

## THE EFFECT OF SERVICE QUALITY AND PATIENT SATISFACTION ON PATIENT LOYALTY MEDIATED BY PATIENT TRUST AT RUMAH INDONESIA SEHAT (RIS) HOSPITAL

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### Abstract

The increasing number of hospitals and the development of health industry have resulted in competition between healthcare providers. In facing the inevitable competition in the health industry, healthcare providers are required to adjust and evolve to achieve higher standards. Things that can be done to face the demands of this market is improving the quality and patient satisfaction. The goal is to increase patient trust and loyalty. This research aims to determine the effect of service quality and patient satisfaction on patient loyalty mediated by patient trust at Rumah Indonesia Sehat (RIS) Hospital. There were 67 samples in this study. The data used in this study is a type of quantitative data obtained from filling out questionnaires by selected respondents through a simple random sampling method. The analysis method used in this study is the Structural Equation Model (SEM) using the SmartPLS program. The result of this study shows that there is a significant effect of service quality and patient satisfaction on patient loyalty with patient trust as an intervening variable.

Keywords: *service quality, satisfaction, trust, loyalty*

### 1. INTRODUCTION

The availability of healthcare providers determines the health status of a country. The quantity of hospitals in Indonesia since 2015 until 2019 has increased by 13.52%. In 2015, Indonesia had 2,488 hospitals, followed by an addition in 2019 became 2,877 hospitals. There were 2,985 hospitals in 2020. The increasing number of hospitals and the development of health industry have resulted in competition between healthcare providers, either to maintain or increase the number of patients.

Healthcare providers must adapt and develop to achieve higher standards in facing this competition in the health industry. Things that can be done is improving the quality of service. Service quality is an indicator of succeed healthcare provider. In addition, another indicator of the succeed health services is the realizing of patient satisfaction. Patient satisfaction will affect the patient's desire to return for using the same health service. This is called loyalty.

Good service quality will also encourage patients to have trust in using the healthcare service. By growing trust in patients, good and long-term relationships will be formed between patients and healthcare providers. In other words, growing patient trust will also foster patient loyalty. Hospital must improve service quality on an ongoing basis, paying attention to patient satisfaction and trust to grow patient loyalty.

Rumah Indonesia Sehat (RIS) Hospital is a type C hospital located in the city area of South Tangerang, Banten. During nowadays intense business competition due to the increasing number of hospitals in Indonesia, RIS Hospital keep trying to improve the services provided. The quantity of patients in 2018 was 15,336. In 2019, there were 14,315 patients. There was a decrease in the quantity of patients in 2019. A decrease in patients quantity also occurred in 2020, which were

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13,995 patients. However, in 2021, there was an increase in the quantity of patients, becoming 14,105 patients.

Here is a data on patient satisfaction with the services provided by RIS Hospital from 2021 to May 2022. This data was obtained from inpatient and outpatient patients who filled out a customer feedback form after receiving services at the hospital. This customer feedback form contains eight questions regarding hospital services: registration and cashier services, nurses, doctors, pharmacies, laboratories, radiology, facilities, and cleaning and security officers. The patient was then given three answer choices: very satisfied, satisfied and dissatisfied. RIS Hospital patient satisfaction data is presented in Figure 1.1.

**Figure 1.1. Patient Satisfaction**

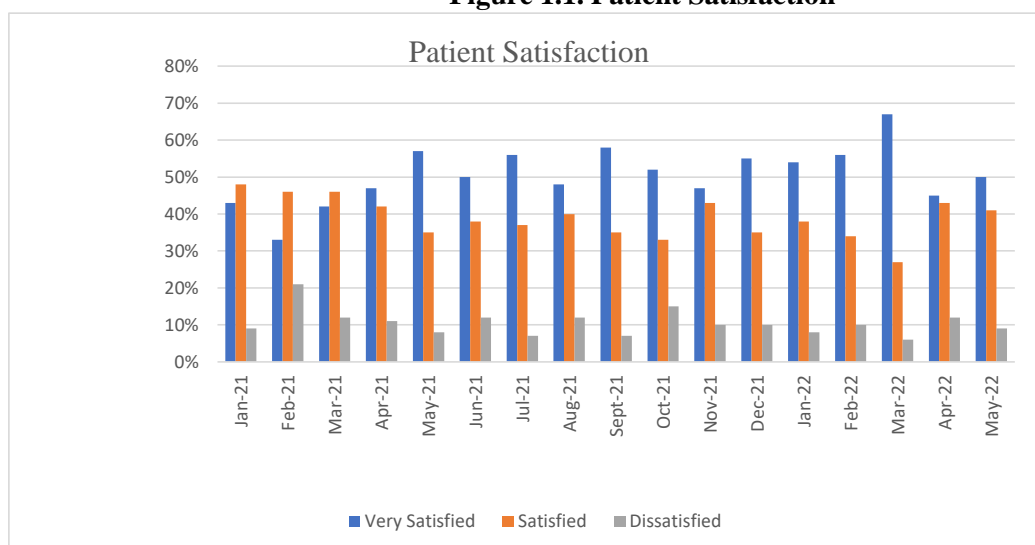


Figure 1.1 shows the categories of patient satisfaction at RIS Hospital. There are three categories. Those are very satisfied, satisfied, and dissatisfied. Since January 2021 - March 2021, the satisfied category had the highest percentage compared to other categories. However, over time, the highest percentage was found in the very satisfied category, especially in March 2022. This shows an increase in the percentage of patients who are very satisfied with the services provided by RIS Hospital.

In addition to patient satisfaction data, there is also data of patients' return visit at RIS Hospital throughout 2021 until May 2022. According to Tjiptono in Rahmawati et al. (2022) and Kotler and Keller in Rahayu & Syafe'i (2022), one indicator of customer loyalty is repeat purchases. Repeat purchases indicate attachment, and this can be used to measure the value of customer satisfaction with the company's products. In this case, repurchasing means returning of patients to the hospital. Data of patients' return visit at RIS Hospital is presented in Figure 1.2.

The purpose of this research is to find out:

- (1) Is there any effect of service quality on patient loyalty?
- (2) Is there any effect of patient satisfaction on patient loyalty?
- (3) Is there any effect of service quality on patient trust?
- (4) Is there any effect of patient satisfaction on patient trust?
- (5) Is there any effect of patient trust on patient loyalty?
- (6) Is there any effect of service quality on patient loyalty, which is mediated by patient trust?
- (7) Is there any effect of patient satisfaction on patient loyalty, which is mediated by patient trust?

