

## Study On Service Quality On Customer Satisfaction And Loyalty

Siti Fatimah<sup>1\*</sup>, Mukhammad Idrus<sup>2</sup>, Afiah Mukhtar<sup>3</sup>, Karta Negara Salam<sup>4</sup>, and  
Ismawati<sup>5</sup>

<sup>1\*</sup> Universitas Islam Negeri Alauddin Makassar, South Sulawesi, Indonesia

<sup>2</sup> Universitas Negeri Makassar, South Sulawesi, Indonesia

<sup>3</sup> Sekolah Tinggi Ilmu Ekonomi Tri Dharma Nusantara Makassar, South Sulawesi, Indonesia

<sup>4</sup> Institut Bisnis dan Keuangan Nitro, Makassar, South Sulawesi, Indonesia

<sup>5</sup> Universitas Islam Negeri Alauddin Makassar, South Sulawesi, Indonesia

### Email Address:

*siti.fatimah@uin-alauddin.ac.id\**, *mukhammadidrus@gmail.com*, *afiah.muhtar@stie-tdn.ac.id*,  
*karnesproperty@gmail.com*, *ismawatiabbas77@gmail.com*

\*Coessponding Author

**Abstract:** This study investigates the impact of service quality on the satisfaction and loyalty of RSUD Andi Djemma Masamba inpatients. Quantitative causal studies are included in this type of research. The population of this study consisted of 14,501 inpatients at the Andi Djemma Masamba Hospital. However, only 150 samples were used because this quantity met the minimum number of samples required for SEM model testing. Primary data sources were used for this study. The collected data will be subjected to a series of tests, including descriptive analysis, a data quality test consisting of (validity and reliability tests), a classical assumption test consisting of a normality test and an outlier's test, and a SEM analysis conducted with the AMOS program to test the hypothesis. According to the findings of this study, the quality of service has a direct and significant impact on the satisfaction of inpatients at the Andi Djemma Masamba Hospital. At the Andi Djemma Masamba Hospital, service quality has a significant positive direct and indirect effect on the loyalty of inpatients. The commitment of inpatients at the Andi Djemma Masamba Hospital is positively and immediately affected by their level of satisfaction.

**Keywords:** Service Quality; Satisfaction; Loyalty.

**Abstrak:** Penelitian ini mengkaji pengaruh kualitas pelayanan terhadap kepuasan dan loyalitas pasien rawat inap RSUD Andi Djemma Masamba. Studi kausal kuantitatif termasuk dalam jenis penelitian ini. Populasi penelitian ini terdiri dari 14.501 pasien rawat inap di RS Andi Djemma Masamba. Namun, hanya 150 sampel yang digunakan karena jumlah ini memenuhi jumlah sampel minimum yang diperlukan untuk pengujian model SEM. Sumber data primer digunakan untuk penelitian ini. Data yang terkumpul akan dilakukan serangkaian pengujian, antara lain analisis deskriptif, uji kualitas data yang terdiri dari (uji validitas dan reliabilitas), uji asumsi klasik yang terdiri dari uji normalitas dan uji outlier, serta analisis SEM yang dilakukan dengan Program AMOS untuk menguji hipotesis. Berdasarkan temuan penelitian ini, kualitas pelayanan berpengaruh langsung dan signifikan terhadap kepuasan pasien rawat inap di RS Andi Djemma Masamba. Di RS Andi Djemma Masamba kualitas pelayanan berpengaruh positif langsung dan tidak langsung signifikan

terhadap loyalitas pasien rawat inap. Komitmen pasien rawat inap di RS Andi Djemma Masamba secara positif dan langsung dipengaruhi oleh tingkat kepuasannya.

**Kata Kunci:** Kualitas Pelayanan; Kepuasan; Loyalitas.

## INTRODUCTION

Every organization has a long-term objective of growth and survival. In a global era characterized by increasingly intense and complex competition and a high rate of acceleration in customer competition, businesses must be able to make strategic marketing management decisions to adapt to a dynamic environment (Wahyuti and Poniman, 2017). In light of this reality, the company's resources must be managed systematically to generate superior customer value. The quality of products and services is a component of creating exceptional customer value (Puspitasari and Arifianty, 2016).

The hospital is one of the institutions engaged in health services that has changed its development. At the beginning of its development, the hospital was an agency or institution with a social function. However, now with the existence of a private hospital, this will make the current hospital more referring to an industry that is engaged in health services by carrying out management based on management as described above. as well as business entities. Along with the development of the hospital, until now, there has been competition between hospitals, both government-owned and private hospitals, all competing to attract consumers or patients, so that prospective patients use the services provided by the hospital (Sektianingsih et al., 2019). It is seeing the current development of hospitals. The hospital is a business or industry with much energy according to the proportion of expertise and requires significant capital, and does not lag by providing services related to the latest technology. For this reason, human resources are needed that can compete in carrying out their duties in hospitals. According to (Muninjaya, 2011; Dewi, 2017), currently, hospitals must be able to adjust the development of medical technology to support the ease of detecting various possible diseases that exist in patients. It will also make it easier in terms of service. The general product of the hospital industry is health services.

In addition, hospitals must continue to improve their services and are expected to grow, given the extremely high operating costs of hospitals and the rising quality of hospital services at present. Hospitals must increase revenue from health services derived from medical, non-medical, and health-related services. It is because of these medical services. If patients are comfortable and satisfied, this can be used as a direct or indirect alternative source of income (Kosnan, 2020). Therefore, the hospital administration must present and provide quality health services to maintain and increase patient visits.

According to (Muninjaya, 2011; Dewi, 2017), health service providers must offer a comprehensive range of services, including preventive care, health promotion, treatment, and rehabilitation. Strata 1 services provide essential health services, strata 2 services offer limited specialist services, and strata 3 services provide comprehensive specialist services. As a hub for medical care, the hospital is an indispensable institution in our society. When someone is struck by misfortune in the form of illness, the hospital's presence is a demand

for hope. People at the hospital are hopeful that their ailment can be treated. Comparable to the Andi Djemma Masamba Hospital (Palutturi and Ahri, 2018).

It takes the friendliness and alertness of the doctors, the speed of service of the nurses, and the employees at the hospital in question to treat patients' illnesses quickly and accurately so that satisfaction and readiness can be fostered. As a result of their trust and commitment, hospital service users and patients will eventually return to using the hospital's services, particularly those of the Andi Djemma Masamba Hospital.

The relationship between service quality and customer satisfaction is close. The quality of service encourages customers to form lasting relationships with a business. Long-term, this relationship enables the company to carefully comprehend customer expectations and needs, thereby increasing customer satisfaction by maximizing a positive customer experience and minimizing or eliminating a negative customer experience (Hakim et al., 2019). Patient satisfaction is contingent upon their perception of the hospital's expectations and the caliber of its services (Dwidarti, 2016). If the customer's expectations exceed the quality of service received, the customer will be dissatisfied. If the patient's expectations are less than or equal to the quality of service received, they will be satisfied. Service quality is the level of service provided or delivered by customer expectations. Currently, hospital competition is highly intense. The hospital must be proactive and offer consumers superior services to survive and thrive. By comprehending consumer perceptions of hospital services and implementing what consumers want, hospitals will be able to survive and thrive in the current era of globalization's intense competition. Patient satisfaction is contingent on the consumer's perspective (Isbandono, 2009; Suarjana, 2017).

