

# Analysis of Effect on Service Quality Patient's Satisfaction in the Hospital of Brawijaya, Lawang, and Hospital of Lawang Medika

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## ABSTRACT

Lawang Medika Hospital is one of the private hospitals in Lawang, Malang city, is an accredited hospital, serving all levels of society who need hospital services. Meanwhile, Brawijaya Lawang Hospital is a hospital that is covered by Kesdam V/Brawijaya namely the Military is the only accredited military hospital in Lawang, besides serving the Military it also serves the general public. There are many similarities in the characteristics and performance of the two hospitals above, so we want to know whether there is a difference in customer satisfaction between the two hospitals with the benchmarks of the quality of the health service facilities provided. The purpose of this study was to determine the effect of health service quality factors (dimensions of reliability, comprehension, assurance, empathy, physical evidence / files) on the satisfaction of inpatients at Lawang Medika Hospital and Brawijaya Kesdam V / Military Hospital in Lawang. And the factor that has the greatest influence on the satisfaction of inpatients at the two hospitals as well as the comparison of the dimensions of the quality of health services of the two hospitals. This study used a cross sectional method. Data were collected through distributing questionnaires to inpatients at both hospitals. Before the questionnaire was distributed, 30 patients were tested to determine the validity and reliability of the questionnaire. 200 patients from both hospitals were included in this study. The data obtained were then analyzed by statistical technical regression and t-test. The results showed that there was an effect of service quality on patient satisfaction in both hospitals. However, the level of satisfaction formed was not entirely formed from the five aspects or attributes of the quality dimension. For Lawang Medika Hospital, patient satisfaction is mainly derived from the contribution of the aspects of reliability and empathy. Meanwhile, for Brawijaya Kesdam V/ Military Hospital, patient satisfaction was obtained from the contribution of tangible, empathy and responsibility aspects. In addition, there are similarities in characteristics between inpatients at the two hospitals. The similarities are in terms of age, educational and occupational characteristics. The similarity of the respondent's characteristics has an impact on the similarity of perceptions of these respondents in assessing the inpatient services of the two hospitals, This can be seen from the similarity in perceptions of tangible variables, reliability, assurance, empathy and responsibility. Except for the aspect of responsibility, the two hospitals have the same assessment from respondents on aspects of Tangible, Reliability, Assurance, and Emphaty

**Keywords** : Hospital; Patient satisfaction; Service quality

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## 1. INTRODUCTION

Good health facility services begin by mapping an understanding of the role and meaning of services in today's society. Customer trust is a guarantee for the survival of the business, service is a way to empower the customers it serves. Customer empowerment is a prerequisite for customers to remain loyal to service products provided by a company, even customers who are satisfied with the services provided can be a means of promotion for other potential customers. In the era of globalization, the hospital paradigm has changed. The old paradigm holds that patients need hospitals, but in today's era this view must be changed, namely hospitals that need patients (James, 2013). Excellent service is intended to provide satisfaction to patients, service must be of high quality and meet the main quality dimensions, namely reliability, responsiveness, assurance, empathy and Tangible (medical and health media, October 2015) (Raftopoulos, 2015) while according to the importance there are five determinants of service / service, namely: (1) reliability, namely the ability to provide services promised in a reliable and accurate manner, (2) capture power, is the will (power responsive) to help customers and provide services quickly, (3) certainty, is the

knowledge and courtesy of employees and their ability to generate protection and trust, (4) empathy, is the willingness to care and give individual attention to customers, (5) physical evidence, is physical appearance, equipment, employees, and communication materials (Parasuraman, et al. in Kotler, 2013).

The quality revolution movement through an integrated quality management approach is a demand that cannot be ignored if an institution wants to live and develop. The competition that is getting tighter lately demands a service provider agency to always pamper consumers/customers by providing the best service. Customers will look for products in the form of goods or services from companies that can provide the best service to them (Assauri, 2013). This is important to estimate the desires and expectations of consumers so that the services provided can provide optimal satisfaction and ultimately consumers become loyal. Satisfaction can be defined as an effort to fulfill something or make something adequate (Tjiptono & Chandra, 2015).

