

Customer Satisfaction Analysis to Health Service by Servqual 5 Dimension Method and Customer Satisfaction Index

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ABSTRACT

The aim of this research is to measure the customer satisfaction in UKSW Polyclinic by servqual five dimensions and Customer Satisfaction Index method. This survey can give information and evaluation material to be basis for the management to improve the service to reach customer satisfaction and service quality. There are 5 dimensions SERVQUAL with their 20 attributes which is the evaluation target from service quality factor. From customer satisfaction index method obtained figures satisfaction index by 47%, which suggests that patients were less satisfied with the performance of the polyclinic UKSW.

Keywords

Healthcare, Service Quality, servqual, Customer Satisfaction Index.

1. INTRODUCTION

The growth of health awareness in the society is followed by the growth of education level, knowledge, medical technology and social economic of the society. This should happen as well in a company, where should be responsible for the employee health by providing polyclinic or health insurance facilities.

UKSW is one of universities, which is located in Salatiga, Central Java. This university has health facilities, which is UKSW Polyclinic. It is a health unit, which is build to give medical serve for UKSW member such as lecturer with their families and the UKSW students as well. This polyclinic serves general societies as well. The different between general societies and UKSW families is in payment system.

Polyclinic should not only provide a professional nurse, but also the process business, in this polyclinic, should be served professionally such as registration, administration process, quick responds and warm welcome from the employee.

The employee could feel the the service quality from their past experience. If the service, at the beginning, is satisfying, they will feel that the service is excellence. There should have tools to measure whether the service is excellence or not. In give a good service, there are 5 dimensions in measuring service quality (SERVQUAL) like: Responsiveness, Reliability, Empathy, Assurance and Tangibles [1, 2].

Customer Satisfaction Index is useful to internal company for instance, controlling service improvement, motivating employee, and incentive. CSI is an index to measure customer

satisfaction overall by considering interest level from its attribute [3].

The aim of this research is to measure the customer satisfaction in UKSW Polyclinic by CSI (Customer Satisfaction Index). This survey can give information and evaluation material to be basis for the management to improve the service to reach customer satisfaction and service quality.

2. LITERATURE REVIEW

2.1 Research Preview

The aim poliakova research is to improving the quality of public passenger transport. Customer Satisfaction Index use to quantify the views of customers for products and services provided for the purpose of improvement in five main groups:

- Better understanding of the customers,
- Greater enforcement of customer expectations in the specifications,
- Better products and services realization,
- Better visibility and less hype,
- Growing sense of customers for the products and services.

This index can be successfully used in the field of improving the quality of public passenger transport [4].

2.2 Five Dimensions Servqual Method

SERVQUAL Method divide service quality into 5 dimensions, they are [2] :

1) *Tangibles*

Appearance and Performance from Physical Facilities, equipment, personnel and communication material to service delivery process.

Indicator: Facilities, Employee, Tools and Equipment

2) *Reliability*

An ability to serve appropriately and accurate. The aim of this ability is to create customer trust and reliable

Indicator: consistent, accurate and reliable

3) *Responsiveness*

Willingness to make a quick respond of giving service.

Indicator: sprightly, speed and respond

4) *Assurance*

Understanding and politeness of contact personnel related to their ability to convince customer that the service provider can serve well. There are 4 sub dimensions of this dimension:

a. *Competence*

Expertise and skill of the service provider to serve the customer.

b. *Credibility*

Honesty and responsible to create customer trust

c. Courtesy

Politeness, respectfulness and hospitality to serve the customer

d. Security

Secure, Freedom of fear and doubt

Indicator : Competence, credible, courtesy and security

5) Empathy

Employee comprehension and attention to customer needs. There are 3 sub dimensions of this dimension:

a. Access

Simplicity to be called and met by the customer

b. Communication

An ability to inform to the customer with understandable language and the service provider can be a good listener to the customer.

c. Understanding Customer

An effort to understand customer needs.

