

## ANALYSIS OF DETERMINANTS OF THE INFLUENCE OF THE USE OF THE HIDOK APPLICATION AS AN ONLINE REGISTRATION IN MODERATING THE EFFECT OF SERVICE QUALITY, TRUST, AND HOSPITAL IMAGE ON PATIENT SATISFACTION AT KASIH IBU TABANAN HOSPITAL

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### ABSTRACT

*In the era of technological advancement, providing excellent service has become a crucial element for business sustainability, especially in the healthcare sector. Kasih Ibu Tabanan Hospital, as a provider of comprehensive healthcare services, continues to strive to improve the quality of its services through the implementation of the HiDok application for online registration. This research aims to examine the influence of service quality, trust, and hospital image on patient satisfaction, as well as to evaluate the moderating role of the HiDok application in these relationships. Using Structural Equation Modeling (SEM) with the Partial Least Square (PLS) approach, data were collected from 175 patients of Kasih Ibu Tabanan Hospital in December 2023. The results of the study are expected to contribute to the development of marketing science in the healthcare field and provide practical guidance for hospital management in enhancing patient satisfaction through online registration technology.*

### KEYWORDS

*Online Registration, HiDok Application, Hospital Image*



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### INTRODUCTION

In today's era of information technology advancement, providing excellent service is crucial for any business, especially in service industries, including healthcare services provided by hospitals and other healthcare units. According to

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Heizer and Render (2004), services constitute the largest and fastest-growing sector in the modern society's economy. Technological advancements have made it easier for people to find the services they need and compare them with the services they have received before. Therefore, service providers are required to constantly improve the quality of their services.

Hospitals, as comprehensive healthcare providers covering promotive, preventive, curative, and rehabilitative aspects, as well as community referral health centers, are also required to continually enhance the quality of services provided to patients. A strategy of providing excellent service must be implemented so that hospitals can remain competitive and withstand competition in the increasingly intense healthcare service sector. Apart from the effects of globalization, information advancements, and government regulations, the service model has shifted from comparative advantage to competitive advantage. According to Andaleeb (Andaleeb, 1998), the healthcare service sector or hospitals are one of the rapidly growing public sectors.

Currently, the paradigm of healthcare services has shifted from a comparative advantage to a competitive advantage, which is a result of globalization, information advancements, and government regulations. The increasingly intelligent and selective society demands optimal medical service quality from hospitals. This demand tends to increase and is highly dynamic. This phenomenon poses challenges for hospitals to innovate continuously and enhance strategies in providing quality services to patients. Afrizal and Suhardi (2018) describe the quality of service provided to patients as an attitude expression that combines patient expectations and services.

Service quality affects the hospital's image. This image can shape patients' perceptions of the hospital: patients believe that their medical service system is good when many visitors who use the service experience good service. A positive image is expected to influence consumers' attitudes and behaviors, especially in the purchasing decision process. In this case, the purchasing decision is the stage where consumers actually make their purchase decisions. Consumers also intend to buy the desired brand. Branding is a set of associations organized based on interests. Roslina (2010) in Afrizal and Suhardi (2018) argue that brand image is based on consumers' memories of the product, resulting from how a person feels about the brand. Meanwhile, according to Gronroos and Keller (1995) in Safitri et al. (2016), a company's image is consumers' perceptions of an organization, acting as a filter that influences perceptions of the company. Image reflects the view of one object on another object, each formed by processing information from various different reliable sources.

As one of the service providers in the healthcare service sector, Kasih Ibu Tabanan Hospital understands that excellent service is a necessity. In order for the hospital to survive in competition with other hospitals, a strategy of excellent service must be implemented. Kasih Ibu Tabanan Hospital continues to strive to improve patient services. Not only medical services but also hospital administrative services. In order to improve service quality, the hospital needs to know whether patients are satisfied with the services provided by the hospital so far.

The current development of technology and telecommunications is progressing rapidly, including the use of smartphones owned by some members of the community, where the number of smartphone users in Indonesia is estimated to be more than 100 million people. This encourages Kasih Ibu Tabanan Hospital to adopt such technology to facilitate patients in registering online. Manual registration takes a considerable amount of time and hinders the medical service process, as seen from the quite long queues of patients at the registration counter. The current trend of technology leading to the use of mobile applications prompts hospitals to consider applications that can run on smartphones for registration purposes.

The HiDok application was chosen by Kasih Ibu Tabanan Hospital to facilitate patients in registering at the hospital. The HiDok application itself is a mobile application for online patient registration at hospitals, clinics, and practicing doctors through mobile devices such as smartphones and tablets. This application consists of 2 (two) parts, namely HiDok - the Way to Get Medical Treatment Now installed on the patient's device and HiDok - Queue Display installed on healthcare facilities to display the number of queues. By implementing the HiDok application, it is expected to facilitate the patient registration process, reduce patient waiting time to receive medical services at the hospital, and provide a pleasant hospital service experience to patients, ultimately increasing patient satisfaction.

Previous research related to the phenomenon of the relationship between service quality and customer satisfaction, the relationship between trust and customer satisfaction, the relationship between organizational image and customer satisfaction, and the relationship between online registration and customer satisfaction have been conducted, but they show inconsistency. (Afrizal, 2018; Anfal, 2020; Putra et al., 2021; Rosalia & Purnawati, 2018; Safitri et al., 2016; Triyadi et al., 2021; Windariani, 2023) state that service quality has a positive and significant effect on customer satisfaction. Conversely, Andalusi (2018) states that service quality does not affect customer satisfaction.