Customer satisfaction has become a central concept in business and management discourse (Tjiptono & Chandra, 2015). Customers generally expect products in the form of goods or services that are consumed to be accepted and enjoyed with good or satisfying service (Assauri, 2013). Customer satisfaction can shape perceptions and can further position the company's products in the eyes of its customers. According to Oliver (in Barnes, 2013) satisfaction is the customer's response to meeting needs; while Kotler (2013) defines satisfaction as a feeling of pleasure or disappointment experienced by someone after comparing the perception of the performance or results of a product with expectations. Some of today's most successful companies are raising expectations and delivering performance accordingly. These companies are on the way to TCS-total customer satisfaction (Kotler, 2013). The TCS (Total Customer Satisfaction) concept emphasizes the importance of goals and high or very satisfied satisfaction so that consumers are not easily tempted by other offers. According to Wahyuddin & Muryati (2011) for companies with customer insight, satisfaction is both a goal and a marketing strategy. There are various tools to track and measure customer satisfaction, namely complaint and suggestion systems, customer satisfaction surveys, unbudgeted (non-budgetary) spending, and lost customer analysis. According to Gummesson (in Tjiptono & Chandra, 2015) emphasizes that service is something that can be exchanged but is often difficult to experience or feel physically. In line with that, Kotler (2013) states that service is any action or benefit that can be offered by one party to another which is essentially intangible and does not result in ownership of something. The production can or cannot be associated with a physical product. There are four characteristics of services that greatly influence the design of the marketing program, namely intangible, inseparable, varied, and perishable. There are two parties involved in the service / service process, namely service providers (servants) and consumers (who are served). Research by Wahyuddin & Muryati (2011), in services called consumers (customers) are people who benefit from activities carried out by organizations or officers of the service provider organizations. There are five determinants of service quality. There are four characteristics of services that greatly influence the design of its marketing program, namely intangible, inseparable, varied, and perishable. There are two parties involved in the service / service process, namely service providers (servants) and consumers (who are served). Munurut Wahyuddin & Muryati (2011), in services called consumers (customers) are people who benefit from activities carried out by organizations or officers of the service provider organizations. There are five determinants of service quality. There are four characteristics of services that greatly influence the design of its marketing program, namely intangible, inseparable, varied, and perishable. There are two parties involved in the service / service process, namely service providers (servants) and consumers (who are served). Based on Wahyuddin & Muryati (2001), in services called consumers (customers) are people who benefit from activities carried out by organizations or officers of the service provider organizations. There are five determinants of service quality. In services called consumers (customers) are people who benefit from activities carried out by the organization or officers of the service provider organization. There are five determinants of service quality. In services called consumers (customers) are people who benefit from activities carried out by the organization or officers of the service provider organization. There are five determinants of service quality.

The success of a hospital starts with quality (quality), not cost. Guaranteed quality, costs will fall, market demand and productivity will increase, and the result is customer satisfaction and increased hospital income (Kuntjoro, 1995). According to Ellhaitammy (in Tjiptono, 1996), service excellence is needed where certain skills are needed, such as looking good and neat, friendly, showing work passion, being ready to serve, calm at work, not being proud and mastering their work.

Inpatient units are a source of substantial costs for the hospital. Hospital performance can also be measured from inpatient performance because in this unit patients and their families stay longer in the hospital and interact with all elements of services provided by the hospital. The quality of inpatient services can be a source of effective promotion for patients who will use hospital services. The maximum quality of

service in the inpatient unit is inseparable from all the health service facilities provided by the hospital, the factors that greatly influence the quality of these services are medical, paramedical and non-medical services. These three factors are inseparable parts. To use to prove the influence of service quality and patient satisfaction, this study aims to identify and test service quality factors that can provide satisfaction to inpatients at the hospital.

The selection of Lawang Medika Hospital and Brawijaya Kesdam V / Military Hospital in Lawang is by considering all aspects where Lawang Medika Hospital is one of the houses in Lawang and Brawijaya Kesdam V/Military Hospital is the only Army Hospital in Lawang, and the two hospitals have different cultures and characteristics, namely management with pure private management and military management.

## 2. METHODS

This study uses an explanatory pattern, namely research that is intended to explain the causal relationship between the variables studied and the relationship between one variable and another. This study explains the effect of the service quality variable on customer satisfaction. The research design used was a cross sectional study because it was carried out at a certain time (January - February 2020). The population in this study were all patients who were hospitalized at the Lawang Medika hospital and the Brawijaya Kesdam V / Military Hospital in Lawang, while purposive sampling was used to determine the research sample, namely the sampling technique with certain considerations. The samples in this study were patients who had been treated and questionnaire interviews were carried out when the patient was declared or allowed for KRS / going home, in addition to child patients and mental patients. Because the population in this study is infinite (not limited), in determining the number of samples using Quota Sampling, and in this study the sample was set at 100 patients per hospital.

## 3. RESULTS AND DISCUSSION

### Results

This research was conducted from January to February 2020 with the following results in Table 1.