Indicator: Communication, access and understanding.

2.3 Customer Satisfaction Index Method

Customer satisfaction index is a method to measure customer satisfaction through a certain attribute. Different company has different attribute to be measured. It depend on information needed by the company to the consumer (Massnick, 1977).

According to Irawan (2004), there are 4 steps to count CSI, there are:

1. Decide Meand Important Score (MIS) and Mean Satisfaction Score (MSS)

The score is based on interest rate and performance of each respondent:

$$MIS = \frac{\sum_{i=1}^n Y_i}{n}$$

$$MSS = \frac{\sum_{i=1}^n X_i}{n}$$

n = Total Respondent

Y_i = Interest attribute score -i

X_i = Performance attribute score -i

2. Create Weight Factors (WF)

This weight is the percentage score of MIS per attribute to total MIS of all attribute.

$$WF_i = \frac{MIS_i}{\sum_{i=1}^p MIS_i}$$

where :

p = Interest attribute total

3. Create Weight Score (WS)

This weight is the multiplication between Weight Factors (WF) and Means Satisfaction Score (MSS)

$$WS_i = WF_i \times MSS_i$$

4. Find CSI

$$CSI = \frac{\sum_{i=1}^p WS_i}{5} \times 100\%$$

Criteria of CSI (see Table 1):

Table 1: Interpretation of Customer Satisfaction Index

Index value (%)	Customer satisfaction index
81 – 100	Very satisfied
66 – 80,99	Satisfied
51 – 65,99	quite satisfied
35 – 50,99	Less satisfied
0 – 34,99	No satisfied

3. METHODOLOGY

3.1 Determine Population and Sample

In this study, the study population is the lectures, staff and students UKSW and also the general public listed as a member of the polyclinic. Number of samples of each population is 25, so the total number of samples is 100.

3.2 Type and Data Collection Techniques

The types of data used in this research is primary data. The primary data in this study were obtained from questionnaires by respondents.

Data collection techniques in this research is a questionnaire. Patients who were respondents or samples in this research given the questionnaire sheet. It use to obtain information about the patient's opinion concerning quality of services provided clinic.

3.3 Research Instrument

In this research, 20 statements used to measure the performance across above mentioned five dimensions, using five point likert scale measuring both customer expectations and perceptions. After collecting data from different 100 clients of respondents in UKSW. the Likert represent the position of the patient based on assessment criteria that is very good, good, good enough, not good, not very good with a score of 5,4,3,2, and 1. Indicator and attributes used in this study can be shown in Table 2.

Table 2: SERVQUAL Attributes and Definition According to Polyclinic

No	Servqual Attribute	1	2	3	4	5
Tangibles						
1	physical building					
2	Cleanliness and tranquility of patient room					
3	Employee performance					
4	Availiability of medical devices					
Assurance						
5	Nurse attitude to patients					
6	Doctor concern to patients					
7	Attention and patience of the nurses					
8	Experience of doctors					
Emphaty						
9	Politeness of the staff to patient					
10	Ease of communication					
11	Doktor know what type of problem arises to patient					
12	Doktor know what type of dieses patient suffering from					
Responsiveness						
13	Speed of Service					
14	Speed of registration					
15	Computerized registration facility					
16	Desire for helping					
Reliability (keandalan)						
17	Handling and comprehensive action					
18	Reputation of doctors					
19	Qualification of staff					
20	Accuracy of treatment					

3.4 Research Framework

Research framework shown in Figure 1. This research used primary data collected directly through questionnaires given to lecturers, staff, and students UKSW, and also the general

public. Indicators in the questionnaire were taken from the five dimensions of SERVQUAL tangibles, assurance, empathy, responsiveness, and reliability, each of which contains four statements.