There are six reasons why a business should strive for customer loyalty. First, loyal customers will benefit the company because they are more prospective than new customers. Second, the cost of acquiring a new customer is much greater than the cost of keeping and retaining an existing customer. Third: customers who already trust the company in one area are more likely to trust the company in other areas. Fourth, if it has many loyal customers, its operating expenses will be economical. Fifth: companies can reduce psychological and social costs due to repeat customers' positive experiences with the company and its products. Sixth: loyal customers will always defend the company and attempt to recruit and advise others to become customers.

Businesses should consider several factors that can influence customer loyalty to obtain customer loyalty. Service quality is the primary determinant of customer loyalty. Service quality must be a top priority for a business engaged in the service industry. Service quality can be defined as the expected level of excellence and control over the status of excellence to fulfill customer needs. Therefore, to meet customer expectations for service quality, the business must provide superior service. Customer satisfaction is the second-factor influencing customer loyalty (Tjiptono, 1996; Adil et al., 2016).

Various studies have examined the relationship between service quality and customer satisfaction and loyalty. Among them is the conclusion that service quality influences customer satisfaction (Suarjana, 2017). (Hu et al., 2009) researched Service Quality, Perceived Value, Customer Satisfaction, Corporate Image, and Loyalty on hotel guests in Mauritius regarding the implementation of high-quality services and the creation of superior customer value, which can lead to high customer satisfaction. It impacts the company's image and ultimately results in customer retention. In contrast to the results of a study

conducted by (Tri Hartanto, 2017), where testing revealed that the SERVQUAL variable empathic understanding had a significant positive effect on customer satisfaction, the current study results indicate the opposite. While the variables tangibles, dependability, responsiveness, and assurance impact customer satisfaction, their effect is not substantial.

Regarding services, the hospital is one of the institutions engaged in government and private sector health services provided to the community or patients responsible for providing treatment, care, seeking health and patient recovery, and seeking healthy life education for the community. Andi Djemma Masamba Hospital is a class C general hospital. According to Regulation number 340/MENKES/PER/III/2010 issued by the Minister of Health of the Republic of Indonesia, Class C hospitals provide standardized general medical services, including Basic Medical Services, Dental Oral Medical Services, and Dental Services. Family Planning/Maternal-Child Health Emergency services must be available 24 hours a day, seven days a week, to perform initial examinations of emergency cases and standard-compliant resuscitation and stabilization. Internal Medicine, Child Health, Surgery, Obstetrics Services, and Gynecology make up the Essential Specialist Medical Services. Clinical Pathology Services and Anesthesiology Services are included in the Medical Support Specialist Services. At least one (one) Oral Specialist Medical Service is provided. Nursing and Midwifery Care Services comprise Nursing and Midwifery Services. Intensive care, blood services, nutrition, pharmacy, instrument sterilization, and medical records are clinical support services. Laundry, Catering, Facility Engineering and Maintenance, Waste Management, Warehouse, Ambulance, Communication, Body Room, Fire Fighting, Medical Gas Management, and Clean Water Storage make up the Non-Clinical Support Services.

Because of the complexity of modern-day life issues, causing health issues is a crucial requirement. Therefore, health service companies are always expected to be consistent, particularly regarding service quality, to meet patients' needs and expectations. Several patients are still dissatisfied with the services provided by the Andi Djemma Masamba Hospital, based on interviews with patients and observations made at the hospital. Some patients complain that what they expected and what they received do not match. Therefore, this study aims to investigate the impact of service quality on the satisfaction and loyalty of inpatients at Andi Djemma Masamba Hospital.

## **THEORITICAL REVIEW**

**Quality of Service Defined.** Quality is a relative measure of an item or service based on its attributes, design, and buyer suitability, so there are numerous opinions. There are multiple possible definitions of service quality, but they all focus on whether the perceived service meets customer expectations (Srivastava and Kaul, 2016). Customers evaluate the quality of a service based on their perception of the technical results delivered, which is how results are accomplished. According to (Nelva et al., 2021), service is the degree of difference that results from the service process and the interaction between providers and consumers. Numerous regional, national, and global organizations are now paying more attention to service-related issues, which are viewed as a tool that can affect the revenue stream of an organization or business (Palutturi and Ahri, 2018). The concept of service quality has been defined as the difference between customer expectations and perceptions

of the service received. The concept of service quality is multidimensional (Hakim et al., 2019).

**Definition of Satisfaction.** Currently, nearly all parties, including the government, businesspeople, and consumers, are focused on customer satisfaction. It is as a result of a better understanding of customer satisfaction as a strategy to win the business world's competition (Dwidarti, 2016). The word 'satisfaction' is derived from the Latin words 'satis' (meaning sufficient) and 'facio' (to do or make). According to the dictionary, satisfaction is defined as "an effort to fulfill or make something adequate" (Adil et al., 2016). (Sharon and Santoso, 2017) found that customer satisfaction is a buyer's cognitive situation regarding the proportionality or disproportionality between the outcomes obtained and the sacrifices made. Indicative of an emotional state, the post-purchase response of consumers can be anger, dissatisfaction, irritation, neutrality, happiness, or pleasure. Customer dissatisfaction can have disastrous consequences.

**Definition of Loyalty.** Loyalty is an ancient term traditionally used to describe devotion to a country, cause, or individual. In contemporary business contexts, loyalty refers to the willingness of customers to continue to subscribe to a company over the long term by purchasing and using its goods and services repeatedly and preferably exclusively and by voluntarily recommending the company's products to their friends and coworkers (Hidayat et al., 2018). Customer loyalty is not formed quickly but through a learning process and the consistent purchase of services over time. The greatest challenge for service marketers is to provide prospective customers with compelling reasons to do business with them, maintain customer loyalty, and even increase service usage. Customers are the primary focus of the business because, without them, the company cannot generate sufficient profits to continue operations. Therefore, the essential thing that must be done is to provide quality services to ensure customer satisfaction and gain brand loyalty (Wardiati and Widiyatsari, 2020).

Quality services are economically profitable, procedurally simple, and aesthetically pleasing to generate customer satisfaction. According to (Ladhari et al., 2011; Arianto, 2017), customer satisfaction evaluates the total quality of bank services received. Five dimensions of SERVQUAL have been identified (Bukhari et al., 2018): tangibles, reliability, responsiveness, assurance, and empathy. When combined, the five aspects of service quality will enable the development of excellent and satisfying services. According to Yee et al. (Siddiqi, 2011; Adil et al., 2016), service quality has a positive and significant impact on customer satisfaction.

Customer dissatisfaction can be reduced by maintaining a high level of service. Businesses must continuously improve service quality (Sharon and Santoso, 2017). Discovered that small improvements in customer satisfaction result in substantial shifts in customer loyalty. The positive correlation between customer satisfaction and brand loyalty will motivate customers to refer their friends to the bank. As a result, the bank will have the loyalty of its customers and a stable customer base, which will reduce costs in the long run. Customer satisfaction directly influences customer loyalty, which is the most critical factor in retaining customers. Therefore, businesses should always strive to ensure customer satisfaction (Hidayat et al., 2018).

The regulation of customer loyalty is crucial because it regulates customer behavior and the customer's mentality (Siddiqi, 2011; Wardiati and Widiyatsari, 2020). A positive relationship between customer satisfaction and customer loyalty indicates that a high level of customer satisfaction will increase loyalty (Arianto, 2017). Changes in customer satisfaction correlate with service quality, which is directly related to customer loyalty (Puspitasari and Arifianty, 2016).