(Diza et al., 2016; Gul, 2014; Leninkumar, 2017; Mahendra, 2019; Putra et al., 2021; Sahanggamu et al., 2015) state that trust variables have a positive and significant effect on satisfaction. Dissatisfied customers indicate that they have low trust in the company. However, this is not in line with Meida et al. (2022) who state that trust does not significantly affect customer satisfaction.

Putra et al. (2021), Triyadi et al. (2021), Al Anfal (2020), and Safitri et al. (2016) state that organizational image has a positive and significant effect on customer satisfaction. Meanwhile, Windariani (2023) and Abshor (2021) in their studies state that the company's image does not significantly affect customer satisfaction.

Widianto et al. (2023) and Sugiyarto and Junaedi (2021) in their research state that online registration has a positive and significant effect on customer satisfaction. Whereas, Putri et al. (2019) in their research state that there is no difference in the effect between online and offline registration on customer satisfaction.

Based on the background and gaps in previous research above, in order to further examine from the perspective of service quality, trust, and organizational image perceptions, the researcher wants to further test the effect of service quality, trust, and organizational image on patient satisfaction moderated by the online registration system, in this case using the HiDok application.

This study aims to examine the factors that influence patient satisfaction at Kasih Ibu Tabanan Hospital, with moderation from the HiDok application as an online registration system. The problem formulation includes questions about the influence of service quality, hospital image, and trust on patient satisfaction, as well as whether the implementation of HiDok affects these relationships. The research objective is to test the direct effects of these factors and the moderating impact of HiDok. It is hoped that this research will contribute to the development of knowledge in the field of marketing, especially in the context of patient satisfaction in hospitals and the impact of technology such as online registration applications. For business and management practices, the research results are expected to provide guidance for the management of Kasih Ibu Tabanan Hospital to improve patient satisfaction by considering the factors found and considering the role of the HiDok application in strengthening the relationship between service quality, hospital image, and trust with patient satisfaction.

## **RESEARCH METHOD**

This research was conducted at Kasih Ibu Tabanan Hospital in Tabanan Regency, Bali. This hospital is part of the Kasih Ibu Hospital Group, which began as a maternity clinic in 1987 in Denpasar. Kasih Ibu Tabanan Hospital has a vision to become the primary hospital choice in Bali with complete, quality services, and prioritizing patient safety. The population of this study was all patients of Kasih Ibu Tabanan Hospital who visited in December 2023, with a sample size of 175 people. The variables studied include service quality, trust, hospital image, and the online registration system (HiDok), as well as patient satisfaction. Data were collected through a Likert scale questionnaire and analyzed using descriptive statistics, validity, reliability, and Structural Equation Modeling (SEM) with Partial Least Squares (PLS) approach. The analysis will include convergence evaluation, discriminant validity, reliability, coefficient of determination (R-square), F-Square, and Q-square to evaluate the model's quality. Furthermore, hypothesis testing was conducted by comparing the calculated t-value with the t-table to accept or reject the research hypotheses.

## **RESULT AND DISCUSSION**

### **Results of Partial Least Square Analysis**

In this study, testing will be conducted to evaluate the model that has been formed to examine the influence of service quality, trust, and hospital image on patient satisfaction with the online registration system as a moderating variable. For this purpose, two testing stages are conducted, namely the measurement model test (Outer Model) and the structural model test (Inner Model). The data processing technique in this study uses the Structural Equation Modeling (SEM) method based on Partial Least Squares (PLS), where data processing is done using the SmartPLS 3.0 program. The purpose of using PLS is to find the optimal predictive linear relationships in the data.

### **Results of Measurement Model Test (Outer Model)**

The evaluation of the outer model functions to test the feasibility of the measurement model used in terms of both validity and reliability. Outer model analysis defines how each indicator relates to its latent variable. The tests conducted include:

1. Convergent Validity: The convergent validity value is the loading factor value on the latent variable with its indicators. The expected value is  $>0.7$ .
2. Discriminant Validity: This value is the cross-loading factor value used to determine whether the constructs have adequate discrimination, by comparing the loading values on the target construct, which should be higher than the loading values on other constructs.
3. Composite Reliability: Data with composite reliability  $>0.7$  have high reliability.
4. Average Variance Extracted (AVE): The expected AVE value is  $>0.5$ .
5. Cronbach Alpha: Reliability testing is reinforced with Cronbach Alpha. The value is expected to be  $>0.6$  for all constructs.

#### ***Convergent Validity Test***

Convergent validity signifies that a set of indicators represents one latent variable and underpins that latent variable. This representation can be demonstrated through unidimensionality, which can be expressed using the Average Variance Extracted (AVE) value (Hidayat, 2018). Convergent validity can be assessed by examining the Average Variance Extracted (AVE) values for each variable, where the AVE value should be  $>0.5$  for a good model. This value depicts adequate convergent validity, meaning that one latent variable is capable of explaining more than half of the variance of its indicators on average.

Table 4.10 Convergent Validity Test

Variable	Indicator	Outer Loading	Requirement	Interpretation
Service Quality (X1)	Service Quality (X1) Hospital staff provide fast service	0,831	$>0,5$	Valid
	Hospital staff provide promised services	0,731	$>0,5$	Valid
	Hospital staff provide appropriate medical treatment	0,784	$>0,5$	Valid
	Hospital staff are responsive in assisting patients	0,807	$>0,5$	Valid
	Hospital staff are confident in providing necessary services to patients	0,847	$>0,5$	Valid
	Hospital staff handle complaints effectively	0,812	$>0,5$	Valid