**Table 1.** Respondent characteristics

Variable	Number of Respondents	
	Lawang Medika Hospital (%)	Barwijaya Hospital Kesdam V (%)
<b>Age</b>		
15-20 years	1	5
21-25 years	17	4
26 - 30 years	18	31
31 - 35 years	22	20
35 years and over	42	40
<b>Level of Education</b>		
SD	11	11
Junior High	11	9
High school	41	50
D3	8	8
Bachelor	29	22
<b>Profession</b>		
Military	2	19
Private	57	27
Etc	38	29
<b>Frequency Installation</b>		
One time	78	58
Twice	11	23
Three times	3	8
Four times	8	11
<b>Long Day of Treatment</b>		
3 - 5 days	58	56
6 - 8 days	32	22
Over 8 days	10	22
<b>Reasons for Selecting Hospital</b>		
Location	12.72	14.6
Price	6.94	4,9
Amenities	15	22.8

Officer skills	15.03	10.6
Staff hospitality	14.45	12.2
Service speed	26.59	16.3
Etc	9.25	18.7
<b>Gender</b>		
Men	48	49
Woman	52	51

Based on Table 1, characteristics of respondent's age, it can be concluded that the proportion of the population who mostly use inpatient services at the two hospitals is those over 35 years of age. This condition is possible because those who enter this age group are included in the productive age group so that the risk of being exposed to the disease is greater than those of the under age group. In this age group also have the ability to pay for their health more than the under age group, so that if they are sick, they will be able to pay for hospital treatment.

Based on Table 1, the Characteristics of the respondents' education level, it can be concluded that respondents who use inpatient services at the two hospitals mostly have high school and bachelor degrees. It is suspected that the higher the level of education of the respondents will affect their concern for the importance of health. Based on Table 1, the characteristics of the respondent's job, it can be concluded that most of the people who take advantage of inpatient services at Lawang Medika Hospital are private workers (57%). Very few respondents are civil servants or military, this indicates that the majority of patients hospitalized at Lawang Medika Hospital are self-funding, and the role of health insurance (ASKES) in covering health costs at Lawang Medika Hospital is still minimal. Meanwhile, for Brawijaya Kesdam V / Military Hospital, most of them have other jobs (housewives, not yet working, laborers, etc.). What is interesting is that the use of inpatient services at Brawijaya Kesdam V / Military Hospital by the military is actually the lowest, even though they have free service facilities at the hospital. There are many factors that influence, based on Table 1 characteristics of respondents, based on frequency of Hospitalization. Most of the respondents have never been hospitalized in either hospital. This indicates that the majority of patients at Lawang Medika Hospital and Brawijaya Kesdam V / Military Hospital are new inpatients, who have never had hospitalized experience. Because they have never been hospitalized, their expectations of service quality are more influenced by the experience of being hospitalized in other hospitals, word of mouth and the needs of the patients themselves, not from past experiences of service quality in both hospitals. This can potentially lead to differences between expectations and perceptions, resulting in dissatisfaction with the patient.

Based on Table 1, the distribution of respondents by length of care days, judging from the length of treatment days, most respondents were treated for 3-5 days. This illustrates that the quality of services provided by the two hospitals in terms of patient recovery rates is quite good. The length of treatment days also indicated that most respondents suffered from a less severe illness which resulted in the length of time they were hospitalized, which resulted in a fairly short length of treatment days, namely 3-5 days.

Based on Table 1, the distribution of respondents based on the reasons for choosing the hospital. From the hospital selection data, it can be seen that the highest respondent chose Lawang Medika Hospital due to because of the speed of service, while the highest respondent chose Bawijaya Kesdam V/Military Hospital because of its facilities. Based on the interview of respondents at Lawang Medika Hospital, the respondents were more concerned with service and speed, on the contrary, at the Brawijaya Kesdam V / Military Hospital they were more concerned with facilities, and respondents in both hospitals did not care about price, meaning that price did not affect the choice of hospital.

Based on Table 1, the characteristics of the respondents' gender, judging from the sex of respondents treated in both hospitals, female respondents were more than men, this shows that the morbidity rate for women is greater than that of men, based on further interviews, women are more concerned about health than men and the opportunity to go for treatment more hospitals.

**Table 2.** Summary description of respondents' answers

Variable	Lawang Medika Hospital		Brawiaya Kesdam V/ Hospital		t-test	Sig.
	X	SD	X	SD		
Tangible	4.07	0.365	3.99	0.498	1.231	0.565
Reliability	4.08	0.341	3.99	0.511	1.431	0.163
Assurance	4.17	0.399	4.11	0.498	0.923	0.253
Empathy	4.07	0.353	3.99	0.511	1,320	0.142
Response	4.03	0.414	3.89	0.585	1,925	0.013

Based on Table 2, patients' perceptions of tangible variables in the two hospitals have very slight differences. Lawang Medika Hospital has a slightly better score than Brawijaya Kesdam V/Military Hospital. When viewed from the value of sig = 0.565 then the p value > 0.05 so that the data variance of the two groups is the same. Because the P value > 0.05, it was concluded that there was no difference in the mean of the tangibles variable (physical evidence) between the two hospitals. This means that the respondents' perceptions of physical evidence from the hospital are the same.