Research demonstrates that SERVQUAL is a suitable tool for measuring bank service quality. The relationship between service quality, customer satisfaction, and customer loyalty can provide retail banking with innovative ideas for gaining a competitive advantage. According to (Ladhari et al., 2011), service quality has a direct or indirect effect (through customer satisfaction) on customer loyalty in the retail banking industry. This study's concept refers to (Osman and Sentosa, 2013), who developed a mediation model linking service quality, customer satisfaction, and customer loyalty in retail banking. There is a correlation between service quality, customer satisfaction, and customer loyalty. Also developed by (Siddiqi, 2011) is a conceptual model that correlates service quality, customer satisfaction, and customer loyalty within a single framework. Furthermore, it is stated that there is a strong correlation between service quality and customer satisfaction, which will positively affect customer loyalty.

**H1:** The quality of service has a positive and significant effect on the satisfaction of inpatients at the Andi Djemma Masamba Hospital.

**H2:** Service quality has a positive and significant direct and indirect effect on the loyalty of inpatients at the Andi Djemma Masamba Hospital.

**H3:** Satisfaction has a positive and significant effect on the loyalty of inpatients at the Andi Djemma Masamba Hospital.

## **METHODS**

Quantitative causal studies are included in this type of research. The population of this study consisted of 14,501 inpatients at the Andi Djemma Masamba Hospital. However, only 150 samples were used because this quantity met the minimum requirement for SEM model testing samples. The data utilized in this study are primary data obtained directly from field research through direct observation of the object of study, interviews, or questionnaires. The collected data will be subjected to a series of tests, including descriptive analysis, a data quality test consisting of (validity and reliability tests), a classical assumption test consisting of a normality test and an outliers test, and a SEM analysis conducted with the AMOS program to test the hypothesis.

**Table 1.** Operational Variables

Variable	Code	Indicator	Reference
Service quality	SQ1	Tangible	(Puspitasari and Arifianty, 2016; Wahyuti and Poniman, 2017)
	SQ2	Reliability	
	SQ3	Responsiveness	
	SQ4	Guarantee	
	SQ5	Empathy	
Satisfaction	S1	Benefit with cost	(Dewi, 2017; Hakim et al., 2019)
	S2	Service satisfaction	
	S3	Satisfaction with the products offered	
	S4	Overall satisfaction	
Loyalty	L1	Considering RSUD as the first choice	(Dwidarti, 2016; Palutturi and Ahri, 2018)
	L2	Recommendation	
	L3	Speak positive things	
	L4	Treatment	

## RESULTS

According to demographic data, 60 percent of the 150 respondents are female, and 40 percent are male, with a reasonably diverse age distribution. Ages 28 to 37 appear to account for up to 30 percent of the population, with ages 38 to 47 accounting for 26 percent. It was followed by 18.670 percent of those between the ages of 18 and 27 and 14 percent of those between 48 and 57. Table 5 reveals that those aged 58 to 67 have the lowest percentage, 11.33 percent. The highest proportion of respondents, 26.000 percent, are entrepreneurs. 23.00 percent of respondents are students, 20.000 percent are housewives, 16.00 percent are employees, and the lowest percentage, 16.000 percent, belongs to respondents who are professionals. The respondents' education levels were S1, 29 individuals or 19.330 percent, D3, 22 individuals or 14.670 percent, SMA, 48 individuals or 32 percent, SMP, 12 individuals or 8 percent, and SD, 39 individuals or 26 percent.

**Table 2.** Demographic Data

Variable	Measurement	n	Percent
Age	18-27	28	19
	28-37	45	30
	38-47	39	26
	48-57	21	14
	58-67	17	12
Gender	Laki-laki	60	40
	Perempuan	90	60
Profession	Profesional	22	15
	Student	35	23
	Housewife	30	20
	Self-employed	39	26
Level of education	Employee	24	16
	Bachelor	29	19
	Diploma	22	15
	Senior High School	48	32
	Junior High School	12	8

Elementary School	39	26
-------------------	----	----

In general, causal variables, namely service quality, comprise five dimensions: physical evidence, dependability, responsiveness, assurance, and empathy, which are rated as positive by patients. Consequently, satisfaction and loyalty are also categorized as positive. The trend value of the variable indicator scores can be presented in table 2 due to SPSS version 22 analysis results.

**Table 3.** Tendency Value of Variable Indicator Score

Variable	Dimension	Indicator	Mode	Category
Service quality	Tangible	BF1	4	Good
		BF2	4	
		BF3	4	
		BF4	5	
		BF5	4	
	Reliability	K1	4	
		K2	5	
		K3	4	
		K4	4	
	Responsiveness	DT1	4	
		DT2	4	
		DT3	4	
		DT4	4	
	Guarantee	J1	4	
		J2	4	
J3		4		
J4		5		
Empathy	EM1	4		
	EM2	4		
	EM3	4		
	EM4	4		
	EM5	4		
Satisfaction	-	KP1	4	
		KP2	4	
		KP3	4	
		KP4	4	
Loyalty	-	L1	4	
		L2	4	
		L3	4	
		L4	4	

The convergent validity test can be determined from the loading factor and extracted average variance (AVE). The required conditions are that the standardized loading estimate must be at least 0.500 and preferably 0.700. (Ghozali, 2013). The extracted value of the Average Variance must be greater than 0.500. Using Second-Order Confirmatory Factor Analysis, evaluate the validity of each variable (CFA).

**Table 4.** Validity Test Results  
Second Order Confirmatory Factor Analysis

Variable	Dimension	Indicator	Loading Factor	Category	Suitability Model							
Service quality	Tangible	BF1	0.675	Valid	Chi-Square = 213.964 AIC = 295.964 BCC = 307.948 BIC = 419.400 PGFI = 0.659 PNFI = 0.697 GFI = 0.867 CFI = 0.919 IFI = 0.921 PCFI = 0.718 AGFI = 0.826 TLI = 0.905 RMSEA = 0.066							
		BF2	0.851	Valid								
		BF4	0.560	Valid								
		BF5	0.850	Valid								
	Reliability	K1	0.827	Valid								
		K2	0.718	Valid								
		K3	0.771	Valid								
		K4	0.715	Valid								
	Responsiveness	DT1	0.942	Valid								
		DT2	0.604	Valid								
		DT3	0.747	Valid								
		DT4	0.516	Valid								
	Guarantee	J1	0.727	Valid								
		J2	0.811	Valid								
		J4	0.588	Valid								
	Empathy	EM1	0.817	Valid								
EM3		0.516	Valid									
EM5		0.611	Valid									
Satisfaction	-	-	-	-	Chi-Square = 0.675 AIC = 16.675 BCC = 17.230 BIC = 40.760 PGFI = 0.200 PNFI = 0.332 GFI = 0.998 CFI = 1.000 IFI = 1.007 PCFI = 0.333 AGFI = 0.989 TLI = 1.021 RMSEA = 0.000							
					KP1	0.638	Valid					
					KP2	0.851	Valid					
					KP3	0.713	Valid					
					KP4	0.627	Valid					
					Loyalty	-	-	-	-	Chi-Square = 5.212 AIC = 21.212 BCC = 21.768 BIC = 45.297 PGFI = 0.197 PNFI = 0.327 GFI = 0.983 CFI = 0.988 IFI = 0.989 PCFI = 0.329 AGFI = 0.914		
										L1	0.887	Valid
										L2	0.869	Valid
										L3	0.655	Valid
										L4	0.660	Valid

TLI = 0.965  
RMSEA = 0.104

Table 4 displays the test results for the convergent validity test. By examining the value of the loading factor on each indicator for the five-dimensional service quality variable, it can be determined that the physical evidence, reliability, responsiveness, assurance, and empathy dimensions of service quality are all valid. In testing the model's fit criteria, the results indicate that, in general, the model can be classified as fit.

