

The Effect of Service Quality and Patient Satisfaction on Patient Loyalty (Study at EWA Pangalila Marine Hospital, Surabaya)

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Abstract

The purpose of this research is to investigate and analyze the impact of service quality and patient satisfaction on patient loyalty at the EWA Pangalila Marine Hospital in Surabaya. With a sample size of 100 respondents, quantitative research methods were used. Multiple linear regression analysis was performed using the IBM Statistical Package for Social Sciences SPSS version 22 program. The study's findings show that there is a positive and significant influence on the service quality variable (X1), on the patient loyalty variable (Y), as indicated by the t-count (6.052) > t-table (1.69) with a significance value of 0.000 < 0.05, and that service quality has a partial positive and significant effect on patient loyalty. This means that the better the EWA Pangalila Marine Hospital Surabaya's service quality, the more loyal the patients will be. It was discovered that there was a positive and significant influence on the patient satisfaction variable (X2), on the patient loyalty variable (Y), as indicated by the t-count (6.177) > t-table (1.69) with a significance value of 0.000 < 0.05, implying that there is a positive and significant influence of patient satisfaction on patient loyalty. The Test Statistics output describes the analyzed N, which is 100 respondents, with an R Square value of 0.768 calculated from the Summary Model. The correlation coefficient is 0.768, indicating a strong positive correlation between service quality and patient satisfaction and patient loyalty. That is, the higher the patient's satisfaction with the health services provided and the higher the patient's loyalty, the higher the patient's loyalty, and vice versa. The ANOVA output count was 160,861 with a df or degree of freedom (df) of 2. If the value in the column sig ≤ α (0.1) is 0.000, then H₀ is rejected and H₁ is accepted. That is, at the EWA Pangalila Marine Hospital Surabaya, there is a significant relationship between service quality and patient satisfaction and patient loyalty.

Keywords: Service Quality, Patient Satisfaction, Patient Loyalty

INTRODUCTION

The EWA Pangalila Marine Hospital is one of the health service units that provide inpatient and outpatient treatment, examination, and care. The EWA Pangalila Marine Hospital's vision is to become the primary hospital for Indonesian Navy personnel, particularly Marines and their families, as well as the general public, with the vision and mission of providing optimal health care support for Navy personnel, particularly Marines and their families, as well as the general public. Quality health services are perceived by patients and the community as health services that can meet their needs and are provided in a polite and courteous manner, on time, and responsive to patient problems. This patient or community viewpoint is critical because satisfied patients will comply with treatment and are willing to return for treatment. Patients frequently perceive that the dimensions of effectiveness, access, human relations, continuity, and convenience are critical dimensions of health-care quality.

In order to improve the quality of services that can satisfy the public, EWA Pangalila Marine Hospital, as a health service institution, should apply the service standards issued by the Indonesian Ministry of Health and be able to meet patient expectations, in accordance with the vision, mission, and motto of the EWA Pangalila Marine Hospital patient. In the course of providing services thus far, it has been discovered that the EWA Pangalila Marine Hospital continues to receive complaints from patients, both those submitted directly to officers and through questionnaires filled out by patients, particularly inpatients, creating a negative impression of the Marine Hospital's image. The public's perception of EWA Pangalila. Commitment and social organization: A study of commitment mechanisms in utopian communities, Kanter (1968). According to American sociology, service quality is the compatibility of a patient's (society's) expectation of service users with the patient's perception (society). Continuous service, integrated service,

