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# Quality of Hospital Services and Loyalty: Role of Customer Value

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## ABSTRACT

This study aims to explain the effect of service quality on loyalty as well as the influence of service quality on patient loyalty mediated by customer value. This study uses a positivist (quantitative) approach, as the population of inpatients in government-owned hospitals in Malang, Indonesia. The number of samples was 130, with proportional random sampling technique. Data analysis techniques used Structural Equation Modeling (SEM) analysis. The results showed that service quality has an effect on customer loyalty and customer value is able to mediate the effect of service quality on patient loyalty.

*Keywords: perception of service quality, customer value, patient loyalty*

## 1. INTRODUCTION

The targets of health development in Indonesia include the implementation of health services and elevated quality and equitable. In an effort to achieve this goal, an increase in the quality of hospital services was established as part of the health development program goals. Current health services not only focused on the treatment of disease but also provide services for prevention and improving health. Nowadays, more hospitals are offering preventive and promotive health services such as checkups and pap smears.

The development of the industrial sector, including health services is inseparable from the demand to continue to consider the quality of its services. Various efforts have been made to improve health development that is more efficient, so it can reach all levels of society, improve the quality of resources, improve equipment and medicines, and improve the hospitals facility. The implementation of health development is sustainable and equitable and supported by a health information system that increasingly stable is expected to achieve a higher degree of public health and reach all Indonesian.

Public hospitals, as a health service facility, play an important role in health development. Public hospitals have a mission to provide quality and affordable health services to the community in order to improve the degree of public health. While the special missions are aspirations set and desired to be achieved by public hospital management. General hospital is a hospital that provides health services for all types of diseases from basic to specialist. The main task of a public hospital is to carry out health efforts effectively by prioritizing healing (curative) and recovery (rehabilitative) efforts that are carried out in harmony and integrated with efforts to increase (promotive) and prevent and carry out referral efforts (Decisions RI Minister of Health NO. 983 of 1992).

To develop improved public hospital service arrangements and the development of health services and public hospital functions, the Indonesian Ministry of Health established Hospital Service Standards which contain important criteria regarding the types of service disciplines that are related primarily to the structure and process of services. In addition, improving health services is not solely determined by the availability of good physical facilities. However, the mental attitude and professional quality of the personnel who serve it is more important.

Maintaining high patients loyalty requires strategies that can be implemented by management. One important strategy is to provide excellent service quality. In general, service quality is a global attitude or assessment of the superiority of services, even though the actual scope of this attitude is no uniformity of opinion [1]. Service quality is often conceptualized as a comparison of expectations with perceptions of the actual performance of services [2]. Service quality must begin with customer needs and end with customer perception [3]. This means that an excellent quality image is not based on the point of view or perception of the service provider, but based on the point of view of the customer's perception. It is the customer who consumes and enjoys the company's services so that the customer should determine the service quality. Customer perception of quality is a comprehensive assessment of the service's superiority.

Service quality perceived by consumers affects customer loyalty. Empirically [4-7] suggested that service quality influences consumer loyalty. Different results are shown by [8] that service quality affects satisfaction, but does not affect loyalty.

The opposition of empirical results about the effect of service quality on the loyalty of the counselors is interesting

to do a review so that there is a gap to add variables that are able to mediate the effect of service quality on the loyalty of the customers.

Marketers in the services delivery need to provide quality service, because service quality is important in creating value for customers. The success of getting customers and making customers aware and recognize customer value is a challenge for professional marketers [9]. [10, 6, 11, 12, 13] concluded that service quality influences customer value.

The concept of customer value is very important to achieve marketing success, so it requires management's attention. According to [14], customer value is a preference and evaluation by consumers of product attributes, performance attributes and facilities that consumers can use to achieve goals or benefits. Increased benefits are greater than the sacrifice incurred will enhance customer value. [15, 16] concluded that customer value influences customer loyalty.