## 2. LITERATURE REVIEW

### 2.1. Theoretical Concepts

#### Service Quality

According to Pratiwi & Suparna (2018), service quality is a measure of the extent to which the efforts or services provided by the company can meet customer expectations. Some things must be considered in service quality. Those are the customer's expectation and the quality of service that is received or felt by the customer. If the service received by the customer is felt to be in line with expectations, then the service is good in quality (Fulgara et al., 2020).

One method that can be used to evaluate service quality is to use the Service Quality (Servqual) model. This model was developed by Parasuraman, Zeithmal, and Berry (Sharifi et al., 2021). This model consists of five dimensions, including:

- (a) Tangibles (physical evidence), including the physical facilities owned to support the operational activities
- (b) Reliability, regarding the reliability and accuracy in providing services
- (c) Responsiveness, refers to the speed of service
- (d) Assurance, refers to the ability to provide guarantees of the services provided, which include guarantees for knowledge and attitude during the process of service
- (e) Empathy, refers to attention given to customers (Primandaru, 2019; Wididana, 2017).

Internal regulation is needed within the organization to create service quality that meets standards (Fushen, 2021). Good quality health services will make patients and their families feel satisfied and trust the services provided by the hospital (Winata et al., 2022). To guarantee the quality of the services provided, training can be conducted to improve competence (Fushen, 2021).

#### Trust

Trust is generally defined as one party's expectation of another party to act as well as possible. Trust is built and maintained through consistent positive exposure (Arakelyan et al., 2021). McKnight et al. in Rahmawati et al. (2022) state that there are two essential things from trust

- (1) Trusting belief, refers to the belief of a person to trust another party.

Three elements must be met to build a trusting belief: benevolence, integrity, and competence.

- (2) Trusting intention refers to customers who are aware, intend, and willing to depend on other parties. Things that can foster trusting intention include:

- i. Willingness to depend

The willingness of customers to depend on the company. The customer is willing to accept all conditions that may arise in the future.

- ii. Subjective probability of depending

Customers are willing to provide personal information to the company, making transactions, and accepting company suggestions and requests.

Ozawa & Sripad (2013) states that trust in the healthcare system influences the treatment process, medication adherence, and utilization of healthcare services. With the growth of trust in patients, a long-term relationship will be formed between the hospital and the patient. This affects the continuity of the hospital. The hospital can grow and develop because the patient's trust in this hospital will make the return to the hospital, whether for treatment or using other services available at the hospital (Vanessa Gaffar in Verriana & Anshori, 2017).

#### Loyalty

According to Philip Kotler & Keller in Verriana & Anshori (2017), loyalty means a firm commitment to reuse a company's products or services in the future. Loyalty is a form of the firm and consistent commitment, regardless of the marketing influence or temptation of other companies (Primandaru, 2019).

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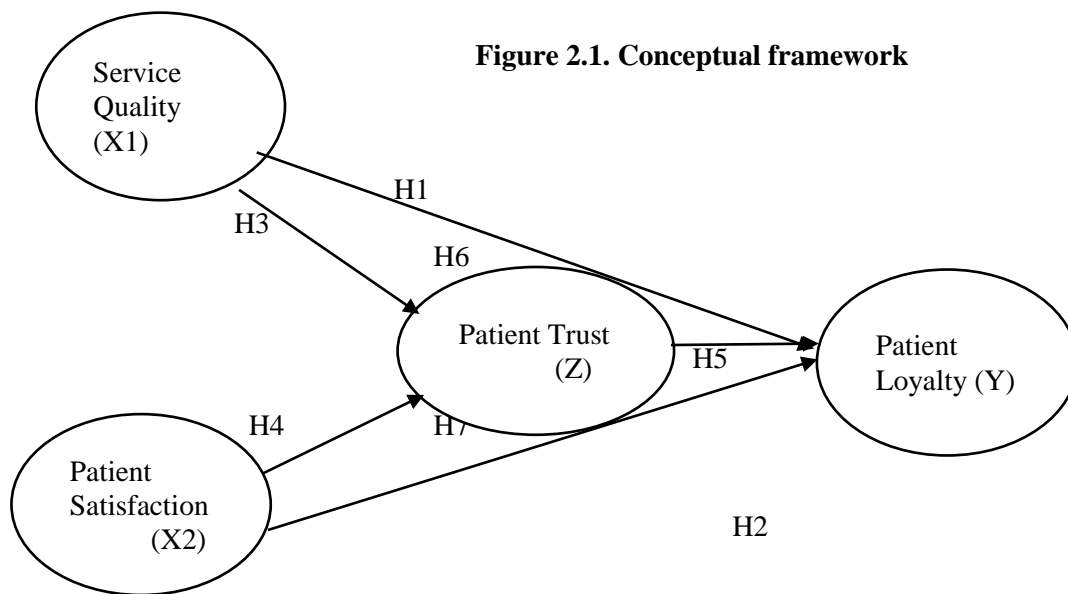
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**2.2.Previous Research**

The following is research that has been conducted by previous researchers about the variables of service quality, patient satisfaction, trust, and loyalty.

**2.3.Conceptual Framework**

Based on the literature review, it is known that there are several things that can influence the formation of patient loyalty to healthcare providers, including service quality, patient satisfaction and trust. Patient trust can be influenced by patient satisfaction and the quality of services provided by healthcare providers. The conceptual framework of this research can be described as follows



**1.3. Hypothesis**

The hypothesis set in this study, based on the background of the problem and the conceptual framework that has been described, includes:

- H1: Service quality has a positive effect on patient loyalty at Rumah Indonesia Sehat (RIS) Hospital.
- H2: Patient satisfaction has a positive effect on patient loyalty at Rumah Indonesia Sehat (RIS) Hospital.
- H3: Service quality has a positive effect on patient trust at Rumah Indonesia Sehat (RIS) Hospital.
- H4: Patient satisfaction has a positive effect on patient trust in Rumah Indonesia Sehat (RIS) Hospital.
- H5: Patient trust has a positive effect on patient loyalty at Rumah Indonesia Sehat (RIS) Hospital.
- H6: Patient trust mediates the effect of service quality on patient loyalty at Rumah Indonesia Sehat (RIS) Hospital.
- H7: Patient trust mediates the effect of patient satisfaction on patient loyalty at Rumah Indonesia Sehat (RIS) Hospital.

### 3. RESEARCH METHOD

#### 3.1. Object of research

The object of this research is patient loyalty at RIS Hospital, which is influenced by service quality, patient satisfaction and trust. The location of this research is at Inpatient Unit of RIS Hospital, which is located in the city of South Tangerang. Data collected by using a questionnaire that was distributed and then filled out by inpatients in September 2022.