and controlled service all contribute to service quality. In their study, Almomani et al. (2020) concluded that service quality and patient satisfaction have a positive effect on consumer loyalty. Pertiwi et al., (2019) discovered the effect of service quality on loyalty using a cross-sectional approach, demonstrating that service quality has an effect on loyalty with patient satisfaction as a mediating variable. The positive impact of service quality on loyalty has also been demonstrated in studies conducted by Gunawan (2015) and Kian and Heng (2015). According to Schnarrs (1991), satisfaction theory is a comparison of what is received or perceived (perceived performance) versus what is expected. In their research, Fakhrudin (2020) and Almomani et al., (2020) discovered that satisfaction has a significant influence on loyalty. Previous research by Nostib (2013) and Juhana et al., (2015) concluded that satisfaction has a positive effect on loyalty, even though it is still influenced by the environment. Suciati (2006) investigated satisfaction in terms of professionalism and skills, reputation and credibility, attitudes and behavior, accessibility and flexibility, and so on. According to the findings of his study, the satisfaction variable has no effect on loyalty. The researchers are interested in conducting research on the influence of service quality on patient satisfaction and loyalty at the EWA Pangalila Marine Hospital Surabaya, which is the subject of the study, based on theoretical studies and previous research.

LITERATURE REVIEW

Service Quality Influencing Factors

Mowday et al. (1979); Robert (1991) propose four major factors that influence service quality in organizations. The following are four factors that influence the quality of nursing services in the organization: 1). Personality traits, The quality of people's services improves as they get older and more experienced at their jobs. 2) Characteristics of the role and job. The scope of work is related to service quality, possibly because a broad scope of work is more difficult than a narrow one. 3). These structural characteristics are linked to formalization, social dependence, and decentralization, which are all linked to service quality. 4). Work experience associated with service quality includes social involvement, organizational dependence, personal interest in the organization, fair pay, and group norms regarding hard work.

Physical Aspects of Hospital Health Services

Services are more intangible than goods, and goods are more tangible than services. Consumers frequently rely on physical evidence to evaluate services before purchasing them because they are essentially intangible. The physical aspect of a service can also influence consumer satisfaction both during and after consumption. A hospital's physical aspect includes everything related to the hospital environment, including other forms of physical communication. Exterior (signs, parking lots, friends, buildings) or interior (attributes) physical aspects (space design, layout, equipment, decorations, uniforms). In general, hospitals rely heavily on physical evidence. Buildings, parking lots, information boards, waiting rooms, admission offices, treatment rooms, medical equipment, recovery rooms, employee uniforms, and billing statements are examples of physical evidence of a hospital. Because the physical environment of a hospital becomes a place for interaction between consumers and health service providers, the physical environment must be designed to support the needs and preferences of both consumers and service providers at the same time.

Patient Satisfaction

Satisfaction is defined as a comparison of what is received or felt (perceived performance) to what is expected. Loyalty occurs when a customer is extremely satisfied (elated) or when what is received exceeds expectations (Supriyanto, 2002). According to Kotler (2002), satisfaction is a person's feeling of pleasure or disappointment that arises after comparing his perceptions or impressions of a product's performance (or results) to his expectations. According to Oliver (1980) and Richard MA (2000), satisfaction is a psychological emotional state of a person who shows a disconfirmation or confirmation of the service he received in relation to his expectations and makes the experience after consuming it. As a result, satisfaction can be defined as a function of perception or impression of performance and expectations. Customer satisfaction is determined by the quality of service desired by the customer, so quality assurance is a top priority for every hospital, and it is now used as a benchmark for hospital competitive advantage. Customer expectations, as defined by Oliver and Doner and cited by Kotler et al. (2003), are pre-trial beliefs about a product that are then used as a standard for evaluating the performance of a product or experience.

RESEARCH METHOD**Analyzing Data Techniques**

There are several analyses in this study, including:

The impact of service quality (X1) on patient loyalty (Y) at Marine Hospital EWA Pangalila Surabaya. The impact of patient satisfaction (X2) on patient loyalty (Y) at Marine Hospital EWA Pangalila Surabaya. Knowing which variables are between service quality and patient satisfaction with patient satisfaction (Y), the Pearson product moment correlation formula is used as follows:

$$r_{xy} = \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{(N \sum X^2 - (\sum X)^2)(N \sum Y^2 - (\sum Y)^2)}}$$

Ferguson and Takane (1989, p. 125)

Using the following formula, compute the correlation between the independent variables and the dependent variable:

$$R_{y(1,2,3)} = \frac{a_1 \sum x_1 y + a_2 \sum x_2 y + a_3 \sum x_3 y}{\sqrt{\sum Y^2}}$$

Sutrisno (1990)

Using the formula, determine whether the price of the multiple correlation coefficient is significant or not :

$$F = \frac{R^2 / k}{(1 - R^2) / (n - k - 1)}$$

(Ferguson & Takane, 1989), that :

k = the number of predictors, n = the number of cases

R = the correlation coefficient between the independent and dependent variables. To test the significance of the Freg price, it was compared to the F-table price at a significant level of 0.05. If the calculated Freg is equal to or greater than the Frasio, the multiple correlation is said to be significant.

