The Application Of Servqual Method and Importance Performance Analysis (IPA) in Analyzing The level of Patient Satisfaction With the Quality of Service at Wira Husada Kisaran General Hospital

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Article Info	ABSTRACT
	One of the health care facilities are hospital. Hospitals are required to provide quality services to give satisfaction to the patient. Services that are less than optimal will reduce the number of patients visiting. Therefore, improving the quality of service is needed in an effort to attract patients to seek treatment at the WiraHusadaKisaran General Hospital. This research was conducted by distributing 70 questionnaires and calculations were carried out using the Importance Performance Analysis (IPA) method and the Servqual method. The Servqual method is used to determine the level of patient satisfaction and the Importance Performance Analysis (IPA) method is used to determine which attributes need improvement. From the results of the calculation of the Servqual method using 5 dimensions of service, namely tangible, reliability, responsiveness, assurance, and empathy to determine the value of GAP. On the tangible dimensions of the attributes that have not satisfied the patient, the comfort and cleanliness of the hospital and inpatient environment. In the dimension of reliability attributes that have not satisfied the patient, the doctor conducts an examination of the patient according to the specified schedule and on time. In the dimension of responsiveness attributes that have not satisfied patients, namely, nurses quickly and responsively serve patients. On the assurance dimension has satisfied patients. In the dimension of emphaty attributes that have not satisfied the patient, namely, medical personnel respond to patient complaints. From the results of the calculation of the Importance Performance Analysis (IPA) method, it has a suitability level value of 79.34% and in the Cartesian diagram of the 20 attributes there are 6 attributes that require repair and improvement, namely attribute numbers 1, 3, 4, 8, 9, and 12.

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INTRODUCTION

As part of health facilities, hospitals have a very important role in improving the level of Public Health in a faster way. For this reason, hospitals are expected to provide quality services according to established standards, so that they can cover all circles of society.

Wira Husada Kisaran General Hospital as one of the Type D private hospitals located in the West Kisaran District , Asahan regency, North Sumatra, which is the choice of the Asahan, TanjungBalai, and Batubara people. This hospital provides general and specialist medical services, namely General Practitioners, basic specialists, supporting specialists and dentists. WiraHusada Hospital has several types of inpatient classes,

namely super VIP, VIP, class 1, Class 2 and Class 3. Data on the number of inpatient visits at WiraHusadaKisaran General Hospital are presented in Table 1.

Table 1. Inpatient visits to WiraHusada General Hospital in 2022

No	Bulan	JumlahPasienRawatInap
1	Januari	122
2	Februari	95
3	Maret	117
4	April	119
5	Mei	92
6	Juni	130
7	Juli	108
8	Agustus	133

From the data indicated in the table above, it can be seen that the number of patients hospitalized every month in 2022 tends to fluctuate. There are fluctuations, where sometimes there is an increase and sometimes there is a decrease, although not so significant. The instability in the number of patient visits each month is caused by a variety of complaints experienced by patients, which may be caused by several factors.

To overcome these problems, the authors want to measure the quality of Service and analyze what is the top priority in improving the quality of WiraHusadaKisaran General Hospital by using Servqual and Importance Performance Analysis (IPA) method calculations, so that it is known the level of patient satisfaction with the quality of hospital services and what attributes are known to be a priority for improvement.

Based on the background that has been described, the researchers will conduct a study entitled "Application of Servqual method and Importance Performance Analysis (IPA) in the analysis of the level of patient satisfaction with the quality of Service at WiraHusada General Hospital".

RESEARCH METHOD

This research was conducted at WiraHusadaKisaran General Hospital. This research was conducted from 23 september 2022 to 07 october 2022. The data was processed using Servqualmethode and Importance Performance Analysis method with the following stages:

1. Data adequacy test
2. Validity data and reliability test
3. Calculate using the service quality method
4. Calculate using importance performace analysis method
5. Make conculusion based on the research that has been done.

RESULTS AND DISCUSSION

Data Adequacy Test

$$n = p(1-p)\left(\frac{Z_{a/2}}{e}\right)^2$$

Because the proportion of sample p is unknown, and $p\,(l-p)$ is the same, this test cannot be performed. Therefore replaced by the maximum number (p) is $p(1-p) = 0,5(1-0,5) = 0,25$. Continued by carrying

out an adequacy test with a confidence level of 90% ,and the error rate $(a) = 10\%$ (0.1); $\frac{a}{2} = 0.05$;$Z_{a/2} = 1.645$:

$$n = p(1-p)\left(\frac{Z_{a/2}}{e}\right)^2$$
$$n = 0{,}25\left(\frac{1{,}645}{0{,}1}\right)^2$$
$$n = 67{,}65 = 68\ respondent$$