#### 3.2. Population and Sample

##### Population

Population is a group of subjects with certain characteristics. These special characters are selected and analyzed in the process (Sugiyono, 2017). The population in this study were inpatients at Rumah Sehat Indonesia (RIS) Hospital during the study period (September 2022). The population size is set at 200 people (the average quantity of patients per month in 2022).

##### Sample

Sugiyono (2017) states that sample is part of a population that has certain characteristics. Sampling aims to determine the number of samples used in the research of an object. The sampling method used in this study is the probability method of simple random sampling technique. The inclusion criteria in this study include the following:

- (1) Inpatients
- (2) Previously hospitalized at RIS Hospital
- (3) 17-65 years old
- (4) Willing to be a respondent

While the exclusion criteria in this study include the following:

- (1) Patient is uncooperative
- (2) The patient is unable to read and write

The sample size is determined based on the Slovin formula

$$n = \frac{N}{1+N(e)^2}$$

Notes:

n = sample size

N = population size

e = fault tolerance

In this study, the population (N) was set at 200 people (the average quantity of patients per month in 2022), while the error tolerance was set at 10%. Based on the above formula, a sample of 67 respondents will be obtained.

#### 3.3. Operational Variables

According to Sugiyono (2017), research variable is something that is determined as learning material by researchers. This research variable will provide information and conclusion about the things studied.

Variables in this study include

- (a) Independent variable

Independent variables are variables that can result in changing or forming the dependent variable. In this study, the variables of service quality (X1) and patient satisfaction (X2) were selected as independent variables.

- (b) Intervening variable

Sugiyono (2017) states that the intervening variable is the intermediary variable, influencing the relationship between the independent variable and the dependent variable to become an indirect relationship. The intervening variable in this study was the patient's trust (Z).



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(c) Dependent variable

The dependent variable is a variable that is influenced by the independent variables. The dependent variable changes or becomes the result because of the existence of the independent variable (Sugiyono, 2017). The dependent variable in this study is patient loyalty (Y)

### **3.4.Data Collection Technique**

The data used in this study was primary data. Primary data source means that the data is obtained and collected by the author from the source directly. The data collection technique that will be applied is the questionnaire method.

The questionnaire used was adapted from Primandaru (2019), Rahmawati et al. (2022), Subhan & Iswati (2022), and Priliagita et al. (2021). This questionnaire is able to provide an overview of the effect of service quality and patient satisfaction on patient loyalty mediated by patient trust. The instrument is a questionnaire consisting of 4 main variables with a total of 34 questions. Based on the questionnaire, the patient's opinion will be assessed regarding service quality and patient satisfaction at the hospital and how it affects the level of patient trust and loyalty.

In this questionnaire, respondents' ratings were measured using a Likert scale worth 1 to 5. This scale is used to measure the extent to which respondents agree with the indicators in the questionnaire. According to Siregar (2017), the Likert scale is a scale whose use is intended to measure the opinions, perceptions, and attitudes of a person regarding a matter or situation. The Likert scale consists of the following:

- (a) Score 5: Strongly Agree
- (b) Score 4: Agree
- (c) Score 3: Neutral
- (d) Score 2: Disagree
- (e) Score 1: Strongly Disagree

### **3.5.Data Analysis Technique**

The data analysis used in this study is the Structural Equation Model (SEM) approach using SmartPLS 3.0 software. Hair et al. (2017) state that SEM is an analytical tool that can be used to examine causal relationships with latent variables.

SEM analysis includes two models, namely the measurement model (outer model), which refers to how the manifest variable represents the measurement of latent variables, and the structural model (inner model), which states the strength of estimation between latent or construct variables. (Ghozali, 2020).

#### **Evaluation of the Measurement Model (Outer Model)**

Evaluation of the measurement model aims to assess the validity and reliability of the model. The purpose of validity testing is to see the extent to which a measuring instrument is able to measure what is to be measured. Reliability aims to determine the consistency of measurement results when measurements are made more than once of the same phenomenon and with the use of the same measuring device (Siregar, 2017). Tests carried out on the outer model include:

(a) Convergent Validity

Hair et al., (2017) state that to assess convergent validity can be done by using the Rule of Thumb, which is, the loading factor must be worth more than 0.7. In addition, convergent validity can be determined by looking at the Average Variance Extracted (AVE) value for each construct with a correlation between constructs. The expected AVE value, which is over or above 0.5, means that 50% or more of the variance of the indicator can be explained.

(b) Discriminant Validity

Discriminant validity indicates that a construct has certain characteristics and is not described by other constructs. There are two methods that can be used to test discriminant validity, which are based on cross-loading values and Fornell Lacker criteria. The cross-loading value, namely the discriminant validity value of an indicator, must be greater than the cross-loading value of other constructions. The use of the Fornell Lacker criterion is by comparing the square root of the AVE value with the correlation of latent variables. The AVE square root must be greater than the highest correlation with other constructs Hair et al., (2017).

(c) Cronbach Alpha and Composite Reliability

The reliability of a construct using the PLS-SEM method using SmartPLS 3.0 can be tested by looking at the Cronbach Alpha and Composite Reliability values. Cronbach Alpha is used to determine the lower limit of the reliability of a construct, while Composite Reliability is used to see the reliable value of a construct (Ghozali, 2020). The use of the Rule of thumb in assessing construct reliability is based on the composite reliability value. Composite reliability is expected to be above 0.7 (Hair et al., 2017). The Cronbach Alpha value is said to be reliable if it is greater than 0.7 (Ghozali, 2018).

### Evaluation of the Structural Model (Inner Model)

The purpose of evaluating the inner model is to predict the relationship between variables. The relationship between variables that is significant or not seen is based on the value of the path coefficient. The path coefficient value is obtained from the bootstrapping process. The direction of the path coefficient must be in accordance with the hypothesized theory. The tests on the inner model used include:

(a) Coefficient of Determination ( $R^2$ )

According to Siregar (2017), the coefficient of determination shows how much contribution is made by one or more variables, X to variable Y. The coefficient of determination ( $R^2$ ) measures the size of the model's ability to explain variations in the dependent variable. The value of the coefficient of determination is in the value range of 0 to 1. According Hair et al. (2017), the value of the coefficient of determination is strong if it has a value of 0.75. In contrast, a value of 0.50 means moderate and is said to be weak if the value is 0.25.

(b) Blindfolding and Predictive Relevance ( $Q^2$ )

Predictive relevance, which is marked with the  $Q^2$  value, shows how well the observed value is generated using the blindfolding procedure (Ghozali, 2018). In the inner model, it is said that the model has predictive relevance for certain endogenous constructs if the  $Q^2$  value is greater than zero. If the result of calculating the  $Q^2$  value is 0.02, it means that it is weak. If the  $Q^2$  value is 0.15, it means medium, while 0.35 means strong (Hair et al., 2017).

