Majority Science Journal (MSJ) Vol. 3 No. 4, November 2025
P-ISSN: 0000-0000; E-ISSN:3025-1990
Available : https://jurnalhafasy.com/index.php/msj DOI: https://doi.org/10.61942/msj.v3i4.464

THE EFFECT OF SERVICE QUALITY AND FACILITIES ON LOYALTY MEDIATED BY OUTPATIENT PATIENT SATISFACTION AT DR. M. THOMSEN NIAS REGIONAL HOSPITAL

Visensius Kurniel Nazara[1], Budi Haryono[2]
[1,2] Fakultas Ekonomi dan Bisnis, Universitas Kristen Krida Wacana

Inputed : October 12, 2025 *Revised : October 18, 2025*
Accepted : November 07, 2025 *Published : November 27, 2025*

Abstract

In the increasingly competitive hospital industry, increasing patient satisfaction through quality of service and facilities is an important aspect in maintaining patient loyalty. This study aims to determine the effect of service quality and facilities on patient loyalty mediated by outpatient satisfaction at Dr. M. Thomsen Nias Regional General Hospital. The population of this study was all 135 outpatients at Dr. M. Thomsen Nias Regional General Hospital. The sample size was determined using the Slovin formula with a 5% error rate, resulting in a sample size of 100 respondents. The results of this analysis indicate that all indicators used in this study are valid and reliable. The results show that service quality and facilities have a positive and significant effect on patient satisfaction. Furthermore, patient satisfaction is also proven to have a positive and significant effect on patient loyalty. In addition, service quality and facilities indirectly affect loyalty through the mediating variable of patient satisfaction. This study uses a Structural Equation Modeling (SEM) approach based on Partial Least Square (PLS) using SmartPLS 3.3 software. This study provides evidence of a positive and significant effect.

Keywords: *Service Quality, Facilities, Patient Satisfaction, Patient Loyalty*

Citation:
Nazara, V.K, Haryono, B. 2025. The Effect of Service Quality and Facilities on Loyalty Mediated By Outpatient Patient Satisfaction At Dr. M. Thomsen Nias Regional Hospital. MSJ: *Majority Science Journal*, 3(4), 237-250.

Corresponding Author:
Author name* Visensius Kurniel Nazara
E-mail* Vinsensius.012023044@civitas.ukrida.ac.id

1. Introduction

In an era of intense competition in the healthcare sector, hospitals are required to prioritize patient satisfaction through improving service quality and adequate facilities. The success of a hospital depends not only on advanced facilities and management, but also on the ability to build patient loyalty through optimal service. Patients now have the freedom to choose a hospital based on service quality, care experience, and available facilities. Therefore, interpersonal relationships, service effectiveness, and supporting facilities are key factors in creating patient satisfaction and loyalty. RSUD dr. M. THOMSEN NIAS, formerly known as RSUD Gunungsitoli, is located at Jalan dr. Ciptomangunkusumo No. 15, Gunungsitoli, North Sumatra Province. Established in 1963 by a German religious organization in collaboration with the BNKP Church, this hospital has developed into a Class C hospital and regional referral with a variety of specialist polyclinic services. Outpatient services provided include: Obstetrics & Gynecology, Dental, ENT-KL, Surgery, Internal Medicine, Pediatrics, Pulmonary, Cardiology, Eye, Neurology, and Psychiatry. As the hospital developed, there were various achievements, including:

- Class C 2014
- Determination of Provincial Referral Hospital as BLUD in 2015
- Regional Referral Hospital in 2021
- Full Accreditation in 2023

However, outpatient visit data shows a significant decline during the pandemic and a suboptimal recovery. This raises questions about the influence of service quality and facilities on patient satisfaction and loyalty, which is the focus of this study.

Table 1.1 Number of Outpatient Visits at Dr. M. THOMSEN NIAS Regional Hospital (2019-2022)

Year	Number of New Patients	Change (±)	Percentage (%)	Trends	Problems	Impact on Patient Loyalty
2019	32,797	–	–	Base year	Patients choose RSUD as a place for treatment	Loyalty is still strong
2020	24,071	-8,726	-26.6%	Significant decline	Pandemic and limited services/facilities	Loyalty has decreased drastically
2021	27,155	+3,084	+12.8%	The increase has not recovered	Services and facilities are not optimal	Loyalty is starting to return, not yet stable
2022	28,411	+1.256	+4.6%	Increased, still below 2019	The increase is not yet significant	Loyalty is up, not fully recovered yet

(Source: Dr. M. THOMSEN NIAS Regional Hospital)

Based on the data above, the decline and fluctuation of patient visits indicate the need to evaluate factors such as service quality, facilities, satisfaction, and outpatient loyalty. Various previous studies have shown that service quality and facilities have a significant influence on patient satisfaction (Soen & Kristaung, 2023; Ritonga, 2019; Lisdiana et al., 2023), and patient satisfaction plays a role in increasing loyalty (Angela Mariska Widjaja, 2023; Fardiansyah et al., 2022). Based on this, this study aims to analyze the effect of service quality and facilities on patient loyalty mediated by outpatient satisfaction at Dr. M. THOMSEN NIAS Regional General Hospital. The results of this study are expected to contribute to strategies to improve service quality and patient experience at this hospital.