Validity Test

The results of the test scores of respondents perception data validity can be seen in the following:

Table 2. Validity test on perception respondent

No	r_{hitung}	r_{tabel}	Validity
l	0,260	0,235	Valid
2	0,257	0,235	Valid
3	0,430	0,235	Valid
4	0,484	0,235	Valid
5	0,402	0,235	Valid
6	0,348	0,235	Valid
7	0,479	0,235	Valid
8	0,481	0,235	Valid
9	0,552	0,235	Valid
10	0,305	0,235	Valid
11	0,427	0,235	Valid
12	0,474	0,235	Valid
13	0,577	0,235	Valid
14	0,482	0,235	Valid
15	0,381	0,235	Valid
16	0,277	0,235	Valid
17	0,581	0,235	Valid
18	0,516	0,235	Valid

| 19 | 0,427 | 0,235 | Valid |
| 20 | 0,485 | 0,235 | Valid |

After getting the validity test variable data on perception respondent, then the validity test on validity test on the expectations of respondents. So that the results of validity test on the expectations of respondents received arobtainedin Table 3.

Table 3. validity test on the expectations of respondents

No	r_{hitung}	r_{tabel}	**Validity**
l	0,504	0,235	Valid
2	0,301	0,235	Valid
3	0,303	0,235	Valid
4	0,325	0,235	Valid
5	0,345	0,235	Valid
6	0,263	0,235	Valid
7	0,398	0,235	Valid
8	0,359	0,235	Valid
9	0,255	0,235	Valid
10	0,325	0,235	Valid
11	0,538	0,235	Valid
12	0,424	0,235	Valid
13	0,642	0,235	Valid
14	0,528	0,235	Valid
15	0,524	0,235	Valid
16	0,300	0,235	Valid
17	0,522	0,235	Valid
18	0,624	0,235	Valid
19	0,642	0,235	Valid
20	0,719	0,235	Valid

The results of the validity test of 20 question attributes on perseption and expectation respondent, allquestion attributes are declared valid because thercountvalue of the perseption and expectation respondent datais greater than thertablevalue so that it can be concluded that the value of each attribute has acorrelation with the overall question attribute.

Reliability Test

The result of data reliability test are as follows:

Table 4. Reliability test on respondent perception

Cronbach's Alpha	N of Items
0.763	20

Table 5. Reliability test on respondent expectations

Cronbach's Alpha	N of Items
0.794	20

Based on the results of the reliability test measurements using SPSS 25, it can be said to be reliable because the value of Cronbach's Alpha > 0.6.

Service Quality

The processing steps of the service quality method are as follows:

1. Gap value
   The result of

Table 6. Gap value per atribute

Dimensions	The mean of perception	The mean of expectation	*Gap*
Tangible	3,536	4,828	-1,292
	3,985	4,828	-0,843
	3,457	4,742	-1,285
	3,385	4,914	-1,529
	4,085	4,371	-0,286
	3,985	4,171	-0,186
	3,757	4,885	-1,128
Reliability	3,600	4,942	-1,342
	3,700	4,900	-1,200
	3,828	4,942	-1,114

	3,742	4,657	-0,915
	3,471	4,928	-1,457
Responsiveness	3,814	4,700	-0,886
	3,757	4,842	-1,085
	3,785	4,814	-1,029
Assurance	3,914	4,871	-0,957
	3,814	4,514	-0,700
	3,657	4,528	-0,871
Emphaty	3,600	4,585	-0,985
	3,857	4,719	-0,862
Rata-rata	3,755	4,727	-0,972

2. Determination of service quality

Table 7. Determinantion of service quality

No	Dimensi	P	E	Gap	$Q = \dfrac{P}{E}$
l	*Tangibles*	3,739	4,642	-0,903	0.805
2	*Reliability*	3,725	4,865	-1,140	0.766
3	*Responsiveness*	3,681	4,823	-1,142	0.763
4	*Assurance*	3,838	4,733	-0,895	0.811
5	*Emphaty*	3,705	4,611	-0,906	0.804
	Rata-rata	3,738	4,735	-0,997	0.789

Based on the calculation results, if Q ≥ l, thus the gap to the quality of Service is declared good and if Q < l, thus the gap to the quality of service provided has not been declared Good. When viewed from the calculation of the quality of service to the General Hospital WiraHusada range in the table is not even 1, thus declared unfavorable.