### Hypothesis

This study uses several variables, including service quality, satisfaction, trust, and patient loyalty. To test the hypothesis, multivariate analysis was carried out with the PLS-SEM test using the SmartPLS program. The t-test statistic is used to show how an independent variable influences the variation in the dependent variable (Ghozali, 2018). Then look at p-value with the significance level  $\alpha = 10\%$ . If the p-value  $< 0.05$ , then  $H_0$  is rejected. In contrast,  $H_0$  is accepted if the p-value  $> 0.05$ . The following is the basis for decision-making, namely:

- (a) If the value of t statistic  $< t$  table, then  $H_0$  is accepted, and  $H_a$  is rejected.
- (b) If the value of t statistic  $> t$  table, then  $H_0$  is rejected, and  $H_a$  is accepted.

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Intervening variables are variables that can cause changes in the relationship between the independent variables and the dependent variable. This variable is called an intervening variable because it is between the two variables. The existence of an intervening variable makes the independent variable not directly cause a change in the dependent variable (Sugiyono, 2017).

This study uses t-table values and p-values to analyze the effect of the independent variables of service quality (X1) and satisfaction (X2) on patient loyalty (Y) mediated by patient trust (Z). The effect of mediation is said to be significant if the calculated t value is greater than the t table value ( $> 1.96$ ). If the p-value is less than 0.05, it can be said that the variable has a significant influence and effect (Hair et al., 2017).

The estimation of indirect effect was conducted to examine the indirect effect of mediating variables. The mediating variable is accepted with the following criteria (Hair et al., 2017)

- (a) Full mediation, that is, a variable is declared to mediate entirely if the path of the independent variable coefficient to the dependent variable becomes insignificant
- (b) Partial mediation, that is, a variable is said to mediate partially if the path of the independent variable coefficient to the dependent variable has a value that remains significant or only slightly decreases.

The variable is declared not to mediate if the direct and indirect effects show insignificant results.

**4.RESULTS AND DISCUSSION****4.1.Characteristics of Respondents**

Respondents of this study were inpatients who had ever been hospitalized at RIS Hospital. Respondents based on the characteristics of age, gender, last education, and marital status are shown in tables below.

**Table 4.1. Characteristics of Respondents by Age**

Age (years)	Quantity (person)	Percentage (%)
17-40	26	38,8
40-65	41	61,2

**Table 4.2. Characteristics of Respondents Based on Gender**

Gender	Quantity (person)	Percentage (%)
Man	29	43,3
Woman	38	56,7

**Table 4.3. Characteristics of Respondents Based on Last Education**

Last education	Quantity (person)	Percentage (%)
No school	3	4,5
Primary School	15	22,4
Junior High School	9	13,4
Senior High School	22	32,8
S1/S2/S3	21	31,3

**Table 4.4. Characteristics of Respondents Based on Marital Status**

Marital status	Quantity (person)	Percentage (%)
Not Married	19	28,4
Married	48	71,6



#### 4.2. Data analysis

##### Evaluation of the Measurement Model (Outer Model)

##### *Convergent Validity*

In this study, there are 34 indicators of the variables used. The indicator is declared valid if the loading factor value is  $> 0.7$ . The following is the loading value of the 34 indicators in this study.

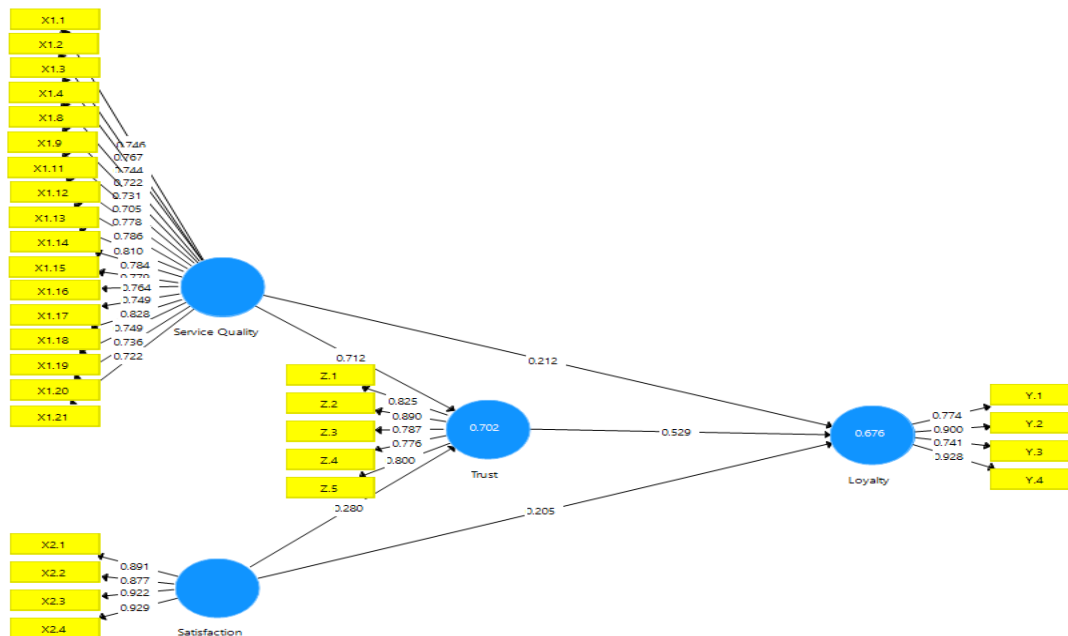
**Table 4.5. Final Loading Factor**

		Service Quality	Satisfaction	Trust	Loyalty
1	X1.	0.746			
2	X1.	0.767			
3	X1.	0.744			
4	X1.	0.722			
8	X1.	0.731			
9	X1.	0.705			
11	X1.	0.778			
12	X1.	0.786			
13	X1.	0.810			
14	X1.	0.784			
15	X1.	0.779			
16	X1.	0.764			
17	X1.	0.749			
18	X1.	0.828			
19	X1.	0.749			
20	X1.	0.736			
21	X1.	0.722			
1	X2.		0.891		
2	X2.		0.877		
3	X2.		0.922		
4	X2.		0.929		

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Z1			0.825	
Z2			0.890	
Z3			0.787	
Z4			0.776	
Z5			0.800	
Y1				0.774
Y2				0.900
Y3				0.741
Y4				0.928



Convergent validity can also be determined based on the Average Variance Extracted (AVE) value. The expected AVE value is above 0.5. In this study, the four variables met the convergent validity requirements because they had a value of more than 0.5. The following is the AVE value of each variable.