	Doctors at the hospital are competent in diagnosing diseases	0,780	>0,5	Valid
	Medical personnel at the hospital are competent in handling patients	0,780	>0,5	Valid
	Hospital administrative staff serve patients courteously	0,810	>0,5	Valid
	Hospital staff care for patients	0,827	>0,5	Valid
	Hospital staff are easily communicative	0,761	>0,5	Valid
	Hospital staff provide friendly service without discrimination.	0,841	>0,5	Valid
	Clean and tidy waiting room	0,822	>0,5	Valid
	Clean and tidy appearance of staff	0,801	>0,5	Valid
	Complete examination support facilities	0,782	>0,5	Valid
Trust (X2)	Kasih Ibu Tabanan Hospital is consistent in maintaining its service quality	0,856	>0,5	Valid
	Kasih Ibu Tabanan Hospital always provides services according to established service standards.	0,790	>0,5	Valid
	Kasih Ibu Tabanan Hospital staff always care for patients	0,827	>0,5	Valid
	Medical personnel at Kasih Ibu Tabanan Hospital have high credibility	0,854	>0,5	Valid
	Kasih Ibu Tabanan Hospital is a trustworthy hospital	0,870	>0,5	Valid
	Doctors act in accordance with their competencies	0,876	>0,5	Valid
	Kasih Ibu Tabanan Hospital has good motives	0,866	>0,5	Valid

	in supporting the recovery of its patients				
	Kasih Ibu Tabanan Hospital staff always act honestly	0,886	>0,5	Valid	
	Kasih Ibu Tabanan Hospital has a good reputation in healthcare services	0,879	>0,5	Valid	
Hospital Image (X3)	Kasih Ibu Tabanan Hospital contributes to the welfare of the community around the hospital environment	0,859	>0,5	Valid	
	Kasih Ibu Tabanan Hospital is the first choice of the community	0,865	>0,5	Valid	
	Kasih Ibu Tabanan Hospital is referred to by other healthcare facilities	0,861	>0,5	Valid	
	The HiDok application helps me in registering online	0,896	>0,5	Valid	
	0.910 >0.5 Valid 0.911 >0.5 Valid 0.935 >0.5 Valid				
Online Registration System (Z)	I highly appreciate Kasih Ibu Tabanan Hospital for using the HiDok application for online registration	0,910	>0,5	Valid	
	Kasih Ibu Tabanan Hospital provides comprehensive and easy-to-understand instructions for using the HiDok application	0,911	>0,5	Valid	
	I am able to use the HiDok application effectively and optimally	0,911	>0,5	Valid	
	The HiDok application is easy to master and use	0,935	>0,5	Valid	
Patient Satisfaction (Y)	I am satisfied with the online registration system using the HiDok application at the hospital	0,923	>0,5	Valid	

I am satisfied with the service provided by doctors at the hospital	0,920	>0,5	Valid
I am satisfied with the friendliness of the hospital staff	0,928	>0,5	Valid

Source: Processed primary data (2024)

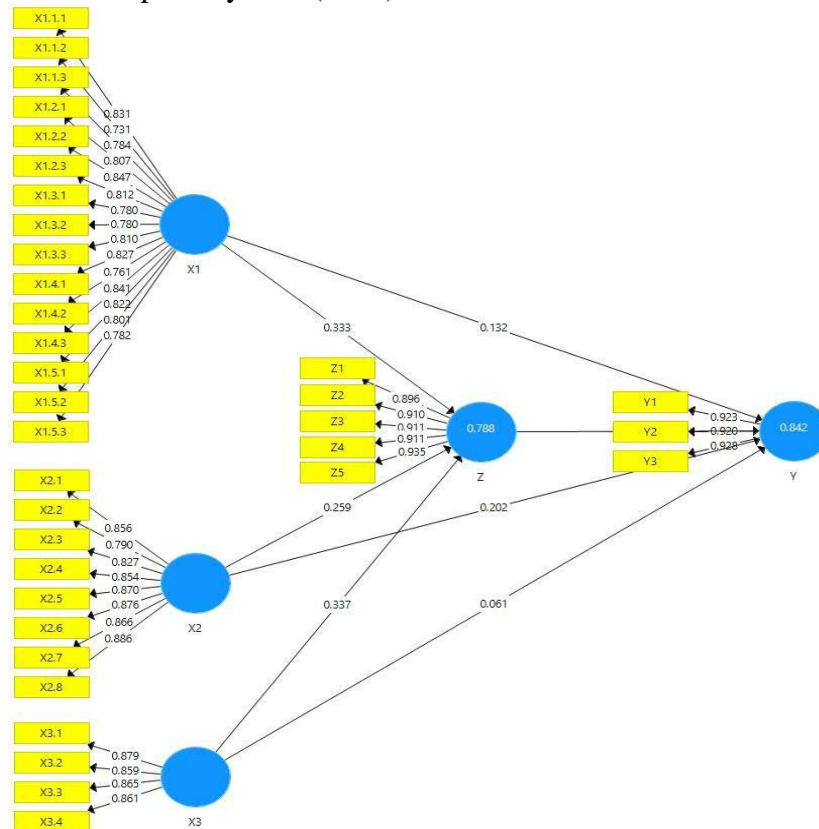


Figure 4.1 Convergent Validity  
Source: Processed primary data (2024)

Based on the table above, it is observed that the AVE values for all questionnaire items are  $> 0.5$ , ranging from 0.731 to 0.935. Thus, it can be stated that each questionnaire item has good convergent validity, indicating that each latent variable is able to explain more than half of the variance of its indicators on average.

### ***Discriminant Validity Test***

The discriminant validity test is used to assess the validity of a model by examining the Cross Loading values, which indicate the correlation between constructs with their indicators and indicators from other constructs. The standard value used for cross loading should be greater than 0.7 or by comparing the square root of the Average Variance Extracted (AVE) of each construct with the correlation between constructs in the model. If the square root of the AVE of each construct is



greater than the correlation between constructs in the model, then it can be said to have good discriminant validity (Hidayat, 2018). According to Hidayat (2018), an indicator is considered valid or meets Discriminant Validity if the Cross Loading value of the indicator on its variable is the highest compared to other variables. The results of the cross-loading from this study can be seen in the following table.

