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IJERTV9IS060934	<u>Tribological behavior of Clutch Plate Material in Laboratory Simulated Conditions</u>	Pravin B Bhorkade , Dr. A. B. Kakade
IJERTV9IS060939	<u>Computerization Method to classifying of Red Blood Cells using Boosting Technique</u>	Damini Uike , Snehal Thorat
IJERTV9IS060946	<u>Modified Strategy for Hybrid Cascaded H-Bridge Multilevel Inverter</u>	M.Revathi , Dr. K. Rama Sudha
IJERTV9IS060949	<u>Seismic Performance of Fire Exposed Moment Resisting Composite Frame</u>	Suhaila Fasini T. K. , Ajith A. V.
IJERTV9IS060969	<u>Rebar Presence in the Structures using Electrical Property of Concrete: A Review</u>	Amala Joy , Jeena Mathew
IJERTV9IS060974	<u>Implementation of Secure Voting System using Blockchain</u>	Dipali Pawar , Pooja Sarode , Shilpa Santpure , Poonam Thore, Pravin Nimbalkar
IJERTV9IS060984	<u>Comparative Study of Ordinary and Supa Sections of Cold Formed Steel</u>	Drishya S Krishna , Binu P
IJERTV9IS060990	<u>Structural Investigation on Buckling Behaviour of Double Web Tapered Steel Columns</u>	Akshara M. A , Manju P. M
IJERTV9IS060991	<u>Lateral Resistance Capacity and Strengthening of Corrugated Steel Wall with Different Openings</u>	Veena Nair , Reshmi P R ,
IJERTV9IS061014	<u>Analyzing Various Techniques to Safeguard user Sensitive Data</u>	K. Pramilarani , Dr. Vasanthi Kumari P
IJERTV9IS061016	<u>Long Short-Term Memory (LSTM) Deep Learning Method for Intrusion Detection in Network Security</u>	Supriya Shende , Samrat Thorat
IJERTV9IS061021	<u>Impact of Implementing Cloud Native Applications in Replacement to on-Premise Applications</u>	A R Sri Nandhini , Alaine Joseph , Ajay S

IJERTV9IS060480	<u>Review of Extraction and Classification of Key-Phrases in Scientific Publications using CRF and WEDP</u>	Riya Tyagi
IJERTV9IS060711	<u>Synthesis and Characterization of Polypyrrole Synthesized via Different Routes</u>	Sumaira Noshee , Muhammad Irfan , Farzana Habib, Syed Zaheer Abbas , Bilal Waseem, Farooq Iftikhar, Badarudin Soomro, Abdul Karim Aziz
IJERTV9IS060883	<u>Study on the Relationship Between Kinematic Viscosity, Density and Temperature of Lubricating Oil PAO</u>	Lijun Yang , Yanshuang Wang , Erqiang Wang , Feilang Ning
IJERTV9IS060908	<u>Research on Viscosity-Temperature Characteristics of PAO Oil and Ester Oil</u>	Feilang Ning , Yanshuang Wang , Lijun Yang , Erqiang Wang
IJERTV9IS060960	<u>3 Wheel Forklift for Industrial Purposes</u>	Pramit S Jain , Saurabh S Shah , Mohd Husain A Sunasara , Zohaib Shirgaonkar, Jugal Jagtap
IJERTV9IS061009	<u>Modelling of Combined Cycle Gas Turbine Power Plant and Reduction of CO2 Emissions by using Absorption Chiller Technology</u>	M B Bughazem , Imhamed M. Saleh , Khalifa Khalifa , N. Algharbi
IJERTV9IS061017	<u>Investigation on the Time-Frequency Effects of A Crack in A Rotating System</u>	Nima Rezazadeh
IJERTV9IS060549	<u>Estimate The Parameters of Photovoltaic Module by FODPSO</u>	Samah Abd Eltwab Mohamed , Hala M. Abdel Mageed , Waleed Abd El Maguid Ahmed , Amr A. Saleh
IJERTV9IS060627	<u>Design of Sore-Throat Medical Diagnosis System</u>	Naeem Atanda Balogun , Kafayat Oyindamola Kareem , Ayeyemi Ajiboye, Yahaya Isah Shehu , Mohammed Abdullahi, Adeyinka Adedoyin
IJERTV9IS060965	<u>In Vitro Haematological Effects and Attenuation of Ultrasound Waves in Human Blood</u>	Muhammad Arshad Javid, Muhammad Imran
IJERTV9IS060893	<u>Effect of Furrow Irrigation Technical Parameters on Field Application Performances of Short Furrow and Yield of Onion Crop in Bako, Ethiopia</u>	Gudeta Genemo Kore