**Table 4.7. Average Variance Extracted**

Construct	Average Variance Extracted(AVE)
Service Quality	0.577
Satisfaction	0.819
Trust	0.667
Loyalty	0.705

**Discriminant Validity**

Discriminant validity can be determined by looking at the cross-loading indicator value. Cross-loading on the intended construct must have a value that is greater than the loading value of other constructs. Discriminant validity can also be seen through the Fornell-Larcker criteria. In this study, the AVE square root of each construct was greater than the highest correlation with the other constructs.

**Table 4.8. Fornell-Larcker**

	Trust	Satisfaction	Service Quality	Loyalty
Trust	0.817			
Satisfaction	0.490	0.905		
Service Quality	0.794	0.295	0.759	
Loyalty	0.797	0.526	0.692	0.840

**Cronbach's Alpha and Composite Reliability**

The results of the reliability test in this study can be seen in the following table, where it can be seen that the value of Cronbach's alpha and composite reliability shows a value greater than 0.7. This means that all variables are reliable or reliable.

**Table 4.9. Reliability Test**

	<i>Cronbach's Alpha</i>	<i>Composite Reliability</i>
Quality of service	0.955	0.959
Satisfaction	0.927	0.948
Trust	0.876	0.909
Loyalty	0.858	0.905

Evaluating the structural model can be done by looking at the value of the path coefficient. The results of the path coefficient can be seen in the following table.

**Table 4.10. Path Coefficient**

	<i>Original Sample</i>	<i>Sample Means</i>	<i>Standard Deviations</i>	<i>T-Statistics</i>	<i>P-Values</i>
Quality of service → Loyalty	0.212	0.207	0.095	2,229	0.026
Satisfaction → Loyalty	0.205	0.213	0.094	2,169	0.031
Service Quality → trust	0.712	0.720	0.050	14.305	0.000
Satisfaction → trust	0.280	0.270	0.078	3,574	0.000
Trust → loyalty	0.529	0.525	0.121	4,362	0.000
Service Quality → Trust → Loyalty	0.376	0.379	0.094	3,988	0.000
Satisfaction → Trust → Loyalty	0.148	0.141	0.051	2,910	0.004

From the table above, all of the path coefficient values are positive. The greatest path coefficient value is found in the effect of service quality on trust, which is equal to 0.712. The greater the path coefficient value of the independent variable on the dependent variable, the greater the influence of the independent variable on the dependent variable.

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

The following is the value of the coefficient of determination in this study

**Table 4.11. Coefficient of Determination**

Construct	R Square	R Square Adjusted
Trust	0.702	0.693
Loyalty	0.676	0.660

The coefficient of determination in this study was found to be greater than 0.50, which means it is moderate. In this case, service quality and satisfaction simultaneously have a moderate effect on patient trust and loyalty. The R Square value on trust is 0.702. This means that the percentage of trust can be explained by service quality and satisfaction is 70.2%. Furthermore, the R Square value of loyalty is 0.676. This means that the percentage of loyalty can be explained by the quality of service and satisfaction is 67.6%.

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**Blindfolding and Predictive Relevance ( $Q^2$ )**

In this study, the results of the calculation of  $Q^2 > 0.35$ , it can be concluded that the predictive relevance of the exogenous variables used to predict the endogenous variables is strong.

$$\begin{aligned} Q \text{ square} &= 1 - (1 - R_{21}) \times (1 - R_{22}) \\ &= 1 - (1 - 0.702) \times (1 - 0.674) \\ &= 1 - (0.298) \times (0.324) \\ &= 1 - 0.0965 \\ &= 0.9035 \end{aligned}$$

The results of the calculation above interpret the results of the diversity of research data that can be explained by the research model, which is equal to 90.35%. In contrast, the remaining 9.65% is explained by other things that are not included in this research model.

**Hypothesis**

Hypothesis in this study were analysed by using the SEM (Structural Equation Model) approach through the Smart PLS program. The following are the results of testing each hypothesis.

- H1: Service quality has a positive effect on loyalty, where the path coefficient value is 0.212. In this study, the t statistic was greater than the t table (1.96), which was 2.225, and the p-value was smaller than 0.05, which was 0.027. Thus, this hypothesis is accepted.
- H2: Satisfaction has a positive effect on loyalty, where the path coefficient value is 0.205. In this study, the t statistic was greater than the t table (1.96), which was 2.169, and the p-value was smaller than 0.05, which was 0.031. Thus, this hypothesis is accepted.
- H3: Service quality has a positive effect on trust, where the path coefficient value is 0.712. In this study, the t statistic was greater than the t table (1.96), which was 14.305, and the p-value was smaller than 0.05, which was 0.000. Thus, this hypothesis is accepted.

**Mediation Effect**

In the direct effect test, the effect of service quality on loyalty is significant. In the indirect effect test, with the variable of trust, the effect of service quality on loyalty remains significant. The direct and indirect effects are equally significant. This means that trust has partial mediation effect. With or without trust, service quality still has a significant impact on loyalty.

Likewise, with variable of patient satisfaction. In the direct effect test, the immediate effect of patient satisfaction on loyalty is significant. In the indirect effect test, with the variable of trust, the effect of satisfaction on loyalty remains significant. Tests for direct and indirect relationships are equally significant. With or without trust, patient satisfaction still significantly impacts loyalty. This means that trust has partial mediation effect.

**4.3. Discussion**

- H1: The Effect of Service Quality on Patient Loyalty

Subhan & Iswati (2022) stated that health service facilities must be able to provide quality health services to maintain patient loyalty. The better the quality of service, the more loyal the patient will be (Coal, 2019). The result of the research shows that service quality has a significant positive effect on patient loyalty.

- H2: The Effect of Patient Satisfaction on Patient Loyalty

The patient's desire to return to the same healthcare provider will increase if the patient feel satisfied (Zhou in Ekananta et al., 2019). Improving patient satisfaction will increase patient loyalty to the hospital (Holiwono & Pattyranie Tan, 2021). The result of the research shows that patient satisfaction has a significant positive effect on patient loyalty.

- H3: The Effect of Service Quality on Patient Trust

Nemati et al. (2020) stated that the higher the quality of services provided by the hospital, the higher the level of patient trust would be. The result of the research shows that service quality has a significant positive effect on patient trust.

## 5. CONCLUSIONS AND RECOMMENDATIONS

### 5.1. CONCLUSIONS

The conclusions in this study include

1. Service quality has a significant positive effect on patient loyalty.
2. Patient satisfaction has a significant positive effect on patient loyalty.
3. Service quality has a significant positive effect on patient trust.
4. Satisfaction has a significant positive effect on patient confidence.
5. Trust has a significant positive effect on patient loyalty.
6. Trust is significant and positively mediates the effect of service quality on patient loyalty.
7. Trust is significant and positively mediates the effect of patient satisfaction on patient loyalty.