Based on Table 2, patients' perceptions of variable reliability in the two hospitals also have very slight differences. RS Lawang Medika is still slightly better in value than Brawijaya Kesdam V/Military Hospital. T-test with sig = 0.163. Because the p value > 0.05, the data variance of the two groups is the same. Because the P value > 0.05, it can be concluded that there is no difference in the mean score of reliability (reliability) between the two hospitals. This means that there is no difference in respondents' perceptions of the reliability of the two hospitals.

Based on Table 2, patients' perceptions of variable assurance in the two hospitals also differed slightly. Lawang Medika Hospital is still slightly better in value than Brawijaya Kesdam V/Military Hospital. T-test with sig = 0.253. Because the p-value is > 0.05, the data variance of the two groups is the same. Because the p-value > 0.05, it was concluded that there was no difference between the assurance scores between the two hospitals. This means that there is no difference in respondents' perceptions of the assurance variable from the two hospitals.

Based on Table 2, patients' perceptions of the empathy variable in the two hospitals also have very slight differences. When the t-test is carried out, the sig = 0.142 is obtained. Because the p-value > 0.05, the data variance of the two groups is the same. Because the P value > 0.05, it was concluded that there was no difference between the empathy scores between the two hospitals. This means that there is no difference in respondents' perceptions of the empathy variable of the two hospitals.

Based on Table 2, in assessing the patient's perception of the responsiveness variable, there was a slight difference in the value between the two hospitals. The patient's perception of the responsiveness variable for Lawang Medika Hospital was higher than that of Brawijaya Kesdam V / Military Hospital, although the difference was not that big. However, if the T test is carried out, the results will be more or less the same. T test obtained sig = 0.013. Because the p-value is < 0.05, the data variance of the two groups is not the same, so it is seen on the second line (equal variances not assumed) with a value of sig = 0.056. Because the p-value > 0.05, it was concluded that there was no difference in the mean score of responsiveness between the two hospitals. This means that there is no difference in respondents' perceptions of the responsiveness of the two hospitals.

**Table 3.** Satisfaction Value of both Hospitals

Hospital	Average	SD
RS. Lawang Medika	4.073	0.484
RS. Brawijaya Kesdam V / military	3.902	0.679
t-test = 2.05 sig. = 0.110		

Based on Table 3, judging from the average level of satisfaction in the two hospitals, it appears that there is a slight difference where the satisfaction level of Lawang Medika Hospital is slightly better than Brawijaya Kesdam V / Military Hospital. If the t-test is carried out, it is obtained sig. = 0.110. Because the p value is > 0.05, the data variance of the two groups is the same. Because the P value > 0.05, it was concluded that there was no difference between the satisfaction scores between the two hospitals. This means that there is no difference in respondents' perceptions of the satisfaction variable of the two hospitals.

### Regression Test

There are two assumptions used to underlie the regression analysis, namely: multicollinearity test, linearity and normality test. The results obtained are as follows:

To determine whether there is multicollinearity, it can be seen from the VIF (Variance Inflation Factor) value. In general, if VIF is greater than 5, then the variable has a multicollinearity problem with other independent variables. From the results of the overall calculation, the independent variable has a VIF value < 5, so it does not have a multicollinearity problem.

To determine the causal relationship can use a linear model, this examination is carried out by showing a scatter diagram between the residual value and the predicted value. The resulting scatter diagram gives a special pattern so that the linearity assumption can be fulfilled.

To determine the normality of the residual value, the Kolmogorov-Simonov test was used. From the residual value, it is obtained that the p-value is greater than 0.05, so it can be concluded that the assumption of the residual value can be fulfilled