Using the SPSS program, search for multiple regression line equations.

$Y = a_0 + a_1x_1 + a_2x_2 + a_3x_3$ (Sujana, 1983)

Check the equation's significance to see if the regression line equation obtained can be used to draw conclusions about the relationship between the independent variable and the dependent variable.

$$F = \frac{JK(reg) / k}{JK(S) / (n - k - 1)}$$

Explanation :

$JK(reg) = a_1 \sum x_1 y + a_2 \sum x_2 y + a_3 \sum x_3 y$

$JK(S) = \sum y^2 - JK(reg)$ (Sujana, 1983 : 64)

The following formulas are used to determine whether the partial correlation coefficient is significant or not :

$$t = \frac{ry_1 - r_{23}}{\sqrt{(1 - r_{23}^2)}}$$

(Ferguson & Takane, 1989)

If the t-count is greater than the t-ratio at a significant level of 0.05 percent, the correlation coefficient is significant.

RESULTS AND DISCUSSION

Variables of Service Quality Description

The variable of service quality is measured using three indicators, each with three statement items. The following is an explanation of how respondents rated the service quality variable at the EWA Pangalila Marine Hospital Surabaya:

Table 4.1
Service Quality Variables Description

Indicator	Items	Answer Score					Items Mean	Indicator Mean	
		STB	TB	CB	B	SB			
X _{1.1}	Consistent Service Quality	1	0	4	22	50	24	3,94	3,96
		2	0	1	22	52	16	3,91	
		3	0	3	14	59	24	4,04	
X _{1.2}	Quality of Integrated Services	4	0	0	21	39	40	4,09	4.16
		5	0	1	19	48	32	4,11	
		6	0	0	14	43	43	4,29	
X _{1.3}	Service Quality Control	7	0	0	13	53	34	4,21	4,05
		8	0	0	36	61	3	3,67	
		9	0	0	12	48	40	4,27	
Variable Mean								4.06	

Source : Appendix 3

(STB: very bad, TB: not good, CB: quite good, B: good, SB: very good)

Variables Affecting Patient Satisfaction

The patient satisfaction variable was assessed with four indicators, each with three statement items. The following is a description of the respondents' assessment of the employee patient satisfaction variable at the EWA Pangalila Marine Hospital Surabaya:

Table 4.2
Variables Affecting Patient Satisfaction

Indicator	Items	Answer Score					Items Mean	Indicator Mean	
		STB	TB	CB	B	SB			
X _{2.1}	Prior Expectations	1	0	2	12	39	47	4.31	4.09
		2	0	3	25	52	20	3.89	
		3	0	0	24	45	31	4.07	
X _{2.2}	Product Performance	4	0	1	20	48	31	4.09	4.18
		5	0	0	15	40	45	4.30	
		6	0	0	17	50	33	4.16	
X _{2.3}	Confirmation/ Disconfirmation	7	0	1	38	60	1	3.61	3.99
		8	0	0	11	47	42	4.31	
		9	0	0	18	58	24	4.06	
X _{2.4}	Satisfaction/Dissatisfaction	10	0	0	39	60	1	3.62	4.01
		11	0	0	11	47	42	4.31	
		12	0	0	16	59	25	4.09	
Variable Mean								4.07	

Source : Appendix 4

(STB: very bad, TB: not good, CB: quite good, B: good, SB: very good)

