

## Examining SERVQUAL Instrument on the Study of Relationship between Customer Satisfaction and the Service Quality of UiTM Jengka Pahang Panel Clinics

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### ABSTRACT

*The purpose of this paper is to examine the suitability of SERVQUAL instrument as a measurement of UiTM employees' satisfaction and panel clinics service quality. The main instrument of this study is a set of questionnaire adapted from Etgar & Fuchs (2009). Some modifications were made to the items in questionnaire in order to suit the context of physician. This study found that all the variables of SERVQUAL instrument except "Assurance" variables are significant at five percent significance level. Since this study was only limited to employees at UiTM Jengka, any suggestion in this study would be considered premature and could only be used as a reference. The findings cannot be generalized to the broader population of UiTM. The study also does not look into variables other than SERVQUAL dimensions that may have influenced customer satisfaction. The results of this study will significantly contribute to the new knowledge on service quality of panel clinics. The data gathered will also benefit the staff of Universiti Teknologi MARA in choosing a good panel clinic with quality service. Until now, there is no study conducted to investigate the service quality of panel clinics in Jengka, Pahang. It is hoped that the present study will lead to the improvement of the panel clinics wherever necessary.*

**Keywords:** *Customer Satisfaction, Service Quality, SERVQUAL, Panel Clinics, UiTM Pahang*

### Introduction

Panel clinic is a clinic appointed by an organization to provide medical and treatment facilities to all employees of the organization. Most employers provide these facilities in order to safeguard the welfare of their employees. The "Terms and Conditions of Services: Medical Facilities" section in the UiTM Staff Handbook mentions:

*"UiTM entitles all staff and their dependents (as defined in the General Orders, Chapter F) to seek free medical facilities in Government Hospital / University and outpatient treatment at private clinics appointed by UiTM as a panel clinics of university" (Buku Panduan Staf, 2006, p. 43)."*

For the employees of UiTM Jengka Pahang, the panel clinics provided by the university are Klinik Sulaiman, Klinik Shaik and Klinik Ghazali. These clinics have been selected by the management and are used by UiTM employees for free. Being consumers who rely on the service, the question arises as to whether or not the panel clinics appointed by UiTM offer quality service. Are the employees getting treatment from the panel clinics satisfied with the facilities provided by these clinics?

Until now, a study on the service quality of UiTM Pahang panel clinics has never been done. Therefore, to answer the questions above, we conducted a study to measure the quality of services provided by the appointed panel clinics.

### Objective of the Research

The objective of this study is to examine the suitability of SERVQUAL instrument as a measurement tool of panel clinics service quality.

### Literature Review

#### Service Quality Dimensions

Since 1980s, many studies have been conducted on various aspects of service quality in a variety of service industries, including the healthcare sector (Etgar and Fuchs, 2009; Norazah et al., 2011), education (Munhurrin and Naidoo, 2010), banking (Kumar et al., 2009; Parasuraman et al., 2004) and audit service (Ishak et al., 2006). Generally, research on service quality is related to the determination of whether perceived service delivery meet, exceeds or fails to meet customer expectations (Zeithaml et al., 1996).

Following this, many models related to the quality of services - SERVQUAL, Hierarchical Service Quality Model (HSQM), SERVPERF, Nordic etc – have been proposed. However, much of the researches to date have focused on measuring service quality using the SERVQUAL instrument, which was originally developed by Parasuraman *et al.* (1985). Five dimensions of service quality concluded by Parasuraman *et al.* (1985) are:

- (1) Tangibility: the appearance of physical facilities, equipment and personnel;
- (2) Reliability : the ability to perform the promised service dependably and accurately;
- (3) Responsiveness: the willingness to help customers and provide prompt service;
- (4) Assurance: the knowledge and courtesy of employees and their ability to inspire trust and confidence; and
- (5) Empathy: the level of caring and individualized attention the firm provides to its customers.

Parasuraman, *et al.* (1985, p. 45) in explaining the importance of this model said:

*“...the SERVQUAL is founded on the view that the customer’s assessment of service quality is paramount. This assessment is conceptualized as a gap between the general expectations of customers concerning a service; and the perceptions of customers regarding the levels of service actually provided by the company. This means that the greater the perception – minus – expectation score, the greater is the perceived service quality”.*

Since, previous studies provide evidence of differences between customer expectations and perceptions of service quality our hypothesis is as follows:

- H1: There is a significant difference between customer expectations and their perceptions of service quality based on the five dimensions in SERVQUAL instruments.