The four satisfaction indicators are valid because their loading factor values are greater than 0.500. Then, for the model suitability test (goodness of fit, GOF), it can be seen that the Chi-Square value as big as 0.675 does not fit, as indicated by the AIC value as big as 16.675 20.000 and 202.609; BCC as bigger than 17.230, also 20.694 and 202,886; and BIC as big as 40,760 50.106 and 214.656 in the fit category, with a GFI value of 0.998 bigger 0.90 in the category of fitness; CFI as big as 1.000 bigger 0.900 in the category of fit; IFI as big as 1.007 bigger 0.900 in the category of fit; PCFI as big as 0.333; 0.600 in the category of fit; AGFI as big as 0.989 bigger 0.900 considered acceptable, TLI as big as 1.021 bigger 0.900 deemed acceptable, PGFI as big as 0.200 bigger 0.600 deemed unacceptable, PNFI as big as 0.332 bigger 0.060 not acceptable, RMSEA as big as 0.000 smaller 0.050 acceptable. Thus, in general, the fit criteria have been met, and the model can be considered fit.

In addition, for the loyalty dimension, the four indicators are validated because their loading factor values are greater than 0.500. Then, to test the model's suitability (goodness of fit, GOF), it can be seen that the value of Chi-Square is 5.212 is still not fit, then the values of AIC as big as 21.21220.000 and 289.448 are not fit; BCC is 21.76820.694 and 289.726 are not fit; and BIC as big as 45.297 50.106 and 301.491 are classified as fit, for the value of GFI as big as 0.900 considered suitable, CFI as big as 0.988 bigger 0.900 considered suitable, IFI as big as 0.989 bigger 0.900 deemed suitable, PCFI as big as 0.329 bigger 0.600 deemed unsuitable, AGFI as big as 0.914 bigger 0.900 considered acceptable, TLI as big as 0.960 bigger 0.900 was deemed acceptable, PGFI as big as 0.197 bigger 0.600 was not acceptable, and PNFI as big as 0.327 bigger 0.060 did not fit, and RMSEA as big as 0.104 was not acceptable. 0.050 did not fit. Thus, in general, the fit criteria have been met, and the model can be considered fit.

Examining the cross-loading value for each variable must equal 0.700 to test discriminants with reflective indicators. Good discriminant validity is indicated by the fact that the square root of the AVE for each construct is greater than the model's correlation between constructs (Ghozali, 2013).

**Table 5.** Validity and Reliability Test Results

Variable	Dimension	AVE	Reliability construct	Category
Service quality	Tangible	0.554	0.795	Valid and Reliable
	Reliability	0.576	0.799	Valid and Reliable
	Responsiveness	0.519	0.791	Valid and Reliable
	Guarantee	0.500	0.680	Valid and Reliable
	Empathy	0.500	0.660	Valid and Reliable
Satisfaction	-	0.508	0.797	Valid and Reliable
Loyalty	-	0.601	0.796	Valid and Reliable

Validity and reliability tests indicate that the measurement model has partially met the data's appropriateness with the factor model for each latent variable studied. Subsequently, a SEM analysis is conducted to test the structural model that explains the causal relationship between all latent variables.

Analysis of the Structural Equation Model, SEM was carried out with the AMOS program version 22. The complete model in question can be seen in Figure 1.

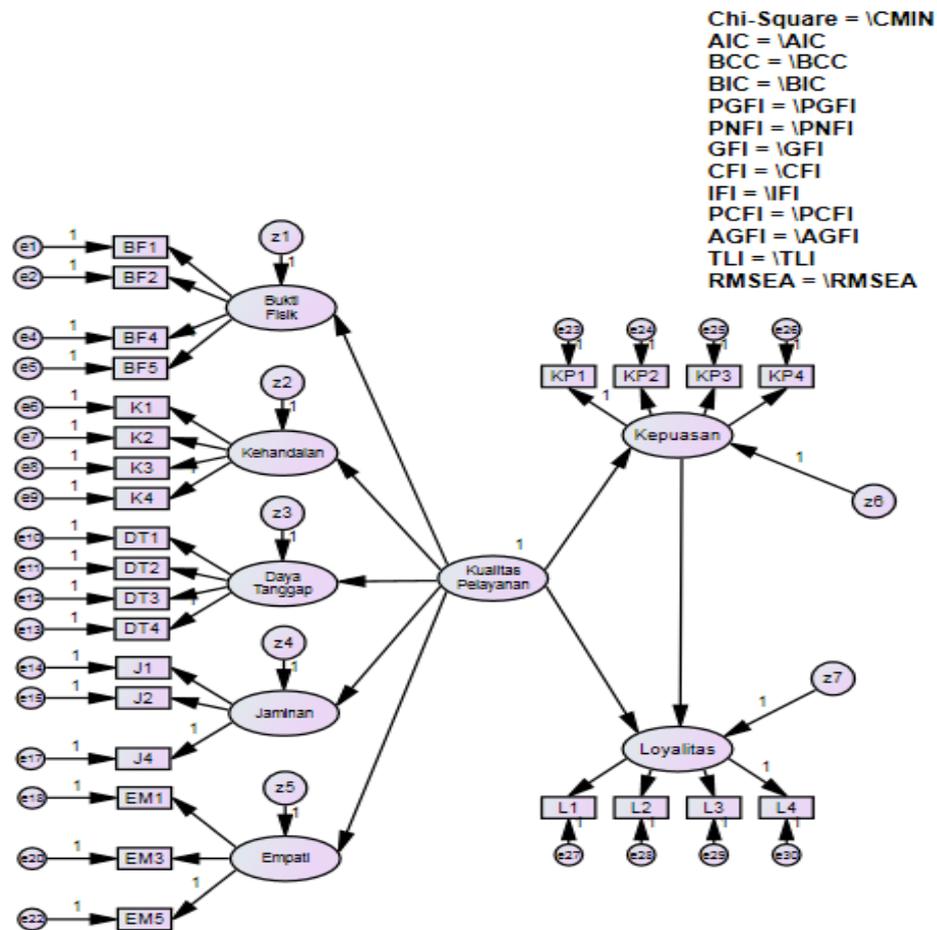


Figure 1. Full Structural Model

z1 = Physical Evidence; z2 = Reliability; z3 = Responsiveness; z4 = Guarantee; z5 = Empathy. Kualitas Pelayanan = Service Quality; Kepuasan = Satisfaction; Loyalitas = Loyalty.

Using a significance level of 0.010 and the critical ratio skewness value of 2.580, the normality of the data is determined. If the critical ratio skewness value is less than 2.580, it can be concluded that the data follow a normal distribution (Ghozali, 2013). The test results demonstrate no violation of the assumption of normality. This is shown in table 6.

