

SERVICE QUALITY AND STUDENTS' SATISFACTION IN PUBLIC HIGHER EDUCATION INSTITUTIONS DURING COVID-19 IN MALAYSIA

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ABSTRACT

The COVID-19 pandemic has been a challenging time for Malaysians. The pandemic hurts many sectors, especially education. When Malaysia's Prime Minister, Tan Sri Muhyiddin Yassin, announced the Movement Control Order effective 18th March 2020, all sectors related to education, nurseries, government and private schools, international schools and higher education institutions were closed. The purpose of this study is to survey students on whether service quality has a significant impact on student satisfaction during COVID-19 in Malaysia. This research was a descriptive study with the cross-sectional method. Survey with Likert scales will be used to get the feedback from respondents from Public Higher Education Institution. The data collected from 257 respondents were analyzed with SPSS software. The study utilised SERVQUAL measurement to distinguish whether service quality's dimensions of reliability, responsiveness, tangibles, assurance, and empathy significantly influence the undergraduate student satisfaction in Public Higher Education Institutions in Malaysia. This study is novel that it was one of the first customer satisfaction studies during Covid-19, and it is hoped that the findings will be of pivoting reference by the practitioner and the researchers alike.

Keyword: Student Satisfaction, SERVQUAL, Public Higher Education Institution, COVID-19, Malaysia

INTRODUCTION

Background of Study

Student Satisfaction is the dependent variable for this study. The dependent variable is described as a phenomenon under study: students' satisfaction in this study. In an educational institution, it is of utmost critical to monitor the satisfaction level of its students as it will encourage students in higher education institutions to perform better in their studies which will contribute towards retaining students in the institutions. With this covered, the management team of the institutions can focus on enrolling new potential students in the institutions (Shahsavari & Sudzina, 2017).

The main stakeholder in Higher Education Institutions is students. Therefore, when students accumulate the experience of the services provided by the institution and its staff members, it would eventually build up and create service quality (Santos et al., 2020). Therefore, when an

Submission: 16 August 2021; **Acceptance:** 23 August 2021



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institution conducts a students' satisfaction survey among its student population on a standard interval of every year, a high standard can be set in the institution on how content and happy its students are. This study will focus on undergraduate's students' satisfaction levels in Public Higher Education Institutions in Malaysia. There are 20 public universities in Malaysia.

Problem Statement

This COVID-19 pandemic affected student populations from Public HEIs when their institutions immediately changed their learning mode to online teaching when the cases escalated fast. The new norm impacted many students from low-income families, students with limited network connections and insufficient electronic devices compared to their counterparts from comfortable family upbringing (Means & Neisler, 2020). All these difficulties affected the learning process for many students in public HEIs.

Hence, it can be concluded that an educational institution must create a mechanism to follow up with their students on their satisfaction level to reduce or ease their difficulties during the COVID-19 pandemic. Furthermore, various researchers have conducted studies on student satisfaction with service quality in HEIs and identified that quality of services that the students receive would aid to increase students' satisfaction and agreed with the existence of a connection between these two concepts (Santos et al., 2020). In conclusion, we can conclude that various researchers have taken up on student satisfaction, but these researchers' focus area was not COVID-19 as the COVID-19 is a new phenomenon globally. Therefore, the researcher must steer this research to observe the students' satisfaction level during the COVID-19 pandemic.

LITERATURE REVIEW

Student Satisfaction

Customer satisfaction is the broader concept of student satisfaction. Hence, after consuming a product or service, customers' comparison towards performance perception of the product or service is customer service (Lim et al., 2020). The next definition of customer satisfaction with a salesperson can be expressed as an emotional state that occurs after communication and after the experience that proceeds (Agnihotri et al., 2019). The organization's resources contribute to the organization's performance and customer satisfaction has been considered a market-based asset for an organization (Otto et al., 2020).