Tangibles	
1	physical building
2	Cleanliness and tranquility of patient room
3	Employee performance
4	Availability of medical devices
Assurance	
5	Nurse attitude to patients
6	Doctor concern to patients
7	Attention and patience of the nurses
8	Experience of doctors
Empathy	
9	Politeness of the staff to patient
10	Ease of communication
11	Dokter know what type of problem arises to patient
12	Dokter know what type of diseases patient suffering from
Responsiveness	
13	Speed of Service
14	Speed of registration
15	Computerized registration facility
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Reliability (keandalan)	
17	Handling and comprehensive action
18	Reputation of doctors
19	Qualification of staff
20	Accuracy of treatment

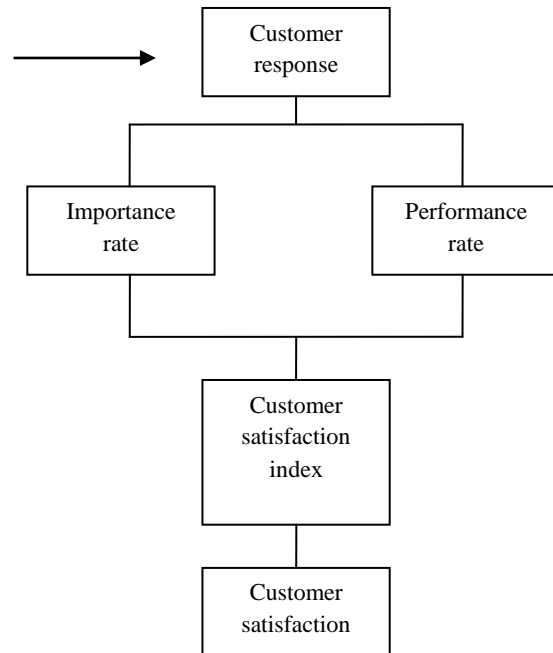


Fig 1: Research Framework (Modified from Jimmy [9])

Scoring research shows on Table 1. The data primer is from questionnaire filled by UKSW lecturer, employee and student and society. SERVQUAL method 5 dimensions, tangibles, assurance, empathy, responsiveness and reliability as the indicators. In each indicator, there are 4 statements. The questionnaire result is divided into 2 response, service reality that they feel and customer hope, and then to measure customer satisfaction index through CSI method. CSI measurement will create customer satisfaction criteria. From the result, hopefully it can improve the service quality in this polyclinic.

4. RESULT

4.1 Sample Size Determination

The result of questionnaires are customers feedback which is divided into two, the fact that accepted by the customer and the customer's expectations. To measure the customer satisfaction index used CSI methods. These results are expected to help improve the quality of care in a clinic serving patients.

4.2 Data Processing

4.2.1 Validity and Reliability Test

4.2.1.1 Patient Expectation and Satisfaction in Clinic UKSW

1. Validity Test

Here is a table of accumulated data patient concern the patient's expectations of the service at the polyclinic UKSW

with r table 0.349. This testing using SPSS software version 16.0 (see Table 3).

Table 3: Patient Expectation and Satisfaction in Clinic UKSW

No	Klasifikasi Pertanyaan	Nilai Persepsi	Keterangan
1	<i>Tangibles</i> (bentuk fisik)	0.661	Valid
2		0.783	Valid
3		0.641	Valid
4		0.681	Valid
5	<i>Assurance</i> (jaminan)	0.628	Valid
6		0.790	Valid
7		0.692	Valid
8		0.637	Valid
9	<i>Empathy</i> (empati)	0.648	Valid
10		0.692	Valid
11		0.647	Valid
12		0.692	Valid
13	<i>Responsiveness</i> (daya tanggap)	0.678	Valid
14		0.792	Valid
15		0.651	Valid
16		0.637	Valid
17	<i>Reliability</i> (keandaalan)	0.681	Valid
18		0.651	Valid
19		0.642	Valid
20		0.633	Valid

2. Reliability Test

Reliability test for questionnaire in polyclinic UKSW (see Table 4).