**Table 6.** Data Normality Test

Variable	Min	Max	Skew	C.R.	Kurtosis	C.R.	Category
L1	1	4.770	-0.177	-0.884	-0.246	-0.615	Normal
L2	1	4.928	-0.205	-1.026	0.088	0.221	Normal
L3	1	5.088	-0.218	-1.09	0.827	2.069	Normal
L4	1	5.318	-0.271	-1.356	0.43	1.076	Normal
KP4	1	4.592	-0.156	-0.78	0.416	1.04	Normal
KP3	1	4.42	-0.199	-0.996	-0.061	-0.152	Normal
KP2	1	4.518	-0.159	-0.794	0.277	0.692	Normal
KP1	1	4.791	-0.137	-0.686	2.013	5.033	Normal
EM1	1	4.659	-0.226	-1.131	-0.459	-1.148	Normal
EM3	1	4.814	-0.258	-1.29	-0.556	-1.391	Normal
EM5	1	4.814	-0.274	-1.372	-0.425	-1.063	Normal
J1	1	5.167	-0.252	-1.26	0.257	0.641	Normal
J2	1	5.035	-0.188	-0.941	-0.074	-0.185	Normal
J4	1	4.08	-0.665	-3.326	-0.498	-1.244	Normal
DT1	1	4.49	-0.263	-1.314	-0.363	-0.908	Normal
DT2	1	4.42	-0.21	-1.05	-0.11	-0.274	Normal
DT3	1	4.684	-0.229	-1.143	0.103	0.257	Normal
DT4	1	3.707	-0.253	-1.264	-1.002	-2.504	Normal
K1	1	4.378	-0.362	-1.81	-0.373	-0.934	Normal
K2	1	4.508	-0.506	-2.531	-0.571	-1.429	Normal
K3	1	4.241	-0.329	-1.647	-0.379	-0.948	Normal
K4	1	4.948	-0.169	-0.847	-0.225	-0.562	Normal
BF1	1	5.512	-0.358	-1.788	0.605	1.512	Normal
BF2	1	4.436	-0.129	-0.643	-0.203	-0.509	Normal
BF4	1	4.115	-0.732	-3.661	-0.475	-1.188	Normal
BF5	1	4.193	-0.189	-0.947	-0.614	-1.534	Normal
Multivariate					89.016	14.286	

The critical ratio skewness value of all indicators exhibits a normal distribution because the matter is less than 2.580, except for indicators J4 is -3.326 and BF4 is -3.661, which have values greater than the critical value. However, this indicator's value is still considered normal because its kurtosis ratio is still significantly below the critical value of 2.580; specifically, for indicators J4 is -1.244 and BF4 is -1.188. It is supported by According to (Singgih Santoso, 2011), a distribution is considered expected if the CR skewness number or CR kurtosis number falls within the range of negative 2.580 to positive 2.580. In light of this, it is generally possible to assert that the model's data distribution is normally distributed.

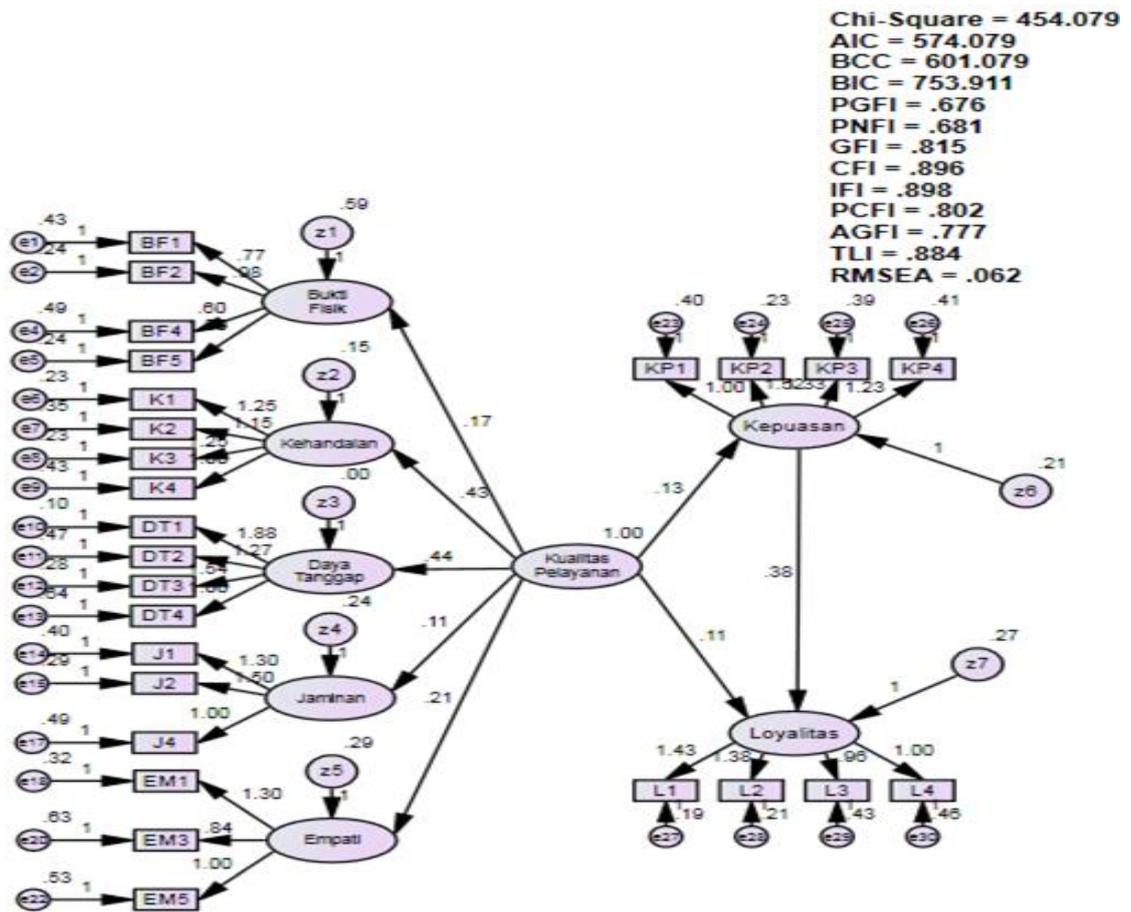


Figure 2. Final Full Structural Model

z1 = Physical Evidence; z2 = Reliability; z3 = Responsiveness; z4 = Guarantee; z5 = empathy.  
 Kualitas Pelayanan = Service Quality; Kepuasan = Satisfaction; Loyalitas = Loyalty.

The final explicit structural equation model shows an inadequate level of suitability, with the evaluation of the model fit as follows:

Table 7. Evaluation of Criteria for Goodness of Fit Indices Overall Research Model

Goodness of fit index	Cut-off Value	Model Results	Information
$X^2 - Chi-square$	Expected small	454.079	Not good
Sign. Probability	bigger 0.050	0.000	Not good
AIC		574.079	Good

BCC	Smaller Saturated and	601.079	Good
BIC	Independence Model	753.911	Good
PGFI	bigger than 0.600	0.676	Good
PNFI	0.060 till 0.090	0.681	Not good
GFI	<b>bigger</b> than 0.900	0.815	Not good
CFI	Bigger than 0.900	0.896	Not good
IFI	Bigger than 0.900	0.898	Not good
PCFI	Bigger than 0.600	0.802	Good
AGFI	Bigger than 0.900	0.777	Not good
TLI	Bigger than 0.900	0.884	Not good
RMSEA	Smaller than 0.080	0.062	Good

Based on table 7, it can be seen that the fit criteria for the model are Chi-Square as big as 454.079 still not fit, then the AIC value as big as 574.079 smaller 702.000 and 1.945.311 is categorized as fit; BCC as big as 601.079 smaller 859.950 and 1.957.011 are categorized as fit; and BIC as big as 753.911 smaller 1.754.022 and 2.023.238 categorized as fit, for the value of GFI as big as 0.815 smaller 0.90 not fit, CFI as big as 0.896 smaller 0.90 not fit, IFI as big as 0.898 smaller 0.900 not fit, PCFI as big as 0.802 bigger 0.600 categorized as fit, AGFI as big as 0.777 smaller 0.900 not fit, TLI as big as 0.884 smaller 0.900 not fit, PGFI as big as 0.676 bigger 0.600 categorized as fit, PNFI as big as 0.681 bigger 0.060 not fit, and RMSEA as big as 0.062 smaller 0.080 categorized as fit. Thus, in general, the fit criteria still do not meet the recommended ones, so the model cannot be said to be fit.