Table 4.11 Discriminant Validity Test of Cross Loading Values

	X1	X2	X3	Y	Z
X1.1.1	0,831	0,727	0,671	0,685	0,710
X1.1.2	0,831	0,598	0,541	0,594	0,558
X1.1.3	0,884	0,674	0,645	0,629	0,624
X1.2.1	0,907	0,705	0,646	0,667	0,640
X1.2.2	0,847	0,738	0,673	0,708	0,680
X1.2.3	0,912	0,718	0,660	0,660	0,651
X1.3.1	0,880	0,730	0,694	0,664	0,664
X1.3.2	0,880	0,705	0,658	0,610	0,613
X1.3.3	0,910	0,754	0,682	0,702	0,759
X1.4.1	0,827	0,720	0,656	0,710	0,710
X1.4.2	0,861	0,655	0,582	0,645	0,637
X1.4.3	0,841	0,725	0,655	0,666	0,689
X1.5.1	0,822	0,806	0,733	0,725	0,736
X1.5.2	0,891	0,772	0,756	0,701	0,721
X1.5.3	0,882	0,710	0,662	0,699	0,714
X2.1	0,814	0,856	0,767	0,760	0,737
X2.2	0,733	0,890	0,669	0,663	0,639
X2.3	0,766	0,827	0,737	0,688	0,690
X2.4	0,767	0,854	0,786	0,761	0,746
X2.5	0,730	0,870	0,776	0,765	0,741
X2.6	0,765	0,876	0,754	0,722	0,747
X2.7	0,747	0,866	0,782	0,712	0,738
X2.8	0,792	0,886	0,817	0,783	0,810
X3.1	0,754	0,784	0,879	0,712	0,745
X3.2	0,696	0,775	0,859	0,696	0,703
X3.3	0,682	0,770	0,865	0,720	0,738
X3.4	0,732	0,764	0,861	0,733	0,736
Y1	0,769	0,789	0,728	0,923	0,838
Y2	0,775	0,789	0,782	0,920	0,836
Y3	0,780	0,801	0,780	0,928	0,820
Z1	0,740	0,765	0,736	0,833	0,896
Z2	0,780	0,768	0,777	0,800	0,910

Z3	0,756	0,793	0,793	0,823	0,911
Z4	0,763	0,770	0,741	0,809	0,911
Z5	0,810	0,820	0,804	0,842	0,935

Source: Processed primary data (2024)

Based on the table above, it can be seen that the correlation between construct X1 and its indicators (X1.1.1 at 0.831, X1.1.2 at 0.831, X1.1.3 at 0.884, X1.2.1 at 0.907, X1.2.2 at 0.847, X1.2.3 at 0.912, X1.3.1 at 0.880, X1.3.2 at 0.880, X1.3.3 at 0.910, X1.4.1 at 0.827, X1.4.2 at 0.861, X1.4.3 at 0.841, X1.5.1 at 0.822, X1.5.2 at 0.891, X1.5.3 at 0.882) is higher compared to the correlation of indicators from other constructs. Then, the correlation of X2 with its indicators (X2.1 at 0.856, X2.2 at 0.890, X2.3 at 0.827, X2.4 at 0.854, X2.5 at 0.870, X2.6 at 0.876, X2.7 at 0.866, X2.8 at 0.886) is higher compared to the correlation of indicators from other constructs. Furthermore, the correlation of X3 with its indicators (X3.1 at 0.879, X3.2 at 0.859, X3.3 at 0.865, X3.4 at 0.861) is higher compared to the correlation of indicators from other constructs. Next, the correlation of Y with its indicators (Y1 at 0.923, Y2 at 0.920, Y3 at 0.928) is higher compared to the correlation of indicators from other constructs. Finally, the correlation of Z with its indicators (Z1 at 0.896, Z2 at 0.910, Z3 at 0.911, Z4 at 0.911, Z5 at 0.935) is higher compared to the correlation of indicators from other constructs. Based on the explanation above, it can be concluded that all constructs or latent variables already have good discriminant validity, where the indicators on the designated construct variables are higher compared to indicators on other variables.

Discriminant validity testing can also be conducted by observing the square root of the AVE for each construct, which should be greater than the correlation with other constructs, as seen in the Fornell-Lacker Criterion Table.

Table 4.12 Discriminant Validity Test from the Fornell-Lacker Criterion

	X1	X2	X3	Y	Z
X1	0,902				
X2	0,895	0,954			
X3	0,827	0,893	0,866		
Y	0,839	0,859	0,826	0,924	
Z	0,844	0,859	0,844	0,900	0,913

Source: Processed primary data (2024)

Based on the table above, it can be seen that the values highlighted in yellow have the highest square root of AVE on the constructed variables compared to values on other variables. Based on the obtained results, it can be stated that the variables used in this study have good discriminant validity, indicating that a set of combined indicators is not unidimensional.

#### *Average Variance Extracted Test (AVE)*

Average Variance Extracted (AVE) is another method to assess discriminant validity. AVE can be used as a test for both convergent and discriminant validity. AVE reflects the average communality for each latent factor in a reflective model. In an adequate model, AVE should be greater than 0.5 (Ghozali, 2018) and greater than cross-loadings, meaning the factor should explain at least half of the variance of each indicator. AVE below 0.5 means that error variance exceeds the explained variance (Ghozali, 2018).

