

The Impact of Quality Indicators Towards Student Satisfaction in Higher Education

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Abstract: Higher education institutions are important to deliver students' relevant knowledge and skills for future carrier. The current issues are inequality of service quality amongst Malaysia universities. Quality indicators are used to determine students' satisfaction data based on the service quality experiences. Low students' satisfaction contributes to lower students' performance and hardly to fit into current employment market. This research focuses on the relationship between quality indicators of service quality provided by UTHM and students' satisfaction. Collection of the data was done by distributing questionnaires to 100 respondents from undergraduates of fourth year students among six faculties. The sampling techniques was stratified sampling method. The result showed that each of the quality indicators has positively impact on students' satisfaction. Extracurriculum activities are the most influencing indicator in this study toward the students' satisfaction. Furthermore, only field and faculty have impacts toward satisfaction amongst students. This study was to evaluate the current level of service quality in UTHM in students' viewpoint for future improvement in providing a better learning environment.

Keywords: Quality, Student satisfaction, Services

1. Introduction

Higher education institutions need to be concerned on students' resources such as facilities, administrations, extra-curricular activities and placement activities to produce diversity of skilled students applicable in tasks, communication, analytical and problem-solving skills, and information technology (IT) to obtain acknowledgement in employment (Pitan, 2017). At some points, forecasting on economy market requirements is difficult that urge universities to stressed on students about flexibility as the key aspect in being competitive for future employment. The universities also need to be competitive to keep the number of enrolments yearly as high (Pitan, 2017).

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Somehow, it is a part of responsibility of higher education institutes to equipped students with service quality from every aspects to enable students' learning process easier so that skills and university's ranking will align with economy market demand (Dumford & Miller, 2017). Therefore, the institutes have to face the obstacles in keeping up with changing skills required according to the economy market demand. The correlation of education and work from perspective of human capital theory, formal education is considered as a productive investment in human capital (Dumford & Miller, 2017).

1.1 Research Background

University Tun Hussein Onn Malaysia has been awarded overall 4-star institution by QS Stars University Ratings (Universiti Tun Hussein Onn Malaysia, 2021). There is a room of improvement to provide better service quality and produce greater quality graduates. University Tun Hussein Onn Malaysia has the population enrolment of 18,446 currently (Universiti Tun Hussein Onn Malaysia, 2021). It was formerly known as Pusat Latihan Staf Politeknik (PLSP) during the establishment on 16th September 1993. Later on, the firm was renamed as Institut Teknologi Tun Hussein Onn (KUiTTHO) in April 1996 before it was awarded a university-college status on 27th September 2000. The university obtained the full university status that enabled the name to be University Tun Hussein Onn Malaysia (UTHM) in March, 2007.

The crucial role of the universities in Malaysia is committing to the formation of Ministry of Higher Education (MOHE) with National Accreditation Board for service quality and quality of education assurance of universities within Malaysia (Asri & Symaco, 2017). The influence of another countries management urged higher education management in Malaysia to heavily work on the university's system for globalization and market economy. The impacts of such measure are balanced socioeconomic and sustained development. Malaysia education system may align with the market-driven knowledge production and research in university but it can be said that the system was not fully succeed because of uncertainty changes of economy demands (Asri & Symaco, 2017).

1.2 Problem Statements

The factors have been studied in literature review on unsatisfying matters mostly about facilities provided, the environment, the administration, placement services, learning material, support services, and activities (Kaur & Bhalla, 2018). The issues have been repeating for few years now which indicates universities' necessity to improve on these aspects to gain students' satisfaction.

Table 1 shows the result on students find that the service quality needs to be improved was much higher than the ones that voted for satisfied. 57% of the students are unsatisfied meanwhile 13% of the students are satisfied. The other 14% are moderately fine with the services provided and only 16% voted as good for the services, which was very low. Therefore, it can be concluded that the level of customers' satisfaction in UTHM can be considered as not excellent about the services offered by university based on the result of Table 1.