Variables Affecting Patient Loyalty

Patient loyalty is a patient's attitude that describes his loyalty to services in meeting the needs of medical services on a regular basis. The patient loyalty variable was assessed using five indicators, each with three statement items. The following table provides a description of respondents' assessments of the patient loyalty variable at the EWA Pangalila Marine Hospital Surabaya:

Table 4.3
Patient Loyalty Variables Description

Indicator	Items	Answer Score					Items Mean	Indicator Mean	
		STB	TB	CB	B	SB			
Y ₁	Positive Reactions to the Hospital	1	0	5	26	52	17	3,81	3,91
		2	0	4	19	52	25	3,98	
		3	0	1	19	62	17	3,94	
Y ₂	Recommending Organizations to Others Who Have Requested Suggestions	4	0	3	13	57	27	4,08	4,10
		5	0	1	20	47	32	4,10	
		6	0	2	18	47	33	4,11	
Y ₃	Encourage colleagues and family members to do business with the company.	7	0	1	12	42	45	4,31	4,06
		8	0	1	13	51	35	4,20	
		9	0	1	33	63	3	3,68	
Y ₄	When Purchasing Services, Consider Organizations First	10	0	0	10	46	44	4,34	4,04
		11	0	0	15	59	26	4,11	
		12	0	1	34	63	2	3,66	
Y ₅	In the coming years, we expect to do more business with internal organizations.	13	0	0	10	46	44	4,34	4,01
		14	0	0	14	59	27	4,13	
		15	0	0	22	59	19	3,97	
Variable Mean								4.05	

Source : Appendix 5

(STB: very bad, TB: not good, CB: quite good, B: good, SB: very good)

Table 4.4 shows the results of the validity test using the product moment person correlation coefficient for each statement item on the service quality variable.

Table 4.4
Test the Validity of Statement Items on Service Quality Variables

Indicator	Items	Pearson Correlation	Sig.	Description	
X _{1.1}	Consistent service quality	1	0,613	0,000	Valid
		2	0,596	0,000	Valid
		3	0,649	0,000	Valid
X _{1.2}	Service quality that is integrated	4	0,738	0,000	Valid
		5	0,666	0,000	Valid
		6	0,736	0,000	Valid
X _{1.3}	Service quality control	7	0,706	0,000	Valid
		8	0,657	0,000	Valid
		9	0,672	0,000	Valid

Source : Appendix 6

Table 4.5 shows the results of the validity test using the Product Moment Person correlation coefficient for each statement item on the patient satisfaction variable.

Table 4.5
Validation of Statement Items on Patient Satisfaction Variables

Indicator		Items	<i>Pearson Correlation</i>	Sig.	Description
X _{2.1}	Prior Expectations	1	0,698	0,000	Valid
		2	0,506	0,000	Valid
		3	0,795	0,000	Valid
X _{2.2}	Product Performance	4	0,753	0,000	Valid
		5	0,561	0,000	Valid
		6	0,545	0,000	Valid
X _{2.3}	Confirmation/ Disconfirmation	7	0,693	0,000	Valid
		8	0,791	0,000	Valid
		9	0,799	0,000	Valid
X _{2.4}	Satisfaction/Dissatisfaction	10	0,675	0,000	Valid
		11	0,791	0,000	Valid
		12	0,744	0,000	Valid

Source : Appendix 7

Table 4.6 shows the results of the validity test using the Product Moment Person correlation coefficient for each statement item on the patient loyalty variable.

Table 4.6
Test the Validity of Statement Items on Patient Loyalty Variables

Indicator		Items	<i>Pearson Correlation</i>	Sig.	Description
Y ₁	Positive Reactions to the Hospital	1	0,529	0,000	Valid
		2	0,602	0,000	Valid
		3	0,570	0,000	Valid
Y ₂	Recommending Organizations to Others Who Have Requested Suggestions	4	0,651	0,000	Valid
		5	0,767	0,000	Valid
		6	0,756	0,000	Valid
Y ₃	Encourage colleagues and family members to do business with the company.	7	0,733	0,000	Valid
		8	0,782	0,000	Valid
		9	0,726	0,000	Valid
Y ₄	When Purchasing Services, Consider Organizations First	10	0,733	0,000	Valid
		11	0,776	0,000	Valid
		12	0,752	0,000	Valid
Y ₅	In the coming years, we expect to do more business with internal organizations	13	0,733	0,000	Valid
		14	0,745	0,000	Valid
		15	0,528	0,000	Valid

