

## THE INFLUENCE OF SERVICE QUALITY AND HOSPITAL IMAGE FOR PATIENT SATISFACTION AND LOYALTY DENTAL AND ORAL HOSPITAL IN JAKARTA

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### ABSTRACT

This study aims to analyze the effect of service quality and hospital image on patient satisfaction and loyalty of Dental and Oral Hospital in Jakarta. The research method used is a quantitative method with primary data from 200 patients who have or are receiving treatment at RSGM Jakarta. *Non-probability sampling technique in the form of purposive sampling* was used to take samples in this study using a Google Form questionnaire. Analysis of each research variable was carried out with SPSS version 25 and analysis of the influence between variables was carried out using *Structural Equation Modeling* (SEM). The results of the study stated that there were several hypotheses that had a positive effect including; (H1) The hospital's image of patient satisfaction; (H2) Quality of service for patient satisfaction; (H4) The hospital's image of patient loyalty; (H5) Quality of service for patient loyalty; (H6) The hospital's image of patient loyalty through patient satisfaction; (H7) Quality of service to patient loyalty through patient satisfaction. The conclusion in this study is that patient satisfaction does not have a positive effect on patient loyalty. This research is used as evaluation material for the management of the Dental and Oral Hospital to make various innovations to improve the quality of service and the image of the hospital in order to shape patient satisfaction to gain patient loyalty.

**Keywords:** *quality of service; hospital image; patient satisfaction; patient loyalty*

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### INTRODUCTION

Health services are efforts with the aim of maintaining and improving public health. Dental and oral health is one part of an individual's overall health. Globalization has given rise to competitive competition that dentists must be able to face (Asnawi et al., 2019). There are various dental health services that make the number of patients who come decrease so that dental health services must be able to retain old patients and get new patients with customer orientation by improving service quality and strategies to build a good hospital image among the community (E. M. Sibarani, 2018).

One type of dental health service is the Dental and Oral Hospital (RSGM) which is a special type of hospital that provides dental and oral health services and provides teaching and research facilities. There are various RSGM in Jakarta, including RSGM-P Trisakti, RSKGM UI, RSGM YARSI, and RSGM Prof. Dr. Moestopo (Arti, 2018).

Satellite imagery is categorized as an intangible asset that has benefits for hospitals. Building a good image can make a hospital get a good reputation so that it has an advantage in competing (Girman, Mochamad Edris, 2022). Some things that can improve image, namely hospital history, adequate facilities and infrastructure, and excellent service to patients. Patients can find out the image of the hospital from information obtained directly or indirectly. If the information about the hospital is received well, the image of the hospital will also be good (Rahmatang et al., 2018). A good image is needed in order to increase customer satisfaction

and loyalty. Trust and positive memory of a brand will have an impact on customer loyalty (Ajmal et al., 2022).

Service quality is categorized as differences in consumer views on the form of service obtained. Quality of service for patients is a form of satisfaction received rationally by patients for the services provided by doctors. There are five dimensions of service quality, including *empathy*, responsiveness, *assurance*, reliability, and *tangible*. In achieving profits, service providers need to pay attention to customer satisfaction (Ajmal et al., 2022). Customer satisfaction is a form of consumer feelings towards the service obtained which will later have an impact on customer loyalty (Pratama & Pratama & Hartini, 2020).

Previous research revealed a strong influence of service quality and hospital image on patient satisfaction and trust (Rahmatang et al., 2018). Patient satisfaction relates to customer satisfaction with a product or service (Ajmal et al., 2022). Patient loyalty, which is a behavior, intention, or action with the goal of constantly buying back a loved service or product, is considered the key to a healthcare provider's business success. (Pratama & Hartini, 2020) states that customer loyalty can be affected by customer satisfaction. Higher patient satisfaction will lead to higher patient loyalty. Based on the description above, the researcher aims to analyze the effect of service quality and hospital image on patient satisfaction and loyalty of the Dental and Oral Hospital (RSGM) in Jakarta. The purpose of this study is to analyze the effect of hospital image on patient satisfaction and to analyze the effect of service quality on patient satisfaction. The benefit of this research is that it is expected that the research can contribute to its specific science in the field of marketing management. Researchers hope that this research can be used as a benchmark for future research related to service quality, hospital image, patient satisfaction and patient loyalty.

## **METHOD**

This type of research is hypothesis research testing where hypothesis testing will be carried out. The time dimension is *cross sectional* where data is only taken at one specific grace period such as in daily, weekly, or monthly periods to prove the research hypothesis. The type of data used in this study is primary data where data is taken directly from respondents who fill out questionnaires in the form of *google forms*. The unit of analysis is an individual and the data analyzed is taken from each patient who has received treatment or is receiving dental and oral care at the Dental and Oral Education Hospital in Jakarta, including Trisakti, UI, YARSI, and Prof. Dr. Moestopo.