By what AMOS recommended, namely the modification of the initial model, the output of the modification indices can be seen in Appendix 5. Because our objective is to obtain a small chi-square value so that the probability becomes large (so that it is not statistically significant), model modification is performed by identifying the modification index value with the highest value (Ghozali, 2013). Figure 3 displays the results of the final modification index model construct test.

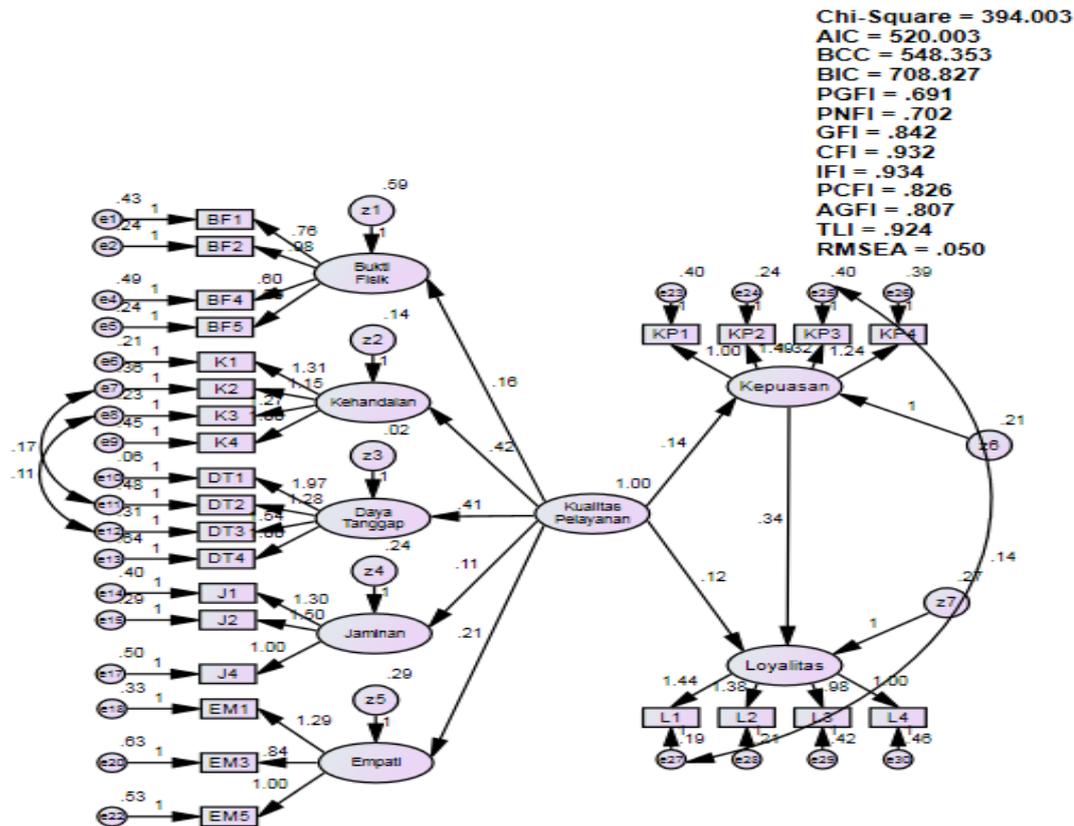


Figure 3. Final Full Structural Model

z1= physical evidence; z2= reliability; z3= responsiveness; z4= guarantee; z5= empathy. Kualitas pelayanan= service quality; Kepuasan= Satisfaction; Loyalitas= Loyalty.

The final full structural equation model after modification of the index in Figure 3 shows an adequate level of conformity, with the evaluation of the model fit as follows:

Table 8. Evaluation of Criteria for Goodness of Fit Indices Overall Research Model

Goodness of fit index	Cut-off Value	Model Results	Information
$X^2 - Chi-square$	Expected small	394.003	Not good
Sign. Probability	Bigger than 0.050	0.000	Not good
AIC	Smaller Saturated and Independence Model	520.003	Good
BCC		548.353	Good
BIC		708.827	Good
PGFI	Bigger 0.600	0.691	Good
PNFI	0.060 to 0.090	0.702	Not good
GFI	Bigger than 0.900	0.842	Not good

CFI	Bigger than 0.900	0.932	Good
IFI	Bigger than 0.900	0.934	Good
PCFI	Bigger than 0.600	0.826	Good
AGFI	Bigger than 0.900	0.807	Not good
TLI	Bigger than 0.900	0.924	Good
RMSEA	Smaller than 0.080	0.050	Good

According to table 8, of the fourteen criteria used by the fit model, nine produce appropriate values that are recommended or classified as fit, while the remaining five produce values that are not recommended or not fit. Therefore, the model is fit, as the fit criteria have been satisfied. Although there are still non-fit criteria, the other suitable measures are sufficient to demonstrate the fit model (Ghozali, 2013).

**Table 9.** The Effect of Service Quality on Satisfaction and Loyalty

Influence between Variables	Effect			P-value	Information
	Direct	Indirect	Total		
Satisfaction ← Service quality	0.302	-	0.302	0.006	Significant
Loyalty ← Service quality	0.204	0.085	0.289	0.044	Significant
Loyalty ← Satisfaction	0.283	-	0.283	0.009	Significant

Source: Processed data

Table 9 shows that the magnitude of the probability value at the 5 percent level concludes that the three paths are significant. (1) Service quality has a positive and significant direct effect on satisfaction with P as big as 0.006 (smaller 0.050). It indicates that the improvement in service quality by Andi Djemma Masamba Hospital significantly increases patient satisfaction. (2) With P as big as 0.044 (smaller 0.050), service quality has a direct and positive effect on customer loyalty. This coefficient indicates that an increase in the quality of services provided by the Andi Djemma Masamba Hospital has a significant impact on patient loyalty, indicating that patients continue to be enthusiastic about utilizing services. Andi Djemma Masamba Hospital. (3) Satisfaction has a positive and significant direct effect on loyalty with P as big as 0.009 (smaller 0.050). This coefficient indicates increased patient satisfaction at Andi Djemma Masamba Hospital, and it significantly increases loyalty. (4) Service quality has a positive and statistically significant indirect effect on customer loyalty, with a coefficient of 0.085. It suggests that improved service quality, as mediated by customer satisfaction, can increase customer loyalty.

## DISCUSSION

The quality of service has a significant positive direct effect on the satisfaction of inpatients at the Andi Djemma Masamba Hospital, meaning that the higher the patient

satisfaction with the quality of services provided by the Andi Djemma Masamba Hospital, the higher the quality of service perceived by inpatients. Conversely, the lower the perceived service quality of inpatients at the Andi Djemma Masamba Hospital, the lower the patient satisfaction with the quality of the hospital's services. Thus, it can be concluded that Hypothesis 1, which asserts that service quality has a positive and statistically significant effect on Inpatient satisfaction at Andi Djemma Masamba Hospital, is valid.