## 2. LITERATURE REVIEW

### 2.1. Service Quality

Service quality is an effort to meet the needs and desires of customers and the accuracy of delivery to offset customer expectations. Service quality is the expected level of excellence with control over the level of excellence to meet customer desires [17]. There are two main factors that affect service quality, namely expected service and perceived service [18]. If the service received or perceived are as expected, the service quality is perceived as excellent and satisfying. If the service received exceeds customer expectations, the quality of service is perceived as the ideal quality. Conversely, if the service received is lower than expected, the perceived quality of service is poor. Thus, the service quality depends on the ability of service providers to consistently meet the expectations of their customers. [19] argues that the total quality of a service consists of three main components, namely: 1) Technical Quality, is a component related to the quality of service output received by customers; 2) Functional Quality, is a component related to the quality of delivery of a service and 3) Corporate Image, namely the profile, reputation, general image and special appeal of a company. [20] suggest that there are five main dimensions of service quality. The five main dimensions are tangibles, reliability, responsiveness, assurance, and empathy.

### 2.2. Customer Value

[21] states that organizations or companies should know what customers want, whether a product, service or customer value. The activity to find out what is important to the customer is called Customer Value Analysis (CVA), the process is consists of 1) determining the attributes that are more important to customers, 2) assessing the importance of these attributes, 3) assessing the company's achievements from the list of priority attributes, 4) asking customers to compare all company service attributes with the same attributes of competitor services, 5) repeat the process at a certain time. Customer value is the perceived value, not the actual value. [22] argues that to increase customer loyalty, companies must increase each customer's satisfaction. To increase customer satisfaction and loyalty, companies must add value that can get them what they paid for or more than they expected, so they can survive and lead to repeat purchases and an increasing proportion of purchases.

### 2.3. Customer Loyalty

Customer loyalty is customers who have an attitude to the company to repurchase goods or services and will recommend to others. According to [23], the level of customer loyalty is strongly influenced by several factors, namely the magnitude of costs to move to other brands of goods or services, the similarity in quality, quantity or service of the type of substitute item, the risk of changing costs due to replacement goods or services and changing the level of satisfaction obtained from a new brand compared to the experience with previous brands that have been used. [24] argues that loyalty includes two important components, namely; loyalty as behavior and loyalty as attitude. The combination of the two components results in four possible situations of loyalty, namely spurious loyalty, true loyalty, low loyalty, and latent loyalty. The combination of attitude and behavior in loyalty results in four possible situations, namely spurious loyalty is a combination of low loyalty attitude and high loyalty behavior, and low loyalty is a combination of low loyalty attitude and high loyalty behavior; and latent loyalty is a combination of low loyal attitude and low loyal behavior.

## 3. HYPOTHESIS AND RESEARCH METHOD

### 3.1. Hypothesis

Service quality is an effort to meet the needs and desires of customers and the accuracy of delivery to offset customer expectations. Service quality is the expected level of excellence with control over the level of excellence to meet customer desires [17]. [4-7] suggest that service quality influences consumer loyalty

Based on the results of empirical studies, the hypothesis of this research can be formulated as follows:

**H1. Service quality has a significant effect on customer loyalty**

The concept of customer value is very important to achieve marketing success so it requires management's attention. According to [25] customer value is a preference and evaluation by consumers of product attributes, performance attributes and facilities that can be used by consumers to

achieve goals or benefits. An increase in benefits greater than the sacrifice incurred will enhance customer value. [11-13] concluded that service quality influences customer value. [26] states that increasing loyalty is directly related to the perceived value of customers. [15-16], found that customer value influences customer loyalty.