Table 4.13 *Average Variance Extracted (AVE)*

Variable	Average Variance Extracted (AVE)	Requirement	Description
X1	0,642	>0,5	Completed
X2	0,729	>0,5	Completed
X3	0,750	>0,5	Completed
Y	0,853	>0,5	Completed
Z	0,833	>0,5	Completed

Source: Processed primary data (2024)

Based on the table above, it can be seen that the AVE values for each construct are above 0.5, indicating no issues with convergent validity in the tested model, meaning the constructs in this research model have good discriminant validity.

#### ***Cronbach's Alpha Test***

Cronbach's Alpha testing aims to assess the reliability of instruments in a research model or measure internal consistency, and its value should be  $\geq 0.60$ . If all latent variable values have composite reliability and Cronbach's alpha  $\geq 0.70$ , it indicates the constructs have good reliability or that the questionnaire used in this study is reliable and consistent (Ghozali, 2018).

Tabel 4.14 Uji Reliabilitas Internal

Variable	Cronbach's Alpha	Composite Reliability	Description
X1	0,960	0,964	Reliable
X2	0,947	0,955	Reliable
X3	0,889	0,923	Reliable
Y	0,914	0,946	Reliable
Z	0,950	0,961	Reliable

Source: Processed primary data (2024)

Based on the table above, it can be seen that the composite reliability values for all research variables are  $>0.6$ , ranging from 0.923 to 0.964, and the Cronbach's alpha values are  $>0.7$ , ranging from 0.914 to 0.960. These results indicate that all variables meet the criteria, concluding that all variables have good reliability and meet the requirements for further testing.

**Inner Model Test Results**

After conducting the outer model test, the next step is to perform the inner model test. The inner model test evaluates the structural model that connects latent variables to ensure its accuracy. The stages in this test involve evaluating several values as follows:

***Coefficient of Determination (R<sup>2</sup>)***

The coefficient of determination (R<sup>2</sup>) evaluation is used to show how much effect or influence independent variables have on dependent variables.

Table 4.15 Coefficient of Determination (R<sup>2</sup>)

	<i>R Square</i>
Patient Satisfaction	0.842
Online Registration System	0.788

Source: Processed primary data (2024)

Based on the table above, the R-Square values for each influenced variable are observed. The R Square value for patient satisfaction variable is 0.842, indicating that service quality, trust, brand image, and online registration system variables can influence patient satisfaction by 84.2%. Furthermore, the R Square value for the online registration system variable is 0.788, indicating that service quality, trust, and brand image variables can influence the online registration system variable by 78.8%.

***Coefficient of Determination f-square (f<sup>2</sup>)***

f-Square (Effect Size) is a measure used to assess the relative impact of an influencing variable (exogenous) on the influenced variable (endogenous). The f-Square model value is used to determine the effect size of endogenous latent variables on exogenous latent variables. An f-Square value around 0.35 indicates a strong influence, around 0.15 indicates a moderate influence, and around 0.02 indicates a weak influence (Ghozali, 2018).

Table 4.16 f-Square Test Results (f<sup>2</sup>)

No	Hypothesis	f-Square value	Description
1	Quality of Service -> Patient Satisfaction	0,232	Strong
2	Trust -> Patient Satisfaction	0,229	Strong
3	Hospital Image -> Patient Satisfaction	0,216	Strong

Source: Processed primary data (2024)

From the f-square test results, it is known that strong values are found in the influence of variables: service quality on patient satisfaction, trust on patient satisfaction, and brand image on patient satisfaction. Thus, all direct influences in this study have a strong effect.

***VIF Inner Model Value Test***

Testing for collinearity aims to determine whether there is a strong correlation between constructs in the model. If there is a strong correlation, it indicates a problem with the model, known as collinearity. The value used to analyze this is the Variance Inflation Factor (VIF). The inner value should be <10, <5, or <3.3 (Hair et al., 2017).

Table 4.17 VIF Inner Model Value Test

No	Hypothesis	Inner VIF Value	Description
1	Quality of Service -> Patient Satisfaction	1,923	Good
2	Trust -> Patient Satisfaction	1,137	Good
3	Hospital Image -> Patient Satisfaction	2,433	Good

Source: Processed primary data (2024)

Based on the table above, all values indicate no apparent collinearity issues in the model.

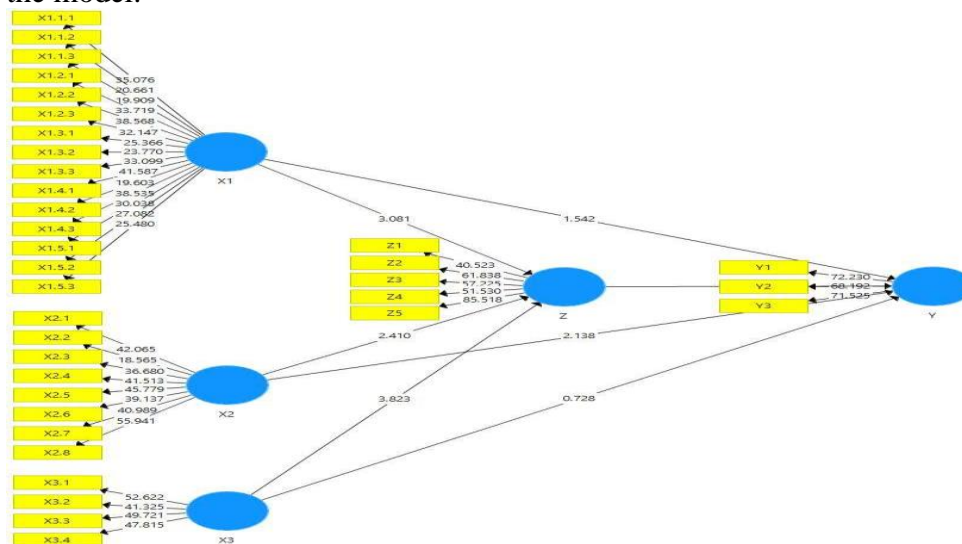


Figure 4.2 Inner Model VIF Value  
Source: Processed primary data (2024)