The following figure shows the conceptual structure of this study.

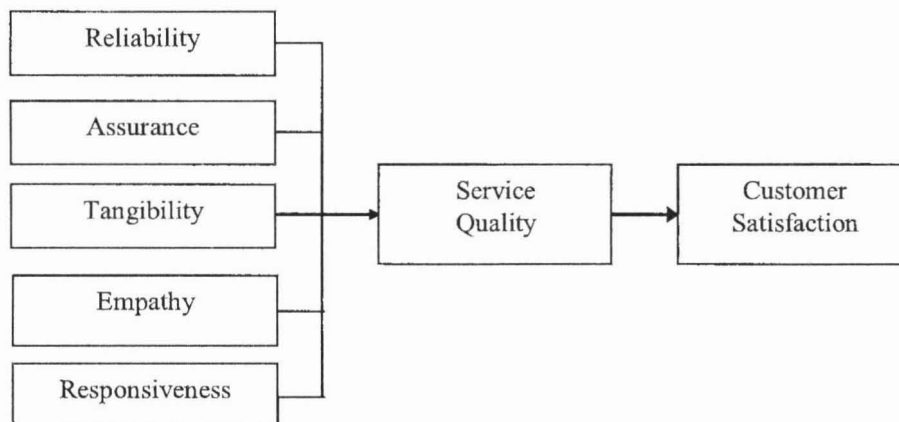


Figure 1: The Conceptual Structure of the Study (Adapted from Parasuraman *et al.*, 1985)

## Methodology

The main instrument of this study is a set of questionnaire adapted from the study done by Furrer *et al.* (2000, as cited in Etgar & Fuchs, 2009). Some modifications were made to the items in the questionnaire in order to suit the context of healthcare service. The five-point Likert scale ranging from “strongly disagree” (1) to “strongly agree” (5) was used for all related responses, to measure the extent in which respondents agreed with the corresponding statements. A questionnaire form was distributed to all UiTM Pahang staff. However, only 95 sets were used in this study as the rest were either incomplete or not returned. The respondent selection method uses the simple random sampling technique.

Once the primary data were obtained, the process of data analysis was carried out. The statistical methods used in this study were Cronbach’s Alpha, descriptive statistics, regression and simple linear regression. Data analysis was conducted using Statistical Package for Social Science (SPSS). The process of analyzing the data, included managing the data, changing the code, performing data analysis procedure, editing the output and making conclusions from the findings obtained.

This study used the five dimensions of SERVQUAL instruments as a tool for measuring service quality in panel clinics. Table 1 below shows the five dimensions and the corresponding items used for each dimension.

Table 1: The SERVQUAL dimensions and the corresponding questions (Etgar & Fuchs, 2009)

SERVQUAL dimensions	Corresponding questions
Reliability	"The medical service was provided in the way I had expected" "I believed that the doctor would solve the medical problem presented to him" "The medical problem I had was solved due to the treatment given in this appointment or others afterwards" "The doctor accepted me at the time set" "The doctor and all the staff provide the same level of service at all times of the day"
Responsiveness	"The medical treatment was prompt" "The doctor showed a lot of willingness to help" "The doctor was ready to respond to my requests" "I felt that the doctor was dependable"
Assurance	"I trusted the doctor's medical treatment" "The doctor related to me courteously" "The doctor had a wide knowledge regarding the medical problem presented to him" "I could trust the doctor's prescription and the quality of the medicine"
Empathy	"The doctor demonstrated individual attention" "The doctor treated me in a caring and considerate fashion" "I sensed that the doctor was truly interested in solving my problems" "The doctor showed understanding towards my special needs"
Tangibility	"The clinic was modernly and well equipped" "The facilities of the clinical were pleasant and appealing" "The doctor's and all staff's appearance was neat and professional" "The instructions given for the continuing treatment were clear and understandable"

## Findings and Discussion

### Demographic profile of respondents

Table 2 shows the demographic profile of respondents. From 95 respondents, 44.2 percent were males and 55.8 percent were female. The largest number of responses came from the 31 – 40 age group range (47.4%) and the lowest was from the group above than 50 years of age. From the total respondents, 55 people were academic staff (37.9%), while 40 were non-academic (42.1%). Of the respondents in this research, 72 were married (75.8%) while the rest, 22 respondents were single (23.2%).