### 5.2. RECOMMENDATIONS

1. For further research  
Further researchers can develop this research model by including other variables as mediating variables. In addition, further researchers can increase the quantity of samples and use different methods for data collection, such as direct interviews with respondents
2. For institutions, RIS Hospital  
Paying more attention to various aspects or factors that can influence the improvement of service quality, patient satisfaction, patient trust, and patient loyalty.

## REFERENCES

- Akob, M., Yantahin, M., Ilyas, GB, Hala, Y., & Putra, AHPK (2021). Element of Marketing: SERVQUAL Toward Patient Loyalty in the Private Hospital Sector. *Journal of Asian Finance, Economics, and Business*, 8(1), 419–430. <https://doi.org/10.13106/jafeb.2021.vol8.no1.419>
- Arakelyan, S., Jailobeva, K., Dakessian, A., Diaconu, K., Caperon, L., Strang, S., Bou-Orm, IR, Witter, S., & Ager, A. (2021). The role of trust in health-seeking for non-communicable disease services in fragile contexts: A cross-country comparative study, *Social Science & Medicine*.
- Bustani, B., Khaddafi, M. ., & Nur Ilham, R. (2022). REGIONAL FINANCIAL MANAGEMENT SYSTEM OF REGENCY/CITY REGIONAL ORIGINAL INCOME IN ACEH PROVINCE PERIOD YEAR 2016-2020. *International Journal of Educational Review, Law And Social Sciences (IJERLAS)*, 2(3), 459–468. <https://doi.org/10.54443/ijerlas.v2i3.277>
- Coal, R. (2019). The Effect of Quality of Service on Loyalty Of Patient Road at Pharmaceutical Installation in General Hospital Cut Meutia Aceh Utara. *February*, 2(1), 1–12.
- Chang, CS, Chen, SY, & Lan, YT (2013). Service quality, trust, and patient satisfaction in interpersonal-based medical service encounters. *BMC Health Services Research*, 13(1). <https://doi.org/10.1186/1472-6963-13-22>
- Christina, JR, Fanggidae, AHJ, & Sardjijo. (2022). The Effect of Public Service Quality on Satisfaction in the Context of Increasing Customer Loyalty at the Weekarou Health Center, West Sumba Regency. 7(5).
- Ekananta, RA, sari, NF, Febrina, SS, Riawan, PM, & Muhammad, F. (2019). The Effect of Satisfaction on Loyalty and Desire to Survive Patients at the Martyrs' Haji Hospital in Blitar in the BPJS Era. *Rustida Health Scientific Journal*, 6, 108–114.



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- Elizar, C., Indrawati, R., Yanuar, T., & Syah, R. (2020). Service Quality, Customer Satisfaction, Customer Trust, and Customer Loyalty in Service of Paediatric Polyclinic Over Private H Hospital of East Jakarta, Indonesia. 4(2).
- Falahuddin, F., Fuadi, . F., Munandar, M., Juanda, R. ., & Nur Ilham, R. . (2022). INCREASING BUSINESS SUPPORTING CAPACITY IN MSMES BUSINESS GROUP TEMPE BUNGONG NANGGROE KERUPUK IN SYAMTALIRA ARON DISTRICT, UTARA ACEH REGENCY. *IRPITAGE JOURNAL*, 2(2), 65–68. <https://doi.org/10.54443/irpitage.v2i2.313>
- Fulgara, N., Wijayanto, G., & Jahrizal. (2020). The Influence of Service Quality and Trust on Patient Satisfaction of BPJS Health Participants in Teluk Kuantan, Kuantan Singingi Regency. *Tepak Journal of Business Management*, XII.
- Fushen. (2021). Development of a Conceptual Model for Task Shifting Management of Human Resources as Health Cadres to Ensure Continuity of Health Services in Indonesia: A Case Study of Floating Hospitals in Remote Areas, Borders, and Islands.
- Geovani, I. ., Nurkhotijah, S. ., Kurniawan, H. ., Milanie, F., & Nur Ilham, R. . (2021). JURIDICAL ANALYSIS OF VICTIMS OF THE ECONOMIC EXPLOITATION OF CHILDREN UNDER THE AGE TO REALIZE LEGAL PROTECTION FROM HUMAN RIGHTS ASPECTS: RESEARCH STUDY AT THE OFFICE OF SOCIAL AND COMMUNITY EMPOWERMENT IN BATAM CITY. *International Journal of Educational Review, Law And Social Sciences (IJERLAS)*, 1(1), 45–52. <https://doi.org/10.54443/ijerlas.v1i1.10>
- Ghozali, I. (2018). *Multivariate Analysis Applications with IBM SPSS 25 Program* (9th ed.).
- Ghozali, I. (2020). *25 Grand Theory Major Theory of Management, Accounting, and Business* (For Theoretical Basis of Thesis, Thesis, and Dissertation).
- Hair, JF, Hult, GTM, Ringle, CM, & Sarstedt, M. (2017). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. (2nd ed.). Sage Publications Inc.
- Holiwono, LS, & Pattyranie Tan, PH (2021). Effect of Perceived Healthcare Service Quality on Patient Loyalty Mediated by Patient Satisfaction at XY Hospital (Servqual Dimensional Approach). *Budapest International Research and Critics Institute-Journal*, 4, 9220–9233. <https://doi.org/10.33258/birci.v4i4.2932>
- Ilham, Rico Nur. *et all* (2019). Investigation of the Bitcoin Effects on the Country Revenues via Virtual Tax Transactions for Purchasing Management. *International Journal of Suplly Management*. Volume 8 No.6 December 2019.
- Ilham, Rico Nur. *et all* (2019).. Comparative of the Supply Chain and Block Chains to Increase the Country Revenues via Virtual Tax Transactions and Replacing Future of Money. *International Journal of Suplly Management*. Volume 8 No.5 August 2019.
- Kartika, A., Uncle, U., & Islam Riau, U. (2021). The effect of service quality and member satisfaction on member loyalty at the Indragiri Baitul Maal Wat Tamwil (BMT) Financial Institution in Indragiri Hulu Regency. *Journal of Business and Management*, 1(1). <http://synergy.pelantarpress.co.id/21>
- Kartikasari, D., & Dewanto, A. (2014). The Effect of Service Quality on Satisfaction and Trust at Bunda Kandangan Hospital, Surabaya. In *NUMBER* (Vol. 12).
- Lasta Irawan, A. ., Briggs, D. ., Muhammad Azami, T. ., & Nurfaliza, N. (2021). THE EFFECT OF POSITION PROMOTION ON EMPLOYEE SATISFACTION WITH COMPENSATION AS INTERVENING VARIABLES: (Case Study on Harvesting Employees of PT. Karya Hevea Indonesia). *International Journal of Social Science, Educational, Economics, Agriculture Research, and Technology (IJSET)*, 1(1), 11–20. <https://doi.org/10.54443/ijset.v1i1.2>
- likdanawati, likdanawati, Yanita, Y., Hamdiah, H., Nur Ilham, R., & Sinta, I. (2022). EFFECT OF ORGANIZATIONAL COMMITMENT, WORK MOTIVATION AND LEADERSHIP STYLE ON EMPLOYEE PERFORMANCE OF PT. ACEH DISTRIBUS INDO RAYA.