Table 1: The votes on the level of students' satisfaction in quality services in UTHM (Shafie & Yusoff, 2011)

Level of services	No. of voters	Percentage %
Need to improve	138	57
Good	39	16
Moderate	34	14
Satisfy	32	13
Total	243	100

1.3 Research Questions

- (i) What are the most influence factors of quality indicators toward students' satisfaction?
- (ii) What is the impact of demographic towards satisfaction amongst students?

1.4 Research Objectives

- (i) To identify the most influence factors of quality indicators toward students' satisfaction.
- (ii) To examine impact of demographic towards satisfaction amongst students.

1.5 Scope of the Study

The population of the whole university was 18,446 students but the scope has been limited to only undergraduate students in their fourth year of study consists of 1,800 students as the population of this study. The research scope in this analysis was focusing on students who studying in University of Tun Hussein Onn Malaysia, Batu Pahat, Johor. A sample size of 110 respondents will represent the data for this study. The researcher plans to get 100 usable and valid responses in this study so that the other voidable or incomplete responses can be eliminated. The purpose of this evaluation was identifying the factors of quality indicators contribute the most in students' satisfaction level amongst UTHM undergraduates.

1.6 Significance of the Study

The responsibility of higher education in giving the best service quality for better students' characters and skills development contribute at sustaining the economic growth. The quality services are important to determine the priorities of resources allocation so that students get competitive and higher chances for the market job. Satisfied students give out positive feedbacks around which influenced others for student's enrolment that led to institutions competitiveness.

2. Literature Review

2.1 Students' Satisfaction

Good service quality could win over students' gratification (Suprianto *et al.*, 2020) but as competition among universities is increasing, quality of services should be fixed too to grab loyalty from students (Annamdevula & Bellamkonda, 2016). From the same study, it was concluded that service quality support a certain relationship between student satisfaction as well as student's loyalty. The benefits from students' satisfaction from the experiences are positive impacts such as getting close friends, love to resume their studies and consequently completed their studies without hassle (Lin *et al.*, 2019). Therefore, evaluation should be based on students' perception of the services given in various dimensions (Lane *et al.*, 2019). Table 2 shows the matrix of previous researchers that researcher used to develop independent variables of this study. The variables were the ones frequently observed by the previous studies that were used by the researcher for this study.

(a) Infrastructure Facilities

A research in Finland disclosed that the activities, lessons, facilities such as accessibility, bus stops, cycleways and walkways are crucial for student satisfaction (Weerasinghe & Fernando, 2018). This point was supported with the desire of enjoying a pleasant learning environment not just by maintaining general infrastructure but physical facilities as well. A research on facilities and activities by university in Finland shows critical impact to student satisfaction levels (Weerasinghe & Fernando, 2018) which influence university image as well (Dedunu & Weerasinghe, 2017).

H1: Infrastructure facilities have significant positive impact on students' satisfaction.

Table 2: Matrix of previous studies independent variables

Author / Variables	Infrastructure facilities	Academic environment	Placement services	Learning materials	College administration	Student support services	Extracurricular activities	Financial administration
Weerasinghe & Fernando (2018)	X					X		X
Hanssen & Solvoll (2015)	X	X	X	X				X
Bogo (2015)		X	X					
Hay (2016)			X			X		X
Galeeva (2016)	X	X		X		X		X
Bakoban & Aljarallah (2015)				X			X	
You (2018)			X				X	
Abidin (2015)	X			X	X		X	X
Asare-Nuamah (2017)	X	X	X	X	X	X		X
Gupta & Kaushik (2018)	X			X	X			X
Alqurashi (2019)		X	X	X				
Masserini <i>et al.</i> (2019)	X			X		X		
Allam (2018)				X	X		X	
Parahoo <i>et al.</i> (2016)	X		x	X	X	X		

(b) Academy Environment

A study stated that the classroom environment that helps in learning lessons represent color, layout, furniture, spaces, and temperature (Han *et al.*, 2018). Students love to not solely be in a classroom for learning process (Weerasinghe & Fernando, 2018). Through one study, the finding regarding the classroom environment plays a role in getting students satisfaction (Weerasinghe & Fernando, 2018). The researcher states that positive learning environment encourage students in learning (Bogo, 2015) where new ideas, perspectives and enthusiasm could be developed (Hay, 2016). Good academy environment encourages students to engage with undiscovered theories and practices (Domakin, 2015).

