The Effect of Service Quality on Image through Patient Satisfaction in the Inpatient Room of Hospital X Malang Regency

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Abstract-Malang Regency's category D hospital, Hospital X, may be found here. Approximately 70% of patients interviewed during the pilot research of 25 inpatients said they were happy with the hospital's services and had faith in such services. More than a third of those polled said they were not happy and would no longer trust the institution. The study's goal was to examine how patient satisfaction with the hospital's service quality impacts the hospital's reputation. Quantitative research methods and a cross-sectional research design are employed in this study. Patients at the RS X Malang Regency's Inpatient Room were included in this research. The Stratified Random Sampling approach is used in this investigation. The Smart-PLS program was doing PLS regression analysis. The t-statistic for the impact of service quality on customer satisfaction is 88.619, according to the hypothesis on the direct effect. When it comes to service quality, t-statistics show that it has an impact of 2.254. The t-statistics show that patient satisfaction has a 3,030 percent impact on how people perceive the institution. T-statistics of 3.004 and p-values of 0.003 were obtained when testing the indirect influence hypothesis. Patients' happiness directly affects service quality, which in turn affects service quality's impact on the hospital's reputation, as well as satisfaction with the hospital's image.

Index Terms- Hospital image, Patient satisfaction, Quality of service

I. INTRODUCTION

Competition in the service industry is currently very tight so that it requires the service industry to provide excellent and satisfying service. One of the service industries that are required to provide excellent service is the hospital (1)(2). Hospitals are providers of health services where health is one of the business opportunities that is quite good to date. This is evidenced by the increasing number of hospitals or private clinics that have been established. Most services in hospitals are assessed by the patient and the patient's family (3). Assessment of services in hospitals will determine the level of patient satisfaction and the image of the hospital. The demand to provide excellent and satisfying service is in line with the high public awareness for healthy living and knowledge about health. Excellent and satisfying service will produce a good image for the hospital. A good image/perception will make patients believe that their illness will be cured if they go to the hospital (1).

Service quality is a performance indicator for health service providers such as hospitals (4). Hospitals will be more advanced if their performance can be maintained. Service quality is a condition in which the services provided can meet or exceed consumer expectations (2). The characteristics of service quality are: 1) the quality of services is very difficult to evaluate than the quality of goods; 2) service quality is a comparison of the results of the patient's view between expectations and reality; 3) the criteria for determining the quality of services are ultimately returned to the patient. Services that produce quality services will be able to meet patient expectations (3). According to Tjiptono (4) there are five main dimensions to measure service quality. The main dimensions include:

1. Reliability, Connected to the company's capacity to provide accurate and satisfactory services.
2. Responsiveness, Concerned about the availability and responsiveness of service providers to clients' needs.
3. Assurance, on the level of customer service and the level of staff expertise and civility.
4. Empathy, signifies that the corporation cares for its consumers and works in their best interests, and gives personal attention and knowledge of the unique requirements of these customers.
5. Tangibles, Regarding the physical appearance, equipment/equipment of the service facilities as well as personnel as well as communication tools used by the firm

A hospital's service quality is reflected in patient satisfaction. It is a person's enjoyment that comes from comparing their experiences of products and services with their expectations of goods and services. Satisfaction (1). Patient satisfaction is influenced by the examination procedure, hospital environment/internal, communication between health staff and patients and administrative services at the hospital according to Ghosh's (2014) study data. 66.95 percent of patients were satisfied with the whole experience. Hospitals must manage a strategy for attracting new patients and retaining current patients in order to achieve maximum patient satisfaction (6) Minkiewicz, et al. (2011) quoted from Marzaweny (2) defines corporate image as the beliefs, perceptions, feelings, and attitudes of the community towards an organization. A hospital's products and services will be relatively easy to accept if the hospital has a good image in the eyes of customers. One indicator of a hospital's success is its ability to build an image, for that every hospital should know how the image of the hospital is in the community (7).

