

Service Performance of Indonesian Private Hospitals: An Empirical Study Using the SERVPERF and IPA Approach

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Abstract

Patient perceptions have become an important component in determining the quality of a hospital's service. This study attempts to analyze hospital performance from the customer perspective by adopting the SERVPERF method through five variables, namely tangibles, reliability, assurance, responsiveness, and empathy, with the aim of identifying and recommending areas that the hospital needs to focus on. A total of 100 respondents as outpatients were involved in this study. The cross-sectional survey was conducted online using Google Forms during the pandemic in 2020. According to the research findings, the hospital's overall performance is 4.24. Three indicators with low performance but high importance were examined using IPA. A fishbone diagram is used to identify the source of these indicators and to be the reason to propose recommendations. The study is limited to outpatient care departments from a private hospital in Yogyakarta, Indonesia. However, its findings have important implications for hospital managers for measuring their performance from the patients' perspective.

Keywords: service performance, SERVPERF, IPA approach

JEL : L15, L25

DOI : 10.24002/kinerja.v27i2.7825

Received : 08/28/2023

Reviewed: 09/12/2023

Final Version: 09/22/2023

1. INTRODUCTION

Customer satisfaction is one factor that must be considered for a company to survive in the long run in the face of competition in the marketplace. Customers will return to purchase a product or service if they are satisfied. By contrast, they will not return if they are dissatisfied with the quality of the product or service (Altuntas et al., 2020). Hospitals, as an organization that provides services rather than tangible products, must involve customer feedback in their activities. Improving healthcare quality has emerged as a crucial goal for all health systems in order to fulfill the need to improve poor health services, manage costs, and meet rising patient expectations for quality of care and healthcare services (Akdere et al., 2020). Previous research

indicates that the patient is a valuable asset to the hospital (Fatima et al., 2018). Providing the best quality of service is the main way of improving performance and increasing profitability, especially for private hospitals, where the main source of funding comes from consumers. In general, consumers prefer private hospitals to public hospitals due to waiting lists, the attention paid by doctors and nurses, and technological advances (Fatima et al., 2018). Many studies have been conducted in healthcare organizations to assess service quality using the SERVQUAL method, which has identified the difference between customer expectations and satisfaction (Sohail and Hasan, 2021). While this method is widely used, it draws many criticisms, particularly regarding the assessment of the expectation factor.

This study employs the SERVPERF method, which is, in terms of methodology, more advanced than SERVQUAL (Sohail and Hasan, 2021). The Importance Performance Analysis (IPA) method will be used in conjunction with this method to identify priority indicators for improvement. To the best of the researcher's knowledge, there has been little research conducted by combining SERVPERF and IPA in private hospitals for outpatients, particularly in Yogyakarta, Indonesia. This study aims to close this gap by assessing the service quality of private hospitals in Indonesia. The research purpose is to investigate service quality from the patient's perspective and provide recommendations for improvement to the health facility. The study's findings and recommendations will assist hospital management in improving their service quality.

2. LITERATURE REVIEW

In most cases, performance is evaluated financially, and SERVQUAL is used to assess customer satisfaction. SERVPERF evaluates hospital performance from a different angle. Researchers have generally used the SERVQUAL scale to calculate the gap between patient's expectations and perceptions of quality improvement (Altuntas et al., 2020). SERVQUAL is used extensively in a variety of service organizations such as those engaged in finance (Theresia and Tan, 2021), hotels (Babić-Hodović et al., 2019; Fadillah and Wahyuni, 2022), transportation (Dianawati, Hanif and Maiciptaani, 2019; Kayapınar and Erginel, 2019), and hospitals (Akdere et al., 2020; Barrios-Ipenza et al., 2020; Demir et al., 2020; Lu et al., 2020; Altuntas et al., 2022). If there is a gap on the SERVQUAL scale, patient satisfaction for that dimension is considered low, implying that there is a need to improve quality related to that dimension in order to meet the patient's expectations, and there is dissatisfaction with the hospital (Altuntas et al., 2022).