Formulation of the problem

From the existing problem limitations, a research problem can be formulated as follows:

1 Does Service Quality Influence Patient Loyalty?
2 Do Facilities Influence Patient Loyalty?
3 Does Service Quality Influence Patient Satisfaction?
4 Do Facilities Influence Patient Satisfaction?
5 Does Satisfaction Influence Patient Loyalty?
6 Does Service Quality Influence Loyalty Mediated by Patient Satisfaction?
7 Do Facilities Influence Satisfaction Mediated by Patient Loyalty?

Literature Review

Teacher Performance

According to Zia(Zia Ibhar et al., 2022)describes service quality as a form of attitude, related but not exactly the same as satisfaction, which is obtained by comparing expectations with performance. Attitude is an expression of the deepest feelings that indicate a tendency

P-ISSN: 0000-0000; E-ISSN:3025-1990
Available : https://jurnalhafasy.com/index.php/msj DOI: https://doi.org/10.61942/msj.v3i4.464

whether someone is sympathetic or unsympathetic towards an object, for example towards the brand of a product and the service provided by a particular service.

According to Tjiptono(Tjiptono & Chandra, 2020)The concept of quality itself is often considered a relative measure of the quality of a product or service, consisting of design quality and conformance quality. Design quality is a function of product specifications, while conformance quality is a measure of how well a product meets established quality requirements or specifications. Quality has more than one dimension, and the importance of each dimension varies depending on the product type.

According to Djunaedi(Djunaedi & Muh. Akil Rahman, 2023)revealed that there are five main factors or indicators that determine the quality of service. These five factors include:

1. Tangible: Concerning physical appearance, equipment, and materials good communication.
2. Empathy: Involves the willingness of employees and employers to care and give personal attention to consumers, by trying to put yourself in the consumer's shoes.
3. Responsiveness: Demonstrates employee willingness and entrepreneurs to help consumers quickly, listen and handle complaints promptly.
4. Reliability: Implies the ability to provide services according to with what was promised, reliable, accurate, and consistent. Example including the ability of employees to provide the best service, handle consumer needs quickly and correctly, and the company's consistency in providing services according to consumer expectations.

According to Juhria(Juhandi et al., 2019)Service quality is something consumers perceive. Consumers will judge the perceived quality of service based on their mental image. Consumers will switch to other service providers who can better understand their specific needs and provide better service. Another definition of service quality comes from Heliani.(Herlina, 2021)which states that quality is the level of excellence expected to fulfill a person's desires. Meanwhile, service is defined as an action or performance provided by one person to another, which can be categorized as high-contact service and low-contact service.

Education Services

According to Novitasari(Novitasari & Suhardi, 2020)Facilities play a crucial role in marketing service products to consumers. The availability of comprehensive and high-quality facilities is a determining factor for consumers in choosing a service. Conversely, when the facilities provided are inadequate or not commensurate with the price offered, this can lead to company failure because consumers tend not to use the services offered. Therefore, it is important for companies, especially hospitals, to provide facilities that meet consumer needs to improve services to the public. Examples of such facilities include air conditioning, television, refrigerator, guest chairs, and toilets. According to Suhardi,(Suhardi et al., 2022)Facilities are a crucial element aimed at enhancing customer satisfaction by providing comfort, meeting needs, and ensuring user satisfaction. Facilities are part of a service that serves as a means to meet consumer needs and desires. Therefore, facilities refer to efforts to meet customer needs and expectations, both physically and psychologically, to provide comfort. One aspect that supports facilities is the organization's physical facilities, which are used as a communication tool in providing services to consumers. These facilities include various physical equipment designed to facilitate customers in carrying out their activities. Therefore, it is important to pay attention to the condition, completeness, interior and exterior design, and cleanliness of facilities, as these directly affect the customer experience. Customer satisfaction should be a top priority, as dissatisfaction can cause customers to switch to competitors, which can ultimately result in decreased sales.

According to Maulidiah(Maulidiah et al., 2023)Facilities are all elements that can increase efficiency and smoothness in providing optimal quality services. The variety of forms, types, and benefits of facilities used by each company varies. As company activity increases, the diversity and completeness of supporting facilities will also increase to support the quality of service provided by the company. According to Fadlilah,(Fadlilah & Listyorini, 2022)stated that facilities refer to the physical equipment provided by service providers to enhance consumer comfort and the cleanliness of the room and the condition of the facility. In addition to improving the quality of services and facilities, clinics must also pay attention to this. Based on this discussion, facilities are a crucial element in increasing efficiency and ensuring optimal service delivery. Emphasis is placed on the various forms, types, and benefits of facilities, which vary according to the company's needs and activities. Furthermore, attention must also be paid to the physical equipment provided by service providers to enhance consumer comfort.