H2: Academic environment has significant positive impact on students' satisfaction.

(c) Placement Services

The focused aspect in the study was building an effective learning environment that enhance collaborative relationships to generate opportunities for the students. This way, new learning experience could be obtained due to difficulty in learning session that call for group work instead. Setting up the placement with distinct learning activities, structures and relationships between the students could overcome the barriers for external problem-solving practices (Cleak & Venville, 2018).

H3: Placement services have significant positive impact on students' satisfaction.

(d) Extracurricular Activities

Extracurricular activities deliver a positive effect to the students' academic achievement by grades, better behaviors, declining dropout rates and better learning processes (Bakoban & Aljarallah, 2015). Meanwhile, there was a research indicates that socially involved extracurricular taken by students could help in achieving higher employability by developing better career-related skills (You, 2018). The extracurricular structure is mandatory according to (Syahira, *et al.*, 2019) because it could offer disclosure to students by allowing opportunities to develop skills and characteristics.

H4: Extracurricular activities have significant positive impact on students' satisfaction.

(e) *Learning Materials*

International student that going for mobility having problems such as support schemes, high tuition fee, financial aids, course waivers and convenient environment that advertising the university to the students should not remain the only attraction (Abubakar & Mokhtar, 2015). Scholars support the opinion on a student-centered system could have brought attraction and positive feeling for the institutions which converted into students' satisfaction (Abidin, 2015).

H5: Financial administration has significant positive impact on students' satisfaction.

(f) *Financial Administration*

Higher education organizations performance was distracted by the lack in the areas of facilities, resources, proper utilization of the resources (Gupta & Kaushik, 2018). The deficiencies of the service quality indicate the level of university which may be a problem to achieve the primary aim in producing high skilled graduates and post graduates. Teaching aids as material for learning and placement activities are important parts in supporting students' interest by creating a fun, interactive and effective environment (Alqurashi, 2019).

H6: Learning material has significant positive impact on students' satisfaction.

(g) *Student Support Service*

In the study, it was mentioned that in evaluating students' satisfaction with university, students need to be referred as a client to measure the quality obtained. The quality of services was evaluated objectively by the effective academic programs in terms of content, quality of teaching assistance, facilities and support system for the students present in a university (Masserini *et al.*, 2019). It is a responsibility of higher education institute come up with quality education as assurance of employability and capability of the graduates encountering the hurdles successfully (Allam, 2018).

H7: Student support services have significant positive impact on students' satisfaction.

(h) *College Administration*

There was an argument on satisfaction of students could be come from the quality of faculty staffs, resources and effective use of technology that has been disagreed regarding the point of satisfaction depends on technology provided by the university instead assistance of staffs (Hanssen & Solvoll, 2015). The evaluation by students' satisfaction on service quality received based on their experience represents a short-term attitude that calls for assurance by university for a more efficient service (Parahoo *et al.*, 2016)

H8: College administration has significant positive impact on students' satisfaction.

2.2 Conceptual Framework

This section shows the overall structure and development of a conceptual model of independent variables and dependent variable to be connected. Hypotheses are tested based on the variables where the independent variables are the (1) academic environment, (2) university administration, (3) student support services, (4) learning material, (5) infrastructure facilities, (6) placement services, (7) extracurricular activities and (8) financial administration. Figure 1 shows the conceptual framework from this study.