Based on the results of empirical studies, the hypothesis of this study is as follows:

**H2. Customer value mediates the effect of service quality on customer loyalty.**

## 3.2. Research Method

### 3.2.1. Population and Sample

The population in this study was inpatients at government-owned hospitals in Malang, Indonesia. The population in this study is an infinite population, means that the size of the population is very large that the population can not be known with certainty. In these conditions, the size of the sample can be determined based on the analysis techniques that is used in this study. According to [27], the size of the sample is determined by multiplying the number of indicators by 10, so the size of the sample used is 130 respondents. Purposive sampling technique is a sampling technique by selecting samples among the population in accordance with the desired criteria of researchers. The criteria for the study sample are patients who use the services and facilities of primary care inpatients (Pavilions) for a minimum of 4 days and in the range of 14 - 70 years.

### 3.2.2. Definition of Variable Operations

The operational variables systematically will be seen in the following table 1:

| No | Variable | Indicator |
|---|---|---|
| 1. | *Quality Service* ($X_1$) | Tangibles |
| | | Reliability |
| | | Responsiveness |
| | | Assurance |
| | | Empathy |
| 2. | *Customer value* ($Y_1$) | The value of health |
| | | Value of Service |
| | | Value of costs |
| | | The value of the image |
| 4 | Patient loyalty ($Y_3$) | As the first choice |
| | | Recommendations to others. |
| | | Use services in the future |
| | | Commitment to the hospital |

To measure the variables that are examined through the responses of respondents, Likert scale is used, in this study each of the answers to the questions in the questionnaire is weighted as follows: strongly disagree given a weighting of 1; disagree given a weight of 2; quite agree to be given a weight of 3; agree to be given a weight of 4, and strongly agree to be given a weight of 5

## 3.3. Data Analysis Method

The analysis technique in this study is Structural Equation Modeling (SEM), which is a statistical technique that tests a series of relatively complex and simultaneous relationships. The relationship can be built between one or several dependent variables with one or several independent variables and can be a factor or construction, which is built from several indicator variables. These variables can be in the form of a single variable that is observed or measured directly [27]. SEM is used to test the research hypothesis. The pattern of relationships between variables to be studied is a causal relationship of one or several independent variables on one or several dependent variables.

### 3.3.1. Mediation Test

The indirect effect of X on Y significantly indicates M as a mediating variable. However, M is included in full or partial mediation requires testing by [28- 31]. Mediation testing with the Sobel method can be described as follows:

Figure 1. Mediation Model
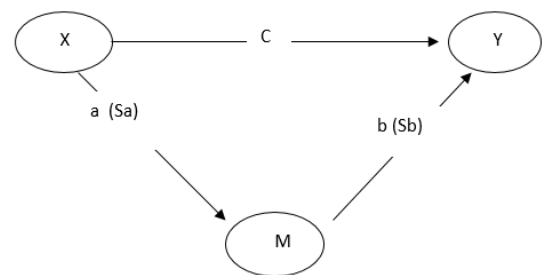


The Sobel test is done by testing the strength of the indirect effect of the independent variable (X) to the dependent variable (Y) through the mediating variable (M). The indirect effect of X to Y through M is calculated by multiplying path X → M (a) by line M → Y (b) or ab. So the coefficient ab = (c –c '), where c is the effect of X on Y without controlling M, while c' is the coefficient of effect X on Y after controlling M. Standard error coefficients a and b are written with Sa and Sb, the magnitude of the standard error Indirect effects (indirect effects) Sat calculated by the formula below:

Sat = √ b2.Sa2 + a2.Sb2 + Sa2.Sb2

Where:

a: coefficient of the direct effect X with respect to M
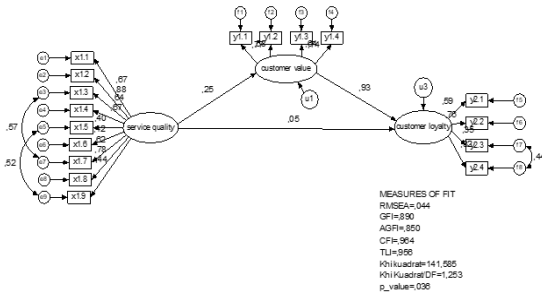b: coefficient of the direct effect M on Y
Sa: standard error of the coefficient a
Sb: standard error of the coefficient b