**Hypothesis Testing**

The influence test in this study is conducted by examining the T-Statistics and P-Values. Research hypotheses are considered to have an effect if the P-Values < 0.05. The hypotheses used are as follows:

- H1 = Service quality has a positive and significant effect on patient satisfaction.
- H2 = Trust has a positive and significant effect on patient satisfaction.
- H3 = Hospital image has a positive and significant effect on patient satisfaction.
- H4 = Online registration system strengthens the effect of service quality on patient satisfaction.
- H5 = Online registration system strengthens the effect of trust on patient satisfaction.
- H6 = Online registration system strengthens the effect of hospital image on patient satisfaction.

The criteria used are as follows:

- a. If the P-Value  $> 0.05$  and the T-Statistics  $< T$  table = 1.653), then there is no effect.
- b. If the P-Value  $< 0.05$  and the T-Statistics  $> T$  table = 1.653), then there is an effect.

Table 4.18 Hypothesis Testing

Path	Original Sample	T Statistics	P Values	Description
Quality of Service -> Patient Satisfaction	0,132	2,248	0,003	Significant
Trust -> Patient Satisfaction	0,202	2,138	0,033	Significant
Hospital Image -> Patient Satisfaction	0,061	4,002	0,000	Significant
Quality of Service -> Online Registration System -> Patient Satisfaction	0,188	2,798	0,005	Significant
Trust -> Online Registration System -> Patient Satisfaction	0,146	2,260	0,024	Significant
Hospital Image -> Online Registration System -> Patient Satisfaction	0,190	3,179	0,002	Significant

Source: Processed primary data (2024)

Based on the table above, it is found that:

a. Effect of Service Quality on Patient Satisfaction

The original sample value is 0.132. It is also known that the P-Values (0.003)  $< 0.05$  and the T-Statistics (2.248)  $> T$  table (1.653), indicating a significant positive effect of service quality on patient satisfaction. This explains that the higher the service quality, the higher the patient satisfaction.

b. Effect of Trust on Patient Satisfaction

The original sample value is 0.202. It is also known that the P-Values (0.033)  $< 0.05$  and the T-Statistics (2.138)  $> T$  table (1.653), indicating a significant positive effect of trust on patient satisfaction. This explains that the higher the trust, the higher the patient satisfaction.

c. Effect of Hospital Image on Patient Satisfaction

The original sample value is 0.061. It is also known that the P-Values (0.000)  $< 0.05$  and the T-Statistics (4.002)  $> T$  table (1.653), indicating a significant positive effect of hospital image on patient satisfaction. This explains that the better the hospital image, the higher the patient satisfaction.

d. Effect of Service Quality on Patient Satisfaction with Online Registration System as Moderating Variable

The original sample value is 0.188. It is also known that the P-Values (0.005) < 0.05 and the T-Statistics (2.798) > T table (1.653), indicating that the online registration system can strengthen the significant positive effect of service quality on patient satisfaction. This explains that the better the online registration system, the greater the effect of service quality on patient satisfaction.

e. Effect of Trust on Patient Satisfaction with Online Registration System as Moderating Variable

The original sample value is 0.146. It is also known that the P-Values (0.024) < 0.05 and the T-Statistics (2.260) > T table (1.653), indicating that the online registration system can strengthen the significant positive effect of trust on patient satisfaction. This explains that the better the online registration system, the greater the effect of trust on patient satisfaction.

f. Effect of Hospital Image on Patient Satisfaction with Online Registration System as Moderating Variable

The original sample value is 0.190. It is also known that the P-Values (0.002) < 0.05 and the T-Statistics (3.179) > T table (1.653), indicating that the online registration system can strengthen the significant positive effect of hospital image on patient satisfaction. This explains that the better the online registration system, the greater the effect of hospital image on patient satisfaction.

***Model Goodness of Fit Test***

In this model fit test, the fit of the model is examined by looking at the values of SRMR and NFI. SRMR is an estimate of the fit of the researcher's model, measuring the difference between the observed correlation matrix and the implied model correlation matrix. In other words, SRMR reflects the magnitude of the average difference, with lower SRMR indicating better fit. Conventionally, a model has good fit when SRMR is less than 0.08 (Ghozali, 2018). Some use a more lenient cutoff of less than 0.10. For discussions in the context of partial least squares modeling. Then the NFI result is a value between 0 and 1. The closer NFI is to 1, the better. NFI values above 0.8 usually indicate acceptable fit. Lohmöller in Hidayat (2018) provides detailed information on PLS path modeling calculations.

Table 4.19 Model Fit

	Saturated Model	Kriteria
SRMR	0.042	<0,08
NFI	0.835	0-1

Source: Processed primary data (2024)

Based on the table above, it is known that the SRMR <0.08, indicating good model fit, and with an NFI value of 0.835 approaching 1, indicating acceptable model fit.

**Discussion**

***The Influence of Service Quality on Patient Satisfaction***

Tjiptono (2014) defines service quality as an effort to satisfy all the needs and desires of consumers, including the accuracy of delivery by balancing consumer

expectations. Zeithaml et al. (1990) assert that perceived service quality is determined by the difference between customer opinions about the actual service they receive and their expectations of the service they receive. Service quality itself is one of the factors that influence customer satisfaction. Good service will undoubtedly lead to satisfaction for consumers. Customer satisfaction, according to Kotler and Keller (2016), is the feeling of pleasure or disappointment someone experiences after comparing their perception of the performance or outcome of a product with what they expected.

