

# **Service Quality of Patient's Perceived Value in Private Hospital Surabaya, Indonesia**

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## **Abstract**

One of service quality assessment is patient satisfaction. Perceived value will affect patient satisfaction (customer satisfaction). This research aimed to analyze the effect of service quality to perceived value of patients at private hospitals in Surabaya. It was explanatory research cross sectional approach. The population was 162 patients with 140 samples at 4 private hospitals type B in Surabaya taken using proportional random sampling in each hospital. The data was analysed using analysis techniques of regression weight, standardized regression weight, and Confirmatory Factor Analysis (CFA) through multi-group or multi-sample analysis approach to test the effect of exogenous and endogenous. Results of the variable parameter estimation Service Quality to the perceived value based on the indicators showed significant results in value CR 2.264. This value is greater than 1.96. Besides, it was acquired a significance level 0.024 ( $P < 0.05$ ). So it was substantiated that the hypothetical of service quality had significant effect to the perceived value. The perceived value was the patient's perception to the value of quality offered being higher than competitors will affect the levels of consumer loyalty. The higher the value perceived, the higher the relation happened in the hospital (transaction).

## **Keywords**

service quality, private hospitals, multi-sample analysis, consumer loyalty

## **1. Introduction**

Quality is the core of viability of an institution. The quality revolutionary movement through integrated quality management approach becomes the demands that should not be ignored if an institution wants to live and thrive. The intense competition lately claims providers of services for patients to provide the best service [1].

To keep the patients, hospital is claimed to keep the trust and the needs of patients carefully as an effort to fulfill the hopes and expectations for the services provided. In this case, patients who expect hospital services are not only those who expect medical services but also expect comfort, good accommodation, and harmonious relationship between the hospital staff with patients. Thus, an improvement in the quality of health services at the hospital is needed.

According to the Data obtained in the private Hospitals in Surabaya, complaints of patients are increased from year to year and those complaints are various starting to the parking lot to the other services that directly used by the patient. All core services and support services got complaints until the patient out from the hospital. Most complaints related to quality of services.

Companies need to manage the emotions of patients to create positive emotions and reducing negative emotions. Rating of patients' emotions may include feeling angry, happy, scared, anxious, unhappy, dissatisfied or bored. Patients who have positive emotions tend to give a good evaluation while patients who are dissatisfied tend to give a bad evaluation.

The perceived value is a form of patient evaluation. Value felt by the patients is the overall value of utility of products based on the perception of what is accepted and what is given [2]. Perceived value affects patient satisfaction. Kotler, et.al. [3] pointed out that customer satisfaction is the level of one's feelings after comparing the performance or results which he/she felt compared to his/her expectations. If the cost spent by patients is appropriate with their expectations or more than what they expect, it will make them satisfied and vice versa.

According to Parasuraman, et. al. [4] quality services are built based on their comparison of two main factors, the customer's perception of the services they received in real (perceived service) and the services that are actually expected or desired by the customer (expected service). If the services received or perceived are as expected, then the perceived service quality is good and satisfactory. If the services received are more than what patients expected, the quality of service is considered as the ideal one. Otherwise, if the service received is lower

than expected, then the quality of services is considered low. So, the quality of services is considered as good or not depends on the ability of service providers to meet patient expectations consistently. The higher the patient's perception of the service received from the Hospital, the higher ratings of positive emotions will be. Thus, patients who have positive emotions tend to give a good evaluation to the hospital.

Based on the background mentioned before, the problem in this study was whether service quality significantly influences the perceived value of inpatients in the private hospital in Surabaya.

The aim of this study was to examine and analyze the effect of service quality to perceived value of inpatients in the private hospital in Surabaya.

## 2. Research methods

This research is explanatory with cross sectional approach, which is intended to explain the relationship between quality of service variable and patient perceived value in Private Hospital Class B in Surabaya. The population of this research is all inpatient as users of hospital services of at least three days in Private Hospital Class B in Surabaya as many as 162 patients. Samples used in this research were 140 respondents of private hospital class B in Surabaya (there are 4 hospitals). Sampling technique used proportional random sampling in every hospital. The presentation of samples taking in each hospital was as many as the presentation of population members in each hospital for the entire population based on the number of inpatients in private hospital class B in Surabaya. Techniques of data analysis in this research used regression weight, standardized regression weight, and Confirmatory Factor Analysis (CFA) through Multigroup or multisample analysis approach to test the influence of exogenous and endogenous.