Table 2: Demographic profile of respondents

Variables	Number	Percent
Gender		
Male	42	44.2
Female	53	55.8
Age (years old)		
21 – 30	25	26.3
31 – 40	45	47.4
41 – 50	19	20.0
More than 50	5	5.3
Marital status		
Single	22	23.2
Married	72	75.8
Position		
Academic	55	37.9
Non - academic	40	42.1

With a mean of 1.32, this study found that 57 respondents (60%) chose Klinik Ghazali as the most preferred panel clinic. A total of 26 respondents (27%) chose Klinik Shaik as the most preferred panel clinic causing it to be the less preferred panel clinic by the respondents (mean = 1.79). There were only 12 respondents (13%) who chose Klinik Sulaiman as the most preferred panel clinic and this makes Klinik Sulaiman as the least preferred panel clinic by the respondents (mean 2.38).

### Descriptive Analysis

For the statement "I will go to the second and third panel clinics if...", 77 respondents (81.1%) said "... if my first choice of panel clinic does not operate on that day", 55 respondents (56.8%) said "... if there are too many patients in my first choice of panel clinic" and 27 respondents (28.4%) said "... if I want to get the treatment from other doctors". The other reasons given were if: (1) they needed gynecological treatment from female doctors, (2) if they want to get other services such as x-ray, (3) if the doctor is not available and (4) if they want to get second opinion from other doctors.

In general the service quality of the panel clinics was good while the customer's feelings toward the panel clinics can be best described as satisfactory (mean of 3.8). When asked about their visit to the panel clinic for future treatment majority of the respondents (mean 3.66) answered "always".

### Construct Reliability

Internal consistency of the five dimensions in the research instrument was measured using the Cronbach's Coefficient Alpha. Measurement of internal consistency is intended to determine the reliability of the questionnaire to ensure the study is free from random error. Table 3 below shows the result of analysis of the Cronbach's Alpha Scale for the first choice and the last choice panel clinics.

Table 3: Cronbach's Alpha Scale for the First Choice Panel Clinic and the Last Choice Panel Clinic

Variables	Number of items	The First Choice Panel Clinic	The Last Choice Panel Clinic
Reliability	5	0.911	0.927
Responsiveness	4	0.845	0.916
Assurance	4	0.924	0.889
Empathy	4	0.935	0.939
Tangibility	4	0.837	0.872

The reliability scores for all items extracted were high. Thus, the SERVQUAL instrument is reasonably satisfactory to be used for panel clinics services as suggested by Etgar & Fuchs (2009). The result of Cronbach's Alpha values ranging from 0.837 to 0.939 fulfills the minimum requirement level of reliability. The values of Cronbach's Alpha show that these measures are good and reliable.

Test of normality for all variables was needed to be done before further analysis. Normality test are used to determine whether a data set is well-modeled by a normal distribution or not ("Normality Test", n.d). Chua (2008) stated that in social science and education, data distribution with skewness between  $\pm 2.0$  can be considered to be approximately normally distributed. As shown in Table 4 below, all of service quality dimensions for both group are approximately normal.

Table 4: Normality Test for First Choice Panel Clinic and Last Choice Panel Clinic

First Choice Panel Clinic	Skewness	Last Choice Panel Clinic	Skewness
Reliability	-1.363	Reliability	-0.501
Responsiveness	-1.717	Responsiveness	-0.746
Assurance	-1.674	Assurance	-0.939
Empathy	-1.399	Empathy	-0.865
Tangibility	-0.869	Tangibility	-0.543

## Dimensions of Service Quality

This study used paired t-test to compare the means of expectations and perceptions for the SERVQUAL dimensions. This service quality gap should be calculated by subtracting respondents' expectations from their perceptions (P - E). A negative service quality gap indicates respondents' expectations are greater than their perceptions while a positive service quality gap indicates respondents' perceptions are greater than their expectations (Ishak *et al.* 2006). Table 5a and 5b represent the results.