One of the hospitals that need to improve the quality of service is Hospital X (RS X) which is one of the type D hospitals in Malang Regency. Through the results of interviews during a preliminary study on 25 inpatients, it was found that around 70% of patients claimed to be satisfied with the services at the hospital and had confidence in the services at the hospital. The remaining 30% admitted that they were not satisfied and would reconsider giving trust to the hospital. The reasons for patients who claim to be dissatisfied are because the service facilities at the hospital are not complete, nurses are less skilled in handling patient complaints, nurses are not friendly and nurses do not provide information related to patient conditions and hospital rules. The lack of social actions/activities carried out by X Hospital also affects the image of X Hospital in the eyes of the community and patients. The purpose of this study was to determine the effect of service quality on the image of the hospital through patient satisfaction at X Hospital, Malang Regency.

### II. IDENTIFY, RESEARCH AND COLLECT IDEA

The research design used in this study was observational with quantitative research methods and a cross sectional study approach.

Data analysis and hypothesis testing using partial least squares (PLS) analysis

The hypotheses in this study are:

- **H1**: The level of patient satisfaction is significantly influenced by the quality of the service provided.
- **H2**: The hospital's image has a substantial impact on service quality.
- **H3**: According to H3, contentment with a hospital's appearance has a major impact.
- **H4**: Patient satisfaction has a substantial impact on the perception of the hospital's service quality.

In the months of August and September of 2021, researchers worked at Hospital X Malang Regency. Medical inpatients at Malang Regency Hospital X served as the research population. This research uses the Stratified Random Sampling approach for sampling.

The study's sample size was determined using the Slovin formula, which yielded a total of 34 participants. Using Google Forms, researchers may disseminate surveys to potential participants. Because of the Covid-19 epidemic, researchers are unable to directly distribute surveys.

#### 2.2 Research Variable

The independent variable in this study is service quality (x) with dimensions:

1. **Tangibles (physical evidence)**: Hospital X has a clean and comfortable room
2. **Reliability**: Hospital X has the appropriate skills to deliver its services to patients
3. **Responsiveness (responsiveness)**: Hospital X is always responsive in responding to patient complaints
4. **Assurance (guarantee)**: Medical personnel at Hospital X have good knowledge and are reliable in dealing with patients
5. **Empathy**: Hospital X has medical personnel who understand the needs of patients

The intervening/mediator variable in this study is patient satisfaction with the following dimensions:

1. **General satisfaction during treatment/receiving services at the hospital.**
2. **Satisfaction when interacting with medical personnel/health care providers.**
3. **Willing to carry out re-examination/control according to the direction of the health service provider.**
4. **Satisfaction with the services provided by health care providers because they are in accordance with the patient's needs.**
5. **Satisfaction with the services provided because it is in accordance with patient expectations.**

The dependent variable in this study is the image of the hospital which is measured using 6 indicators, namely:

1. The patient has a good perception of Hospital X.
2. Services at Hospital X are carried out quickly and accurately.
3. Hospital X always cares and pays attention to the needs of patients.
4. Patients will continue to seek treatment at Hospital X because it has good quality.
5. Hospital X has more value in my eyes besides satisfying service.
6. Patients will return to Hospital X when they need health services.

III. RESULTS

The results of hypothesis testing using path analysis can be seen in Table 3.

Table 3. Results of Direct Effect Hypothesis Testing

<table>
<thead>
<tr>
<th>Original Sample (O)</th>
<th>T Statistik</th>
<th>P Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>(X) Service Quality -&gt; (Y) Patient Satisfaction</td>
<td>0,946</td>
<td>88,619</td>
</tr>
<tr>
<td>(X) Service Quality -&gt; (Z) Hospital Image</td>
<td>0,418</td>
<td>2,254</td>
</tr>
<tr>
<td>(Y) Patient Satisfaction -&gt; (Z) Hospital Image</td>
<td>0,564</td>
<td>3,030</td>
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The first hypothesis investigates whether patient satisfaction is affected by service quality. The beta coefficient value of 0.946 and the t-statistic of 88.619 reveal that service quality has a considerable impact on patient satisfaction. With these results, it can be concluded that the t-statistic is statistically significant because the t-statistic value is greater than 1.96 and the significance level is less than 0.5%.