# Effect of Service Quality and Service Innovation of Patient Satisfaction and Loyalty

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**Abstract:** This study aims to analyze the effect of quality and service innovation on the satisfaction and loyalty of outpatients in Blambangan Banyuwangi Regional Hospital. The population in the study was outpatients in Blambangan Regional Hospital, by taking 100 patients as research samples. Data analysis in this study used the SEM (Structural Equation Model) method with the Warp PLS 5.0 application. The results showed that service quality had no significant effect on patient satisfaction. Service innovation has a positive and significant effect on patient satisfaction. Service quality has no significant effect on patient loyalty. Service innovation has a positive and significant effect on patient loyalty. Patient satisfaction has a positive and significant effect on patient loyalty.

**Keywords:** Service quality; service innovation; satisfaction; customer loyalty.

## INTRODUCTION

In this era of competition, the business world that offers a form of product or service is growing faster. The change in environmental conditions and the development of the desires of the community as consumers in meeting their needs are important factors that support competition between companies. The products offered can be in the form of goods or services. The service industry is currently experiencing significant growth along with the development of increasingly diverse community needs. The service industry is still the main pillar of Indonesia's Gross Domestic Product.

With economic growth of 5.17 percent during 2018. The main pillars of economic growth in 2018 are still the same as in previous years, namely the service sector or the non-tradable sector. According to him, from 14 service sectors, 11 of them grew above the Gross Domestic Product (GDP) growth (<https://www.liputan6.com/bisnis/read/3889389/sector-jasa-masih-jadi-pendorong-pertumbuhan-ekonomi-indonesia.>, 2019). One of the service industries that also provides the largest contribution is the hospital services industry. Hospitals in Indonesia consist of public hospitals and private hospitals with a total of 2,773. The growth of public hospitals over the past 6 years is not as fast as the growth of private hospitals. The average growth of public hospitals is 0.4%, due to a decrease in the number of non-profit private hospitals, while private hospitals are 15.3% (<https://www.persi.or.id/images/2017/litbang/rsindonesia418.pdf.>, 2019). With the growth of the number of hospitals which is quite significant, the level of competition in getting the number of patients to go to a particular hospital also increases.

With the growth of the number of hospitals which is quite significant, the level of competition in getting the number of patients to go to a particular hospital also increases. According to (Lupiyoadi, 2013) the dynamics that occur in the service sector can be seen from the development of various service industries such as banking, insurance, aviation, telecommunications, retail, tourism, and professional service companies such as accounting firms, consultants and lawyers. Also, it can be seen from the rise of non-profit organizations, such as NGOs, government agencies, hospitals, and universities that are now increasingly aware of the need to improve customer / customer service orientation. Where service becomes an important element to realize the desires of consumers. The competition that occurs in the business world does not only occur in the private sector, but institutions managed by the government are also participating in the current competition. The competition occurs in health referral service institutions, namely hospitals. In the Regulation of the Minister of Health of the Republic of Indonesia Number 340 / MENKES / PER / III / 2010, the hospital is a health service institution that conducts individual health services in a complete manner that provides inpatient, outpatient and emergency services.

According to (Sabarguna, 2009) existing hospitals so far are more service-oriented. The service must be well organized so that it can run. Lack of attention to efficiency and productivity will indicate slow service to anticipate changes, so quality will be difficult to achieve reasonably. Therefore, hospital organizations today and in the future must be oriented towards continuous development to meet the demands of patient satisfaction and loyalty. In addition to the growing demands of patients, there are also many private hospitals appearing, making hospitals more referring to as an industry engaged in the field of health services by managing based on the management of business entities. Along with this development, there is currently competition between hospitals both government-owned hospitals and private-owned hospitals, all trying to attract consumers to use their services.

Efforts in the form of improving the quality of services with various innovations, continue to be carried out by Blambangan Banyuwangi Regional Hospital. This is done to change the service paradigm which has so far tended to be considered unfavorable by the community towards government hospital services. This assessment is reflected by a large number of complaints/complaints from the public/patients regarding services at Blambangan District Hospital.