Parents' Decision

According to Woen(Woen & Santoso, 2021)Loyalty can be formed through four stages: cognitive loyalty (based on awareness), affective loyalty (based on emotional influence), corrective loyalty (based on commitment), and action loyalty (in the form of concrete actions). These stages begin with a strong motivation to overcome challenges, such as demonstrating loyalty. According to Nyonyie(Nyonyie et al., 2019)Customer loyalty is a consistent action from customers in repeatedly repurchasing a brand. In addition, according to Nyoyie, there are four dimensions in customer loyalty, namely: (1) Consistency in repeat purchases, (2) Repeated purchases of the same products and services, (3) Activities promoting products to others, and (4) Attitudes that show resilience towards products in competitive situations. According to Septyarani(Septyarani & Nurhadi, 2023)When a company is able to provide satisfactory service to customers, it can lay the foundation for building customer loyalty. Conversely, dissatisfaction often stems from poor service or a decline in service quality below customer expectations, which can lead to customer disloyalty.

Parental Satisfaction

Maulidiah(Maulidiah et al., 2023)suggests that patient satisfaction or dissatisfaction results from a comparison between consumer expectations and their perceptions of the actual service experience. Fajarini (2020) also stated that patient satisfaction is an emotional assessment or evaluation involving feelings of pleasure, satisfaction, or disappointment experienced by patients after using or purchasing a particular product or service. It reflects the extent to which customers' hopes and expectations are met by their actual experience with the product or service provided by a company or service provider. Febyta(Febyta Aulia & Handayani, 2022)Masitoh stated that patient satisfaction is influenced by various factors such as the condition of the room environment, the availability of complete facilities and equipment, and the attitude and behavior of the service provider.(Masitoh et al., 2019)Customer satisfaction is considered crucial for marketers because it is often considered a key factor influencing repeat purchases, positive testimonials, and customer loyalty. Therefore, it can be understood that patient or customer satisfaction is influenced by various factors, including the condition of the room environment, the availability of complete facilities and infrastructure, and the attitude and behavior of service providers. This demonstrates the importance of paying attention to both physical and non-physical aspects in meeting customer needs and expectations. Overall, it emphasizes the importance of paying attention to various factors that influence customer satisfaction and implementing appropriate strategies to ensure that customer needs and expectations are optimally met. According to Setiawan(Setiawan, 2022)stated that consumer satisfaction occurs when consumers realize that what they need and want has been fulfilled according to their expectations and in a satisfactory manner and according to Novitasari(Novitasari & Suhardi, 2020)Patient

P-ISSN: 0000-0000; E-ISSN:3025-1990
Available : https://jurnalhafasy.com/index.php/msj DOI: https://doi.org/10.61942/msj.v3i4.464

satisfaction can be defined as the extent to which a product or service meets a customer's expectations. When a product or service's performance falls short of a customer's expectations, it leads to dissatisfaction. However, if a product or service exceeds expectations, the customer will be satisfied or even delighted. According to Kotler and Keller(Kotler & Keller, 2021)Satisfaction is a person's emotional response after comparing a product's perceived performance with their expectations. Satisfaction can also be thought of as an emotional reaction to an experience based on information obtained about a product or service.

Conceptual Model

In this quantitative research, the conceptual framework model studied concerns the influence of Service Quality (X1) on Loyalty (Y), the influence of Facilities (X2) on Loyalty (Y), the influence of Service Quality (X1) on Satisfaction (Z), the influence of Facilities (X2) on Satisfaction (Z), the influence of Satisfaction (Z) on Loyalty (Y), the influence of Service Quality (X1) mediated by Satisfaction (Z) on Loyalty (Y), and the influence of Facilities (X2) mediated by Satisfaction (Z) on Loyalty (Y). The conceptual model of this research can be seen in Figure 2.1.

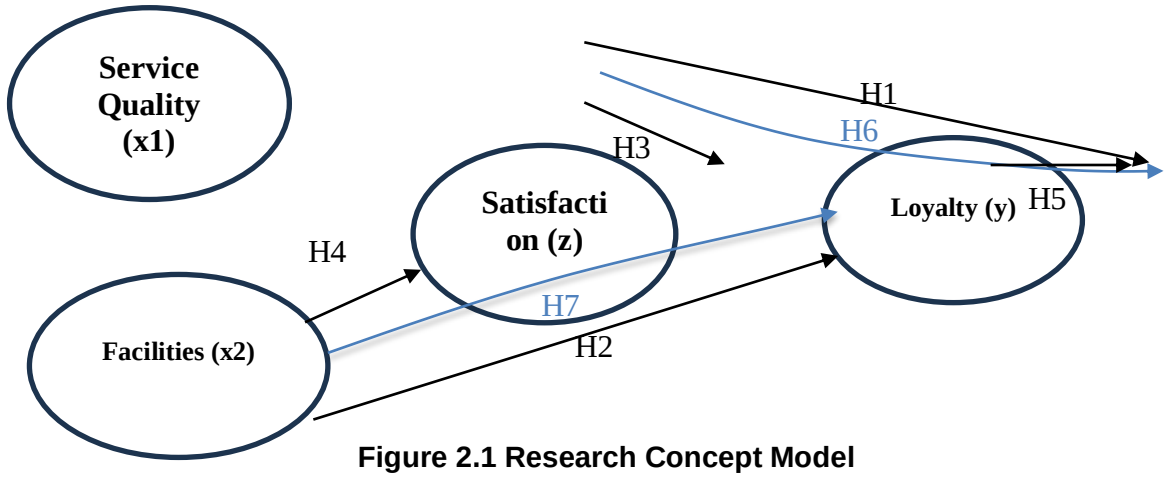


Figure 2.1 Research Concept Model

Information:
H1: Service Quality Has a Positive and Significant Influence on Loyalty
H2: Facilities have a positive and significant influence on loyalty.
H3: Service Quality has a Positive and Significant Influence on Satisfaction
H4: Facilities have a positive and significant effect on satisfaction.
H5: Satisfaction has a positive and significant effect on loyalty.
H6: Service Quality has a Positive and Significant Influence on Loyalty which is Mediated by Satisfaction
H7: Facilities have a positive and significant influence on loyalty mediated by satisfaction.