Secondly, it is hypothesized that the hospital's reputation is influenced by the quality of its service to patients. The beta coefficient value of 0.418 and the t-statistic of 2.254 show that service quality has a significant impact on the hospital's image. The t-statistic is significant since the t-statistic value is more than 1.96 and the p-value is less than 0.05, according to this result.

Whether or not patient satisfaction affects the perception of the hospital is examined in the third hypothesis. The beta coefficient value of 0.564 and the t-statistic of 3.030 suggest that patient satisfaction has a considerable impact on the hospital's image. Because the statistical value is >1.96, and the p-values are less than 0.05, these findings are deemed statistically significant based on the t-statistics.

Table 4 shows the study's indirect influence on service quality (X) on the hospital's image (Z), which may be viewed in relation to the study's outcomes.

Table 4. Results of Indirect Effect Hypothesis Testing

<table>
<thead>
<tr>
<th>Eksogen</th>
<th>Intervening</th>
<th>Endogen</th>
<th>Indirect Coefficient</th>
<th>T Statistics</th>
<th>P values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Quality</td>
<td>K Satisfaction</td>
<td>Image</td>
<td>0.533</td>
<td>3.004</td>
<td>0.003</td>
</tr>
</tbody>
</table>

A t-statistic of 3.004 and p-values of 0.003 were found from examining the indirect influence of service quality (X) on hospital image (Z) via patient satisfaction (Y). T-statistics > t-table, and p-values 0.05 support the notion that patient satisfaction has a substantial bearing on hospital image.

The conversion of the path diagram from the partial square analysis (PLS) in this study can be seen in Figure 1 which explains that the highest loading factor value is an indicator of empathy with the statement item "Hospital X has medical personnel who understand the needs of patients" (X5) with a loading factor value of 0.941 which is the biggest contribution in measuring the service quality variable (X) which is 94.1%. The highest loading factor value is the questionnaire question item "feel satisfied with the inpatient service because it is in accordance with the needs" (Y4) with a loading factor of 0.986 which is the largest contribution in measuring the satisfaction variable (Y) which is 98.6%. The highest loading factor value is the indicator "RS X has more value in my eyes besides satisfying service" (Z5) with a loading factor of 0.979 which is the largest contribution in measuring the loyalty variable (Y3), which is 97.9%.
IV. DISCUSSION

In the measurement results of the loading factor value of service quality (X) it can be seen that medical personnel who understand in meeting the needs of patients contribute greatly to the assessment of service quality in hospitals with a total loading factor value of 0.986 [1]. These results indicate that good service quality can be seen from the empathetic attitude of health workers in providing services. In accordance with the results of research conducted by Marzaweny (2) obtained the results that the 4 dimensions of service quality, namely: Reliability (Reliability), Responsiveness (Responsiveness), Assurance (Assurance) and Empathy (Empathy) performance is not satisfactory. Factors that need to be improved and improved on the empathy dimension include: concern for the patient's interests, understanding of the patient's specific needs, willingness to respond to patient requests and individual attention to patients[2].

The results of the measurement of patient satisfaction loading factor (Y) which shows 0.986 indicators of patient satisfaction with services being treated because according to patient needs contribute to the assessment of patient satisfaction in inpatient care [3]. Satisfaction is a person's feeling of pleasure that comes from the comparison between his impression of goods or services with his expectations. If the reality is the same as the expectation, then the service is called satisfactory, and conversely, if the reality is lower than the expectation, the service is called unsatisfactory (8). The results of this study indicate that as many as 24% of respondents stated that they were "not satisfied" with outpatient services because they were not in accordance with the patient's needs. In accordance with research conducted by Muchlis (8) customer satisfaction is shaped by four things, namely the service of officers at the hospital wholeheartedly, administrative services that are very satisfying, hospitals that understand customer needs, and the good reputation of the hospital [4]. Patients will feel satisfied if the services provided during treatment are in accordance with the patient's needs because in a sick condition, the patient requires more attention from the health care provider [5].