**Testing the Regression Equation for Lawang Medika Hospital**

To test the hypothesis below, a backward elimination method regression test was conducted to determine the effect of service quality variables on patient satisfaction at Lawang Medika Hospital, as follows: (1) the magnitude of the relationship between Satisfied and Tangible variables calculated by the correlation coefficient is 0.270; Satisfied with Reliable variable is 0.495; satisfied with Assurance variable is 0.397; The variable satisfied with empathy is 0.582, and the variable is satisfied with the response is 0.541. Theoretically, because the correlation between empathy and response to the satisfaction variable is greater than other variables, it can be concluded that empathy and response variables have more influence on the level of satisfaction than other variables (tangible, reliable, and assurance). (2) There is a fairly strong correlation between tangible and reliable variables (0.594); reliable variable with assurance (0.602), empathy (0.569) and response (0.558); variable assurance with reliable (0.602), empathy (0.663) and response (0.629); empathy variable with reliable (0.569), assurance (0.663) and response (0.820); response variable with reliable (0.558), assurance (0.629), and empathy (0.820). This indicates multicollinearity (correlation between independent variables). (2) The significance level of the one-sided correlation coefficient of the output (measured by probability) results in a number of 0,000 or practical 0. Because the probability is far below 0.05, the correlation between the satisfaction variables with tangible, reliable, assurance, empathy and response is very real. (3) Based on the results of multiple regression analysis, the value of F-count = 12.094 with sig. F = 0.000, the coefficient of determination is 35.9%. The value of F-count is greater than F table = 4.40, the regression equation obtained is significant. The contribution of the regression equation can explain patient satisfaction at Lawang Medika Hospital by 35.9%. (4) Not all of the t test results are significant, the significant results are Reliable and Empathy variables, which are less than 0.05.

**Testing the Regression Equation for Brawijaya Kesdam V/Military Hospital**

To test the hypothesis below, a backward elimination method regression test was conducted to determine the effect of service quality variables on patient satisfaction at Lawang Medika Hospital as follows: (1) The magnitude of the relationship between Satisfied and Tangible variables calculated by the correlation coefficient is 0.629; the variable is satisfied with reliable is 0.678; Satisfied with Assurance variable is 0.715; The variable Satisfied with empathy is 0.678 and the variable is Satisfied with Responses is 0.753. Theoretically, because the correlation between response and assurance to the satisfied variable is greater than the other variables, it can be concluded that the response and assurance variables have more influence on the level of satisfaction than other variables (tangible, reliable, and empathy). (2) There is a strong enough correlation between tangible and reliable variables (0.540); reliable variable with assurance (0.645), empathy (0.540) and response (0.551); variable assurance with reliable (0.755), empathy (0.755) and response (0.782); empathy variable with reliable (1,000), assurance (0.755) and response (0.673); response variable with reliable (0.673), assurance (0.782), and empathy (0.673). This indicates multicollinearity (correlation between independent variables). (3) Based on the results of multiple regression analysis, the value of F-count = 46.487 with sig. F = 0.000, the coefficient of determination is 66.2%. The value of F-count is greater than F table = 4.40, the regression equation obtained is significant. The contribution of the regression equation can explain the satisfaction of patients at Brawijaya Kesdam V/ Military Hospital by 66.2%. (4) The results of the t test give not all significant results, the significant results are the variable Response, Tangible and Empathy, which is less than 0.05.

**Table 4.** Regression Formulas for both Hospitals

Hospital	Regression Formulas	Significance
RS. Lawang Medika	$Y = 0.372 + 0.533 \text{Empathy} + 0.408 \text{Reliable}$	F test = 12.094 Sig. = 0.000 (<0.05)
RS. Brawijaya Kesdam V/Military	$Y = -0.818 + 0.494 \text{Responsibility} + 0.320 \text{Tangibles} + 0.279 \text{Empathy}$	F test = 62.258 Sig. = 0.000 (<0.05)

Based on the coefficient value for Lawang Medika Hospital, it is obtained that the significance value which is smaller than 0.05 is the variable reliability and empathy. Based on the coefficient value for Brawijaya V/ Military Hospital, the significance value is less than 0.05, which is the Tangibles, Empathy, and Responsibility variable.

**Hypothesis test**

In this study, two hypotheses were proposed. The proof of the hypothesis is based on the results of multiple linear regression analysis. The first research hypothesis is stated:

H<sub>0</sub>: There is no influence between service quality, direct evidence / tangibles, reliability, responsiveness, assurance, empathy on patient satisfaction Lawang Medika Hospital. The results of the F test in the regression analysis relate to testing the effect of service quality which consists of direct evidence, reliability, responsiveness, assurance, empathy on patient satisfaction in both hospitals. For Lawang Medika Hospital, it is obtained F-count = 12,094 which is greater than F-table = 4.40 with sig. F = 0.000 so that H<sub>0</sub> in this research is rejected.

H<sub>0</sub>: There is no effect between service quality, direct evidence/tangibles, reliability, responsiveness, assurance, empathy on patient satisfaction (patient satisfaction) military hospitals. The results of the F test in the regression analysis relate to testing the effect of service quality which consists of direct evidence, reliability, responsiveness, assurance, empathy on patient satisfaction in both hospitals. For the Hospital of Brawijaya Kesdam V / Military obtained F-count = 62.258 which is greater than F-table = 4.40 with sig. F = 0.000 so that H<sub>0</sub> in this study is rejected.

