	100	1	5	3.6100	0.8027
Service Inform	100	1	5	3.6100	0.8396
Fair And Consistent	100	1	5	3.6900	0.7480
<b>Responsiveness</b>					
Prompt Service	100	1	5	3.6700	0.7661
Service Perform	100	1	5	3.6900	0.7875
Promptly Respond	100	1	5	3.6200	0.8138
Willing To Help	100	1	5	3.7000	0.8469
<b>Assurance</b>					
Trust	100	1	5	3.6700	0.8172
Courteous	100	1	5	3.5700	0.7556
Knowledgeable	100	2	5	4.1000	0.7177
<b>Empathy</b>					
Individual Attention	100	1	5	3.6800	0.8025
Convenient					
Operating Hours	100	1	5	3.6300	0.8722
Understand Student					
Needs	100	1	5	3.5900	0.7926
Keep Student Interest	100	1	5	3.4200	0.8310
<b>Student Satisfaction</b>					
Familiar Services	100	1	5	3.6500	0.7437
Decision To Enroll	100	1	5	3.8300	0.7115

Choice To Enroll	100	1	5	3.6500	0.7017
Right Decision	100	1	5	3.7300	0.6795

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