Table 4: Reliability Statistics

Reliability Statistics	
Cronbach's Alpha	N of Items
.760	20

4.2.1.2 Patient Perception and Satisfaction in Clinic UKSW

1. Validity Test

Here is a table of accumulated data patient's perception of the service at the polyclinic UKSW (see Table 5).

Table 5: Patient Perception and Satisfaction in Clinic UKSW

No	Klasifikasi Pertanyaan	Nilai harapan	Keterangan
1	Tangibles (bentuk fisik)	0,391	Valid
2		0,356	Valid
3		0,401	Valid
4		0,354	Valid
5	Assurance (jaminan)	0,379	Valid
6		0,614	Valid
7		0,496	Valid
8		0,577	Valid
9	Emphaty (empati)	0,373	Valid
10		0,416	Valid
11		0,715	Valid
12		0,370	Valid
13	Responsiveness (daya tanggap)	0,374	Valid
14		0,403	Valid
15		0,433	Valid
16		0,431	Valid
17	Reliability (keandaalan)	0,447	Valid
18		0,351	Valid
19		0,446	Valid
20		0,350	Valid

2. Reliability Test

Reliably reliability test for questionnaire in polyclinic UKSW (see Table 6).

Table 6: Reliability Statistic

Reliability Statistics	
Cronbach's Alpha	N of Items
.938	20

4.3 CSI Method

In this table, we can see the results of customer satisfaction with CSI method can be shown in Table 7.

Table 7: Customer Satisfaction with CSI Method

no	performance score	importance score	importance rate	importance weight	performance rate	weight score
1	218	390	3.9	5.06	2.18	0.11
2	249	384	3.84	4.99	2.49	0.12
3	222	386	3.86	5.01	2.22	0.11
4	250	375	3.75	4.87	2.5	0.12
5	260	387	3.87	5.02	2.6	0.13
6	249	387	3.87	5.02	2.49	0.12
7	230	387	3.87	5.02	2.3	0.12
8	228	391	3.91	5.08	2.28	0.12
9	240	382	3.82	4.96	2.4	0.12
10	232	393	3.93	5.1	2.32	0.12
11	212	379	3.79	4.92	2.12	0.11
12	218	387	3.87	5.02	2.18	0.11
13	249	395	3.95	5.13	2.49	0.13
14	217	379	3.79	4.92	2.17	0.11
15	248	396	3.96	5.14	2.48	0.13
16	221	389	3.89	5.05	2.21	0.11
17	255	390	3.9	5.06	2.55	0.13
18	249	375	3.75	4.87	2.49	0.12
19	225	375	3.75	4.87	2.25	0.11
20	219	375	3.75	4.87	2.19	0.11
			77.02			2.35
					CSI	47

From the data research shows that the important attribute of the service quality is staff ability to give a quick response in problem solving, staff ability to give service, Hygiene facilities of the polyclinic, sprightly employee in servicing and comfortable & security place.

The respond of the performance is bad while service attribute, which is the main priority but the polyclinic has not implement yet is

- Hygiene facilities
- Staff ability to serve customer
- Staff sprightly in providing service
- Staff knowledge in providing service

While some performance attribute which should be kept is

- Reasonable medical expenses
- Complete facilities

From the CSI index the percentage of customer satisfaction is 47 %. It is shows that the customer un satisfy with the polyclinic performance.

5. CONCLUSION

From the study, we can conclude some conclusion related to customer satisfaction in UKSW Polyclinic like this below:

- a. From CSI index, the customer satisfaction of the polyclinic performance is 47 %, it shows that the customer is unsatisfied with UKSW polyclinic performance
- b. The respond of the performance is bad while service attribute, which is the main priority but the polyclinic has not implement yet is
 - a. Hygiene facilities
 - b. Staff ability to serve customer
 - c. Staff sprightly in providing service
 - d. Staff knowledge in providing service
- c. There are some performance attribute which should be kept to serve the customer are:
 - a. Reasonable medical expenses
 - b. Complete facilities

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