Source : Appendix 8

Reliability Test Results

Reliability test is used to determine the reliability (consistency) of the instrument (measuring instrument) in the form of a questionnaire. This reliability test is carried out using the *cronbach's alpha* technique, in which the questionnaire is declared reliable if it has a *cronbach's alpha* value ≥ 0.70 (Ghozali, 2016).

Table 4.7
Research Variable Reliability Test

Variable	Count of Statement Items	<i>Cronbach's Alpha</i>	Coefficient Interval	Description
Service quality	9	0,844	0,80-1,00	Highest
Patient satisfaction	12	0,916	0,80-1,00	Highest
Patient loyalty	15	0,919	0,80-1,00	Highest

Source : Appendix 9

Results of Multiple Linear Regression

After performing the classical assumption test and determining that the data used passed the test, regression analysis and hypothesis testing will be performed. There are two independent variables used in this study: service quality and patient loyalty. The results of multiple linear analysis are as follows:

Table 4.8
Results of Multiple Linear Regression

Models		Coefficients ^a			t	Sig.
		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta		
1	(Constant)	.295	.211		1.395	.166
	Service quality	.471	.078	.461	6.052	.000
	Patient satisfaction	.453	.073	.471	6.177	.000

a. Dependent Variable: Loyalitas Pasien

Source: processed data, Appendix 12

Results of Hypothesis Testing

Partially Tested (t-Test)

The purpose of a partial test is to determine how much influence each independent variable has on the dependent variable (separately). If the results of the analysis show a significance value greater than > 0.05 or $t > \alpha$ test greater than, H_0 is accepted, indicating that the independent variable has no partial effect on the dependent variable and vice versa.

Table 4.9
t-Test Results

Hypothesis	Description	B	Sig	Descript.
Service quality	It is suspected that the EWA Pangalila Marine Hospital Surabaya's service quality has a significant impact on patient loyalty.	0,471	0,000 > 0,05	Supported
Patient satisfaction	At the EWA Pangalila Marine Hospital Surabaya, it is suspected that partial patient satisfaction has a significant impact on patient loyalty.	0,453	0,000 > 0,05	Supported

Source: processed data, Appendix 12

Simultaneous Evaluation (F Test)

The F test determines whether all of the model's independent variables have a simultaneous effect on the dependent variable (Ghozali, 2016). In this study, the F value is tested with a significance level of 5%, or 0.05. If the significance value is < 0.05 or $F < \alpha$, then H_1 is accepted, indicating that the independent variable has a simultaneous (simultaneous) effect on the dependent variable.

Table 4.10
Simultaneous Test (F Value Test)

		ANOVA ^a				
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	16.619	2	8.309	160.861	.000 ^b
	Residual	5.011	97	.052		
	Total	21.629	99			

Source: processed data, Appendix 12

Discussion of Research Findings

According to the findings of a survey of 100 respondents, there were 49 respondents who could be considered loyal, where the patient visited the EWA Pangalila Marine Hospital more than three times and

three times the patient visited the EWA Pangalila Marine Hospital on the grounds that the patient chose the Hospital EWA Pangalila Marines because of the quality of service that is considered.