SERVQUAL measurements, despite their widespread use, are thought to have a basic problem. Customer judgments in the form of expectations are often considered too exaggerated and tend to be ambiguous and inconsistent (Ingaldi, 2018). To address this shortcoming, the SERVPERF method is proposed. Because customers do not set their expectations in advance, this method only measures customer perceptions of service performance and can eliminate subjectivity (Sohail and Hassan, 2021). The SERVPERF model is used because it is argued that the conceptual basis of the SERVQUAL scale is confusing with regard to service satisfaction and that perception should be left alone, and SERVPERF metrics are being administered more efficiently (Sohail and Hassan, 2021). SERVPERF

describes consumer perceptions, in this case, patient's perceptions of the hospital's performance.

Searching the Scopus database using the keyword IPA-SERVPERF generated only seven articles based on research conducted in the IT sector (Pinasthika, Bukhori and Prasetyo, 2019), hotels (Babić-Hodović et al., 2019), tour operating sector (Hudson, Hudson and Miller, 2004), e-government education (Wong and Jackson, 2018), service firms (Park and Yi, 2022), online education (Kanan et al., 2023), and e-government service (Wong, 2013). This illustrates that SERVPERF and IPA can be combined, but it is rarely used to examine hospital services. This study attempts to contribute in this regard. This study combines SERVPERF and IPA in order to provide useful recommendations for Hospital X. Martilla and James introduced this analysis, which is used in marketing to identify the target audience and the rate of specific product or service attributes based on their importance and impact on overall company performance (Park and Yi, 2022).

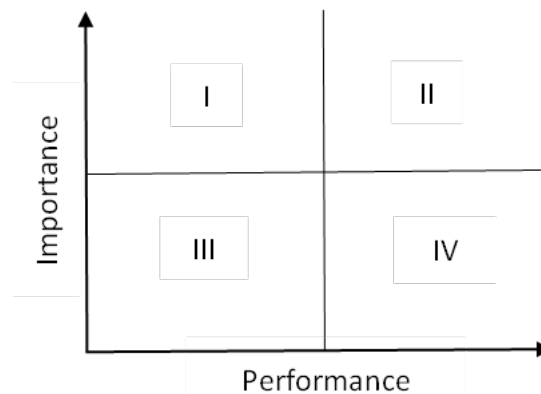


Figure 1. Matrix IPA

The first quadrant is the most important and is labeled "concentrate here". Performance is regarded as low in this quadrant despite the fact that consumers place a high value on it. This quadrant requires serious attention and improvement by management because it contains the main points of the management's weakness, according to consumers (Shahin and Zolfaghari, 2018). In contrast to quadrant one, quadrant two, labeled "Keep up the good work", has the best combination. There are factors in this quadrant that consumers value highly and are welcomed as the best organizational performance. The organization should maintain its performance in this situation.

The third quadrant, labeled "low priority", is the next. Conditions in this quadrant are the last priority because they are of low importance in the eyes of consumers despite their poor performance. If an organization's resources are limited, management may not prioritize improving conditions in this quadrant. The fourth quadrant, named "potential overkill," has high performance but low importance. Conditions in this quadrant suggest that management can shift resources from this quadrant to quadrant one, which consumers consider more important. IPA can optimize the allocation of company resources (Shahin and Zolfaghari, 2018). Using this matrix, management can gain an inward picture of the desired attributes and

make improvements, as well as compare them to attributes that waste resources and provide minimal benefits in terms of satisfaction (Ingaldi, 2018).

3. METHODOLOGY

The object of this study was Hospital X, a private hospital in Yogyakarta, Indonesia. This study used a quantitative method through outpatient questionnaires and a qualitative method through interviews and hospital management opinions represented in fishbone diagrams. This was a cross-sectional study, and survey instruments were randomly distributed via social media platforms such as WhatsApp. Respondents for the survey were outpatients who had received services in the past year. One hundred participants were chosen randomly from various sources to ensure a diverse range of opinions on the service quality of Hospital X. Participants were required to be over 18 years old and have prior experience of getting benefits from and receiving Hospital X services within the previous 12 months. This study included 36 men and 64 women, with the 18-25 age group dominating (56%).

