

Maintaining Service Quality of Emergency Room During Pandemic Crisis

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Abstract — Satisfaction is an attitude towards a service provider or an emotional reaction to what customers expect and receive regarding needs. Good service provided to customers can create satisfaction so as to create long-term relationships and customer loyalty. The study uses service quality as an independent variable, customer satisfaction as a mediating variable and loyalty as the dependent variable. The purpose of this study was to analyze the effect of service quality and patient satisfaction on patient loyalty in the emergency room in province of Banten, Indonesia. Pre-survey was conducted on 30 respondents. The results of the survey showed that 62% of patients were dissatisfied with the services provided by the emergency room in province of Banten, Indonesia. The results of the study concluded that all hypotheses could be accepted.

Keywords— service quality, customer satisfaction, customer loyalty, emergency room

1. INTRODUCTION

Health is a necessity to survive and be productive, for that reason it is necessary to have good quality health services. Every family and community is entitled to protection of their health and the state is responsible for regulating the fulfillment of the right to healthy living for its inhabitants. Al- Hawary & Al-Menhaly (2016) argue that customers are satisfied because of good service, this will also increase customer loyalty. Satisfaction is an attitude towards service providers or emotional reactions to what customers expect and receive regarding meeting needs (Chingos, Henderson & West, 2012). Good service provided to customers can create satisfaction so as to create long-term relationships and customer loyalty (Li & Shang, 2019). The delivery of health services is regulated in law number 32 of 2009 which has been updated from the previous law, in law number 32 of 2009 explaining that health services are any activities carried out in an integrated and sustainable manner to maintain and improve public health in the form of disease prevention, health promotion, treatment of disease, and health recovery by the government and or the community. Problems related to patient loyalty must be highly considered by hospital service providers. In providing health services, speed in providing services, guarantees and certainty and empathy given to patients in order to create satisfaction from patients. Preliminary survey was conducted on 30 respondents. The results showed that 62% of patients were dissatisfied with the services provided by the emergency room in province of Banten, Indonesia. The purpose of the study was to examine and analyze the effect of service quality and patient satisfaction on patient loyalty in hospital emergency rooms in province of Banten, Indonesia.

2. LITERATURE REVIEW

According to [13], service quality is the fulfillment of needs and desires to meet customer expectations. Service quality is a condition related to service products, human resource, processes, and the environment that can meet and exceed customer expectations. Service quality is of paramount importance for companies in order to be able to survive and still earn customer's trust. Assessment of the quality of service is determined by the service user, and the service user will make an assessment by comparing the services they receive with their expectations as a customer. Therefore, service quality can be determined by assessing how the service meets the needs and expectations of the users, according to [11]. According to [9] there are five

main dimensions of service quality. Those dimensions are as follows: (1) reliability, which refers to the company's ability in providing accurate services without making any errors and in delivering services in a timely manner in accordance with the company's agreements; (2) responsiveness, which refers to the employees' willingness and ability in helping customers and responding to customer requests, as well as informing the services that will be provided and then providing said services appropriately and fulfill customer's satisfaction; (3) assurance, which refers to employee behavior that enables the fostering of customers' trust towards the company, while the company can also create a sense of security and comfort for its customers. Assurance also means that employees are always polite and knowledgeable, equipped with the skills required to handle customers' questions or problems; (4) empathy, meaning that the company understands customer's problems and acts on them to meet their needs, as well as providing personal attention to the customers while implementing operating hours that adhere to customers' comfort; and (5) tangibles, which refer to the attractiveness of the facilities, equipment, and materials used by the company, as well as employee's appearance. According to [6], satisfaction is the pleasant or the upsetting feeling by a person, which derives from the comparison between their impression of a product's performance with their expectations. Satisfaction is an emotional condition, a reaction at the time of purchase, and it can arise in the form of anger, dissatisfaction, excitement and pleasure, experienced by the customers towards the company upon using the products and services offered. Satisfaction is determined by the comparison between the expectation towards a certain service, and a short-term emotional reaction to certain service performance. Customer satisfaction can bring about several benefits, one of which is the harmonization of the relationship between customer and company, providing a good basis for repeat purchases and customer loyalty, as well as giving way for customers to give word to mouth recommendations to other potential customers which in turn can be beneficial for the company. Loyalty is the deeply held commitment by the customers to repurchase and support products or services that they like in the future, although certain situations and marketing efforts can turn away customers from this commitment [3]. This is the reason behind company's efforts to improve their products to create a positive brand image that attracts customers, according to [8].