- International Journal of Social Science, Educational, Economics, Agriculture Research, and Technology (IJSET), 1(8), 377–382. <https://doi.org/10.54443/ijset.v1i8.41>
- Majied Sumatrani Saragih, M. ., Hikmah Saragih, U. ., & Nur Ilham, R. . (2021). RELATIONSHIP BETWEEN MOTIVATION AND EXTRINSIC MOTIVATION TO INCREASING ENTREPRENEURSHIP IMPLEMENTATION FROM SPP AL-FALAH GROUP AT BLOK 10 VILLAGE DOLOK MASIHUL. *MORFAI JOURNAL*, 1(1), 1–12. <https://doi.org/10.54443/morfai.v1i1.11>
- Meesala, A., & Paul, J. (2018). Service quality, consumer satisfaction and loyalty in hospitals: Thinking for the future. *Journal of Retailing and Consumer Services*, 40, 261–269. <https://doi.org/10.1016/j.jretconser.2016.10.011>
- Nemati, R., Bahreini, M., Pouladi, S., Mirzaei, K., & Mehboodi, F. (2020). Hospital service quality based on the HEALTHQUAL model and trusting nurses at Iranian university and non-university hospitals: a comparative study. *BMC Nursing*, 19(1). <https://doi.org/10.1186/s12912-020-00513-y>
- Nur Ilham, R. ., Arliansyah, A., Juanda, R., Multazam, M. ., & Saifanur, A. . (2021). RELATIONSHIP BETWEEN MONEY VELOCITY AND INFLATION TO INCREASING STOCK INVESTMENT RETURN: EFFECTIVE STRATEGIC BY JAKARTA AUTOMATED TRADING SYSTEM NEXT GENERATION (JATS-NG) PLATFORM. *International Journal of Economic, Business, Accounting, Agriculture Management and Sharia Administration (IJEBAS)*, 1(1), 87–92. <https://doi.org/10.54443/ijebas.v1i1.27>
- Nur Ilham, R., Heikal, M. ., Khaddafi, M. ., F, F., Ichsan, I., F, F., Abbas, D. ., Fauzul Hakim Hasibuan, A. ., Munandar, M., & Chalirafi, C. (2021). Survey of Leading Commodities Of Aceh Province As Academic Effort To Join And Build The Country. *IRPITAGE JOURNAL*, 1(1), 13–18. <https://doi.org/10.54443/irpitage.v1i1.19>
- Nur ilham, R., Likdanawati, L., Hamdiah, H., Adnan, A., & Sinta, I. . (2022). COMMUNITY SERVICE ACTIVITIES “SOCIALIZATION AVOID STUDY INVESTMENT” TO THE STUDENT BOND OF SERDANG BEDAGAI. *IRPITAGE JOURNAL*, 2(2), 61–64. <https://doi.org/10.54443/irpitage.v2i2.312>
- Nur Ilham, R., Arliansyah, A., Juanda, R. ., Sinta, I. ., Multazam, M. ., & Syahputri, L. . (2022). APPLICATION OF GOOD CORPORATE GOVERNANCE PRINCIPLES IN IMPROVING BENEFITS OF STATE-OWNED ENTERPRISES (An Emperical Evidence from Indonesian Stock Exchange at Moment of Covid-19). *International Journal of Economic, Business, Accounting, Agriculture Management and Sharia Administration (IJEBAS)*, 2(5), 761–772. <https://doi.org/10.54443/ijebas.v2i5.410>
- Nur ilham, R., Likdanawati, L., Hamdiah, H., Adnan, A., & Sinta, I. . (2022). COMMUNITY SERVICE ACTIVITIES “SOCIALIZATION AVOID STUDY INVESTMENT” TO THE STUDENT BOND OF SERDANG BEDAGAI. *IRPITAGE JOURNAL*, 2(2), 61–64. <https://doi.org/10.54443/irpitage.v2i2.312>
- Ozawa, S., & Sripad, P. (2013). How do you measure trust in the health system? A systematic review of the literature. *Social Science and Medicine*, 91, 10–14.
- Park, B. -S., & Choi, H. -K. (2020). The influences of Medical Service Quality on Customer Trust, Customer Value, and Customer Loyalty in Specialized Hospitals. *The Korean Journal of Health Service Management*, 14(1), 31–42. <https://doi.org/10.12811/kshsm.2020.14.1.031>
- Pratiwi, KW, & Suparna, G. (2018). The Role of Trust Mediates Service Quality With Customer Satisfaction at Camely Salon in Denpasar City. *Unud Management E-Journal*, 7, 4947–4970.
- Priiliagita, E., Romadhan, MI, Made, N., & Pratiwi, I. (2021). Growing Patient Loyalty in Surabaya Orthopedic and Traumatology Hospital Through Public Relations Management Process. Relation. In *RELASI: Journal of Communication Research* (Vol. 01).