**Table 1: Number of Complaints in RSUD Blambangan Banyuwangi**

No.	Year	Media Complaints		Number of Complaints
		Suggestion Box	SMS and Web	
1.	2016	12	16	28
2.	2017	44	51	95
3.	2018	24	10	34

Table 1. shows that the number of public complaints in the past few years regarding services at Blambangan District Hospital has fluctuated. In 2016 there were 28 complaints, but in 2017 they increased quite high at 95 complaints. This is a considerable amount for an agency. Whereas in 2018 the number of complaints decreased to 34 complaints.

Figure 1.

Public Satisfaction Index Against Blambangan Hospital Services

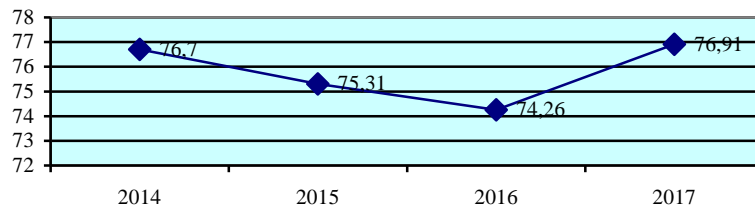


Figure 1. shows the level of community satisfaction with services in Blambangan Hospital in 2014 to 2016 decreased significantly from 76.7% to 74.26%. Responding to the level of community satisfaction that continued to decline over the past 2 years, the Blambangan Regional Hospital made improvements in several ways so that in 2017 it experienced a pretty good increase of 76.91%.

Blambangan Hospital is one of the agencies in the Banyuwangi Regency Government that organizes advanced health services for the community. The services provided at Blambangan Hospital are generally divided into 3 (three) categories, namely inpatient, outpatient, and emergency services. At present to support health services to the community, especially in outpatient services, Blambangan Hospital has 22 units of outpatient care in the form of polyclinics supported by 35 specialist doctors and other supporting medical personnel. Over time, specialist doctors will try to continue to be added. It aims to increase satisfaction and loyalty to the community of hospital service users at the Blambangan Banyuwangi Regional Hospital. Based on the problems that have been described, the purpose of this study is to determine the effect of service quality and service innovation on the satisfaction and loyalty of outpatients in Blambangan Banyuwangi Hospital.

#### LITERATURE REVIEW

Customers who are satisfied with the product or service that has been felt will usually provide good information to other customers. In addition to providing good information, customers will usually recommend the product or service to other customers (Qomariah, 2016). Providing good information and recommending to other customers is called customer loyalty. Customer loyalty is usually formed after the customer is satisfied with the product or service that has been felt (Tjiptono & Candra, 2012). Research on customer loyalty that is associated with customer satisfaction and service quality and service innovation has been done by researchers. Research (Aryani & Rosinta, 2010) showed that the customer loyalty affected by variables of tangibles (X1), reliability (X2), responsiveness (X3), assurance (X4), and empathy (X5). Research (Anggriana, Qomariah, & Santoso, 2017) indicated that service quality influence on customer satisfaction online ojek service "Om- Jek" Jember. Research (Djanas, 2016) indicated that service quality and company image has significantly influence satisfaction and loyalty. Research (Verriana & Anshori, 2017) showed that service quality (X) have positive impact and significant to students loyalty. Research (Qomariah, 2018) showed that customer value, brand image and product attribute have an effect on visitor satisfaction. The value of the customer does not affect the loyalty of visitors, while the brand image, product attributes and visitor satisfaction affect the loyalty of visitors. Research (Subagja & Susanto, 2019) indicated that service quality has effect on customer loyalty. Variable quality of service, customer satisfaction, and corporate image have effect on customer loyalty. Research (Mutmainnah, 2018), customer satisfaction has not key success to loyalty but continuously improves the quality of service and corporate image of satisfaction, but it creates loyalty to buy services and recommend to others. Research (Santoso & Samboro, 2017) showed that innovation product has effect on loyalty consumer. Research (Utami & Wartini, 2015) states that service innovation effect on customer loyalty. Research (Sinurat, Lumanauw, & Roring, 2017) states that service quality has effect on customer loyalty, and brand image has no effect on customer loyalty of Suzuki Ertiga vehicles in Manado. Research (Dewi & Rulirianto, 2011) states that corporate image, customer trust, and service quality have effect on customer loyalty in PT Buana Langgeng Jaya Tulungagung. Research (Sofiati, Qomariah, & Hermawan, 2018) showed that services quality has effect on consumer loyalty. Research (Yuliana & Hidayat, 2018) showed that product innovation has effect on consumer loyalty.