Employee performance (or work performance) refers to the quality and quantity of work achieved by an employee in carrying out their duties in accordance with the responsibilities given to them [12], [7], [4]. Higher performance level would produce satisfactory outcomes for consumers. Customer expectation is the basis of how two businesses or organization in the same industry can be rated differently by customers. In the context of customer satisfaction, generally expectations provide a presupposition or trust in what the customer is about to receive [11]. According to [6], customer loyalty is the driving behavior that leads to repeat purchases. Loyal customers always make repeat purchases, which in turn guarantees revenue flows for a company. They also have the willingness to pay more expensive prices which can affect company revenue [9]. Loyalty is the formation of attitudes and patterns of behavior of a consumer towards the purchase and use of products resulting from their previous experience [5], [14]. Loyalty is the attitude and behavior of the customer that makes repeat purchases of goods or services which displays a high customer commitment to the products and services offered by the company [13]. There are six indicators in measuring customer loyalty: (1) repeat purchases of products and services; (2) a habit of using certain products or services from the company; (3) always liking a company's products or services that they use; (4) persistence in opting for or being loyal to the products or services offered by the company; (5) convinced that the product or service is better than the rest; and (6) recommending the products or services to other people.

3. RESEARCH METHODOLOGY

The object of this research were the patients treated in emergency room at a hospital in Banten, Indonesia. In this study, we researched the measurement of patient loyalty through customer satisfaction and service

quality. The population in this study were all patients who had experienced emergency room service since April 2020 (during the COVID-19 pandemic). The sampling technique we used was the purposive sampling for respondents aged 17 to 50 years. We used SEM (structural equation modeling) as the method of analysis, with the minimum number of samples was the number of indicators multiplied by 5-10 (Tannady et al., 2017). There were as many as 29 indicators used in this research, therefore we required a total of 145 to 190 samples. Sampling was conducted by distributing online questionnaires respondents. We collected primary and secondary data for data collection in this study. Primary data was obtained through observation which involved seeking information and questioning patients directly. Questionnaires were distributed to respondents both directly and online. Secondary data was obtained using the literature review method by obtaining information through the internet, newspapers, and magazines, in order to find relevant theories for this research question. Measurement of the level of respondents' answers was done using a 5-level Likert scale, including: (5) Strongly Agree (4) Agree (3) Neutral (2) Disagree (1) Strongly Disagree. The independent variable and the dependent variable in this study included service quality (X1) and customer satisfaction (Y1) as the independent variables, and customer loyalty (Y2) as the dependent variable.

4. HYPOTHESIS

Based on the formulation of the problem and the relationship between variables in the research framework, the research hypotheses are as follows:

H1: Service quality affects customer satisfaction.

H2: Customer satisfaction affects customer loyalty.

H3: Service quality and customer satisfaction simultaneously affect customer loyalty.

5. DISCUSSION AND ANALYSIS

5.1 Data Quality Test

Reliability test showed the reliability of a measuring instrument. We used CR (Construct Reliability) for reliability testing in this study. Table 1 shows the results of the reliability test.

Table 1. Reliability Test Result

Variable	CR	Parameter
Service Quality	0,9796	$\alpha > 0,7$
Customer Satisfaction	0,9511	
Customer Loyalty	0,9438	

Reliability test result showed that the C.R. value in all 3 of the research variables each exceeded the parameter of 0,7. Based on the result, it can be concluded that all research instruments were reliable and could be used in this research. The instrument quality test was conducted to find out whether the research instrument had met the valid criteria in this study which consisted of 29 lists of statements representing each variable with 290 respondents. Validity test result showed that all indicators had a loading factor value that exceeds 0,5, therefore could be determined as valid.

5.2 Measurement Model Test

In accordance with the model developed in this study, the data analysis tool that we used for this research was SEM. The model that was determined on the flowchart on step 2, was then expressed in structural equations.