The Impact of Service Quality on Patient Loyalty

The EWA Pangalila Marine Hospital Surabaya has a positive influence on the service quality variable (X_1) and the patient loyalty variable (Y), as indicated by t-count (6,052) > t-table (1.69) with a significance value of $0.000 < 0.05$. As a result, the first hypothesis in the study is supported: service quality has a positive and significant effect on patient loyalty. As a result of these significant and positive findings, it is possible to conclude that the higher the level of service quality, the higher the level of patient loyalty. The results of the answers from the description of the frequency of service quality were 4.06 on average (mean) respondents' responses including good or good categories, and on the loyalty variable the respondents' responses averaged (mean) of 4.05 including good or good categories as well. This means that the EWA Pangalila Marine Hospital Surabaya's service quality can inspire patient loyalty. Patient loyalty has been fostered by the EWA Marine Hospital Surabaya's success in providing health services that are in accordance with health service standards to its patients. By focusing on service quality, hospitals will be able to reap long-term profits from patient satisfaction. Such circumstances necessitate that hospitals begin to shift their mindset toward thinking that focuses on patient-oriented as a goal of patient satisfaction programs, and that they have a better understanding of the importance of patient satisfaction and loyalty. Patient loyalty will develop on its own if the hospital is able to improve the quality of its services. As a result, the patient and the hospital will develop a long-term relationship. The empirical findings of this study back up previous research by Hasanah (2020), which found that service quality (X_1) has a positive influence on consumer loyalty (Y) at the Bandar Jaya Lahat Health Center. Pertiwi et al., (2019) conducted a similar study, with the findings that service quality affects loyalty, with patient satisfaction acting as a moderating variable. Similarly to the findings of Gunawan (2013), Almomani et al. (2020) found that service quality has a positive and significant influence on the level of patient loyalty.

Patient Satisfaction and Patient Loyalty

The EWA Pangalila Marine Hospital has a positive influence on the service quality variable (X_2) and the patient loyalty variable (Y), as indicated by t-count (6,177) > t-table (1.69) with a significance value of $0.000 < 0.05$. Thus, patient satisfaction has a positive and significant effect on patient loyalty, indicating that the study's second hypothesis is supported. As a result of these significant and positive findings, it is possible to conclude that the higher the level of patient satisfaction, the higher the level of patient loyalty. The results of the answers from the description of the frequency of patient satisfaction were 4.07 on average (mean) respondents' responses including good or good categories, and 4.05 on average (mean) respondents' responses including good or good categories on the loyalty variable. This means that patient satisfaction at EWA Pangalila Surabaya Marine Hospital can lead to patient loyalty. Patient satisfaction can provide benefits such as a harmonious relationship between the hospital and its patients, an increase in the hospital's reputation, increased employee efficiency and productivity, a foundation for repeat purchases, and the creation of patient loyalty and word-of-mouth recommendations that benefit the hospital. (Tjiptono, 2014). This is consistent with Kotler's (2013) viewpoint, which states that patient satisfaction or dissatisfaction will influence patient behavior. This is consistent with the findings of Hasanah's (2020) study, which found that patient satisfaction (X_2) has a positive impact on consumer loyalty (Y) at the Bandar Jaya Lahat Health Center. Dian Suminar Pertiwi et al. (2019) conducted research that found satisfaction has a positive effect on patient loyalty. Furthermore, Nostib (2013) found that the results of patient satisfaction research based on aspects of comfort, service officers, aspects of service procedures, aspects of service outcomes, and environmental aspects have a significant effect on patient loyalty.

The Influence of Service Quality and Patient Satisfaction on Patient Loyalty

Simultaneous testing reveals that at the EWA Pangalila Marine Hospital, the service quality variable (X_1) and patient satisfaction (X_2) have an effect on patient loyalty (Y). With F-count (160.861) > F-table (3.1) and a significance level of $0.000 < 0.05$. Furthermore, the value of R Square is equal to 0.768 or 76.80%. This means that service quality (X_1) and patient satisfaction (X_2) have an impact on the patient loyalty variable (Y). Other variables not examined in this study, such as promotion, price, brand image, and

others, influence the rest. As a result of the study's third hypothesis, the quality of service and patient satisfaction have a simultaneous and significant effect on patient loyalty. As a result of these significant and positive findings, it is possible to conclude that the higher the level of patient loyalty, the higher the level of service quality and patient satisfaction.