To test the significance of the indirect effect, it is necessary to calculate the t value of the ab coefficient with the following formula:

# 4. RESULTS AND DISCUSSION

## *4.1. Result of Analysis of Goodness of Fit SEM*



The goodness of Fit Overall test results based on Table 2, it can be seen that not all criteria indicate a good model. Even though the GFI and AGFI values are still below the cut-off value, the value is not so far from the cut-off value. According to [32], the best criteria used as an indication of model goodness are CMIN / DF values less than 2, and RMSEA below 0.08. In this study, the values of CMIN / DF and RMSEA have fulfilled the cut-off values. Therefore the model can be categorized as suitable and suitable for use, so that interpretation can be made for further discussion.

## *4.2. Results*

As a basis for testing the hypothesis, Critical ratio (Cr) of Weight regression output results is used. Where the hypothesis is accepted if p value <of the significance of 5%, then the null hypothesis is rejected. The results of the analysis are presented in Table 2.

Tabel 2 Analysis Result of Regression Weight

| | | | Estimate | C.R. | p |
|---|---|---|---|---|---|
| service quality | → | customer value | 0,249 | 2,179 | 0,029 |
| customer value | → | customer loyalty | 0,927 | 5,715 | 0,000 |
| service quality | → | customer loyalty | 0,049 | 0,545 | 0,586 |

Based on Table 2, the results of hypothesis testing about the effect of service quality on patient loyalty produce a path coefficient of 0.049 and a p-value of 0.586. These results indicate that the quality of service is not significant for patient loyalty. Also, these indicate that patients are not affected by services provided by government-owned hospitals, because patients will come back to government-owned hospitals more because patients have social security in the form of the Social Security Administering Board (BPJS) provided by the government to patients. In addition, there is no formation of patient loyalty because the services provided by government-owned hospitals have not been fully satisfying and patients are often accumulated, families are required to register, completing administration, limited space and facilities are inadequate, and health workers are exhausted. These conditions cause the level of patient loyalty to government-owned hospitals to be low. These results are in line studies conducted by [8], that service quality influences satisfaction, but does not affect loyalty.

Table 3 Analysis Results of Mediation Tests

| | | | | | C.R. | p |
|---|---|---|---|---|---|---|
| service quality | → | customer value | → | customer loyalty | 2.050 | 0.040 |

Based on the results of the mediation test, the effect of service quality on customer loyalty through customer value results in a CR of 2,050 and a p value of 0.040. These results indicate that customer value is able to mediate the relationship between service quality and patient loyalty. These can be explained that the higher the perceived value of patients for the perceived quality of service, the impact on patient loyalty to government-owned hospitals. The concept of customer value is very important to achieve marketing success so it requires management's attention. According to [14], customer value is a preference and evaluation by consumers of product attributes, performance attributes and facilities that consumers can use to achieve goals or benefits. An increase in benefits greater than the sacrifice incurred will enhance customer value. [33] suggest that when consumers receive better quality of service than the money they spend, they believe in receiving good value, which will increase their loyalty to service providers. Consumers also often can conclude the quality of a service or service based on their assessment of the place or location, people, equipment, communication tools and prices they see before they decide to repurchase in the future [34].
These results corroborate studies conducted by Murray and [11-14] concluded that service quality influences customer value. [26] states that increasing loyalty is directly related to the perceived value of customers. [15], found that customer value influences customer loyalty.

# 5. CONCLUSION

The quality of services provided by government-owned hospitals are not able to contribute to patient loyalty, but the services quality provided by government-owned hospitals are able to contribute to patient loyalty through the role of customer value. In order to increase patient loyalty to government-owned hospitals, it needs to have medical personnel and employees with the ability and competence to carry out their duties, where services are provided quickly; the room used for treatment and patient waiting room are comfortable, and there is a guarantee if something goes wrong with the results of the performance from medical personnel and employees.

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