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- Primandaru, T. (2019). Analysis of Perceptions of Service Quality and Outpatient Customer Loyalty at ABC Hospital. *Journal of Business and Technology*, 11.
- Rahayu, S., & Syafe'i, D. (2022). The Effect of Service Quality, Price and Promotion on Customer Loyalty Through Customer Satisfaction. *Jesya*, 5(2), 2192–2107. <https://doi.org/10.36778/jesya.v5i2.808>
- Rahmawati, C., Fitriani, D., Haira, F., & Panorama, M. (2022). The Effect of Service Quality and Employee Performance on Customer Satisfaction, Trust and Loyalty. (Case Study of Bank Muamalat Palembang Branch Office). *SIBATIK JOURNAL: Scientific Journal of Social, Economic, Culture, Technology, and Education*, 1(7), 1073–1088. <https://doi.org/10.54443/sibatik.v1i7.123>
- Rahmaniar, R., Subhan, S., Saharuddin, S., Nur Ilham, R. ., & Anwar, K. . (2022). THE INFLUENCE OF ENTREPRENEURSHIP ASPECTS ON THE SUCCESS OF THE CHIPS INDUSTRY IN MATANG GLUMPANG DUA AND PANTON PUMP. *International Journal of Social Science, Educational, Economics, Agriculture Research, and Technology (IJSET)*, 1(7), 337–348. <https://doi.org/10.54443/ijset.v1i7.36>
- Rasheed, FA, & Abadi, MF (2014). Impact of Service Quality, Trust and Perceived Value on Customer Loyalty in Malaysia Services Industries. *Procedia - Social and Behavioral Sciences*, 164, 298–304. <https://doi.org/10.1016/j.sbspro.2014.11.080>
- Ricca, R., & Antonio, F. (2021). The Effect of Quality Care on Patient Loyalty is Mediated by Patient Satisfaction and Moderated by Age and Gender (Study in Outpatients at a Private Hospital). *International Journal of Applied Business and International Management*, 6(2), 96–112. <https://doi.org/10.32535/ijabim.v6i2.1026>
- Rico Nur Ilham, Irada Sinta, & Mangasi Sinurat. (2022). THE EFFECT OF TECHNICAL ANALYSIS ON CRYPTOCURRENCY INVESTMENT RETURNS WITH THE 5 (FIVE) HIGHEST MARKET CAPITALIZATIONS IN INDONESIA. *Jurnal Ekonomi*, 11(02), 1022–1035. Retrieved from <http://ejournal.seaninstitute.or.id/index.php/Ekonomi/article/view/481>
- Rusmini, Samsualam, & Ahri, RA (2020). The Influence of Service Quality on Consumer Satisfaction and Confidence at UPT Blood Transfusion Health Office of South Sulawesi Province. *Journal of Muslim Community Health*, 1(3).
- Sandi, H. ., Afni Yunita, N. ., Heikal, M. ., Nur Ilham, R. ., & Sinta, I. . (2021). RELATIONSHIP BETWEEN BUDGET PARTICIPATION, JOB CHARACTERISTICS, EMOTIONAL INTELLIGENCE AND WORK MOTIVATION AS MEDIATOR VARIABLES TO STRENGTHENING USER POWER PERFORMANCE: AN EMPERICAL EVIDENCE FROM INDONESIA GOVERNMENT. *MORFAI JOURNAL*, 1(1), 36–48. <https://doi.org/10.54443/morfai.v1i1.14>
- Sharifi, T., Hosseini, SE, Mohammadpour, S., Javan-Noughabi, J., Ebrahimipour, H., & Hooshmand, E. (2021). Quality assessment of services provided by health centers in Mashhad, Iran: SERVQUAL versus HEALTHQUAL scales. *BMC Health Services Research*, 21(1). <https://doi.org/10.1186/s12913-021-06405-4>
- Sinta, I. ., Nur Ilham, R., Kumala Sari, D. ., M, M., Khaidir, K., & Ekamaida, E. (2021). Training The Processing Of Tomato Sauce For A Home-Based Business The Scale Of SMES. *IRPITAGE JOURNAL*, 1(1), 26–28. <https://doi.org/10.54443/irpitage.v1i1.24>
- Sinurat, M. ., Heikal, M. ., Simanjuntak, A. ., Siahaan, R. ., & Nur Ilham, R. . (2021). PRODUCT QUALITY ON CONSUMER PURCHASE INTEREST WITH CUSTOMER SATISFACTION AS A VARIABLE INTERVENING IN BLACK ONLINE STORE HIGH CLICK MARKET: Case Study on Customers of the Tebing Tinggi Black Market Online Store. *MORFAI JOURNAL*, 1(1), 13–21. <https://doi.org/10.54443/morfai.v1i1.12>
- Siregar, S. (2017). *Parametric Statistics For Quantitative Research*. PT Bumi Aksara.

- Subhan, & Iswati, H. (2022). The Influence of Service Quality, Price, Word of Mouth on Patient Loyalty and Satisfaction as Intervening at Medika Plaza Clinic. *Indonesian Scientific Journal*, 73.
- Sudarmini, NLP, Gorda, AANOS, & Subanda, IN (2022). Antecedents of Patient Trust Mediating Patient Satisfaction: Reflections on Good Governance. *Journal of Health*, 5(1).
- Sugiyono. (2017). *Quantitative Research Methods, Qualitative and R&D*. CV Alfabeta.
- Suratri, MAL, Suryati, T., & Edwin, VA (2018). Outpatient Perceptions of Hospital Service Quality. *Health Research Bulletin*, 46(4). <https://doi.org/10.22435/bpk.v46i4.33>
- Susilawati, I., & Adi, PH (2022). Trust Moderates Islamic Service Quality Against Customer Loyalty at Herbal Medicine Clinics in Ponorogo. *Scientific Journal of Islamic Economics*, 8(1), 1063–1071.
- Ulusoy, V., & Akyürek, S. (2022). The Effect of Perceived Service Quality and Satisfaction on Customer Loyalty in Hotel Services: A Field Research in The District Of Şile-Palarch's. *Journal of Archeology of Egypt/Egyptology*, 19(1), 326.
- Verriana, RI, & Anshori, MY (2017). The Influence of Service Quality on Loyalty Through Satisfaction of NU University Surabaya Students. *Accounting and Management Journal*, 1. [www.infosby.asia.com](http://www.infosby.asia.com)
- Wididana, KBS (2017). Analysis of the Influence of Service Quality on Patient Satisfaction and Confidence in General Hospital Shanti Graha Buleleng. *Jagaditha: Journal of Economics & Business*, 1, 78–93.
- Winata, H., Wahyoedi, S., & Gunardi, WD (2022). The Effect of Service Quality on Patient Loyalty Mediated by Hospital Image and Patient Satisfaction (Study on Inpatients at Ukrida Hospital, Jakarta). *Indonesian Journal of Hospital Management and Administration (MARS)*, 6, 120–127. <http://ejournal.urindo.ac.id/index.php/MARS>
- Yildiz, E. (2017). Effects of Service Quality on Customer satisfaction, Trust, Customer Loyalty and Word of Mouth: An Application on Cargo Companies in Gumushane. *Global Journal of Economics and Business Studies*, 6, 81–88.
- Yusuf Iis, E., Wahyuddin, W., Thoyib, A., Nur Ilham, R., & Sinta, I. (2022). THE EFFECT OF CAREER DEVELOPMENT AND WORK ENVIRONMENT ON EMPLOYEE PERFORMANCE WITH WORK MOTIVATION AS INTERVENING VARIABLE AT THE OFFICE OF AGRICULTURE AND LIVESTOCK IN ACEH. *International Journal of Economic, Business, Accounting, Agriculture Management and Sharia Administration (IJEBA)*, 2(2), 227–236. <https://doi.org/10.54443/ijevas.v2i2.191>