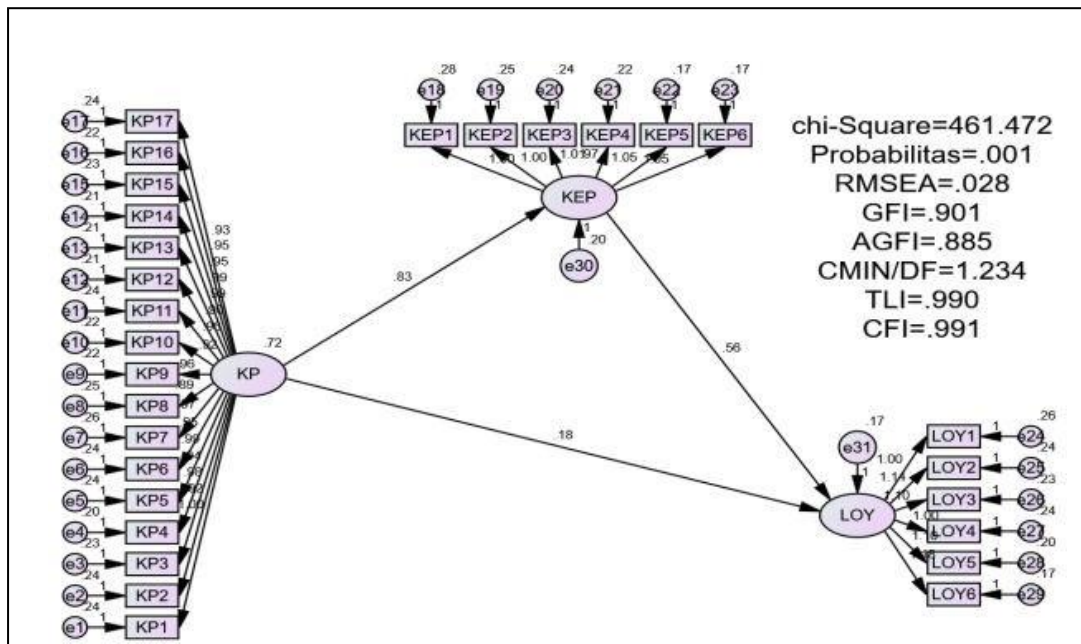


Figure 1. Structural Model

The matrix input used is covariance and correlation. The estimation model used is the maximum likelihood (ML) estimation. The ML estimate has been met assuming the representative sample size is around 100-200. Normality test uses the z value (critical ratio or C.R) of the skewness and kurtosis values of the data distribution. The critical value is ± 2.58 at the significant level of 0.01. Normality Test Results are shown in Table 2.

Table 2. Normality Test

Variable	min	max	skew	c.r.	kurtosis	c.r.
LOY6	1.000	5.000	-.732	-5.089	-.039	-.135
LOY5	1.000	5.000	-.639	-4.444	-.125	-.434
LOY4	2.000	5.000	-.507	-3.527	-.363	-1.263
LOY3	1.000	5.000	-.615	-4.278	-.234	-.814
LOY2	1.000	5.000	-.699	-4.857	-.034	-.120
LOY1	1.000	5.000	-.747	-5.190	.222	.773
KEP6	1.000	5.000	-.431	-2.997	-.609	-2.118
KEP5	1.000	5.000	-.400	-2.783	-.756	-2.627
KEP4	1.000	5.000	-.546	-3.799	-.202	-.701
KEP3	1.000	5.000	-.499	-3.468	-.443	-1.541
KEP2	1.000	5.000	-.540	-3.755	-.557	-1.935
KEP1	1.000	5.000	-.496	-3.445	-.680	-2.364
KP17	1.000	5.000	-.518	-3.602	.060	.207
KP16	1.000	5.000	-.531	-3.694	-.208	-.724
KP15	1.000	5.000	-.607	-4.219	-.034	-.117
KP14	1.000	5.000	-.433	-3.012	-.444	-1.542
KP13	1.000	5.000	-.419	-2.916	-.417	-1.451
KP12	1.000	5.000	-.562	-3.906	.031	.108

KP11	1.000	5.000	-.577	-4.014	-.136	-.473
KP10	1.000	5.000	-.470	-3.270	-.022	-.077
KP9	1.000	5.000	-.637	-4.427	-.002	-.006
KP8	1.000	5.000	-.432	-3.006	-.189	-.658
KP7	1.000	5.000	-.443	-3.079	-.566	-1.969
KP6	1.000	5.000	-.450	-3.127	-.449	-1.560
KP5	1.000	5.000	-.602	-4.186	-.190	-.660
KP4	1.000	5.000	-.581	-4.038	.071	.248
KP3	1.000	5.000	-.480	-3.337	-.279	-.970
KP2	1.000	5.000	-.466	-3.239	-.329	-1.144
KP1	1.000	5.000	-.505	-3.511	-.438	-1.523
Multivariate				-8.383		-1.683