## 3. Result

### *Description of Service Quality variable (X1)*

Respondents' assessment of service quality variable is described as follows:

**Table 1. The Statistics of Variable Service Description**

No	Statements	Mean	SD
1	Doctor in this hospital is kind	4,510	0,543
2	Doctor in this hospital is considerate	4,610	0,519
3	Doctor in this hospital is skillful	4,540	0,555
4	Doctor in this hospital is polite	4,560	0,552
5	Nurse in this hospital is kind	4,590	0,548
6	Nurse in this hospital is considerate	4,460	0,605
7	Nurse in this hospital is skillful	4,530	0,593
8	Nurse in this hospital is polite	4,550	0,592
9	Medical tools in this hospital are clean	4,510	0,543
10	Medical tools in this hospital are new	4,290	0,651
11	Medical tools in this hospital are well-functioning	4,440	0,626
12	Medical tools in this hospital are complete	4,340	0,774
<b>Total Mean</b>		4,494	0,592

### *Description of Perceived Value Variable (Y2)*

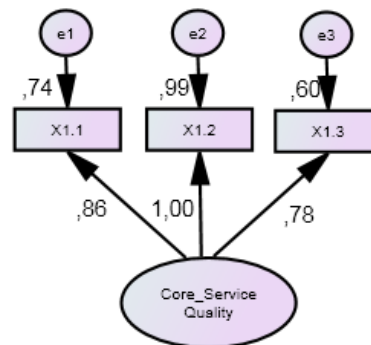
Respondents' assessment of perceived value variable is explained as follows:

**Table 2. Statistics of Variable Perceived Value Description (Y2)**

No	Statements	Mean	SD
1	Comfort given by the hospital services depends on the cost incurred	4,34	0,621
2	Rapidity of services given by the hospital depends on the cost incurred	4,21	0,632
3	Service given by the doctor depends on the cost incurred	4,30	0,596
4	The benefit of medicines given depends on the cost incurred	4,37	0,580
5	The facility of inpatients' room depends on the cost incurred	4,26	0,604
6	My image is increased since I was taken care in this hospital by the cost incurred	4,28	0,690
<b>Total Mean</b>		4,293	0,621

*The results of CFA In the Service Quality Variable*

CFA test result on Service Quality variable using the software of AMOS 19 is as follows:



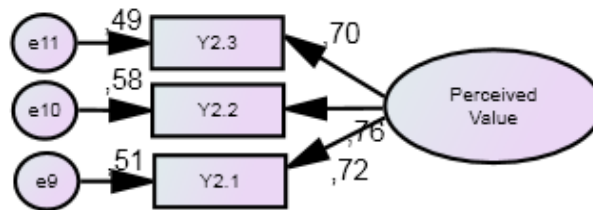
**Figure 1**

CFA test Result in the Service Quality Variable

Figure 1 displays the output of CFA to the Service Quality variable. The value of loading factor in each indicator is required to reach  $\geq 0.5$ , if the loading factor is lower than 0.5, then this indicator is not the same dimensions with other indicators in explaining a latent variable. Figure 1 also shows all the indicators have loading factor values higher than 0.50. it means all indicators in the Service Quality variable are valid and can be used for further analysis.

*CFA Test Result in the Perceived Value Variable*

CFA test result in the Perceived Value variable by using software of AMOS 19 is as follows:



**Figure 2**

CFA Test Result in the Perceived Value Variable

Figure 2 displays the output of CFA to the Perceived Value variable. The value of loading factor of each indicator was required to reach  $\geq 0.5$ . If the factor loading is lower than 0.5, then this indicator is not the same dimensions with other indicators in explaining a latent variable.

Figure 2 also shows all indicators have factor loading values higher than 0.50, so that all indicators in the Perceived Value variable are valid and can be used for further analysis.

*Regression Weight and Standardized Regression Weight in Structural Equation Model Having Been Modified*

**Table 3. Causality Test of Regression Weight**

Path		Standardized Estimate	Unstandardized Estimate	Standart Error (S.E.)	Critical Ratio (C.R.)	P-value (P)	
<i>Service Quality (X1)</i>	→	Perceived Value (Y2)	0,214	0,213	0,094	2,264	0,024

Table 3 shows the parameter estimation result of Service Quality variable in Perceived Value based on the indicators that showed significant result in the value of CR 2,264. This value is higher than 1.96. Besides, it is acquired a significance level of 0.024 ( $P < 0.05$ ). Thus the hypothesis of Service Quality that affect significantly on Perceived Value was unsubstantiated.

**4. Discussion**

### *The Description of Service Quality*

According to table 1, items that have score below the mean total is considerate nurses, new medical tools, medical tools function, and completeness of medical tools. It means that the majority of inpatient in private hospital class B in Surabaya becoming respondents in this research considered that the consideration of nurses to patients as well as hospital tools still need to be improved like tools renewal, functional reliability and completeness. Based on the observation of researchers in the field related to service quality items that have ratings below the average, the value of service quality based on the results of Confirmatory Factor Analysis (CFA) in service quality constructs is known that indicators that have the highest factor loading was nurses (X1.2). It means that nursing kindness, nursing care, nursing skills, and nursing politeness to patients is the biggest indicator in shaping the quality of core services of a private hospital compared to doctors and medical equipment.