P-ISSN: 0000-0000; E-ISSN:3025-1990
Available : https://jurnalhafasy.com/index.php/msj DOI: https://doi.org/10.61942/msj.v3i4.464

2. Method

Research Population and Sample

The population studied was all 135 outpatients at Dr. M. Thomsen Nias Regional Hospital, and the sampling method used the Slovin formula. Based on this, the sample size was determined to be 100 people.

Data Analysis Techniques

After the data for this study was collected, data analysis was conducted. The data analysis in this study used the structural equation model (SEM) through Smartpls V.3. SEM is a statistical technique that functions to analyze a pattern of relationships between latent constructs and their indicators, one latent construct with another, and can detect measurement errors and directly, meobedientSugiyono (Sugiyono, 2018).SEM itself can directly analyze dependent and independent variables. This technique is used to explain the relationship between variables in a study. The primary requirement for an SEM model is to construct a hypothesis model consisting of a structural model and a measurement model in a path diagram based on theory. Based on the previously formulated hypotheses, this study used SmartPLS (Partial Least Squares) V3 software. The process begins with model measurement, model structure, and hypothesis testing. The outer measurement model is used to assess validity and reliability, while the inner measurement model is used to assess causal relationships between latent variables, both exogenous and endogenous. The results of the analysis using SmartPLS are explained in the following table.

TestConvergent Validity

This test is conducted to determine the correlation between measurement instruments. It's typically used to assess the value of similar constructs. The test is considered to meet the criteria if the loading factor or standardized loading estimate is greater than 0.5.

Discriminant Validity Test

Discriminant validity testing is used to demonstrate whether a latent construct discriminates between itself and other latent constructs and can explain the variance of observed variables. The test value meets the requirements if the square root of the AVE is greater than the correlation value between the latent variables.(M. Makhrus Ali & Tri Hariyati, 2022).

Average Extracted (AVE) Test

The AVE value is used to test the square root of each AVE to see whether it is correlated more than each latent construct. The AVE value as a requirement for discriminant validity has been achieved. According to Nurul Ali and Wijayanto in(M. Makhrus Ali & Tri Hariyati, 2022). The AVE value that meets the requirements is if the value is equal to 0.5 or more, if it is below 0.5, it can be said that the indicator has a high error rate.

Construct Reliability Test

This test is conducted to determine the constraints and consistency of the data. Data is considered reliable if it has a value greater than 0.7. A value between 0.6 and 0.7 is still considered good.(Ariyanto et al., 2023).

Cronbach Alpha Test

Reliability testing with Cronbach's alpha can be used as an alternative reference to composite reliability. A variable is considered reliable if its Cronbach's alpha value is > 0.6.(Ariyanto et al., 2023).

Chi-Square Test

This test is conducted to analyze the model's effect on each variable. The test uses the following equation.

$Q2 = 1-1[(1-R\ 2)\ (1-\ R\ 2)]$

Hypothesis Testing

Hypothesis testing is used to analyze data processing using the results of the critical ratio and alpha, or error rate, as seen using statistical limits of t-values and alpha values. T-values > 2.06 and alpha < 0.05. This test uses the t-statistic and P-value.

Path analysis is used to determine the type of relationship between independent variables when explaining the relationship with the dependent variable. This relationship can be a correlational relationship or a dependency relationship according to Dachlan.aThere are two techniques used in data analysis, namely:

1. Creating a path diagram in the SMART PLS program
2. Hypothesis testing of structural relations in SMART PLS.

In the data processing and data analysis process, the following stages will be carried out:

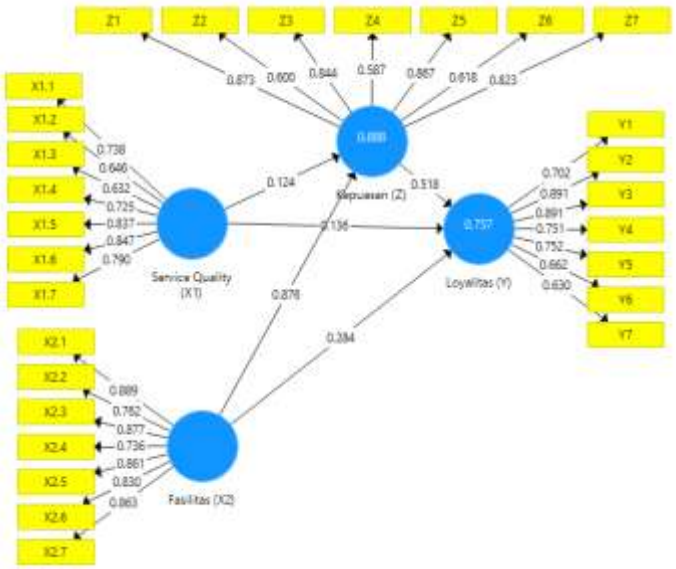
1. Examination of questionnaires completed by respondents to ensure the completeness of the contents
   questionnaire.
2. Conduct tabulation testing related to calculations from questionnaire results.
3. Tests that have been carried out related to validity tests to find out the questions
   whether the questionnaire is appropriate and relevant to the objectives or not.
4. The tests carried out related to the reliability test to determine whether the questionnaire remains valid
   provide relatively the same results (consistency) if measurements are taken on the same subject.
5. Testing is carried out related to hypothesis testing to determine the model that was built.
   whether it really has an influence or not.