This means that the service at Andi Djemma Masamba Hospital is one of the references for customer satisfaction. If the services are good, patients will come to do health extortion at Andi Djemma Masamba Hospital.

With good service, patient satisfaction is created. After the customer is satisfied with the services received, the customer will compare the services provided. If the patient is delighted, the Patient will come back and tell many people that the sakt house is good and will be willing to recommend to others to be treated or just check the disease in the same place. Therefore, the hospital must think carefully about how important it is to serve patients through the quality of service so that patients still come to check their health in the hospital. The results of this study were also strengthened by respondents' answers from the average offender quality indicator answering agree. This means the appearance of physical facilities, such as buildings and waiting rooms, the availability of parking spaces, cleanliness, neatness and comfort, and the formation of employees. In addition to the reliability, responsiveness, guarantees, and attention given by the hospital, patients need the necessary physical facilities to undergo hospitalization. The speed and accuracy of patient admission procedures, the speed of examination and treatment services for patients, the accuracy of hospital service schedules and satisfactory service in handling patient complaints will make patients satisfied with the hospital's reliability. The agility of the hospital medical team (doctors and nurses) in assisting patients, clear service information so that it is easy to understand, the speed of hospital employees in handling each transaction, the medical team's sense of understanding of patient complaints or patients' families which are carried out quickly and responsively will make customers feel challenged n and appreciated so that they will be satisfied with the services that the hospital has provided.

This research confirms the findings of previous studies (Puspitasari and Arifianty, 2016; Sektiyaningsih et al., 2019; Suarjana, 2017) that service quality variables have a positive and statistically significant effect on patient satisfaction. This finding is also supported by the theory (Adil et al., 2016), which states that customer satisfaction is an evaluation of a product or service based on whether or not it meets the customer's needs and expectations. Numerous companies offer services in each category, and customers have varying needs regarding the combination and cost of services. Customers' demands and expectations for quality and service are continuously increasing and becoming more stringent. In the midst of so many options, customers typically opt for the deal that best meets their needs and expectations. These results indicate that the majority of North Luwu Regency residents continue to be enthusiastic about the quality of services offered by Andi Djemma Masamba Hospital, North Luwu Regency.

Service quality has a significant positive direct effect on the loyalty of inpatients at the Andi Djemma Masamba Hospital, such that the higher the perceived service quality of inpatients at the Andi Djemma Masamba Hospital, the greater the patient loyalty to the quality of services provided by the Andi Djemma Masamba Hospital. Conversely, the lower

the perceived service quality of inpatients at the Andi Djemma Masamba Hospital, the lower the patient loyalty to the Andi Djemma Masamba Hospital's quality of services. The indirect effect of service quality on patient loyalty, as mediated by patient satisfaction, is also significant and positive. It indicates that the satisfaction variable, which was predicted to serve as a mediating variable, actually mediates the relationship between service quality and customer loyalty. Thus, Hypothesis 2 can be accepted, which asserts that service quality has a positive and significant direct and indirect effect on the commitment of inpatients at the Andi Djemma Masamba Hospital.

The quality of service implemented by Andi Djemma Masamba Hospital is to provide the best service for patients to create patient satisfaction and eventually form loyalty. The quality of services offered by Andi Djemma Masamba Hospital causes patient perceptions. A good perception of the quality of service he receives, the greater the patient's expectations are met, so the more critical the patient's satisfaction. High satisfaction in patients will cause high patient loyalty as well. The results of this study can also be explained from the respondents' answers from the average customer quality indicator answering agreed, the quality of services such as physical facilities and the professionalism of Andi Djemma Masamba Hospital officers are elements in patient satisfaction which will ultimately have an impact in creating loyal patients.

On the other hand, if the quality of service received by patients during treatment at Andi Djemma Masamba Hospital, as we can see in the preparedness of the services provided, the accuracy of diagnoses, the latest equipment, the reasonable price, will increase the tendency of patients to use the hospital in the future. This study's findings support previous research (Puspitasari and Arifianty, 2016; Sektiyaningsih et al., 2019; Suarjana, 2017) indicating that service quality variables have a direct and indirect positive and significant influence on patient loyalty. Customers must continue to receive high-quality services from a business. If the quality of service provided to the customer exceeds or matches expectations, the customer is likely to return. However, if the perceived service is inferior to the expected service, the customer will be dissatisfied and will cease doing business with the organization in question. In accordance with the findings that support the first hypothesis of this study, which hypothesizes that service quality has a positive and significant effect on satisfaction, the majority of North Luwu Regency residents continue to be enthusiastic about the quality of services provided by Andi Hospital. Andi Djemma Masamba Hospital, North Luwu Regency, has a positive effect on patients' perceptions of loyalty, as evidenced by their desire to reuse its services.

The quality of satisfaction has a significant positive direct effect on the loyalty of inpatients at the Andi Djemma Masamba Hospital. This means that the higher the quality of satisfaction perceived by inpatients at the Andi Djemma Masamba Hospital, the greater the patient loyalty to the quality of services provided by the Andi Djemma Masamba Hospital. On the other hand, patient loyalty to the quality of services provided by the Andi Djemma Masamba Hospital decreases as inpatient satisfaction decreases. Thus, it is possible to accept Hypothesis 3, which asserts that satisfaction has a positive and statistically significant effect on the loyalty of inpatients at the Andi Djemma Masamba Hospital. Customer satisfaction affects buyers' behavior, where satisfied customers become loyal. Customer satisfaction will have a positive impact on the hospital. If consumers are happy with the hospital's services, it will create an assessment that the hospital has been able to provide full

service to the community. This means that the higher the satisfaction felt by the patient, the higher the loyalty of the hospital patient. Patients who have considered that the patient has been met for basic needs both in the quality of services, products and costs that must be incurred during the treatment or treatment period at the hospital will create stronger patient loyalty, thus the patient will have more confidence in the quality of the services of this hospital and recommend to others to use the service. The creation of patient satisfaction can provide benefits, including the relationship between the hospital and the patient to be harmonious, offering a reasonable basis for the use of services again and the creation of patient loyalty, and form something of word of mouth that is beneficial to the hospital itself. This study's findings support previous research (Erviana, 2013; Puspitasari and Arifianty, 2016; Sektiyaningsih et al., 2019; Suarjana, 2017) indicating that the satisfaction variable has a positive and statistically significant effect on patient loyalty. This result is also consistent with the theory, which states that customer satisfaction is the evaluation of a product or service based on whether it meets the customer's needs and expectations. If desired, the patient will be satisfied, which will influence their continued use of the offered services. If the opposite occurs, the patient will lose interest in treatment, which will result in a negative perception of the company and a decline in the number of patients, leading to decreased profits.

According to this study's findings, most North Luwu Regency residents continue to have a favorable opinion of the quality of services and Andi Djemma Masamba Hospital, North Luwu Regency. It relates to testing the first and second hypotheses, which provide evidence that service quality has a positive and significant effect on satisfaction and a positive and significant impact on patient loyalty both directly and indirectly.