Based on the first hypothesis test, which examines whether the service quality variable affects patient satisfaction, an original sample value of 0.132 was obtained in this study. It is known that the P-Values (0.003) < 0.05 and the T-Statistics (2.248) > T-table (1.653). This result indicates a significant positive influence between service quality and patient satisfaction. This explains that the better the service quality, the higher the satisfaction perceived by patients.

In the descriptive analysis, the highest statement item found was "clean and tidy waiting room," indicating that the waiting room at Kasih Ibu Tabanan Hospital is perceived as clean and tidy by patients, making them feel more comfortable with the services provided. On the other hand, the lowest average was found in the statement "hospital staff provide fast service," indicating that quick and responsive service should be improved to ensure patient satisfaction.

Customer satisfaction is evident when the service quality provided meets the needs of the customers (Juran, 1998). Service quality leads to increased customer satisfaction. High service quality has a positive relationship with customer satisfaction; high service quality creates high customer satisfaction (Tjiptono, 2014). Numerous studies have examined the positive and significant influence of service quality on customer satisfaction (Windariyani, 2023; Rosalia & Purnawati, 2018; Abidin, 2016; Cronin & Taylor, 1992).

Therefore, this latest research confirms and strengthens theories and empirical studies stating that service quality significantly affects patient satisfaction. The correlation between service quality and patient satisfaction is because good and quality service provided by the hospital can meet patients' expectations and make them happy, thus generating satisfaction among patients.

### ***The Influence of Trust on Patient Satisfaction***

Mayer (2015) defines trust as one's willingness to be vulnerable to the actions of others based on their expectations that the other party will perform specific actions toward those who trust them, depending on their ability to monitor and control them. Trust is one of the components that can influence customer satisfaction. Customers with high trust in a particular product or service tend to be more satisfied when using that product or service. Customer satisfaction, according to Kotler and Keller (2016), is the feeling of pleasure or disappointment someone experiences after comparing their perception of the performance or outcome of a product with what they expected.

Based on the second hypothesis test, examining whether the trust variable affects patient satisfaction, an original sample value of 0.202 was obtained in this study. It is known that the P-Values (0.033) < 0.05 and the T-Statistics (2.138) > T-



table (1.653). This result indicates a significant positive influence between trust and patient satisfaction. This explains that the higher the trust, the higher the satisfaction perceived by patients.

In the descriptive analysis, the highest statement item found was "Kasih Ibu Tabanan Hospital is a trusted hospital," indicating that Kasih Ibu Tabanan Hospital has a good reputation in the community as a hospital that can be trusted to provide the best healthcare services. This indicates that the hospital has contributed positively to the surrounding community, thus enhancing its image. On the other hand, the lowest average was found in the statement "medical personnel at Kasih Ibu Tabanan Hospital have high credibility," indicating that the credibility of medical personnel at Kasih Ibu Tabanan Hospital needs to be improved to enhance patient trust.

The results of this research are also supported by studies conducted by Putra et al. (2021), Mahendra and Indriyani (2018), Leninkumar (2017), Bricci et al. (2016), Diza et al. (2016), Sahanggamu et al. (2015), and Gul (2014), which state that trust has a positive and significant influence on customer satisfaction. However, there are different results indicated by Meida et al. (2022), stating that trust does not significantly affect customer satisfaction.

Therefore, this latest research confirms and strengthens theories and empirical studies stating that trust significantly affects patient satisfaction. With the acceptance of this hypothesis, it can be concluded that patient satisfaction is determined by consumer trust in the hospital. The correlation between trust and patient satisfaction is because patients who already trust the hospital tend to feel happy, calm, and satisfied when using the hospital's services.

### ***The Influence of Hospital Image on Patient Satisfaction***

According to Bill Canton in Soemirat and Ardianto (2007), company image is the impression, perception, public image of a company, deliberately created from a product, service, or service provided. Company image is the public's perception of a company or its products (Kotler and Keller, 2016). According to Tang (2007), organizational image is the impression that comes to mind when one hears the name of a hotel, restaurant, or other business organization. Hospital image is one of the components that influence customer satisfaction. Rangkuti (2002) argues that customer satisfaction is a customer's reaction to the difference between their level of interest before and the actual results experienced after use.

Based on the third hypothesis test, examining whether the hospital image variable affects patient satisfaction, an original sample value of 0.061 was obtained in this study. It is known that the P-Values ( $0.000 < 0.05$ ) and the T-Statistics ( $4.002 > T\text{-table } (1.653)$ ). This indicates a significant positive influence between hospital image and patient satisfaction. This explains that the better the hospital's image, the higher the satisfaction perceived by patients.

In the descriptive analysis, the highest statement item found was "Kasih Ibu Tabanan Hospital contributes to the welfare of the community around the hospital environment," indicating that Kasih Ibu Tabanan Hospital has contributed and been beneficial to the surrounding environment. This also indicates that Kasih Ibu Tabanan Hospital has implemented social and environmental programs well. This makes Kasih Ibu Tabanan Hospital have a good image in the community. On the

other hand, the lowest average was found in the statement "Kasih Ibu Tabanan Hospital is a referral from other health facilities," indicating that Kasih Ibu Tabanan Hospital needs to improve its quality and facilities to be more frequently referred to by other hospitals. A hospital that is frequently referred to by other hospitals will certainly have a good image in the community because it has better facilities and quality.