Importance Performance Analysis

The Importance Performance Analysis method to examine the relationship between service quality improvement priorities and consumer perception is called quadrant analysis. The processing steps of the importance performance analysis are as follows:

1. Level of conformity

    The level of conformity is the result of a comparison of performance scores with interest scores, thus it can be used to set a priority scale. The level of conformity between interest score and implementation performance can be seen in Table 8.

Table 8.level of conformity

No	Attributes	level of conformity	Total Score	
			Performance	Signifance
I	Comfort and cleanliness of the hospital and inpatient environment	72,18%	244	338
2	The beds are prepared in a neat, clean, and ready-to-use state	82,25%	279	338
3	Availability of adequate and comfortable seating and waiting areas	72,89%	242	332
4	Availability of convenient and safe parking	68,89%	237	344
5	Availability of water and cleanliness of toilets in the hospital	93,35%	286	306
6	Clear signage inside the hospital premises	95,55%	279	292
7	The number of doctors, nurses and other medical teams is quite large	76,90%	263	342
8	The doctor conducts an examination of the patient according to the prescribed schedule and on time	72,83%	252	346
9	The ability of doctors and nurses to provide information to patients	75,51%	259	343
10	Ability of doctors and nurses in the examination of patients	77,45%	268	346
11	Patient acceptance swiftly and quickly	80,37%	262	326
12	Fast and responsive nurses in serving patients	70,43%	243	345
13	The doctor receives and responds to the patient's complaints	81,15%	267	329
14	Medical personnel take action precisely and quickly	77,58%	263	339
15	The doctor has sufficient skills and knowledge so that he can find out the patient's illness and	78,63%	265	337

	what measures should be given			
16	Medicines and equipment are fully provided by the hospital	80,35%	274	341
17	Educated nurses so that they can serve patients well	84,49%	267	316
18	Medical personnel can meet the needs of patients with friendly and polite	80,76%	256	317
19	Medical personnel respond patiently to patient complaints	78,50%	252	321
20	Communication of the hospital and the patient is done well	86,26%	270	313
	Nilai Rata-rata	79,34%		

2. The mean of importance and level of performance

Before determining the performance value and the value of importance to the Quadrant diagram first sought the average of each attribute.

Table 9. The mean of importance and level of performance

| No	Attributes	Mean	
		Performance	**Signifance**
1	Comfort and cleanliness of the hospital and inpatient environment	3,536	4,828
2	The beds are prepared in a neat, clean, and ready-to-use state	3,985	4,828
3	Availability of adequate and comfortable seating and waiting areas	3,457	4,742
4	Availability of convenient and safe parking	3,385	4,914
5	Availability of water and cleanliness of toilets in the hospital	4,085	4,371
6	Clear signage inside the hospital premises	3,985	4,171
7	The number of doctors, nurses and other medical teams is quite large	3,757	4,885
8	The doctor conducts an examination of the patient according to the prescribed schedule and on time	3,600	4,942
9	The ability of doctors and nurses	3,700	4,900

	to provide information to patients		
10	Ability of doctors and nurses in the examination of patients	3,828	4,942
11	Patient acceptance swiftly and quickly	3,742	4,657
12	Fast and responsive nurses in serving patients	3,471	4,928
13	The doctor receives and responds to the patient's complaints	3,814	4,700
14	Medical personnel take action precisely and quickly	3,757	4,842
15	The doctor has sufficient skills and knowledge so that he can find out the patient's illness and what measures should be given	3,785	4,814
16	Medicines and equipment are fully provided by the hospital	3,914	4,871
17	Educated nurses so that they can serve patients well	3,814	4,514
18	Medical personnel can meet the needs of patients with friendly and polite	3,657	4,528
19	Medical personnel respond patiently to patient complaints	3,600	4,585
20	Communication of the hospital and the patient is done well	3,857	4,719