3. Results and Discussion

Validity Testing

Validity testing was conducted on this research instrument using convergent validity, discriminant validity, and average variance extracted. The first validity test was conducted by examining the convergent validity of an instrument. It can be said to be valid if it has a loading factor value greater than 0.5. If the value is greater than 0.5, the instrument is considered valid and can explain the relationship between the indicators and the latent variables in the hypothetical model. If the calculation results show an indicator that is invalid or less than 0.5, then the indicator will not be included in the analysis calculations to be carried out. The results of the loading factor calculation can be seen below.

Figure 4.1 Research Model



(Source: Smart PLS Calculation)

P-ISSN: 0000-0000; E-ISSN:3025-1990
Available : https://jurnalhafasy.com/index.php/msj DOI: https://doi.org/10.61942/msj.v3i4.464

Based on the research model analyzed using Smart PLS, all indicators are valid, as they have factor loading values greater than 0.5, as shown in the following data. It can be concluded that all indicators can be included in the subsequent analysis process, as no indicators with a value less than 0.5 were removed.

Table 4.4 Loading Factor Values (1)

Service Quality	Loading Factor	Facility	Loading Factor
X1.1	0.738	X2.1	0.889
X1.2	0.646	X2.2	0.762
X1.3	0.632	X2.3	0.877
X1.4	0.725	X2.4	0.736
X1.5	0.837	X2.5	0.861
X1.6	0.847	X2.6	0.830
X1.7	0.790	X2.7	0.863

(Source: Smart PLS Calculation)

Based on Table 4.4, all indicators in the Service Quality and Facilities variables have factor loading values > 0.6, indicating that all indicators are valid and adequately represent their respective variables. The indicator with the highest loading value indicates the strongest contribution to shaping the construct of that variable.

Table 4.5 Loading Factor Values (2)

Satisfaction	Loading Factor	Loyalty	Loading Factor
Z1	0.873	Y1	0.702
Z2	0.600	Y2	0.891
Z3	0.844	Y3	0.891
Z4	0.587	Y4	0.751
Z5	0.867	Y5	0.752
Z6	0.618	Y6	0.662
Z7	0.823	Y7	0.630

(Source: Smart PLS Calculation)

Based on Table 4.5, all indicators in the Satisfaction and Loyalty variables have factor loading values ≥ 0.6, thus being declared valid and suitable for use in the model. This indicates that each indicator adequately explains its respective variables. The indicator with the highest loading value makes the greatest contribution to the formation of the Satisfaction and Loyalty variables.Discriminant validity testing is performed using the cross-loading value, which must be greater than 0.5, and the dependent variable must be greater than the indicators for other variables. The following is the discriminant validity data processed in Smart PLS.

Table 4.6 Cross Loading

	Facilities (X2)	Satisfaction (Z)	Loyalty (Y)	Service Quality (X1)
X1.1	0.415	0.430	0.390	0.738
X1.2	0.363	0.387	0.369	0.646
X1.3	0.224	0.215	0.300	0.632
X1.4	0.257	0.350	0.381	0.725

P-ISSN: 0000-0000; E-ISSN:3025-1990
Available : https://jurnalhafasy.com/index.php/msj DOI: https://doi.org/10.61942/msj.v3i4.464

X1.5	0.363	0.470	0.495	0.837
X1.6	0.454	0.484	0.490	0.847
X1.7	0.397	0.451	0.443	0.790
X2.1	0.889	0.832	0.715	0.467
X2.2	0.762	0.619	0.523	0.237
X2.3	0.877	0.781	0.668	0.382
X2.4	0.736	0.703	0.741	0.341
X2.5	0.861	0.863	0.786	0.433
X2.6	0.830	0.788	0.706	0.518
X2.7	0.863	0.832	0.689	0.390
Y1	0.543	0.578	0.702	0.433
Y2	0.750	0.785	0.891	0.447
Y3	0.750	0.785	0.891	0.447
Y4	0.658	0.651	0.751	0.338
Y5	0.722	0.727	0.752	0.353
Y6	0.428	0.440	0.662	0.462
Y7	0.499	0.505	0.630	0.541
Z1	0.804	0.873	0.700	0.462
Z2	0.470	0.600	0.449	0.323
Z3	0.782	0.844	0.683	0.413
Z4	0.512	0.587	0.618	0.384
Z5	0.846	0.867	0.780	0.439
Z6	0.534	0.618	0.570	0.502
Z7	0.870	0.823	0.682	0.381

(Source: Smart PLS Calculation)

Based on the data above, it can be seen that the overall construct value is greater than 0.5 and meets the requirement of being greater than the value of other variables. Therefore, the instrument can be said to have good discriminant validity. Validity testing can also be seen using the average variance extracted (AVE). This value is used to determine the correlation between each latent construct and is required to be 0.5 as a validity requirement. If the AVE value is less than 0.5, the indicator can be said to have a fairly high average error rate.