The factor that needs attention due to the business sector in services is customer satisfaction. Satisfaction is the feeling someone is connected with the product or service that has been obtained (Buchari, 2011). (Kotler & Keller, 2009) states that customer satisfaction is obtained after customers compare consumer expectations and performance provided by service providers. To realize customer satisfaction, a strategy that must be applied in its services is needed, namely improving service quality and service innovation which has an important role in improving the performance of companies or institutions. To

improve customer satisfaction, one thing that needs attention is the quality of service provided by the service provider. Quality of service is everything that is received or felt by consumers for the services provided by the company so that the quality received between consumers can experience differences due to limited knowledge from consumers to assess the performance of employees in providing services. According to (Parasuraman, Zeithaml, & Berry, 1985) identify 5 (five) characteristics groups used by consumers in evaluating the quality of service, including: (1). Physical evidence is the ability of a company to show its existence to external parties. The appearance and capability of the company's physical facilities and infrastructure that can be relied upon by the condition of the surrounding environment is clear evidence of the services provided by the service provider. (2). Reliability is the ability of a company to provide services as promised accurately and reliably. Performance must be following consumer expectations which mean timeliness, the same service for all consumers without errors, and a sympathetic attitude. (3). Responsiveness is a policy to help and provide fast and appropriate services to consumers, by conveying clear information. (4). Guarantee and certainty are knowledge, politeness, and the ability of company employees to grow the trust of consumers to the company. (5). Empathy by giving sincere and individual or personal attention given to consumers by trying to understand consumer desires. Research on service quality and service innovation that is associated with customer satisfaction has been widely by researchers among them: (Sutrisno, Cahyono, & Qomariah, 2017), (Djanas, 2016), (Verriana & Anshori, 2017), (Qomariah, 2012), (Saputra, 2013), (Verriana & Anshori, 2017), (Saidani & Arifin, 2012), (Subagiyo, 2015), (Sugiarto, 2015), (Setiawan, Qomariah, & Hermawan, 2019), (Mulyawan & Rinawati, 2016), (Aryani & Rosinta, 2010), (Iriyanti, Qomariah, & Suharto, 2016), (Anggriana et al., 2017), (Maskur, Qomariah, & Nursaidah, 2016), (Setyawati, Rifai, & Sasmito, 2018), (Mutmainnah, 2018), (Subagja & Susanto, 2019), (Khilmi, 2013), (Utami & Wartini, 2015), (Sinurat et al., 2017).

## METHOD

The approach used in this study is a quantitative method, which emphasizes the existence of variables as research objects, and these variables must be defined in the form of the operationalization of each variable (Sugiyono, 2010). The independent variables in this study are service quality (X1) and service innovation (X2). The dependent variable is loyalty (Y2) and the intervening variable is patient satisfaction (Y1). The population is a generalization area that consists of objects/subjects that have certain qualities and characteristics that are applied by researchers to be studied and then drawn conclusions (Ghozali, 2013). The population in this study were patients who did the outpatient treatment at RSUD Blambangan Banyuwangi. The number of samples used was 100 outpatients regarding the rules of at least 20 indicators x 4 variables or in this study, the samples used were 100 respondents (Ferdinand, 2006). Validity and reliability tests are used to test the measuring instruments used (Ghozali, 2011). Data analysis in this study used SEM-PLS with WarpPLS 5.0. This research uses the SEM technique so that the evaluation is carried out on two models, namely the outer model and the inner model. The outer model determines the specification of the relationship between latent constructs and their indicators. This evaluation is also called the evaluation of constructs / latent variables. In evaluating the Outer Model three things need to be done, namely testing convergent validity, discriminant validity, and composite reliability. The following is an explanation for each test (Ghozali, 2013).