5.3 Goodness of Fit Test Result

The goodness of fit test aimed to determine the extent that the hypothesized model “fits” the data sample. The goodness of fit test result is shown in the following data:

Table 3. Goodness of Fit

<i>Goodness of fit index</i>	<i>Cut-off value</i>	Result	Model
<i>Chi-square</i>	-	461.472	Marginal
<i>Significant probability</i>	≥ 0.05	0.001	Marginal
RMSEA	≤ 0.08	0.028	Fit
GFI	≥ 0.90	0.901	Fit
AGFI	≥ 0.90	0.885	Marginal
CMIN/DF	≤ 2.0	1.234	Fit
TLI	≥ 0.90	0.990	Fit
CFI	≥ 0.90	0.991	Fit

Table 4 shows that all goodness of fit measurement parameters indicated that the proposed model for the research was acceptable. The goodness of fit measurement on SEM aimed to determine whether the hypothesized model fits the data sample. Based on the goodness of fit test, Chi-Square had a value of 461.472 with expected small significance probability. The test result for CFI on this research was 0.991 with the recommended value of ≥ 0.90 , which meant that this research model fits the sample data. TLI test results provided the suitability index that was less affected by sample size. The TLI value of this research was 0.990 with the recommended ≥ 0.90 , which meant that this research model fits the sample data. The CMIN/DF results provided the parsimonious suitability index that measured the goodness of fit model with the number of estimated coefficients expected to achieve suitability. The CMIN/DF value of this research was 1.234. The AGFI test result was the GFI value adjusted to the ratio between the proposed degree of freedom and the degree of freedom of the null model. The AGFI value of this model was 0.885, which was not far off the recommended value of ≥ 0.90 and therefore indicated that the research model was a marginal fit. The Goodness of Fit Index (GFI) test result indicated the overall suitability level of the research model which was calculated from the squared residuals of the predicted model compared to the actual data. The GFI value of this model was 0.901, which was not far off the recommended value of ≥ 0.90 . The RMSEA test result was the index used to compensate for the chi-square value in a large sample. The RMSEA value

of this research was 0,028 with the recommended value of $\leq 0,08$.

Table 4. Relationship between Variables

			Estimate	S.E.	C.R.	P	Conclusion
Service Quality	→	Customer Loyalty	.184	.067	2.748	0,006	Positive and Significant
Customer Satisfaction	→	Customer Loyalty	.556	.073	7.598	0,000	Positive and significant

The estimated parameter value of the standardized regression weight coefficient is 0.184 and the value of C.R 2.748 shows that the relationship between service quality and patient loyalty is positive. This means that the better quality of service then the patient loyalty will increase. Relationship test between two variables shows the probability value of 0.006 ($p < 0.05$), so that H1 which states there is an influence between the quality of service on patient loyalty can be accepted. The estimated parameter value of the standardized regression weight coefficient is 0.556 and the value of C.R 7.598 shows that the relationship between customer satisfaction and customer loyalty is positive. This means the better customer satisfaction will increase patient loyalty. Relationship test between two variables shows a probability value of 0,000 ($p < 0.05$), so H2 which states there is an influence between satisfaction on patient loyalty can be accepted. The estimated parameter value of the standardized regression weight coefficient shows that the relationship between service quality and patient satisfaction with patient loyalty has a significant positive effect. This means that the better quality of service and patient satisfaction will increase patient loyalty. So H3 can be accepted.

6. CONCLUSION

Based on the results of data analysis, it can be concluded that there is a positive and significant effect of service quality and customer satisfaction on emergency room patient loyalty in province of Banten both partially and simultaneously. Hospital management must focus on various efforts to improve service quality and efforts to maintain and increase customer satisfaction. When these two things are done it will build customer loyalty. Customer loyalty in this case is a loyalty of patient absolutely needed by any organization, especially hospitals, because the pandemic crisis also disrupts various aspects of business, including health business, namely hospitals.

7. References

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