Data were gathered online because this process was conducted from April to May 2020 during the COVID-19 pandemic. A questionnaire was used to solicit responses from respondents on 28 statements. All statement items were graded on a 5-point Likert scale, with 1 meaning strongly disagree and 5 meaning strongly agree. Using the Jamovi 2.2.5 software, the data obtained were tested for reliability and validity. All indicators were valid because the value of R count > R table. The reliability analysis results for all variables related to performance and the importance of Cronbach's alpha value were above 0.6. As a result, the questionnaire design had good reliability and could be used to evaluate service quality in Hospital X (Zheng *et al.*, 2021).

The SERVPERF result data were then further analyzed using IPA, and the results revealed three indicators that needed to be prioritized for improvement. The following step was to conduct an analysis with a fishbone diagram to determine the source of the problem and propose recommendations for improvement to Hospital X. A fishbone analysis was conducted during interviews with hospital management, that is to say, the supervisor of the outpatient department.

4. RESULT AND DISCUSSION

Table 1 displays the final results of performance and importance processing. After calculating the average performance and importance, it could be seen that Hospital X had an overall average performance score of 4.24 and an overall importance rating of 4.56. Partially, it appears that the tangibles factor has the lowest performance, with a value of 4.07. Thus, the tangibles factor is also the most important variable for respondents, with a value of 4.46. The findings of this study are consistent with the findings of Adhikary *et al.* (2018), which showed that tangible variables are the factors that receive the most attention in hospital services in developing countries.

Table 1. Performance and Importance of Indicators

ID	Indicators	Performance	Importance	
		SQ _n	SQ _n	
Tangible				
1.	T1	The hospital is clean and tidy	4.19	4.43
2.	T2	The hospital has comfortable waiting room facilities	3.93	4.43
3.	T3	The hospital has clean toilet facilities	3.86	4.29
4.	T4	The hospital has complete equipment and technology	3.98	4.38
5.	T5	Medical personnel and employees are well-groomed and neat	4.27	4.46
6.	T6	The hospital has clear signage	4.09	4.43
7.	T7	A parking area is available at the hospital.	4.05	4.33
Average of Tangible Indicators			4.05	4.39
Reliability				
8.	RL1	Doctors appear to be sincere in their attempts to resolve patient problems.	4.24	4.48
9.	RL2	Medical personnel have adequate skills	4.12	4.45
10.	RL3	Medical personnel provide service on time as promised	3.97	4.34
11.	RL4	If a patient has a problem, medical staff and employees can assist.	4.17	4.42
12.	RL5	Medical personnel give information before providing services	4.01	4.42
13.	RL6	The service operates according to the schedule.	3.93	4.22
Average of Reliability Indicators			4.07	4.39
Responsiveness				
14.	Rs1	Medical personnel are willing to respond to patient complaints/questions	4.23	4.45
15.	Rs2	Medical staff and employees are responsive when serving patients	4.14	4.43
16.	Rs3	Medical personnel are eager to address patient complaints/questions.	4.24	4.49
17.	Rs4	The medical personnel act quickly	4.01	4.42
18.	Rs5	Medical personnel and employees are attentive to patients' needs.	4.10	4.45
19.	Rs6	Medical personnel provide excellent care to patients.	3.98	4.36
Average of Responsiveness Indicators			4.12	4.43
Assurance				
20.	A1	The hospital ensures patient privacy	4.26	4.45
21.	A2	Medical personnel are experienced and knowledgeable	4.11	4.39
22.	A3	Patients feel safe when they are in the hospital environment	4.12	4.43
23.	A4	Medical personnel only provide the care that the patient needs	3.91	4.19
Average of Assurance Indicators			4.1	4.37
Empathy				
24.	E1	Medical personnel provide services according to patient needs	4.13	4.39
25.	E2	Patients have ease of communication with doctors	4.03	4.38
26.	E3	Doctors provide solutions to patient problems	4.21	4.43

27.	E4	Hospital administration services are convenient	4.07	4.38
28.	E5	Medical personnel give adequate attention to patients	4.09	4.44
Average of Empathy Indicators			4.1	4.4
Average of Overall			4.24	4.56

Source: Data processed (2023).