## RESULTS

### *Characteristics of Respondents*

Based on the results of calculations with the criteria of respondents by sex, it is known that of 100 respondents, 54% or as many as 54 people consisted of men and 46% or as many as 46 people consisted of women, which means that the number of male respondents was higher than respondents women. The results of statistical calculations based on the age of the respondents showed that respondents under the age of 20 were 5 people or by 5 percent, aged between 20-30 years by 16 percent or as many as 16 people, aged between 31 - 40 years by 30 percent or as many as 30 people, age between 41 - 50 years is 35 percent or as many as 35 people and age between above 50 years is 14 percent or as many as 14 people. The calculation also shows that the respondents with the most age are those aged between 41-50 years. Based on the calculation of respondents with the criteria for the type of work, it is seen the number of respondents who become Civil Servants as many as 33 people or 33 percent, the number of respondents who are self-employed as many as 35 people or 35 percent. The number of respondents who became farmers/laborers was 7 people or 7 percent, respondents who became students were 11 people or 11 percent. The number of respondents who became other workers was 14 people or 14 percent. It can be seen that the respondents with the most types of work are entrepreneurs. The results of the calculation of respondents with respondents' salary criteria, showed that most of the income of outpatients in Blambangan Banyuwangi Regional Hospital as respondents were above 2 million rupiahs, namely 49 people or 49 percent. For income ranges between 1-2 million as many as 33 people or 33 percent, while respondents who earn below Rp. 1,000,000 18 people or 18 percent. Based on the criteria of the visit the respondents showed that the majority of outpatients in Blambangan Banyuwangi Hospital using health services in Blambangan Hospital more than 3 times amounted to 64 people or 64 percent, while patients who used health services already amounted to 18 people or 18 percent, there were 15 patients who used health services or 15 percent. While respondents who have just used health services once were 3 people or 3 percent.

### *Validity and Relativity Test Results*

Validity is a measure that shows the levels of validity or validity of an instrument. A valid or valid instrument has high validity. Conversely, an instrument that is less valid means it has low validity (Arikunto, 2010). Validity test results for all variables namely service quality (X1), service innovation (X2), patient satisfaction (Z) and patient loyalty (Y) are declared valid

because all items of the research variable have r-counts greater than r- table and the significance value of all items is below 0.05. The reliability test is used to measure a questionnaire which is an indicator of the variable. In this study, the reliability test was performed using SPSS 16.0 statistical application assistance using the Cronbach's Alpha method. Variables are said to be reliable if they have a Cronbach's Alpha value greater than 0.60. The reliability test results in this study can be seen in table 2.

Table 2: Variable Reliability Test Results

Variable	Statement Items	Cronbach Alpha	Information
X1	6 item	0,792	Reliabel
X2	6 item	0,810	Reliabel
Y1	4 item	0,653	Reliabel
Y2	4 item	0,653	Reliabel

Based on table 2, it can be seen that the Cronbach Alpha value of each variable is greater than 0.60, so it can be concluded that the statement indicators in the questionnaire are declared reliable or reliable as a measurement tool in this study.

**Hypothesis Testing**

Hypothesis testing is used to explain the direction of the relationship between the independent variable and the dependent variable. This test is done by a path analysis of the model that has been made. SEM technique can simultaneously test complex structural models so that the path analysis results can be seen in one regression analysis. The results of correlations between constructs are measured by looking at the path coefficients and their level of significance which are then compared with the research hypothesis. To see the results of hypothesis testing simultaneously or together it can be seen the value of the path coefficients and p-values in the total effects of the results of simultaneously processing variable data. From the results of data processing from WarpPLS obtained a research model that can describe the influence between variables.

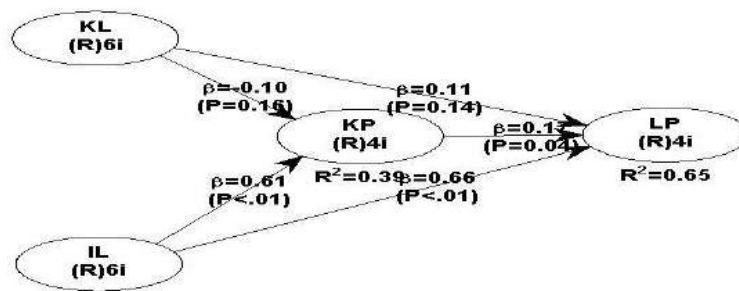


Figure 2. Research Model of Direct Effect Testing Results

To prove the research hypothesis, it is necessary to analyze and test the results related to their direct and indirect effects. The following table shows the results of research from the direct effect test that has been obtained based on data processing.