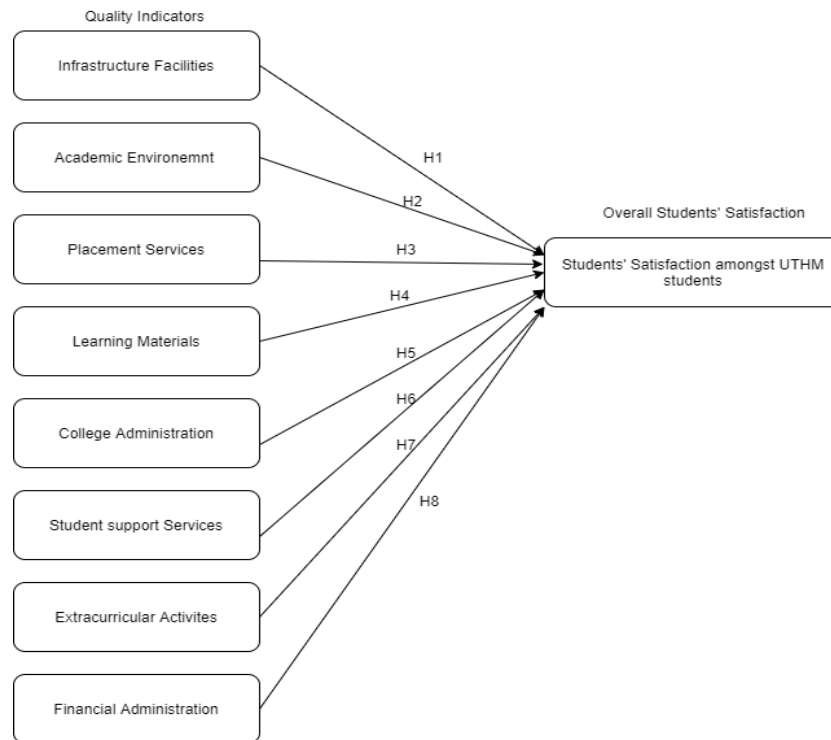


Figure 1: Conceptual framework of the study

3. Research Methodology

3.1 Research Design

The first thing to do to conduct this study was to find the major problems currently occur before get into reviewing previous studies conducted by other researchers to gain more knowledge and understanding of the topic observed. Next step was hypothesis development by testing the logical of the research to start designing on how to carry out the study in obtaining data from the respondents. Data was collected and analyzed after the questionnaire that have been distributed was completed by the respondents. The findings will be finalized and report was structured.

3.2 Data Collection

The population of the whole university was 18,446 students but the scope has been limited to only undergraduate students in their fourth year of study consists of 1,800 students as the population of this study. The research scope in this analysis was focusing on students who studying in University of Tun Hussein Onn Malaysia, Batu Pahat, Johor. A sample size of 100 respondents was used for the data in this study. The sampling technique practiced in this study was stratified random sampling to detect sampling error and minimize them precisely.

The questionnaire reflects to the real issues and meaningful to the participants so that the process of collecting data would not be incomplete to avoid sampling error. Data need to be precise and completed in order to be effective in observing the validity. Incomplete data received will contributes in inaccuracy which led to hypothesis was invalid to be tested. The process initiated by identifying the population sample followed by choosing the right questions to ask and later design a research tool to illustrate the questions before started the data collection from the respondents.

3.3 Data Analysis

Researcher used Statistical Package for Social Science (SPSS) software to completing the task of analyzing data from the raw data taken. All of the data from the questionnaire was in the form of number which made it analyzed quantitative. Reliability test, descriptive analysis, correlation analysis, multiple regression analysis and analysis of variance are included.

4. Results and Discussion

4.1 Objective 1 – Multiple Regression Analysis

Results from Table 3 shows that extra curriculum was the most influencing variable in this study toward the students' satisfaction. Second variables that share the same value of influence are infrastructure facilities and placement service. Third variable that was influencing to the students' satisfaction was university administration. Next, student support service as the fourth variable considered affecting the students' satisfaction. Fifth variable that was influencing to the dependent variable was financial administration meanwhile the sixth rank variable was learning material. The least rank of affecting variable in this study was academic environment. Based on the result, the respondents agreed the variable that give the biggest impact to the satisfaction level was extra curriculum activities. Thus, the result from the survey shows that students were delighted with the extra curriculum activities which contributed the most to the students' satisfaction.