Table 4.7 Cronbach'S Alpha, Composite Reliability, and AVET

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Facilities (X2)	0.926	0.931	0.941	0.694
Satisfaction (Z)	0.868	0.891	0.900	0.570
Loyalty (Y)	0.875	0.892	0.904	0.578
Service Quality (X1)	0.868	0.883	0.898	0.561

(Source: Smart PLS Calculation)

P-ISSN: 0000-0000; E-ISSN:3025-1990
Available : https://jurnalhafasy.com/index.php/msj DOI: https://doi.org/10.61942/msj.v3i4.464

The results of calculating the AVE value using*Smart PLS*can be seen in Table 4.7. These results indicate that all independent variables have an AVE value greater than 0.5, therefore, the independent variables show quite good validity results.

R-Square Test

R-Square testing is246dependent in regression analysis that measures how well the regression model explains the variation in246The dependent variable (Y) is correlated with the independent variable (X). The R-Square value ranges from 0 to 1, where the closer it is to 1, the better the regression model is at explaining variation in the dependent variable. The R-Square test was performed using Smartpls. The calculation results can be seen in the following table.

Table 4.8 R-Square Test

Variables	R Square
Satisfaction (Z)	0.888
Loyalty (Y)	0.757

(Source: Smart PLS Calculation)

Based on the results of the R-Square test calculation using SmartPLS, it is known that the Satisfaction variable (Z) has an R-Square value of 0.888. This indicates that 88.8% of the variation in patient satisfaction can be explained by the independent variables used in this study, while the remaining 11.2% is influenced by other factors outside the research model.

Meanwhile, the Loyalty variable (Y) has an R-Square value of 0.757. This means that 75.7% of the variation in patient loyalty can be explained by the independent variables in the study, while the remaining 24.3% is explained by other factors not examined in this model.

Thus, the higher the R-Square value, the better the regression model is at explaining variations in the dependent variable. In this case, the relatively high R-Square value for the Satisfaction (Z) variable indicates that the regression model is quite effective in explaining variations in satisfaction based on the independent variables used in the analysis. Meanwhile, the R-Square value for the Loyalty (Y) variable is also quite high, indicating that the model is able to explain most of the variations in loyalty, although there are still other factors that may influence the variable.

To measure how well a model is built from existing data, the Q^2 (predictive relevance) method can be used, which is a cross-validation method in statistics:

Q2= 1-1 [(1-R12) (1- R22)]
= 1-1 [(1-0.888) (1-0.757)
= 1- [(0.112)*(0.243)
= 0.9728

Based on the calculation results using (Q^2) then it can be concluded that the value is above 0 with a value of 0.9728 or 97% (predictive relevance), which shows how well your model fits the test data.

Hypothesis Testing

Hypothesis testing is conducted by examining the P-value using the Goodness of Fit Model. The P-value is a measure used in statistics to evaluate the significance of hypothesis testing results. In the context of the Goodness of Fit Model, the P-value is used to determine how well the tested model fits the observed observational data. In this study, five relationships were tested in the Goodness of Fit model:

P-ISSN: 0000-0000; E-ISSN:3025-1990
Available : https://jurnalhafasy.com/index.php/msj DOI: https://doi.org/10.61942/msj.v3i4.464

Table 4.9 Path Coefficient

Variables	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Facilities (X2) -> Satisfaction (Z)	0.876	0.871	0.042	20,732	0.000
Facilities (X2) -> Loyalty (Y)	0.284	0.296	0.134	2,119	0.035
Satisfaction (Z) -> Loyalty (Y)	0.518	0.518	0.143	3,617	0.000
Service Quality (X1) -> Satisfaction (Z)	0.124	0.126	0.048	2,562	0.011
Service Quality (X1) -> Loyalty (Y)	0.136	0.125	0.067	2,017	0.044

(Source: Smart PLS Calculation)

Based on Table 4.9, all relationships between variables show a positive and significant influence because the P value < 0.05. The Facilities variable has a strong influence on Satisfaction (O = 0.876; P = 0.000) and also has a significant influence on Loyalty (O = 0.284; P = 0.035). In addition, Satisfaction has a significant positive influence on Loyalty (O = 0.518; P = 0.000). The Service Quality variable also has a positive influence on Satisfaction (O = 0.124; P = 0.011) and Loyalty (O = 0.136; P = 0.044). Thus, all variables have a significant and unidirectional relationship in increasing loyalty through satisfaction.