Furthermore, the IPA matrix is used to analyze which factors should be prioritized for improvement. Figure 2 depicts the outcomes.

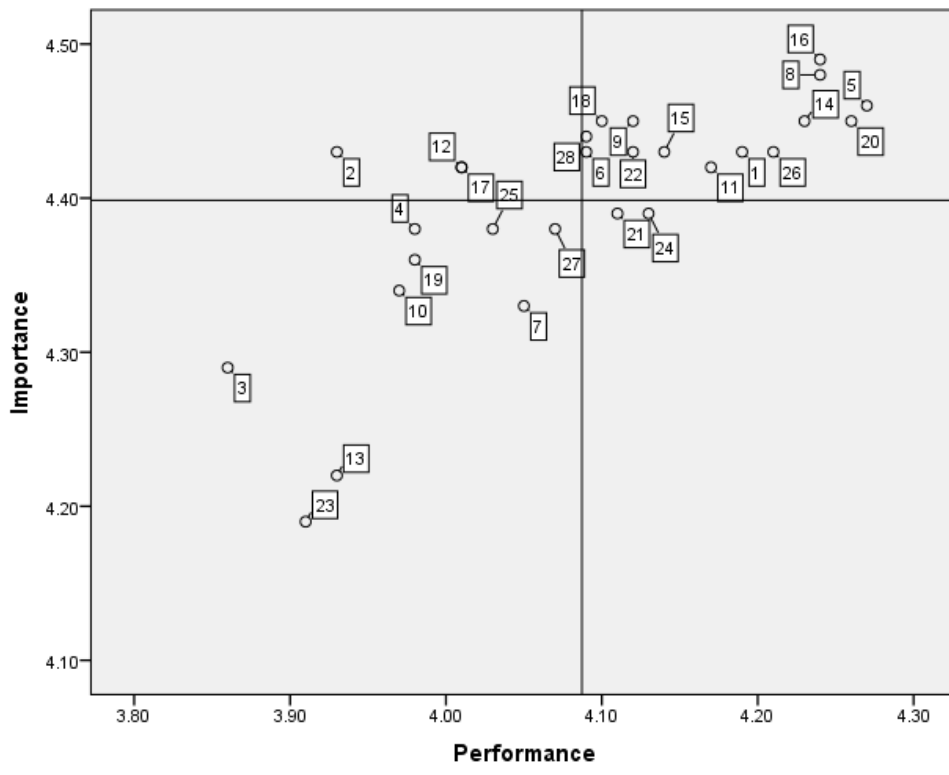


Figure 2. Result of IPA

According to the IPA analysis depicted in Figure 2, indicators No.2, 12, and 17 have low performance but high importance. The hospital has comfortable waiting room facilities, according to indicator No.2 in the tangible variable. As for the second indicator regarding tangible variables, the study's findings show that consumers regard the waiting room as an important aspect, but it has not performed well. Visitors will engage in a variety of activities in the waiting room, such as waiting in the queue for registration, undergoing a doctor's examination, or taking medication. The waiting room is where people spend most of their time. As a result, the hospital should concentrate its attention on the waiting room. As for indicator No.12 (RL5), medical personnel give information before providing services. Consumers assess the performance of one of these reliability variables as less than optimal, but it is an important aspect. Patients who feel invested in their own health care are considered consumers in the hospitals. They expect the medical staff to take various actions to address their symptoms. Consumers need to know what action medical personnel will take so they can prepare themselves and possibly their finances, too. Indicator

No.17 (Rs4) regarding the responsiveness variable indicates that medical personnel must act quickly. Patients rate these three indicators as having poor performance despite their importance. The next step is to use a fishbone diagram to determine the source of the problem and make recommendations for improvements to Hospital X. A fishbone diagram was created in collaboration with the hospital’s supervisor from the outpatient department.