## CONCLUSION

On the basis of the topic, research objectives, analysis results, and discussion, it can be concluded that the quality of service has a direct and significant effect on the satisfaction of inpatients at the Andi Djemma Masamba Hospital. At the Andi Djemma Masamba Hospital, service quality has a significant positive direct and indirect effect on the loyalty of inpatients. Andi Djemma Masamba Hospital inpatients' loyalty is influenced directly and significantly by their level of satisfaction. The advice is intended for the director of Andi Djemma Masamba Hospital, North Luwu Regency. Inpatients who utilize the services of Andi Djemma Masamba Hospital, North Luwu Regency, express greater satisfaction and loyalty due to the hospital's excellent service quality. It is certainly encouraging news for the Andi Djemma Masamba Hospital in the North Luwu Region. Obviously, the results of this research study serve as input for the Andi Djemma Masamba Hospital, North Luwu Regency, to continue maintaining and enhancing the quality of hospital services offered to the North Luwu Regency community. In addition, researchers can collect samples from outpatients so that future research can provide a comprehensive assessment of all patients who visit the Andi Djemma Masamba Hospital in North Luwu. In addition, it is anticipated that the number of samples collected will increase, particularly for outpatients, so that future research will accurately represent the patients who utilize the services of the Andi Djemma Masamba Hospital in North Luwu.

## REFERENCES

- Adil, A., Syamsun, M., & Najib, M. (2016). Pengaruh Kualitas Pelayanan Dan Biaya Terhadap Kepuasan Dan Loyalitas Pasien Rsud Kota Bogor. *Jurnal Aplikasi Manajemen*, 14(3), 432–441.
- Arianto, N. (2017). Pengaruh Kualitas Pelayanan, Harga Dan Kepuasan Terhadap Loyalitas Pasien (Studi Kasus Pada Pasien Rawat Jalan Rumah Sakit Premier Bintaro). *Jurnal Organisasi Dan Manajemen*, 13(1), 1–9.
- Bukhari, I., Kamal, B., & Sari, M. K. (2018). Pengaruh Kualitas Pelayanan, Citra Perusahaan Dan Kepuasan Terhadap Loyalitas Pasien Rawat Inap Di Rumah Sakit Mitra Keluarga Tegal. *Monex: Journal Research Accounting Politeknik Tegal*, 7(1).
- Dewi, R. (2017). Pengaruh Kualitas Pelayanan Terhadap Loyalitas Pasien Pengguna Bpjs Dengan Kepuasan Pasien Sebagai Variabel Intervening. *Jurnal Manajemen Daya Saing*, 18(2), 146–156.
- Dwidarti, S. J. (2016). *Analisis Pengaruh Kualitas Pelayanan Terhadap Kepuasan Dan Implikasinya Pada Loyalitas Pasien Rawat Inap Di Rsud Cicalengka Kabupaten Bandung*. Unpas.
- Ghozali, I. (2013). Structural Equation Modeling Metode Alternatif Dengan Partial Least Square,. *Badan Penerbit Univeritas Diponegoro*, 244.
- Hakim, M. L., Cahyono, D., & Herlambang, T. (2019). Dampak Kualitas Pelayanan Terhadap Kepuasan Dan Loyalitas Pasien Di Instalasi Rawat Jalan Rumah Sakit Daerah Dr. Soebandi Jember. *Jurnal Sains Manajemen Dan Bisnis Indonesia*, 9(1), 1–13.
- Hartanto, W. T., & Hariani, D. (2017). Analisis Kualitas Pelayanan Di Badan Penanaman Modal Dan Pelayanan Perijinan Terpadu (Bpmppt) Kabupaten Jepara. *Journal Of Public Policy And Management Review*, 6(3), 198–215.
- Hidayat, B. T., Arifin, R., & Hufron, M. (2018). Pengaruh Kualitas Pelayanan Terhadap Loyalitas Pasien Rawat Inap Rsud Kanjuruhan Kepanjen Dengan Kepuasan Sebagai Variabel Intervening. *Jurnal Ilmiah Riset Manajemen*, 7(13).
- Kosnan, W. (2020). Pengaruh Kualitas Pelayanan Terhadap Kepuasan Pasien Rawat Inap Di Rumah Sakit Umum Daerah Kabupaten Merauke. *Jurnal Ekonomi, Bisnis, Dan Akuntansi*, 21(4).
- Ladhari, R., Ladhari, I., & Morales, M. (2011). Bank Service Quality: Comparing Canadian And Tunisian Customer Perceptions. *International Journal Of Bank Marketing*.
- Nelva, S., Sefnedi, S., & Akmal, A. (2021). *Pengaruh Kualitas Pelayanan, Brand Image Dan Kepercayaan Terhadap Loyalitas Pasien Dengan Kepuasan Pasien Sebagai Variabel Mediasi*. Universitas Bung Hatta.
- Osman, Z., & Sentosa, I. (2013). Mediating Effect Of Customer Satisfaction On Service Quality And Customer Loyalty Relationship In Malaysian Rural Tourism. *International Journal of Economics Business and Management Studies*, 2(1), 25–37.
- Palutturi, S., & Ahri, R. A. (2018). Pengaruh Kualitas Pelayanan Terhadap Kepuasan Pasien Umum Instalasi Rawat Inap RSUD La Temmamala Soppeng Tahun 2018. *Jurnal Mitrasehat*, 8(2).
- Puspitasari, N. B., & Arifianty, M. S. (2016). Pengaruh Kualitas Pelayanan Terhadap Kepuasan Pasien Terhadap Keluhan Dan Loyalitas Pasien Rawat Inap. *Prosiding Snst*

*Fakultas Teknik, 1(1).*

- Sektiyaningsih, I. S., Haryana, A., & Rosalina, S. S. (2019). Pengaruh Kualitas Pelayanan Terhadap Kepuasan, Citra Dan Loyalitas Pasien Pada Unit Rawat Jalan Rsud Mampang Prapatan Jakarta Selatan. *Journal Of Business Studies, 4(1)*, 17–29.
- Sharon, L. G., & Santoso, S. B. (2017). Analisis Pengaruh Kualitas Layanan, Fasilitas, Citra Rumah Sakit, Kepuasan Pasien Dalam Rangka Meningkatkan Loyalitas Pasien (Studi Pada Pasien Rawat Inap Rsud Tugurejo Semarang). *Diponegoro Journal Of Management, 6(3)*, 355–366.
- Siddiqi, K. O. (2011). Interrelations Between Service Quality Attributes, Customer Satisfaction And Customer Loyalty In The Retail Banking Sector In Bangladesh. *International Journal Of Business And Management, 6(3)*, 12.
- Suarjana, A. A. G. M. (2017). Pengaruh Kualitas Pelayanan Terhadap Kepuasan Dalam Rangka Menciptakan Loyalitas Pasien Pada Rumah Sakit Umum Daerah Sanjiwani Kabupaten Gianyar. *Jurnal Bisnis Dan Kewirausahaan, 11(1 Maret)*, 10.
- Srivastava, M., & Kaul, D. (2016). Exploring the link between customer experience–loyalty–consumer spend. *Journal of Retailing and Consumer Services, 31*, 277–286.
- Wahyuti, D., & Poniman, B. (2017). Pengaruh Kualitas Pelayanan Terhadap Kepuasan Dan Loyalitas Pasien Rawat Inap Di Rsu Assalam Gemolong Sragen. *Probank, 2(1)*, 39–54.
- Wardiati, D., & Widiyatsari, A. (2020). Pengaruh Kualitas Pelayanan Terhadap Kepuasan Dan Loyalitas Pasien Pada Instalasi Rawat Inap Di Rsud Indrasari Rengat. *Jurnal Economica, 8(1)*, 32–40.