Table 5a: Comparison of Mean Result of SERVQUAL Gap for the First Choice Clinic

Dimension	Perception (P)	Expectation (E)	SERVQUAL Gap	t-value	Result
Reliability	4.2312	4.0649	0.16632	3.844*	Satisfied
Responsiveness	4.2649	4.1175	0.14737	3.109*	Satisfied
Assurance	4.3079	4.2351	0.07281	1.633	Satisfied
Empathy	4.3184	4.2237	0.09474	2.080*	Satisfied
Tangibility	4.1974	3.9632	0.23421	3.847*	Satisfied

Note: Gap = Perceptions – Expectations, \*significant at 0.05 level

Table 5b: Comparison of Mean Result of SERVQUAL Gap for the Last Choice Clinic

Dimension	Perception (P)	Expectation (E)	SERVQUAL Gap	t-value	Result
Reliability	4.2312	3.2414	0.98982	10.568*	Satisfied
Responsiveness	4.2649	3.4763	0.78860	7.799*	Satisfied
Assurance	4.3079	3.5789	0.72895	7.626*	Satisfied
Empathy	4.3184	3.5763	0.74211	7.160*	Satisfied
Tangibility	4.1974	3.6921	0.50526	5.733*	Satisfied

Note: Gap = Perceptions – Expectations, \*significant at 0.05 level

Based on Table 5a and 5b above the SERVQUAL scores on each of the five dimensions were positive, indicating that the service quality of panel clinics meet the expectations of the customers. These findings support the hypothesis, that there is a significant difference at five percent significance level between customer expectation and their perceptions of service quality for the first choice panel clinic and the last choice panel clinic. All of the variables of SERVQUAL instruments are significant except assurance because of inconsistent perception among respondents. The results also indicate that there is no significant difference between SERVQUAL gap for first choice panel clinic and last choice panel clinic because the results obtained for both clinics showed positive SERVQUAL gap. This could suggest that respondents were satisfied with both panel clinics.

In the case of first choice panel clinic, the variable of tangibility has the largest gap, followed by reliability and responsiveness. While the lowest gap for the first choice panel clinic is assurance. This explains why Klinik Ghazali becomes the most preferred clinic by customers. All the items under assurance have higher scores and the items are "I trusted the doctor's medical treatment", "the doctor related to me courteously", "the doctor had a wide knowledge regarding the medical problem presented to him", and "I could trust doctor's prescription and the quality of the medicine".

However in the case of last choice panel clinic, the largest service gaps revealed are variables of reliability, followed by responsiveness and empathy. The larger the gap means the lower the service quality. This situation might reflect customers' lack of trust on the doctors at the last choice panel clinic. This could be proven even more by the customers' responses saying that they would only go to the last choice panel clinic if the doctor at the first choice panel clinic was not available or their first choice panel clinic did not operate on that day.

SERVQUAL gap for all variables are positive, indicating customer perceptions to be higher than their expectations. Hence, there is a significant difference between customer expectations and their perceptions for all service quality dimensions. However, we can see that customer had a relatively higher expectation score on first choice panel clinic compared to last choice panel clinic.

Table 6 below presents the relationship between customer expectations and their perceptions. The study found that service quality dimensions meet customer expectation with strong positive correlation for the first choice clinic ( $0.5 < r < 1.0$ ) This finding differs from the one gained from last choice panel clinic because the study found that service quality dimensions slightly meet customer expectation with weak positive correlation ( $0.1 < r < 0.3$ ).

Table 6: Correlation between Customer Expectations and Their Perceptions

Service Quality Dimensions	Correlation	
	First choice panel clinic	Last choice panel clinic
Reliability	0.775	0.198
Responsiveness	0.784	0.165
Assurance	0.810	0.219
Empathy	0.811	0.240
Tangibility	0.675	0.392

## Suggestions

Besides all the findings presented here, the study also asked for respondents' suggestions regarding UiTM Pahang panel clinics. Among suggestions given are UiTM should: (1) extend the contract given to the present panel clinics (52.6%); (2) change to new panel clinics (10.5%) and (3) add the number of panel clinics for the employees (69.5%). A few respondents even suggested the panel clinics to extend their service time to night and weekends.

## Conclusion

Overall, the research reveals that the customers' perceptions exceed customer expectations. Customers nowadays have very high expectations, especially when it comes to health treatment (Norazah *et al.*, 2011) provided by the appointed panel clinics. It is found that all the variables of SERVQUAL instrument except "Assurance" variables are significant at five percent significance level. In terms of customers' satisfaction, most of the respondents were satisfied with the services offered by the appointed panel clinics.

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