## Discussion

There are similarities in the characteristics of the respondents who use inpatient services in both hospitals (Lawang Medika Hospital and Brawijaya Kesdam V / Military Hospital). The similarities in the characteristics of the respondents were based on age, level of education, and frequency of hospitalization. It can be concluded that the market share of the two hospitals is the same (middle to lower class) and is not influenced by the status of the hospital (religious or service/military). This condition will affect the marketing strategies of the two hospitals because of the relatively same market share.

### Respondents' perceptions of the quality dimension attributes

#### *Tangibles (physical evidence)*

To find out whether there are differences in respondents' perceptions of the tangibles attribute (physical evidence) between the two groups of respondents, both from Lawang Medika Hospital and Brawijaya Kesdam V / Military Hospital, it can be seen in the Levene test where the results obtained were sig = 0.565 (p > 0.05). Because the P value > 0.05, it was concluded that there was no difference in the mean of the tangibles variable (physical evidence) between the two hospitals. This means that the respondents' perceptions of physical evidence from the hospital are the same.

#### *Reliability (reliability)*

To find out whether there are differences in respondents' perceptions of the reliability attribute between the two groups of respondents, both from Lawang Medika Hospital and Brawijaya Kesdam V / Military Hospital, it can be seen in the Levene test where the results obtained were sig = 0.163 (p > 0.05). Because the P value > 0.05, it can be concluded that there is no difference in the mean of the reliability variable between the two hospitals. This means that the respondents' perceptions of the reliability aspect of the hospital are the same.

#### *Assurance (guarantee)*

To find out whether there are differences in respondents' perceptions of the assurance attribute between the two groups of respondents, both from the Lawang Medika Hospital and the Brawijaya Kesdam V / Military Hospital, it can be seen in the Levene test where the results obtained were sig = 0.253 (p > 0.05). Because the P value > 0.05, it was concluded that there was no difference in the mean of the assurance variable between the two hospitals. This means that the respondents' perceptions of the assurance aspects of the hospital are the same.

#### *Empathy (empathy, attention)*

To find out whether there are differences in respondents' perceptions of empathy attributes between the two groups of respondents, both from Lawang Medika Hospital and Brawijaya Kesdam V / Military Hospital, it can be seen in the Levene test where the results obtained were sig = 0.142 (p > 0.05). Because the P value > 0.05, it was concluded that there was no difference in the mean of the empathy variable between the two hospitals. This means that the respondent's perception of the empathy aspect of the hospital is the same.

#### *Responsiveness (responsiveness)*

To find out whether there are differences in respondents' perceptions of the responsiveness attribute between the two groups of respondents, both from Lawang Medika Hospital and Brawijaya Kesdam V / Military Hospital can be seen in the Levene test where it was found. nsig = 0.013. Because the

p value is  $<0.05$ , the data variance of the two groups is not the same, so it is seen on the second line (equal variances not assumed) with a value of  $\text{sig} = 0.056$ . Because the P value  $> 0.05$ , it was concluded that there was no difference in the mean score of responsiveness between the two hospitals. This means that there is no difference in respondents' perceptions of the responsiveness of the two hospitals.

#### **Patients' perceptions of aspects of satisfaction with the services provided by the hospital**

To find out whether there are differences in respondents' perceptions of the satisfaction aspects of hospital services between the two groups of respondents both from Lawang Medika Hospital and Brawijaya Kesdam V/ Military Hospital can be seen in the Levene test where the results obtained were  $\text{sig} = 0.1110$  ( $p > 0.05$ ). Because the value of  $P > 0.05$ , it can be concluded that there is no difference in the average aspect of satisfaction between the two hospitals. This means that the respondents' perceptions of the aspects of satisfaction with services from the hospital are the same.

The similarity in this perception can be interpreted that if the patient at Lawang Medika Hospital is asked to assess the inpatient services of the Brawijaya Kesdam V/ Military Hospital, it will give results similar to the assessment given by the patient of the Brawijaya Kesdam V/ Military Hospital itself. Vice versa. The results showed that the level of satisfaction at Lawang Medika Hospital was better than Brawijaya Kesdam V/ Military Hospital.

#### **The relationship between service quality and satisfaction level Lawang Medika Hospital**

From the research, it was found that not all of the variables in the quality dimension had an effect on the satisfaction level of inpatients at Lawang Medika Hospital. Of the five variables studied, it turns out that only the reliability and empathy variables are eligible to be included in the regression model, while the other variables are not. The meaninglessness of this tangible, assurance and responsibility variable, because many aspects that affect the level of patient satisfaction (due to limitations in research) were not included in this study, including factors of cure rate, food service, administrative services and others. This can be seen from the results of the adjusted R square of 0.359 or 35.9%, the level of satisfaction can be explained by the variables of reliability and empathy. The remaining 64.1% is explained by other factors.