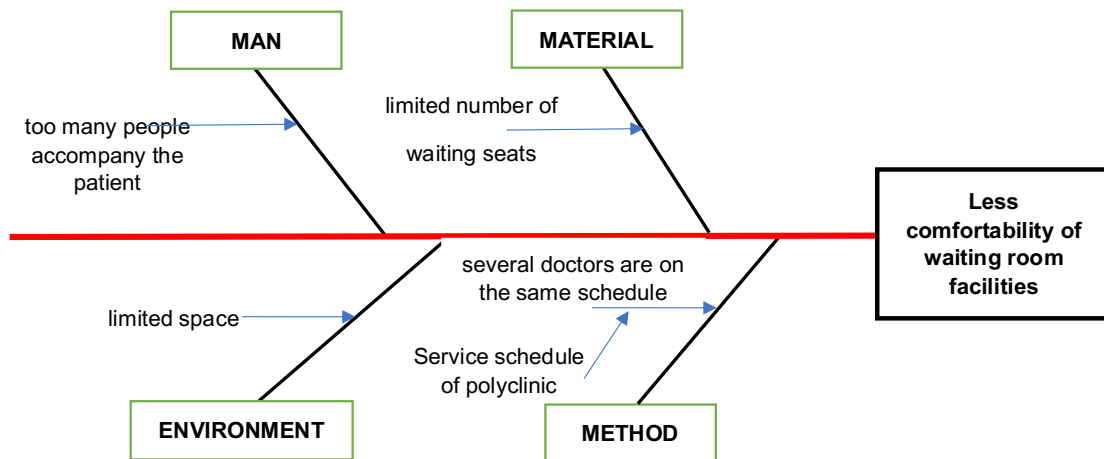


Figure 3. Fishbone of Indicator 2

Figure 3 shows the cause of indicator No.2, which focuses on physical facilities: the uncomfortable nature of the waiting area is due to doctors' concurrent schedules, the numerous people accompanying patients, the limited number of chairs, and the limited amount of space. The lack of facilities is one of the problems that affect the quality of hospital performance (Hussain et al., 2023). According to research conducted during the pandemic, chairs for the people waiting became increasingly scarce because chairs had to be spaced apart, reducing the available seating. To address this, management should reschedule the doctor's working hours, add chairs for people waiting, redesign the layout of the waiting area facilities, and implement a policy of limiting the number of patient’s family members. This finding contradicted the findings of other studies, which concluded that physical appearance factors, including waiting room facilities, have little impact on hospital performance (Hussain et al., 2019; Barrios-Ipenza et al., 2020).

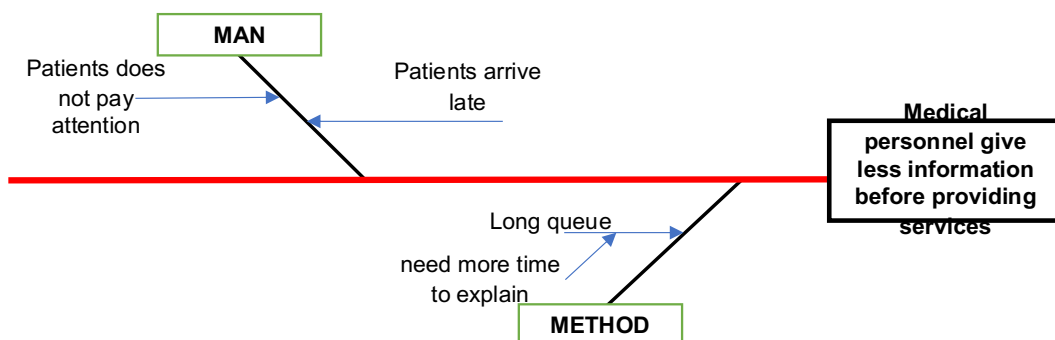


Figure 4. Fishbone of Indicator 12

Figure 4 represents the causes of indicator No.12, which states that medical personnel do not provide enough information before providing services. The proposed solution is to provide patients with information about the starting time of the doctor's practice, the patient's queue number, and an estimated arrival time via an online platform (such as WhatsApp). After the patient registers online, information is sent to them via WhatsApp or email. The medical personnel's communication must be effective to provide this information. Previous research has shown that communication increases patient satisfaction and loyalty (Fatima, Malik, and Shabbir, 2018).