The results of the hospital image loading factor (z) with the statement item "X Hospital has more value in my eyes besides satisfying service" contributed 0.979 to the hospital image assessment. The image of the hospital is. factors that are considered important which will later be used to overcome the gaps that arise in the relationship between perceived service quality, customer satisfaction and customer loyalty (9). Istijianto, (2005) in Sulisty (10) suggests that companies that have a good image or reputation will encourage consumers to buy the products offered, enhance competitive ability, encourage employee
morale and increase customer loyalty. The image of the hospital has an impact on the patient's attitude and behavior towards the hospital [6].

The Effect of Service Quality on Patient Satisfaction
There is a direct correlation between patient satisfaction and quality of service, according to the findings of the direct impact hypothesis testing. The t-statistic is significant since the t-statistic value is more than 1.96 and the p-values are less than 0.05, hence the hypothesis H1 is accepted. This is in line with the findings of Marzaweny (2), who found that patient satisfaction is positively correlated with the quality of health care received. This demonstrates that the better the service, the more satisfied the patient would be with the outcome. An increase in patient satisfaction may be achieved by providing high-quality service that includes tangible attributes such as dependability; responsiveness; assurance; and empathy. If the goals of service quality are pleased and loyal consumers, it is possible that the speed, convenience, and accessibility of goods and services will have an impact on customer satisfaction and customer loyalty, which in turn will have an impact on the quality of services offered (7).

The Influence of Service Quality on Hospital Image
The direct influence hypothesis (H2) was tested, and the findings showed that service quality had a considerable impact on the image of the hospital. The t-statistic value of 2.254 supports this conclusion. Because the t-statistic is >1.96 and the p-values are 0.05, it may be argued that H2 is acceptable based on these findings [7]. Quality service has a favorable and considerable impact on the image of the hospital, according to a study by the researchers Sektiyaningsih, et al. (11). Brand image is strongly influenced by service quality, which includes qualities such as tangible evidence, dependability, responsiveness, assurance, and empathy [8]. To provide patients a positive impression of the hospital's care, providing high-quality service is critical.

The Effect of Patient Satisfaction on Hospital Image
Direct influence testing revealed that patient satisfaction had a considerable impact on the hospital's image when evaluating the third hypothesis (H3). The t-statistic value of 3.030 supports this conclusion. Because the statistical value is more than 1.96 and p-values are less than 0.05, it may be inferred that the hypothesis H3 is accepted. The t-value of 2.265115, which is bigger than the t-table of 1.96, suggests that patient satisfaction has a positive and substantial influence on patient trust, according to Imran [9]'s study. So, the more satisfied patients are, the more positive the community's perception of the hospital as a supplier of health care services becomes [10]. Positive public perception of the company will also benefit it, allowing it to get more sales and market share as well as increasing its growth rates [11].

The Effect of Service Quality on Hospital Image through Patient Satisfaction
This study looked at how patient satisfaction with the hospital's image was affected by the indirect influence of service quality. A t-statistic of 3.004 and p-values of 0.003 demonstrate this conclusion. t-statistics are greater than t-table and p-values are 0.05, hence H4 is acceptable [12]. According to earlier study by Marzaweny (2), the image of Arifin Achmad Pekanbaru Hospital is influenced indirectly and positively by the quality of health services, which is mediated by the patient satisfaction variable and has an impact of 0.234. Partial mediation occurs when the independent variable has a positive impact on the dependent variable, important whether in a direct or indirect way It may be claimed that Partial Mediation is taking place in this scenario because of the direct and indirect impact of the quality of health services on the brand image Patient satisfaction is an essential mediating element in the relationship between the hospital's reputation and the quality of its health services [13][14].
V. CONCLUSION

A conclusion Improvements are needed at Hospital X, which provides health services to patients, in order to increase patient empathy and medical knowledge, as well as the reliability of medical personnel, according to the results of the study. To enhance customer satisfaction by offering services tailored to their specific needs, medical staff may be better educated and specially trained. This will improve the hospital's reputation with patients by delivering services that are quick, accurate, and tailored to their specific need.

REFERENCES