To find out whether the regression model above can be used to determine the level of satisfaction of inpatients at Lawang Medika Hospital is by looking at the F value. Since the probability (0.000) is much smaller than 0.05, a regression model can be used to predict the level of satisfaction. In other words, the empathy and reliable variables together affect the level of patient satisfaction.

Meanwhile, to determine the effect of the variable reliability and empathy individually in forming patient satisfaction, the sig / significance value can be seen sig. value variable reliability is 0.018 ( $<0.05$ ), it can be concluded that the variable reliability really has a significant effect on the level of satisfaction. Meanwhile, sig. The empathy variable is 0.011 ( $<0.05$ ), so it can be concluded that the empathy variable also has a significant effect on the level of satisfaction.

Variable reliability (reliability) and empathy (empathy) are characteristics of Lawang Medika Hospital that must be met in order for patients to get satisfaction. So that to improve service quality facilities at Lawang Medika Hospital, officers also pay attention to the aspects of reliability (trained, skilled, etc.) and empathy (patient, smiling, greeting, etc.) of the officers.

From the research, it was found that not all variables in the quality dimension had an effect on the level of satisfaction of inpatients at Brawijaya Kesdam V/ Military Hospital. Of the five variables studied, it turned out that only the responsibility, tangible, and empathy variables were feasible to be included in the regression model, while the other variables were not feasible. The meaninglessness of this variable reliability and assurance i, because many aspects that affect the level of patient satisfaction (due to limitations in research) were not included in this study, including factors of recovery rate, food service, administrative services and others. This can be seen from the results of the adjusted R square of 0.65 or 65%, the satisfaction level can be explained by the responsibility, tangible, and empathy. The remaining 35% is explained by other factors. To find out whether the regression model above can be used to determine the level of satisfaction of inpatients at Brawijaya Kesdam V/ Military Hospital is to look at the F value. From the ANOVA test or F test, it is found that F count is 62.258 with a significance level of 0.000. Since the probability (0.000) is much smaller than 0.05, a regression model can be used to predict the level of satisfaction. In other words, the tangible, empathy and responsibility variables together have an effect on the level of patient satisfaction.

Meanwhile, to determine the effect of each of these variables in shaping patient satisfaction, the significance value can be seen sig value the tangibles variable is 0.004 ( $<0.05$ ), it can be concluded that the tangibles variable really has a significant effect on the level of satisfaction. Meanwhile, sig. The empathy variable is 0.027 ( $<0.05$ ), so it can be concluded that the empathy variable also has a significant effect on



the level of satisfaction. Likewise with the responsibility variable with sig. = 0.000 (<0.05), so it can be concluded that the responsibility variable really has a significant effect on the level of satisfaction.

Tangible variables (physical evidence), empathy, and responsibility (responsiveness) are characteristics of the Brawijaya Kesdam V/Military Hospital which are considered important for respondents in providing satisfaction with hospital services. To increase patient satisfaction, Brawijaya Kesdam V / Military Hospital should pay attention to tangible aspects (physical evidence) such as buildings, high rooms, parking, toilets and others as well as empathy aspects from officers (smiling, greeting, patient, etc.) and do not miss the aspects of responsibility (responsiveness) such as speed of service.

#### **Effect of Service Quality on Patient Satisfaction**

From the results of this study indicate that the patients who become respondents give a satisfied response to the overall services obtained from the hospital, this means that in general the quality provided is in accordance with patient expectations, thus that the quality of service has an influence on patient satisfaction. According to Engel et al. in Tjiptono (2001) states that customer satisfaction is an after-purchase evaluation where the alternatives chosen are at least equal to or exceed customer expectations, while dissatisfaction arises if the results do not meet expectations.

In this study, not all service quality attributes have an influence on service quality, Lawang Medika Hospital has reliable and empathy variables jointly affecting the level of satisfaction. Meanwhile, in the hospital the variables of responsibility, tangible, and empathy simultaneously influence the level of satisfaction.

For the empathy variable in accordance with the theory of Parasuraman et al. (1991), that in evaluating intangibles services includes good communication, special attention to understanding customers and ease of making relationships. In the research of Suamki (2011), Wicaksono (2013), Susanti (2014) that partially empathy service quality affects patient satisfaction. Empathy shows the officer's ability to understand the patient's feelings when the officer experiences them.