Table 4.10 Total Effect

Variables	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Facilities (X2) -> Satisfaction (Z)	0.876	0.871	0.042	20,732	0.000
Facilities (X2) -> Loyalty (Y)	0.738	0.747	0.061	12,006	0.000
Satisfaction (Z) -> Loyalty (Y)	0.518	0.518	0.143	3,617	0.000
Service Quality (X1) -> Satisfaction (Z)	0.124	0.126	0.048	2,562	0.011
Service Quality (X1) -> Loyalty (Y)	0.200	0.191	0.074	2,716	0.007

(Source: Smart PLS Calculation)

Based on Table 4.10, all variables show a positive and significant influence with a P value < 0.05. The Facilities variable has the greatest influence on Satisfaction (O = 0.876; P = 0.000) and Loyalty (O = 0.738; P = 0.000), indicating that good facilities greatly determine the level of satisfaction and loyalty. Satisfaction also has a significant influence on Loyalty (O = 0.518; P = 0.000), meaning that the higher the satisfaction, the higher the loyalty. Meanwhile, Service Quality has a positive influence on Satisfaction (O = 0.124; P = 0.011) and Loyalty (O = 0.200; P = 0.007), indicating that service quality contributes to shaping customer satisfaction and loyalty.

P-ISSN: 0000-0000; E-ISSN:3025-1990
Available : https://jurnalhafasy.com/index.php/msj DOI: https://doi.org/10.61942/msj.v3i4.464

Table 4.11Specific Indirect Effects

Variables	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Facilities (X2) -> Satisfaction (Z) -> Loyalty (Y)	0.454	0.451	0.129	3,524	0.000
Service Quality (X1) -> Satisfaction (Z) -> Loyalty (Y)	0.064	0.065	0.032	2,029	0.043

(Source: Calculation)

Based on the results of the analysis carried out above, the results of the calculations are divided into two results, namely direct and indirect research and the following is an explanation of the results of the calculations above:
Direct impact:

1. **Facilities → Satisfaction:**increasing 1 unit of facility increases satisfaction by 0.876 units.
2. **Facilities → Loyalty:**increasing 1 unit of facility increases loyalty by 0.284 units.
3. **Satisfaction → Loyalty:**a 1 unit increase in satisfaction increases loyalty by 0.518 units.
4. **Service Quality → Satisfaction:**a 1 unit increase in service quality increases satisfaction by 0.124 units.
5. **Service Quality → Loyalty:**a 1 unit increase in service quality increases loyalty by 0.136 units.

Indirect effects:

1. **Facilities → Satisfaction → Loyalty**
   The indirect effect is significant with a coefficient of 0.454, t = 3.524, and p = 0.000. This means that satisfaction strongly mediates the relationship between facilities and loyalty.
2. **Service Quality → Satisfaction → Loyalty**
   The indirect effect is significant with a coefficient of 0.064, t = 2.029, and p = 0.043. This indicates that Satisfaction also mediates the relationship between Service Quality and Loyalty, although its effect is smaller than that of Facilities.

The conclusion is that Satisfaction (Z) plays a significant role as a mediator in the relationship between Facilities (X2) and Service Quality (X1) on Loyalty (Y).

4. Conclusions and Suggestions

Conclusion

Based on the research results, it can be concluded that:

1. **H1:**Service quality has a positive and significant effect on patient satisfaction.
2. **H2:**Facilities have a positive and significant impact on patient satisfaction.
3. **H3:**Service quality has a positive effect on patient loyalty.
4. **H4:**Facilities have a positive and significant influence on patient loyalty.
5. **H5:**Patient satisfaction has a positive and significant effect on patient loyalty.
6. **H6:**Service quality influences loyalty through satisfaction as a mediator.
7. **H7:**Facilities influence loyalty through satisfaction as a mediator.

Suggestion

Theoretical

1. Based on the R-Square test results, 11.2% of the variation in patient satisfaction and 24.3% of the variation in patient loyalty were still influenced by factors outside the research model. Therefore, further research is recommended to add other variables such as hospital image, service costs, and patient trust, as well as expand the research object for more comprehensive results.
2. Service Quality Improvement:
   a. Conduct employee training and development in interpersonal skills, clinical expertise, and time management to ensure quality service.
   b. Implement a performance measurement system and regular patient feedback to evaluate and improve services.
3. Facility Improvements:
   a. Pay attention to improving hospital facilities, such as comfortable treatment rooms and other supporting facilities, to increase patient satisfaction and loyalty.
4. Improving Patient Satisfaction:
   a. Focus on improving the quality of services and facilities to increase patient satisfaction, which in turn will increase patient loyalty.

Practical

1. Further Research on Patient Satisfaction Determinants:
   - Conduct further research to understand the factors that influence patient satisfaction more comprehensively, including aspects such as price, accessibility, and perceptions of service quality.
2. Study on the Influence of Facilities on Patient Satisfaction and Loyalty:
   - Further research on how good facilities can strengthen the relationship between patient satisfaction and loyalty in hospitals is needed.
3. Analysis of the Role of Patient Satisfaction Mediators:
   - To explore the role of patient satisfaction as a mediator in the relationship between service quality, facilities, and patient loyalty, as well as strategies to optimize its role.