Quadrant assessment important performance analysis is done below:
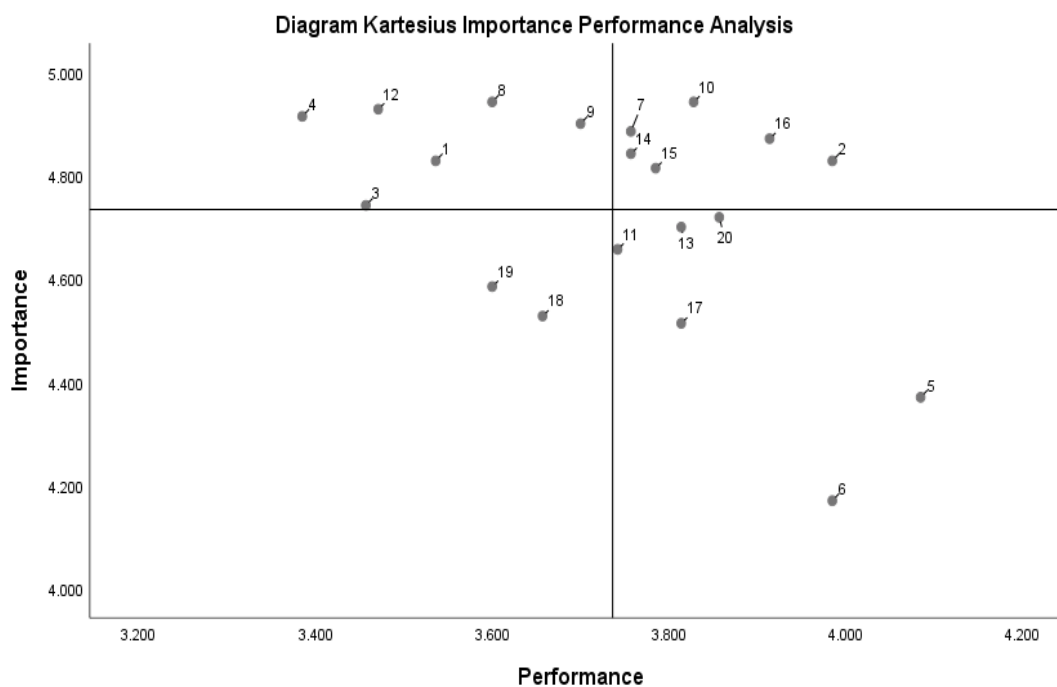
Figure 2. Cartesian diagram analysis of importance performance analysis

In the cartesian diagram, it can be seen that the location of elemnts that affect patient statisfaction is divided into four parts. The presentation of the cartesian diagram can be explained as follows:

1. Quadrant I (maintain performance)

Quadrant I is a quadrant that is very desirable for patients, attributes that are aligned to the perceived and become aspects that are considered important where desired can be a factor supporting patient satisfaction, thus the hospital must maintain performance achievements. There are 6 attributes that are classified in Quadrant II, namely: beds are prepared in a clean, neat, and ready-to-use condition, the number of doctors, nurses, and other medical teams is quite a lot, the ability of doctors and nurses in examining patients, medical personnel take action quickly and precisely, the ability and knowledge of doctors is sufficient so that they can know the patient's illness and what action should be given, equipment and medicines are fully provided by the hospital.

2. Quadrant II (top priority)

Quadrant II describes the aspects that are expected and considered important by the patient but the performance of the hospital has not given satisfaction to what the patient wants with the maximum, thus becoming a priority for improvement. There are 6 attributes that are classified in Quadrant I, namely: Comfort and cleanliness of the hospital environment and inpatient rooms, the availability of adequate and comfortable seating and waiting, the availability of comfortable and safe parking spaces, doctors checking patients on time and in accordance with the schedule, the ability of doctors and nurses to provide information to patients, and nurses quickly and responsively serve patients.

3. Quadrant III (low priority)

Quadrant III there are factors that are considered to have a low level of patient expectations, but also low levels of performance given the hospital, thus in this quadrant get low priority for improvement. There are 2 attributes that are classified in Quadrant III, namely: medical personnel meet the needs of patients with polite and friendly, and medical personnel respond to patient complaints.

4. Quadrant IV (excessive)

In this quotient there are aspects that are undesirable and considered unimportant by the patient, thus the company redirects the related resources to other factors of higher priority. There are 6 attributes that are classified as Quadrant IV, namely: the availability of water and cleanliness of toilets in hospitals, clear signage in hospital locations, quick and uncomplicated patient admissions, doctors receiving and responding to patient complaints, educated nurses able to serve patients well, and communication between hospitals and patients is done well.

Based on Figure 2, it is known that the attributes of the questions included in quadrant II are attributes that need to be prioritized for handling by the hospital because the existence of these attribute questions is considered important for patients, but the implementation is not satisfactory.

CONCLUSION

Based on the result of above, it was found the mean value of service quality WiraHusada General Hospital range is 0.789 where the value is still less (Q<1). Thus, the services provided by the hospital have not been declared to meet the expectations of patients.

to improve the quality of hospital services to the maximum, the hospital must immediately improve the attributes in the second quadrant section consisting of 6 attributes, namely: Comfort and cleanliness of the hospital environment and inpatient rooms, the availability of adequate and comfortable seating and waiting, the availability of comfortable and safe parking spaces, doctors check patients on time and in accordance with the schedule, the ability of doctors and nurses to provide information to patients, and nurses quickly and responsively serve patients.

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