Implications of Research Findings

In general, this study provides strong support for the idea that service quality has a positive impact on patient satisfaction as part of an overall effort to increase patient loyalty. The higher the quality of service provided by EWA Pangalila Marine Hospital Surabaya, the more satisfied patients are and provide positive expectations, impressions, and experiences to the hospital; additionally, the more satisfied patients, the more their loyalty is created through commitment, repeat visits, and treatment loyalty. Patients must be satisfied because if a customer is dissatisfied with the services provided, the patient will seek a more satisfying hospital. However, if the patient's needs are met, the level of loyalty will be high. This can be accomplished by providing high-quality services and meeting the needs of patients. The application that must be considered based on the findings of this study in order to maintain and increase patient satisfaction and loyalty at EWA Pangalila Hospital Surabaya must be supported by strategies to increase patient satisfaction and loyalty by improving the quality of good hospital services and high levels of quality. The improvement in service quality demonstrates patient trust in hospitals and health workers, and it is due to all dimensions of quality as a manifestation of service quality that can be carried out properly.

CONCLUSION

The purpose of this study is to investigate the impact of service quality and patient satisfaction on patient loyalty at the EWA Pangalila Marine Hospital in Surabaya. This study is a survey research conducted at the EWA Pangalila Marine Hospital Surabaya, with up to 100 respondents used as research samples. The IBM Statistical Package for Social Sciences SPSS version 22 program was used to perform the analysis, which included multiple linear regression tests. The following conclusions can be drawn based on the data collected, the results of tests performed using multiple linear regression tests, and the discussion in the previous section. 1) At the EWA Pangalila Marine Hospital Surabaya, there is a positive and significant influence on the service quality variable, on the patient loyalty variable, partially that there is a positive and significant effect on service quality on patient loyalty. 2) At the EWA Pangalila Marine Hospital Surabaya, there is a positive and significant influence on the patient satisfaction and patient loyalty variables. 3). At the EWA Pangalila Marine Hospital Surabaya, there is a significant concurrent effect between service quality and patient satisfaction on patient loyalty. The Test Statistics output describes N, or the number of 100 respondents analyzed, namely 100 respondents, with a R Square value of 0.768 calculated from the Model Summary. The correlation coefficient of 0.768 indicates a strong positive correlation between service quality and patient satisfaction and patient loyalty. That is, the higher the patient's loyalty, the higher the patient's satisfaction with the health services provided by the EWA Pangalila Marine Hospital Surabaya, and vice versa. The ANOVA output H_0 is rejected in the f test, while H_1 is accepted. That is, at the EWA Pangalila Marine Hospital Surabaya, there is a significant relationship between service quality and patient satisfaction and patient loyalty.

REFERENCES

- i Artati, P. Y. (2015). *The effect of patient behavior, service quality and patient satisfaction on patient loyalty*. *Academics*, 13(2), pg. 69–76.
- ii Berry L. L., Parasuraman, A., & Zeithaml, V. A. (1994). *Improving service quality in America : Lessons learned*. *Academy of Management Executive*, 8(2), pg. 32-52.
- iii Fakhruddin, A. (2020). *The effect of satisfaction and trust on Garuda Indonesia passenger loyalty at Adi Soemarmo Airport*. *Maksipreneur Journal: Management, Cooperatives, and Entrepreneurship*, 10(1), pg. 102. <https://doi.org/10.30588/jmp.v10i1.677>
- iv Gunawan, W.H. (2013). *Analysis of the effect of the quality of medical services and administrative services on patient loyalty (study on inpatients at Pertamina Hospital, Cirebon*. <https://core.ac.uk/download/pdf/19514974.pdf>.