Primary data are data taken directly from patients who filled out questionnaires in the study. The questionnaire was distributed to RSGM in Jakarta, including Trisakti Hospital, UI, YARSI, and Prof. Dr. Moestopo. Respondents in this study were individual patients who had received treatment or who were receiving treatment at the Dental and Oral Hospital (RSGM) in Jakarta. The research period was conducted between October to November 2022.

The population in this study was all patients who had received treatment or who were receiving treatment at RSGM in Jakarta. *Non-probability sampling technique in the form of purposive sampling* was used to take samples in this study using a Google Form questionnaire. *The structural equation modeling* (SEM) analysis technique was used in this study so that the number of samples of 150 must be met with the presence of 4 constructs (E. M. Sibarani, 2018).

## RESULTS AND DISCUSSION

Hypothesis testing was carried out on seven hypotheses in this study using an error tolerance limit of 5% (= 0.05) on the basis of decision making if the  $\alpha$ -*P-Value* value  $< 0.05$  which means  $H_0$  is rejected and  $H_1$  is supported. If the *P-Value* value  $\geq 0.05$  indicates that  $H_0$  is supported and  $H_1$  is rejected.

**Table 19**  
Results of *direct* hypothesis testing

Hypothesis	<i>Kira</i>	<i>p-value</i>	Decision
H1: Hospital image has a significant effect on patient satisfaction	0.409	0.000	Supported
H2: Quality of service has a significant influence on patient satisfaction	0.693	0.000	Supported
H3: Patient satisfaction has a significant influence on patient loyalty	0.149	0.199	Not supported
H4: Hospital image has a significant influence on patient loyalty	0.826	0.000	Supported
H5: Quality of service has a significant influence on patient loyalty	0.384	0.010	Supported

Source: Results of data processing using AMOS 21 (2022)

**Table 20**  
Results of *indirect* hypothesis testing

Hypothesis	<i>Estimate</i>	<i>p-value</i>	Decision
H6: Hospital image has a significant influence on patient loyalty mediated by patient satisfaction	0.868	0.000	Supported ( <i>partial mediation</i> )
H7: Quality of service has a significant influence on patient loyalty mediated by patient satisfaction	0.815	0.000	Supported ( <i>partial mediation</i> )

Source: Results of data processing using AMOS 21 (2022)

## Table 21

**Hypothesis testing results 6**

Model	<i>Estimate</i>	<i>p-value</i>	Conclusion
<b>Model 1</b>			
There is an influence of Hospital Image on Patient Loyalty	0,868	0,000	There is a positive and significant influence
<b>Model 2</b>			
There is an influence of Hospital Image on Patient Satisfaction	0,831	0,000	Condition a met (Sig)
There is an effect of Patient Satisfaction on Patient Loyalty	0,327	0,001	Condition b met (Sig)
There is an influence of Hospital Image on Patient Loyalty	0,599	0,000	Condition c met (Sig)

Source: Results of data processing using AMOS 21 (2022)

**Table 22**  
**Results of hypothesis testing 7**

Model	<i>Estimate</i>	<i>p-value</i>	Conclusion
<b>Model 1</b>			
There is an effect of Service Quality on Patient Loyalty	0,815	0,000	There is a positive and significant influence
<b>Model 2</b>			
There is an influence of Service Quality on Patient Satisfaction	0,891	0,000	Condition a met (Sig)
There is an effect of Patient Satisfaction on Patient Loyalty	0,475	0,000	Condition b met (Sig)
There is an effect of Service Quality on Patient Loyalty	0,393	0,003	Condition c met (Sig)

Source: Results of data processing using AMOS 21 (2022)

1. Analysis of hypothesis 1

The first hypothesis examines the effect of hospital image on patient satisfaction with the sound of the first hypothesis as follows:

- H0: Hospital image does not have a positive influence on patient satisfaction.
- H1: Hospital image has a positive influence on patient satisfaction.

Table 13 shows that hospital image has a positive influence on patient satisfaction where there is an *estimate* value of 0.409 and a *p-value* of 0.000 ( $p\text{-value} < 0.05$ ) which means that the first hypothesis in this study is supported.

2. Hypothesis analysis 2

The second hypothesis examines the effect of service quality on patient satisfaction with the sound of the second hypothesis as follows:

- H0: Quality of service does not have a positive influence on patient satisfaction.
- H1: Quality of service has a positive influence on patient satisfaction.