Table 3: Coefficient for quality indicators toward students' satisfaction

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	MF
(Constant)	.393	.431		.913	.364	-.462	1.248					
avIF1	.135	.092	.140	1.462	.147	-.048	.317	.623	.152	.091	.424	2.359
avAE	-.012	.091	-.012	-.129	.898	-.192	.168	.547	-.014	-.008	.425	2.354
avPS	.190	.131	.165	1.453	.150	-.070	.450	.668	.151	.091	.303	3.304
avLM	.026	.126	.025	.205	.838	-.225	.277	.689	.021	.013	.257	3.886
avUA	.120	.090	.130	1.330	.187	-.059	.300	.632	.138	.083	.409	2.447
avSS	.146	.140	.136	1.044	.299	-.132	.425	.725	.109	.065	.228	4.381
avEA	.288	.128	.278	2.244	.027	.033	.543	.743	.229	.140	.254	3.942
avFA	.073	.102	.075	.717	.475	-.129	.274	.656	.075	.045	.356	2.806

4.2 Objective 2 – Analysis of Variance

The result from Table 4 shows the analysis of Mann-Whitney test of gender towards students' satisfaction and Mann-Whitney test of status towards students' satisfaction respectively. From the data below, it can be concluded that the distribution of students' satisfaction was the same towards gender ($U = 360$, $P = 0.919$, $p > 0.05$). Therefore, the null hypothesis retained. The distribution of students' satisfaction was equal across the categories of age ($U = 33$, $P = 0.680$, $p > 0.05$) which result in the null hypothesis to be retained. Both aspects did not have significant impact toward students' satisfaction.

Table 4: Summary of Mann-Whitney test

Variable		N	Mean Rank	Sig	Mann-Whitney
Gender	avS				
	Male	8	51.5	0.919	360
	Female	92	50.41		
Total	100				
Status	avS				
	Single	99	50.33	0.68	33
	Married	1	67		
Total	100				

The result from Table 5 shows the analysis of Kruskal Wallis test of age, race, field and faculty towards students' satisfaction respectively. From the data below, it can be concluded that the distribution of students' satisfaction was the same for the aspect of age towards students' satisfaction ($H(2) = 3.891$, $P = 0.143$, $p > 0.05$) and towards the race aspect ($H(2) = 1.305$, $P = 0.728$, $p > 0.05$). Thus, the null hypothesis retained due to no significant impact. As for the analysis of Kruskal Wallis test of field towards students' satisfaction, there was significant impact of the field towards students' satisfaction ($H(2) = 10.928$, $P = 0.004$, $p < 0.05$). The analysis of Kruskal Wallis test of faculty towards students' satisfaction shows significant impact of the faculty towards students' satisfaction as well ($H(2) = 14.847$, $P = 0.011$, $p < 0.05$). Hence, the variables of field and faculty have impacts towards students' satisfaction and have the same distribution as well for the students' satisfaction. The null hypotheses were rejected.

Table 5: Summary of Kruskal Wallis test

Variable		N	Mean Rank	Sig	Chi-Square
Age	avS				
	21 – 23 years	83	52.98	0.143	3.891
	24 – 26 years	15	37		
	27 years and above	2	49		
	Total	100			
Race	avS				
	Malay	76	48.83	0.728	1.305
	Chinese	19	57.29		
	Indian	2	49.75		
	Others	3	50.33		
Total	100				
Field	avS				
	Engineering	36	37.81	0.004	10.928
	Management	53	58.07		
	Education	11	55.59		
Total	100				
Faculty	avS				
	FPTP	55	57.53	0.011	14.847
	FPTV	11	55.59		
	FKAAB	21	34.52		
	FKMP	10	37.2		
	FKEE	1	96		
	FTK	2	40.75		
Total	100				

5. Conclusion

Quality of the services given by the universities to the students is important to Malaysian economy. The competition among universities is regarding the supply of human capital, the innovation they could create, the support for democratic values and demand (Valero & Van Reenen, 2019). The regional Gross Domestic Product per capita in the cross section of education sector is an aspect observed yearly for the economy. The result will be positive if the customers are satisfied with the service quality provided by the university (Valero & Van Reenen, 2019). The quality of services measured in this study are infrastructure facilities, academic environment, placement service, learning material, college administration, student support system, extracurricular activities, financial administration and the students' satisfaction.

This research purposes the impact of quality indicators towards student satisfaction amongst UTHM students. Throughout this study, there are eight pillars significantly correlates with the students' satisfaction and resulted in having strong correlations with students' satisfaction. The results obtained show that great services from university contribute to students' satisfaction. Finally, the overall results from the respondents indicate that UTHM has been providing great services to the students

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