Customer satisfaction studies have been utilized to design the student satisfaction structural models in which determinants of student satisfaction are identified as higher education institutions' image, student expectation, perceived quality, and perceived value. At the same time, loyalty and complaint were the consequences (Lim et al., 2020). Online Learning Consortium introduced the significance of learning experience of student satisfaction for students together with elements of effectiveness of learning, the satisfaction of faculty, scale and evaluation access of quality of learning (Alqurashi, 2019).

Significant predictors of student satisfaction cover education outcomes, skill development, preparation for the future and accessing quality services and facilities of education institutions (Sailors, 2019). Furthermore, to maintain sustainable learning in an educational institution, student

satisfaction will be the key element to measure the quality of the learning systems of a university (Soegoto et al., 2020). Interaction between students and good learning content strongly influence students' satisfaction in an education institution (Alqurashi, 2019). The favorability of a student's subjective evaluation of the various outcomes and experiences associated with education also referred to students' satisfaction (Elliott & Shin, 2002). Furthermore, when students go through continuous experiences throughout campus life, this will mould the student's satisfaction for the institutions (Zurina et al., 2018; Oliver & DeSarbo, 1989).

The feeling of being blessed and satisfied for a student studying in an educational institution is influenced by the various services that the student sees and receives, which ultimately define student satisfaction (Yilmaz, 2017). Thus, it can be concluded that the research indicates that student satisfaction is significant for academic researches. Therefore, this is an insight or direction that an educational institution must follow to connect with its population of students to receive student's feedback openly and constructively regarding campus facilities, quality of teaching, services, online resources and other elements linked to higher education institutions.

Student Satisfaction from Global Perspective

From a global perspective, students in India are more satisfied attending face-to-face classes than their counterparts attending online classes (Nambiar, 2020). Final year undergraduate students in the United Kingdom complete the National Student Survey (NSS) to measure the HEI's satisfaction level in line with assisting universities in analyzing collected information that will be used to improve the students' learning experience and provide relevant information to potential students to choose the institution that they would like to enrol (Burgess et al., 2018).

For students, in universities in India, service quality positively impacts students' satisfaction (Annamdevula & Bellamkonda, 2016). After that, in Indonesia, the research found that service quality affected student satisfaction positively (Chandra et al., 2018, 2019). For students, personal factors that influence their satisfaction includes age, gender, favourite learning style, quality instruction, instructor feedback, clarity expectation, teaching style followed by institutional factors like classroom quality, the relationship between student and lecturers, communication between students, availability of equipment and facilities of learning, Library facilities and learning materials (Lin et al., 2020),

The specific factors that virtual universities provided related to electronic services that contribute towards student satisfaction were "Learner to Learner Interaction, Learner teacher interaction, Online Environment, Technical Support, Printing Material, Face to Face Environment" (Ghassan Al Azmeh, 2019). The literature review discussed here contributes towards academic research. The research provides significant insights into online teaching, electronic resources, face-to-face teaching, facilities and services, which will be factors that contribute towards students' satisfaction.

Student Satisfaction from Malaysia's Perspective

With high tuition fees charged by HEIs to students, sustaining student satisfaction and loyalty is the priority of private universities in Malaysia because, with the increase in knowledge workers, private higher education will increase too (Goh et al., 2017). Another research conducted in Malaysia shows that increase in student satisfaction is achieved when the students of HEIs portrays positive attitudes in their classes by enjoying and displaying joy and fun that results in higher performance (Zurina et al., 2018). Furthermore, an electronic learning system creates an opportunity for blended learning that assists students in HEIs in achieving success with their academic performance, which adds value to the increased satisfaction of the instructors and students (Vaksalla et al., 2019).

There is a need to recognize students' satisfaction and performance in an online learning environment in Open Learning Universities in Malaysia, in terms of learning material usage, facilitation of academic services, the responsiveness of learning centres and management of assessment because academic research focuses on electronic resources contributing towards students' satisfaction to higher education institutions (Rajadurai et al., 2018).