Table 13 shows that service quality has a positive influence on patient satisfaction where there is an *estimate* value of 0.693 and a p-value of 0.000 ( $p\text{-value} < 0.05$ ) which means that the second hypothesis in this study is supported.

### 3. Hypothesis analysis 3

The third hypothesis examines the effect of patient satisfaction on patient loyalty by sounding the third hypothesis as follows:

- H0: Patient satisfaction has no positive influence on patient loyalty.
- H1: Patient satisfaction has a positive influence on patient loyalty.

Table 13 shows that patient satisfaction does not have a positive influence on patient loyalty where there is an *estimate* value of 0.149 and a p-value of 0.199 ( $p\text{-value} > 0.05$ ) which means that the third hypothesis in this study is not supported.

### 4. Hypothesis analysis 4

The fourth hypothesis examines the effect of hospital image on patient loyalty by sounding the fourth hypothesis as follows:

- H0: The image of the hospital does not have a positive influence on patient loyalty.
- H1: The image of the hospital has a positive influence on patient loyalty.

Table 13 shows that hospital image has a positive influence on patient loyalty where there is an *estimate* value of 0.826 and a p-value of 0.000 ( $p\text{-value} < 0.05$ ) which means that the fourth hypothesis in this study is supported.

### 5. Hypothesis analysis 5

The fifth hypothesis examines the effect of service quality on patient loyalty with the fifth hypothesis as follows:

- H0: Quality of service does not have a positive influence on patient loyalty.
- H1: Quality of service has a positive influence on patient loyalty.

Table 13 shows that service quality has a positive influence on patient loyalty where there is an *estimate* value of 0.384 and a p-value of 0.010 ( $p\text{-value} < 0.05$ ) which means that the fifth hypothesis in this study is supported.

### 6. Hypothesis analysis 6

The sixth hypothesis examines the effect of hospital image on patient loyalty mediated by patient satisfaction with the sixth hypothesis as follows:

- H0: Hospital image has no positive influence on patient loyalty mediated by patient satisfaction
- H1: Hospital image has a positive influence on patient loyalty mediated by patient satisfaction.

Table 13 shows that hospital image has a positive influence on patient loyalty mediated by patient satisfaction where there is an *estimate* value of 0.868 and a p-value of 0.000 ( $p\text{-value} < 0.05$ ) which means that the sixth hypothesis in this study is supported. From table 15 it can be seen that in model two with conditions there is an influence of hospital image on patient satisfaction ( $p\text{-value} = 0.000$ ; condition a). The condition of the effect of

patient satisfaction on patient loyalty is significant ( $p\text{-value} = 0.001$ ; condition b). The condition of the effect of hospital image on patient loyalty is significant ( $p\text{-value} = 0.000$ ; qualified c). The *estimate* value in model 1 is greater when compared to model 2c, which is  $0.868 > 0.599$ . Thus, hypothesis six stating that patient satisfaction has a partial mediating role in influencing the hospital's image of patient loyalty is supported.

#### 7. Hypothesis analysis 7

The seventh hypothesis examines the effect of service quality on patient loyalty mediated by patient satisfaction with the seventh hypothesis as follows:

- H0: Quality of service does not have a positive influence on patient loyalty mediated by patient satisfaction
- H1: Quality of service has a positive influence on patient loyalty mediated by patient satisfaction.

Table 13 shows that service quality has a positive influence on patient loyalty mediated by patient satisfaction where there is an *estimate* value of 0.815 and a  $p\text{-value}$  of 0.000 ( $p\text{-value} < 0.05$ ) which means that the seventh hypothesis in this study is supported. From table 16 it can be seen that in model two with conditions there is an effect of service quality on patient satisfaction ( $p\text{-value} = 0.000$ ; condition a). The condition of the effect of patient satisfaction on patient loyalty is significant ( $p\text{-value} = 0.000$ ; condition b). The condition of the effect of service quality on patient loyalty is significant ( $p\text{-value} = 0.003$ ; qualified c). The *estimate* value in model 1 is greater when compared to model 2c, which is  $0.815 > 0.393$ . Thus, the seventh hypothesis that patient satisfaction has a partial mediating role in influencing service quality on patient loyalty is supported.

## Discussion of Hypotheses

### Hypothesis 1

#### **The image of the hospital has a positive influence on patient satisfaction.**

The results of hypothesis testing show that H1 is accepted, that is, the image of the hospital has a positive effect on patient satisfaction, which means that the higher the image of the hospital, the higher the patient satisfaction. The results of this study are in line with research conducted by E. M. Sibarani (2018) and Rahmatang et al. (2018). Patient satisfaction with the hospital increases when patients have a positive impression of the hospital (E. M. Sibarani, 2018). Patients will express pleasure or satisfaction with a service if they have a good perception of the service. Satisfaction can be indicated if customers perceive a product or service with three indicators including a positive brand image including producer image, product image, and user image (Rahmatang et al., 2018).