For the reliability variable in accordance with the theory of Parasuraman et al. (1991), namely in evaluating services that are intangible, customers generally use the Reliability attribute, namely the ability to provide immediate service. In the research of Suamki (2011), Wicaksono (2013), Susanti (2014) that partially reliability affects patient satisfaction. Responsibility variable is in accordance with the theory of Parasuraman et al. (1991), research by Suamki (2011), Wicaksono (2013), Susanti (2014) that responsibility affects patient satisfaction.

For tangible variables in accordance with the theory of Parasuraman et al. (1991), in evaluating services that are customer intangibles using the tangibles attribute, the influence of Tangibles at Brawijaya Kesdam V / Military Hospital on patient satisfaction proves that patients see physical conditions at home. Brawijaya Kesdam V / military illness seems to have been adequate, therefore the more tangible physical evidence the patient observes, the more satisfied the patient is, research conducted by Suamki (2001), Wicaksono (2013), Susanti (2014) states that Tangibles have an effect on patient satisfaction. The physical aspects of the hospital include setting up the waiting room, arranging the interior and exterior of the room to make it look more beautiful, improving the cleanliness of the room, the neatness of the staff that needs to be improved so that the patient is more comfortable.

Previous studies have shown that service quality has an effect on patient satisfaction, even though using different dimensions. As research conducted by Andaleeb (1998) in his study at the hospital concluded that there was an influence between service quality consisting of communication dimensions, cost, competency and demeanor on patient satisfaction.

Research by Jamal & Naser (2012) and Caruna (2012) states that perceptions of service quality have a significant effect on customer satisfaction. Research by Azis Slamet Wiyono (2015) states that all variables of the quality of medical, paramedical, and non-medical services have an influence on consumers of the Manis Renggo Klaten Islamic Hospital. Muhaemin's research states that there is a significant influence between the variables of reliability, responsiveness and certainty on customer satisfaction at PT Bank BPD Central Java, Surakarta Branch, while the influence of firmness and embodiment variables on customer satisfaction is not significant. From the research that has been done, in this study there are several differences between them, not all dimensions have an effect on patient satisfaction. With the existing theories that have been put forward, the hospital should always try to improve the quality of its services, the better the quality of service provided, the higher the level of satisfaction.

#### **4. CONCLUSION**

In general, both hospitals have applied the quality of service to their patients so that some of the respondents who became patients were satisfied with the hospital's performance. Besides that, the new

findings from this study are as follows. The level of satisfaction formed is not entirely formed from the five aspects or attributes of the quality dimension. For Lawang Medika Hospital, patient satisfaction is mainly derived from the contribution of the aspects of reliability and empathy. Meanwhile, for Brawijaya Kesdam V / Military Hospital, patient satisfaction was obtained from the contribution of the responsibility aspect tangible, and empathy. For Lawang Medika Hospital, the variable that has the greatest influence on satisfaction is empathy with a regression coefficient of 0.533, while for the Brawijaya Kesdam V / Military Hospital the variable that has the biggest influence is responsibility with a regression coefficient of 0.494. There are similarities in the perceptions of both hospital respondents in assessing inpatient services. This can be seen from the similarity in perceptions of tangible variables, reliability, assurance empathy, and responsibility.

To overcome empathy's problem, a hospital management needs to regularly provide training to all personnel involved in handling patients (medical, paramedical and non- medical) on good and effective communication, and always reminds to be more friendly and patient in providing services to patients. To overcome the reliability problem, hospital management should regularly schedule meetings for all personnel involved in handling patients (medical, paramedical and non-medical) to brainstorm about correct patient handling, timeliness in providing services, fast and just as the patient arrives. To overcome the problem of responsibility, hospital management should regularly schedule all personnel involved in handling patients (medical, paramedical and non- medical) to brainstorm about patient handling in a short time, responsiveness / preparedness in responding to complaints / request the patient. To overcome the Tangible problem, hospital management should improve the physical aspects of the hospital, including improving the waiting room arrangement, arranging the interior and exterior of the room to make it look more beautiful, and increasing the cleanliness of the room. To solve the empathy problem, hospital management should routinely provide training to all personnel involved in handling patients (medical, paramedical and non- medical) on good and effective communication, and always remind to be more friendly and patient in providing services to patients. The results of this study can be used by management as a basis for developing a strategy to improve the quality of services to maintain customer/patient satisfaction and interest in using the hospital's services if they require treatment at a later date. The results of this study can also be used by management as a basis for developing a marketing strategy because the market segments for the two hospitals are known. The right marketing strategy can be boosted inpatient occupancy at the two hospitals.

We recommend that the next researcher add more variables of cost, price, food as well as examining the level of importance of the variables (tangible, reliability, responsiveness, and assurance, empathy) so as to get more optimal results.

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