Bibliography

Djunaedi, N. & Muh. Akil Rahman. (2023). Pengaruh Service Quality terhadap Customer Satisfaction pada Layanan Jasa Go-Jek di Kota Palopo. Jurnal Manajemen Perbankan Keuangan Nitro, 6(1), 26–38. https://doi.org/10.56858/jmpkn.v6i1.89

Fadlilah, I. N., & Listyorini, S. (2022). Pengaruh Kualitas Pelayanan, Fasilitas, dan Harga terhadap Kepuasan Pasien (Studi Pada Pasien Rawat Jalan Klinik Pratama “Al-Fatah” Kabupaten Kudus). Jurnal Ilmu Administrasi Bisnis, 11(1), 23–32. https://doi.org/10.14710/jiab.2022.33542

Febyta Aulia, K., & Handayani, S. (2022). Hubungan Kualitas Pelayanan Terhadap Kepuasan Pelanggan Di Rumah Sakit Ibu Dan Anak (RSIA) “X” Tahun 2020. Journal of Religion and Public Health, Vol. 4 No 2, 60–69.

Herlina, V. (2021). Perbaikan Kualitas Pelayanan Publik Berbasis Karakteristik Individu dan Pengembangan Karir Pegawai: (Improving the Quality of Public Services based on Individual Characteristics and Employee Career Development). JPSI (Journal of Public Sector Innovations), 6(1), Article 1. https://doi.org/10.26740/jpsi.v6n1.p51-56

Juhandi, N., Fahlevi, M., Abdi, & R, N. (2019). Liquidty Liquidty, Firm Size and Dividend policy to the value of the firm (study in manufacturing sector companies listedon Indonesia Stoock Exchange) Peran Struktur Modal Dalam Memediasi Pengaruh

Pertumbuhan Perusahaan Terhadap Nilai Perusahaan Pada Perusahaan Properti Di BEI. Business and Management Research.

Kotler, P., & Keller, K. L. (2021). Manajemen Pemasaran edisi 13 jilid 2. New Jersy: Pearson Education.

Masitoh, M. R., Wibowo, H. A., & Ikhsan, K. (2019). Pengaruh Kualitas Pelayanan, Kepuasan Pelanggan, dan Kepercayaan Merek Terhadap Loyalitas Pelanggan Pada Pengguna Aplikasi Mobile Shopee. Sains Manajemen, 5(1). https://doi.org/10.30656/sm.v5i1.1515

Maulidiah, E. P., Survival, S., & Budiantono, B. (2023). PENGARUH FASILITAS TERHADAP KUALITAS PELAYANAN SERTA IMPLIKASINYA PADA KEPUASAN PELANGGAN. JURNAL ECONOMINA, 2(3), 727–737. https://doi.org/10.55681/economina.v2i3.375

Novitasari, M., & Suhardi, Drs. Y. (2020). PENGARUH KUALITAS PELAYANAN, FASILITAS, DAN HARGA TERHADAP KEPUASAN PASIEN DI PAVILIUN KARTIKA RSPAD JAKARTA. Sekolah Tinggi Ilmu Ekonomi Indonesia, Jakarta.

Nyonyie, R. A., Kalangi, J. A. F., & Tamengkel, L. F. (2019). Pengaruh Kualitas Produk Terhadap Loyalitas Pelanggan Kosmetik Wardah di Transmart Bahu Manado. JURNAL ADMINISTRASI BISNIS, 9(3), 18. https://doi.org/10.35797/jab.9.3.2019.25123.18-24

Septyarani, T. A., & Nurhadi, N. (2023). Pengaruh Kualitas Pelayanan dan Kepuasan Pelanggan terhadap Loyalitas Pelanggan. Widya Cipta: Jurnal Sekretari Dan Manajemen, 7(2), 218–227. https://doi.org/10.31294/widyacipta.v7i2.15877

Setiawan, A. (2022). Pengaruh Kualitas Pelayanan Karyawan Terhadap Kepuasan Pelanggan Di Gerai Indomaret Kertamukti. Jurnal ARASTIRMA, Volume. 2.

Suhardi, Y., Zulkarnaini, Z., Burda, A., Darmawan, A., & Klarisah, A. N. (2022). Pengaruh Harga, Kualitas Pelayanan dan Fasilitas terhadap Kepuasan Pelanggan. Jurnal STEI Ekonomi, 31(02), 31–41. https://doi.org/10.36406/jemi.v31i02.718

Tjiptono, F., & Chandra, G. (2020). Service, Quality dan Satisfaction. Andi.

Woen, N. G., & Santoso, S. (2021). Pengaruh Kualitas Layanan, Kualitas Produk, Promosi, dan Harga Normal terhadap Kepuasan dan Loyalitas Konsumen. Jurnal Maksipreneur: Manajemen, Koperasi, Dan Entrepreneurship, 10(2), 146. https://doi.org/10.30588/jmp.v10i2.712

Zia Ibhar, M., Sari, N., Suryani, L., & Cantika Putri, T. (2022). PENGARUH SERVICE QUALITY TERHADAP KEPUASAN DAN KEPERCAYAAN MASYARAKAT PADA KANTOR KELURAHAN MUNDAM KECAMATAN MEDANG KAMPAI. Jurnal Administrasi Publik Dan Bisnis, 4(2), 41–47. https://doi.org/10.36917/japabis.v4i2.53.