### Hypothesis 2

#### **Quality of service has a positive influence on patient satisfaction.**

The results of hypothesis testing show that H2 is accepted, that is, the quality of service has a positive effect on patient satisfaction, which means that the higher the quality of service, the higher the patient satisfaction. The results of this study are in line with research conducted by E. M. Sibarani (2018) and Asnawi et al. (2019). When patients get good quality services at RSGM such as complete facilities, fast and precise services by dentists and nurses, and easy

and clear administrative services will be able to increase patient satisfaction with RSGM in Jakarta.

### **Hypothesis 3**

#### **Patient satisfaction has a positive influence on patient loyalty.**

The results of hypothesis testing showed that H3 was rejected, i.e. patient satisfaction did not positively affect patient loyalty. The results of this study are contrary to the results of research conducted by Girman, Mochamad Edris (2022) and Pratama, Hartini (2020). However, in line with research conducted by Liu et al. (2021) which shows that the effect of patient satisfaction on patient loyalty is statistically insignificant. This can be due to the high level of specialization in the medical industry where each hospital has a specialty so that patients will compare several hospitals when choosing a place where patients receive treatment, but they will not be loyal to the hospital. In the information age, patients tend to switch to other hospitals after being exposed to large amounts of information. This is in accordance with the results of previous studies that stated a non-linear relationship between customer satisfaction and customer loyalty where consumers who are very satisfied with service will not necessarily increase consumer loyalty (Samal, 2019). According to Olivia et al (2021) there are 2 key thresholds between them, namely customer loyalty will increase rapidly only above 1 critical threshold; Below a certain critical threshold, customer loyalty levels will decline rapidly so satisfaction alone does not necessarily lead to loyalty.

### **Hypothesis 4**

#### **The image of the hospital has a positive influence on patient loyalty.**

The results of hypothesis testing show that H4 is accepted, that is, the image of the hospital has a positive effect on patient loyalty, which means that the higher the image of the hospital, the higher the loyalty of patients. The results of this study are in line with research conducted by Asnawi et al (2019). When the patient feels that the RSGM has a good image, the patient will be loyal to the RSGM. RSGM that already has a good image in the eyes of patients will tend to attract patients to use services at RSGM repeatedly and recommend them to others.

### **Hypothesis 5**

#### **The quality of service has a positive influence on patient loyalty.**

The results of hypothesis testing show that H5 is accepted, that is, the quality of service has a positive effect on patient loyalty which means that the higher the quality of service, the higher the patient loyalty. The results of this study are in line with research conducted by Ajmal et al (2022). Patients who are satisfied with the hospital services received will be more difficult to change their choices for hospital services. Patients will have the desire to buy again and make patients insensitive to price and tell their experiences about services at RSGM that they like to others.

### **Hypothesis 6**

#### **The image of the hospital has a positive influence on patient loyalty mediated by patient satisfaction.**

The results of hypothesis testing show that H6 is accepted, namely patient satisfaction mediates partially the influence of hospital image on patient loyalty which means that hospital image must affect patient satisfaction first which then patient satisfaction will affect patient loyalty so that this study proves that the role of patient satisfaction mediation is important. The results of this study are in line with research conducted by E. M. Sibarani (2018). When in the

mind of patients have a good image of a hospital, it will be able to increase patient satisfaction so that patients tend to want to return to use the services at the hospital and recommend it to others.

### **Hypothesis 7**

**Quality of service has a positive influence on patient loyalty mediated by patient satisfaction.**

The results of hypothesis testing show that H7 is accepted, namely patient satisfaction mediates partially the effect of service quality on patient loyalty which means service quality must affect patient satisfaction first which then patient satisfaction will affect patient loyalty so that this study proves that the mediating role of patient satisfaction is important. The results of this study are in line with research conducted by Rahmatang et al (2018). Good quality of service will increase patient satisfaction so that patients will reuse the services of the hospital and recommend it to others.

### **CONCLUSION**

There is a positive influence of the hospital's image on patient satisfaction. There is a positive influence of service quality on patient satisfaction. There is no positive effect of patient satisfaction on patient loyalty. There is a positive influence of the hospital's image on patient loyalty. There is a positive influence of service quality on patient loyalty. There is a positive influence of hospital image on patient loyalty mediated by satisfaction. There is a positive effect of service quality on patient loyalty mediated by satisfaction.

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