### *The Description of Perceived Value*

According to table 2, items that have score below the mean total is the compatibility of cost and speed of service, the compatibility of cost and room facilities, and the compatibility of cost and image. It is clear that the majority of inpatients in private hospital class B in Surabaya who became respondents in this research considered that the speed of service, room facilities, and image of the patient still need to be adjusted again with the cost paid by the patients. Based on observation conducted by researchers related to perceived value items which have rating below the average is the perceived value based on the results of Confirmatory Factor Analysis (CFA) on perceived value construct. It is known that indicator that has the greatest loading factor is a value priced (Y2.2) which means that the value of price is the greatest indicator in shaping perceived value of a private hospital compared to the emotional value and social value.

### *The Effect of Service Quality to Perceived Value.*

Based on the result of the hypothesis (Table 3), the number of coefficient variable of service quality (X1) which is applied by a private hospital in Surabaya Class B to perceived value variable (Y2) = 0.214, with  $P < 0.05$ . The hypothesis that says that service quality significantly influences the perceived value of private hospital class B in Surabaya is proved to be correct or acceptable. Coefficient that is positive means that theoretically the influence of service quality on perceived value is unidirectional. It shows that the better patient's perception of service quality that is applied by a private hospital class B in Surabaya, the better (positive) perceived value of private hospital class B in Surabaya. Otherwise, the worse patient's perception of the service quality that is applied by a private hospital class B in Surabaya type B, the worse perceived value of private hospital class B in Surabaya. The finding of this research is to support the studies presented by Davies G, et. al. [5] examined the importance of service quality on perceived value. His study shows that examining the role of core services and perceived value of patients is important because it uses as the basis to satisfy consumers. It means that there is a relationship between service quality and perceived value based on the measurements of doctors, nurses, and medical devices. It shows the higher service quality the better patient's perceived value on the basis of hospital services.

Perceived value is patient's perception about the value of quality offered. If it is higher than competitors, it will affect the level of consumer loyalty. The higher value perceived by the consumer, the more likely the relationship (transaction) happen. The relationship hoped is a long term relationship, because the effort and cost incurred by the company is believed to be much larger if it had to attract new customers or customers who have already left the company instead of defending it.

Hume [6] states that the results of his research indicated a willingness to buy-again based on core services and support services that are mediated by perceived value and customer satisfaction. The variables used are consumer behavior, customer satisfaction, service quality, and performance art. The results of research that explains the service quality has positive and significant impact on the perceived value consistent with the research of Skogland and Siguaw [7] that explains that the quality of service is a predictor of a desire to buy-again. It has a role in the quality of core services, where the services in the context of this study have been clarified and did not have a direct influence on the want to buy-again and it has only an indirect effect through emotional assessment, perceived value and satisfaction. Caruana et al. [8] in his study also stated a direct correlation of the perceived value to customer satisfaction and the perceived value as an intermediary of the quality of core service, quality of supporting service and customer satisfaction. It is similar with the research of Patterson et. al. [9], his study supports the perceived value as a whole mediation through customer satisfaction with the want to buy-again and the direct relationship of the quality of the core service, quality support services, and to the perceived value.

The better the quality of core services such as doctors, nurses and adequate equipment, the more comfortable the patient will be because the patient's needs are met and it make the perceived value becomes positive and satisfied. Then, the relationship of service quality to perceived value is positive. This study implies that the service quality is measured by using the services of doctors, nurses, sufficient medical equipment. And, it has a significant influence on perceived value.

The service of doctors, nurses, and adequate medical equipment is very important to improve the quality of core services at the hospital. This will make the patient's perceived value positive and it can be used as a basis to test and analyze the influence between the two variables.

The service of doctors and nurses that are friendly, attentive, skilled, and polite promotes the establishment of positive perceived value, so it will be appropriate with the expectation of patients in private hospital in Surabaya. Medical tools owned that are complete, fully functional, and modern will support the core quality of service resulting positive perceived value of patients in the private hospital in Surabaya increased. The higher service quality, the higher positive perceived value of patients in private hospital in Surabaya will be.

The result of this research supports the results of studies that have been conducted by Mort [10], Hume [6], Skogland and Siguaw [7], and Pattersson et al. [9]. The hypothesis states that service quality significantly influence the perceived value.

## **5. Conclusion**

Service quality (X1) is positively influenced the perceived value (Y2) in privat hospital class B in Surabaya. It means that the better patient's perception of service quality applied by a private hospital class B in Surabaya, the better (positive) the perceived value wil be. Therefore, the medical tools must be improved such as by providing new and modern additional medical equipment. With the new and modern additional medical devices, it will provide patients with better care.

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