Factors Influencing

Service quality is the factor that influences student satisfaction. Hence, the principal product of HEIs is service, and it is very important to give quality service to increase student satisfaction and loyalty (Chandra et al., 2020). Since the perception of HEIs might not be equivalent to perceived service quality, the institution's management must monitor the service quality in various institutions to ensure student satisfaction (Santos et al., 2020). When researchers and policymakers understand the function and significance of service quality in HEIs by understanding variables like student satisfaction, institutional image and behavioural intention, it will improve and bring achievement to the courses in the institution (Hwang & Choi, 2019).

HEI need to fulfil the expectations of its students, who are their customers, by focusing on service quality (Green et al., 2019). Hence, we can conclude that this study will concentrate completely on student satisfaction and the five dimensions of service quality (reliability, responsiveness, tangibles, assurance and empathy) in HEIs.

Five Dimensions of SERVQUAL

First, reliability refers to the "ability to perform the promised service dependably and accurately" (Parasuraman et al., 1988). Furthermore, past research validated that reliability formed strong service quality which positively inspired customer loyalty (Moorthy et al., 2017). Second, responsiveness refers to "willingness to help customers and provide prompt service" (Parasuraman et al., 1988). Act of Responsiveness is when the staff or an organization go the extra mile in helping its customers, which significantly impacted customer loyalty (Moorthy et al., 2017). Thirdly, tangibles dimension refers to "physical facilities, equipment, and appearance of personnel" (Parasuraman et al., 1988). A positive correlation is established when the tangibles dimension develop customer loyalty (Moorthy et al., 2017).

Forth, the assurance dimension refers to "knowledge and courtesy of employees and their ability to inspire trust and confidence" (Parasuraman et al., 1988). Hence, customer loyalty has also been affected by Assurance (Moorthy et al., 2017). Lastly, empathy refers to the "caring, individualized attention the firm provides its customers" (Parasuraman et al., 1988). Customer loyalty is formed towards the organization when staff show care and personalized attention to a customer (Moorthy et al., 2017). Furthermore, female's empathy rate is higher than men in a study on cognitive and affective components (Mbise & Tuninga, 2016)

Conceptual Framework

In evaluating customer perceptions, the SERVQUAL model was created by Parasuraman et al. (1988) which discussed five dimensions of responsiveness, reliability, tangibles, assurance and empathy that was utilized (Nguyen & Truong, 2020). SERVQUAL model was designed to be relevant across a wide range of services which will lead to the improvement in its services and vendors can utilize the dimensions to develop a better understanding of the service expectations and perceptions of its customers (Parasuraman et al., 1988). The research model identified for this study is adopted from the SERVQUAL model. The research model was created by incorporating reliability, responsiveness, tangibles, assurance and empathy.