- v Hasanah, T. (2020). *The effect of service quality and satisfaction on consumer loyalty at the Bandar Jaya Lahat Public Health Center*. October 1st, 2020, pg. 14.
- vi Heskett, J. L., & Schlesinger, L. A. (1997). *Leading the high-capability organization: Challenges for the twenty-first century*. *Human Resource Management (1986-1998)*, 36(1), pg. 105.
- vii Imbalo, P. (2007). *Quality Assurance of Health Services. Basics of Understanding and Application*. Jakarta: EGC Medical Book Publisher.
- viii Islam Ghazi Almomani¹, Mohd Saifulizwan Saadon², Mohammad Aladwan³, O. J., & Aburumman⁴. (2020). *The mediating role of patient satisfaction between service quality and patient loyalty: Case Study in Zarqa Governmental Hospital Islam Ghazi Almomani 1 , Mohd Saifulizwan Saadon 2 , Mohammad Aladwan 3 , Omar Jaber Aburumman 4*. 22(11), pg. 664–673. [jusst.org/wp-content/uploads/2020/11/ALMOMANI-PAPER-1.pdf](https://www.jusst.org/wp-content/uploads/2020/11/ALMOMANI-PAPER-1.pdf)
- ix Judge, T. A., Locke, E. A., Durham, C. C., & Kluger, A. N. (1998). *Dispositional effects on job and life satisfaction: The role of core evaluations*. *Journal of applied psychology*, 83(1), pg. 17.
- x Juhana, D., Manik, E., Febrinella, C., & Sidharta, I. (2015). *Empirical study on patient satisfaction and patient loyalty on public hospital in Bandung, Indonesia*. *International Journal of Applied Business and Economic Research*, 13(6), pg. 4305–4326.
- xi Kian, T. P., & Heng, T. K. (2015). *An exploratory study on the factors that influence Patient satisfaction and its impact on patient loyalty*. *International Journal of Innovation, Management and Technology*, 6(3), pg. 180–185. <https://doi.org/10.7763/ijimt.2015.v6.598>
- xii Nostib, A. (2013). *The relationship between satisfaction and loyalty of inpatients at the andi sulthan hospital dg. the king of Bulukamba district*. In *Journal of Chemical Information and Modeling (Vol. 53, Issue 9)*. <http://digilib.unhas.ac.id>.
- xiii Ngalim Purwanto. (2006). *Educational Psychology Bandung: PT Teen Rosdakarya*. Frederick Herzberg (Hasibuan, 1990: 177), *Human Resource Management*, Jakarta,. CV. Haji Masagung.
- xiv Oliver, R. L. (1980). *A cognitive model of the antecedents and consequences of satisfaction decisions*. *Journal of marketing research*, 17(4), pg. 460-469.
- xv Pertiwi, D. S., Mujinastiti, P., Ardon, R., & Haryanti, T. (2019). *The effect of service quality on satisfaction and loyalty of outpatients at RSPJ*. *Rustida Scientific Journal of Health*, 06(02), pg. 97–107.
- xvi Saifudin, A. B. (2001). *A practical handbook for maternal and neonatal health services*. Sarwono Parwirohardjo Library Development Foundation, 2002. http://ucs.sulselib.net/index.php?p=show_detail&id=67175
- xvii Suciati, N. (2006). *The effect of patient satisfaction on patient loyalty in the outpatient poly hospital*. Dr. M Soewandhie Surabaya [UNAIR]. lib.unair.ac.id
- xviii Sugiyono, Sugiyono. (2013). *Qualitative research methods and R&D (18th ed.)*. ALPHABET
- xix Sink, H. L., Langley, C. J., & Gibson, B. J. (1996). *Buyer observations of the US third party logistics market*. *International Journal of Physical Distribution & Logistics Management*.
- xx Supriyanto, E., Schultz, I., Ullmann, M., & Goebel, H. (2002, June). *Ferroelectric capacitor compact model including dynamic and temperature behavior*. In *Proceedings of the 13th IEEE International Symposium on Applications of Ferroelectrics, 2002. ISAF 2002*. (pp. 61-64). IEEE.
- xxi Elita, Thalia Gunawan, Permatasari P., Ery Setiawati, Marina, Utari Dyah, (2020). *Relationship Between Hospital Image With Patient Loyalty In Hospitalized Patients*, *Prima Health Journal*, Volume 14 No. 1, February 2020. p-ISSN: 1978-1334 (Print); e-ISSN: 2460-8661 (Online) DOI: 10.32.807/jkp.v14i1.271
- xxii Yousef, D. A. (2000). *Organizational commitment: a mediator of the relationships of leadership behavior with job satisfaction and performance in a non-western country*. *Journal of managerial psychology*.