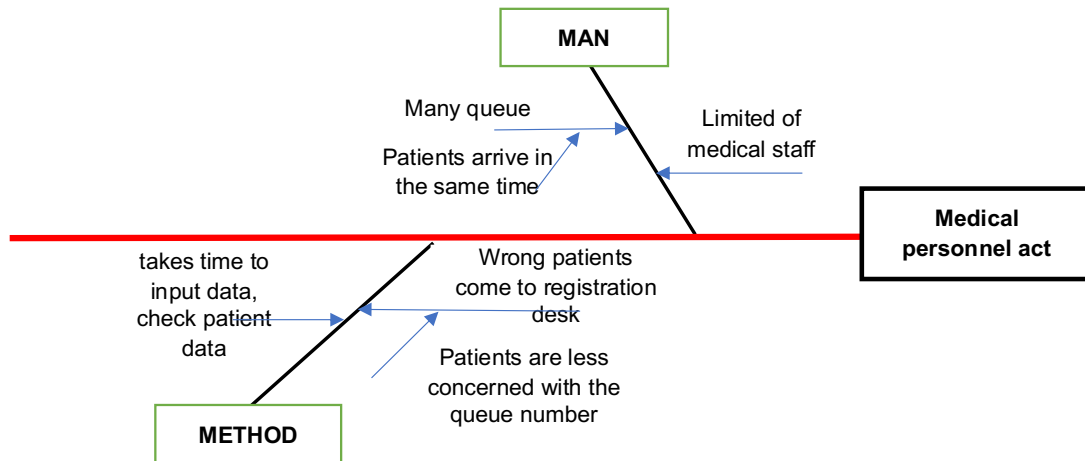


Figure 5. Fishbone of Indicator 17

Figure 5 represents the causes of indicator No.17, which focuses on the actions of medical personnel. As for the queues, patients are notified, and their arrival times are differentiated based on their queue number. When the polyclinic service is available, Hospital X should increase the number of medical staff in the registration section. This can be accomplished by adding or seconding personnel from other departments. This suggestion is similar to the findings of the research literature review and meta-analysis of Mulugeta et al. (2019), which suggested increasing the number of nurses to improve service delivery. The hospital should redesign its service delivery procedures to make them more patient-centered (Hussain et al., 2019).

5. CONCLUSION

This study has flaws that should be addressed by future research. The limitation of this study is the conditions under which the data were collected during the COVID-19 pandemic. During a pandemic, hospital services were carried out with strict SOPs and strict health protocols. This affected less-than-optimal services, so this research may have yielded different results if it had been conducted under normal conditions.

The researchers can conclude, after processing the data and interpreting the results, that the performance of Hospital X is quite good. The overall rating, using the SERVPERF method, was 4.24. However, three indicators must be prioritized for improvement. The researchers' recommendations include rescheduling the doctor's routine to reduce the accumulation of patients and changing the layout of the waiting

area facility to address waiting room issues. The recommendations for communication include informing the patients about the doctors' schedule, the patients' queue numbers, and the patients' estimated time of arrival via WhatsApp or email before they arrive at the hospital. The last issue that requires attention is the speed with which service is provided by staff, and it is recommended that a switch be made while the registration section increases so that staff from other sections can assist in the registration section.

This study employs the Servperf and IPA methods, as well as a fishbone analysis of suggestions. This method combines quantitative and qualitative data and is quite comprehensive. Future research could include 5W and 1H analysis, TRIZ analysis, and fishbone diagram analysis. Furthermore, this is a cross-sectional study conducted under pandemic conditions, when the hospital was fraught with delays in providing services. Follow-up research could be conducted now, when pandemic conditions have improved, and could be conducted longitudinally to observe changes in consumer responses over time.

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