Organizational image has a direct influence on customer satisfaction (Wu, 2011 in Al Anfal, 2020). Image can shape customer perceptions of a business. Customers will consider a service good if many people using the service provide positive reviews. In this regard, the company's image serves as a connector and protector of harmonious relationships with its customers (Afrizal and Suhardi, 2018). Research by Putra et al. (2021), Triyadi et al. (2021), Al Anfal (2020), and Safitri et al. (2016) states that company image has a positive and significant influence on customer satisfaction. However, Windariani (2023) and Abshor (2021) in their research state that company image does not significantly affect customer satisfaction.

Therefore, this latest research confirms and strengthens theories and empirical studies stating that hospital image significantly affects patient satisfaction. With the acceptance of this hypothesis, it can be concluded that patient satisfaction is determined by the hospital's image. The correlation between hospital image and patient satisfaction is because a hospital that has a good impression or image in the community will create peace of mind, pride, and satisfaction for its patients when using the hospital's services.

#### ***The Influence of Service Quality on Patient Satisfaction Moderated by Online Registration System***

According to Budi (2011), an online registration system is a system in which patients or their families register through technology such as registration via telephone, SMS, WhatsApp, website, and other applications to receive services. The online registration system referred to in this study is the implementation of the HiDok application used for registration by Kasih Ibu Tabanan Hospital. This online registration system used can strengthen the influence of service quality on patient satisfaction.

Based on the fourth hypothesis test, examining whether the online registration system variable can strengthen the influence of service quality on patient satisfaction, an original sample value of 0.188 was obtained in this study. It is known that the P-Values ( $0.005 < 0.05$ ) and the T-Statistics ( $2.798 > T\text{-table } (1.653)$ ). This indicates that the registration system can strengthen the significant positive influence between service quality and patient satisfaction. This explains that the better the online registration system, the greater the influence of service quality on patient satisfaction.

In the descriptive analysis, the highest statement item found was "patients are able to use the HiDok application well and optimally," indicating that the HiDok application is easy to use, so patients can use it easily and optimally. The ease of using the HiDok application certainly makes patients feel happy and assisted by the system. The online registration system using the HiDok application is perceived to greatly facilitate patients. This ease of use should be maintained and improved to

create an online registration system that is easy to use. On the other hand, the lowest average was found in the statement "the HiDok application helps me register online," indicating that the HiDok application needs to be configured with various features and facilities that can help patients besides helping with registration.

This latest research confirms and strengthens theories and empirical studies stating that the online registration system can strengthen the influence of service quality on patient satisfaction. The online registration system can be a moderating variable because the use of the online registration system is considered to provide convenience for patients when registering. This is one of the commitments in the services provided by the hospital. The convenience provided by this system can certainly create satisfaction for patients.

#### ***The Influence of Trust on Patient Satisfaction Moderated by Online Registration System***

Online registration (enrollment) systems have emerged due to the development of technology and telecommunications, ultimately raising people's expectations of obtaining faster and better services. With the implementation of online registration systems, it is hoped that waiting times for patients can be reduced, and satisfaction can be provided to patients accessing healthcare services at hospitals. Satisfaction, according to Rangkuti (2002), is a customer's reaction to the difference between their level of interest before and the actual results experienced after use.

Based on the fifth hypothesis test, examining whether the online registration system variable can strengthen the influence of trust on patient satisfaction, an original sample value of 0.146 was obtained in this study. It is known that the P-Values (0.024) < 0.05 and the T-Statistics (2.260) > T-table (1.653). This indicates that the online registration system can strengthen the significant positive influence between trust and patient satisfaction. This explains that the better the online registration system, the greater the influence of trust on patient satisfaction.

This latest research confirms and strengthens theories and empirical studies stating that the online registration system can strengthen the influence of trust on patient satisfaction. The moderation ability possessed by the online registration system is because the online registration system implemented by the hospital can create trust among patients that the hospital is committed to providing the best service, which will undoubtedly increase satisfaction for patients.

#### ***The Influence of Hospital Image on Patient Satisfaction Moderated by Online Registration System***

According to Budi (2011), the online registration system is a system where patients or their families register through technology such as registration via telephone, SMS, WhatsApp, website, and other applications to receive services. The online registration system referred to in this study is the implementation of the HiDok application used for registration by Kasih Ibu Tabanan Hospital. The online registration system used can strengthen the influence of the hospital's image on patient satisfaction.

Based on the sixth hypothesis test, examining whether the online registration system variable can strengthen the influence of the hospital's image on patient

satisfaction, an original sample value of 0.190 was obtained in this study. It is known that the P-Values (0.002) < 0.05 and the T-Statistics (3.179) > T-table (1.653). This indicates that the online registration system can strengthen the significant positive influence between the hospital's image and patient satisfaction. This explains that the better the online registration system, the greater the influence of the hospital's image on patient satisfaction.

This latest research confirms and strengthens theories and empirical studies stating that the online registration system can strengthen the influence of the hospital's image on patient satisfaction. The moderation ability possessed by the online registration system is because the online registration system implemented by the hospital will create an image that the hospital is advanced in technology and committed to providing convenience for patients through technology implementation. This will undoubtedly create and enhance satisfaction for patients.

## CONCLUSION

Based on the results and discussions described above, it can be concluded that the quality of service, trust, and image of the hospital have a positive and significant influence on patient satisfaction. This shows the importance of the management of Kasih Ibu Tabanan Hospital to continue to improve these aspects in order to maintain competitiveness and increase consumer loyalty. In addition, the online registration system has also been shown to be able to moderate the effect of these variables on patient satisfaction, emphasizing the need to improve the quality of the system. Suggestions for future research are more in-depth in exploring other variables that have the potential to increase patient satisfaction, as well as considering different research objects for a more comprehensive comparison.

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