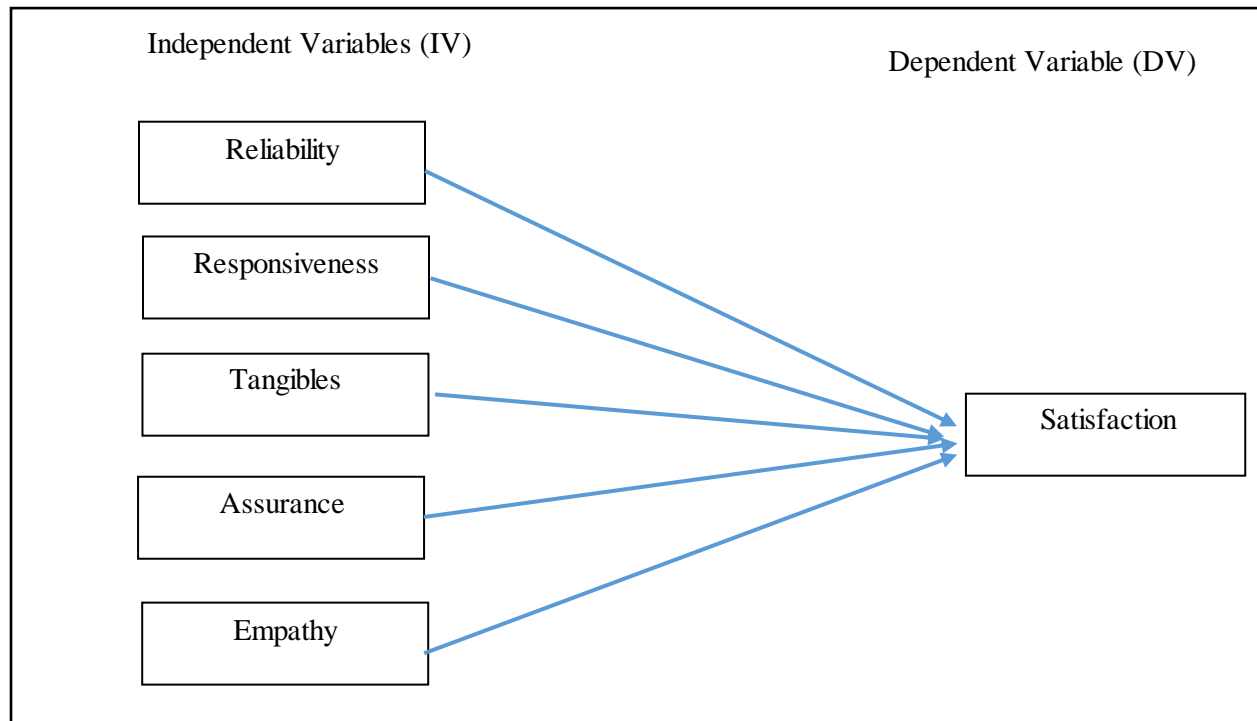


Figure 1: Research Framework

Hypothesis

H1: Reliability significantly influence undergraduate students' satisfaction in Public HEIs during COVID-19 in Malaysia

H2: Responsiveness significantly influence undergraduate students' satisfaction in Public HEIs during COVID-19 in Malaysia

H3: Tangibles significantly influence undergraduate students' satisfaction in Public HEIs during COVID-19 in Malaysia

H4: Assurance significantly influence undergraduate students' satisfaction in Public HEIs during COVID-19 in Malaysia

H5: Empathy significantly influence undergraduate students' satisfaction in Public HEIs during COVID-19 in Malaysia

METHODOLOGY

Research Design

The unit of analysis selected in this study is individuals because the research looks at single student satisfaction of undergraduate students in Public HEIs. The sampling design selected is Probability Sampling. The data collection method used a questionnaire. The questionnaire was designed with Google Form to be user friendly for respondents, and the link was sent using online methods to target populations. Based on Krejcie and Morgan (1970), the sample size selected for this study was 384, but the total number of respondents that participated in the survey were 257 respondents with a response rate of 67%.

FINDINGS

The finding of this study is as per the tables shown below:

Table 1: Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.851 ^a	.724	.718	.40788
a. Predictors: (Constant), Average Empathy Score, Average Reliability Score, Average Assurance Score, Average Tangibles Score, Average Responsiveness Score				

According to Table 1, the R-value is 0.851 and falls in the range of 0 and 1. The value is nearer to 1, which indicate a stronger association between the dependent variable, Students' Services and the independent variables (reliable, responsiveness, tangibles, assurance and empathy).

The R Square value is 0.724, which means that 72.4% of the data fit the regression model. Furthermore, it also means that 72.4% of students' satisfaction can be explained by the five independent variables of the study.

Table 2: ANOVA

ANOVA ^a						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	109.458	5	21.892	131.586	.000 ^b
	Residual	41.758	251	.166		
	Total	151.216	256			
a. Dependent Variable: Average Satisfaction Score						
b. Predictors: (Constant), Average Empathy Score, Average Reliability Score, Average Assurance Score, Average Tangibles Score, Average Responsiveness Score						

Based on Table 2, the ANOVA test result shows whether the regression model fits the data. The values in the table, $F(5, 251) = 21.892, p < .000$, indicate that independent variables significantly predicts the dependent variable. Since the regression model can be seen as a good fit for the data, independent variables (Reliable, Responsiveness, Tangibles, Assurance and Empathy) significantly predicted the dependent variable, Students' Satisfaction.