Table 3: Results of Path Coefficients and P Values

	Variable	KL	IL	KP	LP
Path Coefficients	KL				
	IL				
	KP	-0,097	0,614		
	LP	0,106	0,665	0,171	
P-Values	KL				
	IL				
	KP	0,162	<0,001		
	LP	0,139	<0,001	0,038	

**Discussion**

**Effect of Service Quality on Patient Satisfaction**

The first hypothesis states that service quality has a positive and significant effect on patient satisfaction. After testing and analyzing the data, it was found that the quality of services did not significantly influence the satisfaction of outpatients at Blambangan Hospital, so H1 could not be accepted. The results of testing the service quality variable on patient satisfaction which shows the p-value of 0.162, this indicates that there is no significant effect between service quality (X1) on patient satisfaction (Y1). This happens because most of the patients' perceptions about the quality of services provided by Blambangan Hospital remain the same as before. So that patients assume improvements in the quality of service, especially in terms of staff attitudes and examination time is still not able to satisfy the patient.

**Effect of Service Innovation on Patient Satisfaction**



Based on the results of the study, it was found that service innovation had a positive and significant effect on outpatient satisfaction at Blambangan District Hospital. This can be seen from the path coefficient of 0.614 and p-value <0.001 (<0.05). The results obtained indicate that good service innovation will increase patient satisfaction in health services at Blambangan Regional Hospital so that the research hypothesis (H2) is accepted. This shows that outpatients are very happy to receive and utilize the existing service innovations at Blambangan Hospital.

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

Based on the results of testing the service quality variable on patient loyalty, the results showed a p-value of 0.139 (> 0.05), which means that service quality has no significant effect on outpatient loyalty at Blambangan Hospital. With the results of these studies, the research hypothesis (H3) cannot be accepted/rejected. This happens because most of the patients' perceptions about the quality of services provided by Blambangan Hospital remain the same as before. Patients assume improvements about the quality of service, especially in terms of the attitude of the officers provided are still not able to satisfy patients. So that with the lack of satisfaction obtained by patients related to the attitude of service officers and examination time, the level of loyalty that is influenced by the quality of service experienced less performance.

#### **Effect of Service Innovation on Patient Loyalty**

Based on the results of the study, it was found that service innovation had a positive and significant effect on outpatient loyalty at Blambangan District Hospital. This can be seen from the path coefficient value of 0.665 and p-value <0.001 (<0.05), which shows that good service innovation will increase patient loyalty to health services in Blambangan District Hospital so that the research hypothesis (H4) is accepted. This shows that outpatients are very happy to accept and take advantage of the existing service innovations in Blambangan Regional Hospital so that these patients want to re-use health services in Blambangan Regional Hospital.

#### **Effect of Satisfaction on Patient Loyalty**

Based on the results of the study, it was found that patient satisfaction had a positive and significant effect on outpatient loyalty at Blambangan District Hospital. This can be seen from the path coefficient value of 0.171 and p-value of 0.038 (<0.05), which shows that the satisfaction of a patient who has received health services will increase patient loyalty to health services in Blambangan Hospital, so the research hypothesis (H5) be accepted. This shows that outpatients who are satisfied with health services in Blambangan Hospital will make these patients want to re-use health services in Blambangan Hospital.

## CONCLUSIONS AND RECOMMENDATIONS

### **Conclusion**

Based on the results of the research and testing of research models that have been conducted, the following conclusions are obtained: 1) Service Quality does not significantly influence the satisfaction of outpatients in Blambangan Hospital. This is consistent with the results of testing the service quality variable on patient satisfaction which shows the results of the path coefficient value -0.097 and p-value 0.162 (> significance level 0.05); 2) Service innovation has a positive and significant effect on the satisfaction of outpatients in Blambangan Hospital. This can be seen from the value of the path coefficient of 0.614 and p-value <0.001 (<significance level of 0.05); 3) Service quality has no significant effect on outpatient loyalty in Blambangan District Hospital. This is consistent with the results of testing variables that show the results of the path coefficient value 0.106 and p-value 0.139 (> significance level 0.05); 4) Service innovation has a positive and significant effect on outpatient loyalty in Blambangan District Hospital. This can be seen from the value of the path coefficient of 0.665 and p-value <0.001 (<significance level of 0.05); 5) Patient satisfaction has a positive and significant effect on outpatient loyalty in Blambangan Hospital. This can be seen from the value of the path coefficient of 0.171 and the p-value of 0.038 (<significance level of 0.05).

### **Suggestion**

Based on the results of this study, the following suggestions can be made: . In this study, the variables that have no significant effect are service quality. So it needs to be considered and improved again about the quality of services provided to outpatients, starting with infrastructure, human resources reliability, responsiveness to patients, guaranteeing patient safety and comfort and how employees have good empathy for patients. With the improvement in service quality can make patients satisfied with the services provided by Blambangan Hospital.

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