Summary of Findings

Multiple regression test was used to predict Students' Satisfaction on Service Quality Dimensions, only Responsiveness, Tangibles, Assurance and Empathy predicted Students' Satisfaction with $p < 0.05$.

Table 3: Coefficients

Coefficients^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.124	.186		-.667	.506		
	Average Reliability Score	.101	.052	.088	1.931	.055	.532	1.880
	Average Responsiveness Score	.192	.060	.186	3.206	.002	.328	3.044
	Average Tangibles Score	.295	.058	.280	5.069	.000	.361	2.771
	Average Assurance Score	.232	.063	.194	3.709	.000	.402	2.485
	Average Empathy Score	.217	.047	.238	4.585	.000	.407	2.456

a. Dependent Variable: Average Satisfaction Score

From Table 3, the beta coefficient value ranges from 0 to 1 or 0 to -1. Based on the table, Beta values for Responsiveness with a +0.192, Tangible with a score of +0.295, Assurance with a score of +0.232 and Empathy with a +0.217 has a significant positive impact on Students' Satisfaction. Even though Reliability has a score of +0.101, the p-value is >0.05, which means it does not significantly impact Students' Satisfaction.

Table 4: Summary of Hypothesis Testing

Hypothesis	Finding			Decision
	T-Value	P-Value	β	
H1	1.931	0.055, >0.05	0.088	Not Supported
H2	3.206	0.002, <0.05	0.186	Supported
H3	5.069	0.000, <0.05	0.280	Supported
H4	3.709	0.000, <0.05	0.194	Supported
H5	4.585	0.000, <0.05	0.238	Supported

From Table 4, if this study is placed under a 90% confidence interval, reliability (H1a) would also be supported ($t > 1.645$). Thus, all variables would be significant to predict satisfaction. However in this case, only Responsiveness, Tangibles, Assurance, and Empathy significantly and positively correlate with Students' Satisfaction. Hypothesis is partially accepted.

DISCUSSION AND CONCLUSIONS

The study's objective was to find out the significant relationship between students' satisfaction and service quality dimensions of reliability, responsiveness, tangibles, assurance and empathy.

The study showed that Reliability did not significantly influence undergraduate students' satisfaction in Public HEIs during COVID-19 in Malaysia. The Coefficients' p-value of 0.055 is slightly more than the alpha value of 0.05, making it statistically insignificant. Therefore, this sub hypothesis is not supported. Hence, the question arises, "Did the institutions face difficulties executing the said services with consistency and preciseness due to the COVID-19 pandemic?"

The study also showed that Responsiveness, Tangibles, Assurance, and Empathy significantly influenced undergraduate students' satisfaction in Public HEIs during COVID-19 in Malaysia. Hence, the hypothesis is supported in majority. Four dimensions were supported with one not supported at 95% confidence interval. Based on this study's results, there is a significant positive relationship between service quality dimensions of responsiveness, tangibles, assurance and empathy on students' satisfaction.

The study has provided important data which shows that service quality dimensions do significantly contribute towards students' satisfaction in Public Higher Education Institutions except for the Reliability dimension. Therefore, future research can be improved by researching service quality dimensions with a larger sample size. Furthermore, future research can look into how students' personal and social situations affects service quality which will contribute towards the institution's students' satisfaction (Hwang & Choi, 2019).

The research has shown that focusing on service quality is important in determining the students' satisfaction in an educational institution. Management of Public HEIs can apply the SERVQUAL dimensions in their operations to identify focus areas for continuous improvement in their institutions. Thus, Public HEIs must focus on enhancing ways for their students to easily approach their faculty and staff for assistance and receive focused advice and feedback that can solve their issues smoothly (Hwang & Choi, 2019).

Furthermore, management can conduct surveys or feedback sessions among its students to check their satisfaction level within the service quality dimensions, and good results or feedbacks can be used to promote the institution to new students.

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